Amazon-Web-Services

Exam Questions DOP-C01

AWS Certified DevOps Engineer- Professional

NEW QUESTION 1
You have an application running a specific process that is critical to the application's functionality, and have added the health check process to your Auto Scaling Group. The instances are showing healthy but the application itself is not working as it should. What could be the issue with the health check, since it is still showing the instances as healthy.

A. You do not have the time range in the health check properly configured
B. It is not possible for a health check to monitor a process that involves the application
C. The health check is not configured properly
D. The health check is not checking the application process

Answer: D

Explanation:
If you have custom health checks, you can send the information from your health checks to Auto Scaling so that Auto Scaling can use this information. For example, if
you determine that an instance is not functioning as expected, you can set the health status of the instance to Unhealthy. The next time that Auto Scaling performs a
health check on the instance, it will determine that the instance is unhealthy and then launch a replacement instance
For more information on Autoscaling health checks, please refer to the below document link: from AWS
http://docs.aws.amazon.com/autoscaling/latest/userguide/healthcheck.html

NEW QUESTION 2
Your company has multiple applications running on AWS. Your company wants to develop a tool that notifies on-call teams immediately via email when an alarm is triggered in your environment. You have multiple on-call teams that work different shifts, and the tool should handle notifying the correct teams at the correct times. How should you implement this solution?

A. Create an Amazon SNS topic and an Amazon SQS queu
B. Configure the Amazon SQS queue as a subscriber to the Amazon SNS topic.Configure CloudWatch alarms to notify this topic when an alarm is triggere
C. Create an Amazon EC2 Auto Scaling group with both minimum and desired Instances configured to 0. Worker nodes in thisgroup spawn when messages are added to the queu
D. Workers then use Amazon Simple Email Service to send messages to your on call teams.
E. Create an Amazon SNS topic and configure your on-call team email addresses as subscriber
F. Use the AWS SDK tools to integrate your application with Amazon SNS and send messages to this new topi
G. Notifications will be sent to on-call users when a CloudWatch alarm is triggered.
H. Create an Amazon SNS topic and configure your on-call team email addresses as subscriber
I. Create a secondary Amazon SNS topic for alarms and configure your CloudWatch alarms to notify this topic when triggere
J. Create an HTTP subscriber to this topic that notifies your application via HTTP POST when an alarm is triggere
K. Use the AWS SDK tools to integrate your application with Amazon SNS and send messages to the first topic so that on-call engineers receive alerts.
L. Create an Amazon SNS topic for each on-call group, and configure each of these with the team member emails as subscriber
M. Create another Amazon SNS topic and configure your CloudWatch alarms to notify this topic when triggere
N. Create an HTTP subscriber to this topic that notifies your application via HTTP POST when an alarm is triggere
O. Use the AWS SDK tools to integrate your application with Amazon SNS and send messages to the correct team topic when on shift.

Answer: D

Explanation:
Option D fulfils all the requirements
1) First is to create a SNS topic for each group so that the required members get the email addresses.
2) Ensure the application uses the HTTPS endpoint and the SDK to publish messages Option A is invalid because the SQS service is not required.
Option B and C are incorrect. As per the requirement we need to provide notification to only those on-call teams who are working in that particular shift when an alarm is triggered. It need not have to be send to all the on-call teams of the company. With Option B & C, since we are not configuring the SNS topic for each on call team the notifications will be send to all the on-call teams. Hence these 2 options are invalid. For more information on setting up notifications, please refer to the below document link: from AWS http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/US_SetupSNS.html

NEW QUESTION 3
During metric analysis, your team has determined that the company's website during peak hours is experiencing response times higher than anticipated. You currently rely on Auto Scaling to make sure that you are scaling your environment during peak windows. How can you improve your Auto Scaling policy to reduce this high response time? Choose 2 answers.

A. Push custom metrics to CloudWatch to monitor your CPU and network bandwidth from your servers, which will allow your Auto Scaling policy to have betterfine-grain insight.
B. IncreaseyourAutoScalinggroup'snumberofmaxservers.
C. Create a script that runs and monitors your servers; when it detects an anomaly in load, it posts to an Amazon SNS topic that triggers Elastic Load Balancing to add more servers to the load balancer.
D. Push custom metrics to CloudWatch for your application that include more detailed information about your web application, such as how many requests it is handling and how many are waiting to be processed.

Answer: BD

Explanation:
Option B makes sense because maybe the max servers is low hence the application cannot handle the peak load.
Option D helps in ensuring Autoscaling can scale the group on the right metrics.
For more information on Autoscaling health checks, please refer to the below document link: from AWS
http://docs.aws.amazon.com/autoscaling/latest/userguide/healthcheck.html

NEW QUESTION 4
Management has reported an increase in the monthly bill from Amazon Web Services, and they are extremely concerned with this increased cost. Management has asked you to determine the exact cause of this increase. After reviewing the billing report, you notice an increase in the data transfer cost. How can you

provide management with a better insight into data transfer use?

A. Update your Amazon CloudWatch metrics to use five-second granularity, which will give better detailed metrics that can be combined with your billing data to pinpoint anomalies.
B. Use Amazon CloudWatch Logs to run a map-reduce on your logs to determine high usage and data transfer.
C. Deliver custom metrics to Amazon CloudWatch per application that breaks down application data transfer into multiple, more specific data points.D- Using Amazon CloudWatch metrics, pull your Elastic Load Balancing outbound data transfer metrics monthly, and include them with your billing report to show which application is causing higher bandwidth usage.

Answer: C

Explanation:
You can publish your own metrics to CloudWatch using the AWS CLI or an API. You can view statistical graphs of your published metrics with the AWS Management Console.
CloudWatch stores data about a metric as a series of data points. Each data point has an associated time stamp. You can even publish an aggregated set of data points called a statistic set.
If you have custom metrics specific to your application, you can give a breakdown to the management on the exact issue.
Option A won't be sufficient to provide better insights.
Option B is an overhead when you can make the application publish custom metrics Option D is invalid because just the ELB metrics will not give the entire picture
For more information on custom metrics, please refer to the below document link: from AWS
http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/publishingMetrics.html

NEW QUESTION 5
You currently run your infrastructure on Amazon EC2 instances behind an Auto Scalinggroup. All logs for your application are currentl\ written to ephemeral storage. Recently your company experienced a major bug in the code that made it through testing and was ultimately deployed to your fleet. This bug triggered your Auto Scalinggroup to scale up and back down before you could successfully retrieve the logs off your server to better assist you in troubleshooting the bug. Which technique should you use to make sure you are able to review your logs after your instances have shut down?

A. Configure the ephemeral policies on your Auto Scaling group to back up on terminate.
B. Configure your Auto Scaling policies to create a snapshot of all ephemeral storage on terminate.
C. Install the CloudWatch Logs Agent on your AMI, and configure CloudWatch Logs Agent to stream your logs.V
D. Install the CloudWatch monitoring agent on your AMI, and set up new SNS alert for CloudWatch metrics that triggers the CloudWatch monitoring agent to backup all logs on the ephemeral drive.

Answer: C

Explanation:
You can use Cloud Watch Logs to monitor applications and systems using log data. For example,
CloudWatch Logs can track the number of errors that occur in your
application logs and send you a notification whenever the rate of errors exceeds a threshold you specify. CloudWatch Logs uses your log data for monitoring; so, no
code changes are required.
Option A and B are invalid because Autoscaling policies are not designed for these purposes. Option D is invalid because you use Cloudwatch Logs Agent and not the monitoring agent. For more information on Cloudwatch logs, please refer to the below link:
http://docsws.amazon.com/AmazonCloudWatch/latest/logs/WhatlsCloudWatchLogs.html

NEW QUESTION 6
You have a code repository that uses Amazon S3 as a data store. During a recent audit of your security controls, some concerns were raised about maintaining the integrity of the data in the Amazon S3 bucket. Another concern was raised around securely deploying code from Amazon S3 to applications running on Amazon EC2 in a virtual private cloud. What are some measures that you can implement to mitigate these concerns? Choose two answers from the options given below.

A. Add an Amazon S3 bucket policy with a condition statement to allow access only from Amazon EC2 instances with RFC 1918 IP addresses and enable bucket versioning.
B. Add an Amazon S3 bucket policy with a condition statement that requires multi-factor authentication in order to delete objects and enable bucket versioning.
C. Use a configuration management service to deploy AWS Identity and Access Management user credentials to the Amazon EC2 instance
D. Use these credentials to securely access the Amazon S3 bucket when deploying code.
E. Create an Amazon Identity and Access Management role with authorization to access the Amazon S3 bucket, and launch all of your application's Amazon EC2 instances with this role.
F. Use AWS Data Pipeline to lifecycle the data in your Amazon S3 bucket to Amazon Glacier on a weekly basis.
G. Use AWS Data Pipeline with multi-factor authentication to securely deploy code from the Amazon S3 bucket to your Amazon EC2 instances.

Answer: BD

Explanation:
You can add another layer of protection by enabling MFA Delete on a versioned bucket. Once you do
so, you must provide your AWS account's access keys and a
valid code from the account's MFA device in order to permanently delete an object version or suspend or reactivate versioning on the bucket.
For more information on MFA please refer to the below link: https://aws.amazon.com/blogs/security/securing-access-to-aws-using-mfa-part-3/
IAM roles are designed so that your applications can securely make API requests from your instances, without requiring you to manage the security credentials that the applications use. Instead of creating and distributing your AWS credentials, you can delegate permission to make API requests using 1AM roles For more information on Roles for CC2 please refer to the below link: http://docs.aws.a mazon.com/AWSCC2/latest/UserGuide/iam-roles-for-amazon-ec2. html
Option A is invalid because this will not address either the integrity or security concern completely. Option C is invalid because user credentials should never be used in CC2 instances to access AWS resources.
Option C and F are invalid because AWS Pipeline is an unnecessary overhead when you already have inbuilt controls to manager security for S3.

NEW QUESTION 7
You have the following application to be setup in AWS
1) A web tier hosted on EC2 Instances
2) Session data to be written to DynamoDB

3) Log files to be written to Microsoft SQL Server
How can you allow an application to write data to a DynamoDB table?

A. Add an 1AM user to a running EC2 instance.
B. Add an 1AM user that allows write access to the DynamoDB table.
C. Create an 1AM role that allows read access to the DynamoDB table.
D. Create an 1AM role that allows write access to the DynamoDB table.

Answer: D

Explanation:
I AM roles are designed so that your applications can securely make API requests from your instances, without requiring you to manage the security credentials that
the applications use. Instead of creating and distributing your AWS credentials For more information on 1AM Roles please refer to the below link:
http://docs.aws.amazon.com/AWSCC2/latest/UserGuide/iam-roles-for-amazon-ec2.html

NEW QUESTION 8
Your mobile application includes a photo-sharing service that is expecting tens of thousands of users at launch. You will leverage Amazon Simple Storage Service (S3) for storage of the user Images, and you must decide how to authenticate and authorize your users for access to these images. You also need to manage the storage of these images. Which two of the following approaches should you use? Choose two answers from the options below

A. Create an Amazon S3 bucket per user, and use your application to generate the S3 URI for the appropriate content.
B. Use AWS Identity and Access Management (1AM) user accounts as your application-level user database, and offload the burden of authentication from your application code.
C. Authenticate your users at the application level, and use AWS Security Token Service (STS) to grant token-based authorization to S3 objects.
D. Authenticate your users at the application level, and send an SMS token message to the use
E. Create an Amazon S3 bucket with the same name as the SMS message token, and move the user's objects to that bucket.
F. Use a key-based naming scheme comprised from the user IDs for all user objects in a single Amazon S3 bucket.

Answer: CE

Explanation:
The AWS Security Token Service (STS) is a web service that enables you to request temporary, limited-privilege credentials for AWS Identity and Access Management (1AM) users or for users that you authenticate (federated users). The token can then be used to grant access to the objects in S3.
You can then provides access to the objects based on the key values generated via the user id. Option A is possible but then becomes a maintenance overhead because of the number of buckets. Option B is invalid because 1AM users is not a good security practice.
Option D is invalid because SMS tokens are not efficient for this requirement.
For more information on the Security Token Service please refer to the below link: http://docs.aws.amazon.com/STS/latest/APIReference/Welcome.htrril

NEW QUESTION 9
You have an Auto Scaling group with 2 AZs. One AZ has 4 EC2 instances and the other has 3 EC2 instances. None of the instances are protected from scale in. Based on the default Auto Scaling termination policy what will happen?

A. Auto Scaling selects an instance to terminate randomly
B. Auto Scaling will terminate unprotected instances in the Availability Zone with the oldest launch configuration.
C. Auto Scaling terminates which unprotected instances are closest to the next billing hour.
D. Auto Scaling will select the AZ with 4 EC2 instances and terminate an instance.

Answer: D

Explanation:
The default termination policy is designed to help ensure that your network architecture spans Availability Zones evenly. When using the default termination policy. Auto Scaling selects an instance to terminate as follows:
Auto Scaling determines whether there are instances in multiple Availability Zones. If so, it selects the Availability Zone with the most instances and at least one instance that is not protected from scale in. If there is more than one Availability Zone with this number of instances. Auto Scaling selects the Availability Zone with the instances that use the oldest launch configuration. For more information on Autoscaling instance termination please refer to the below link:
http://docs.aws.amazon.com/autoscaling/latest/userguide/as-instance-termination.html

NEW QUESTION 10
You are doing a load testing exercise on your application hosted on AWS. While testing your Amazon RDS MySQL DB instance, you notice that when you hit 100% CPU utilization on it, your application becomes non- responsive. Your application is read-heavy. What are methods to scale your data tier to meet the application's needs? Choose three answers from the options given below

A. Add Amazon RDS DB read replicas, and have your application direct read queries to them.
B. Add your Amazon RDS DB instance to an Auto Scalinggroup and configure your Cloud Watch metricbased on CPU utilization.
C. Use an Amazon SQS queue to throttle data going to the Amazon RDS DB instance.
D. Use ElastiCache in front of your Amazon RDS DB to cache common queries.
E. Shard your data set among multiple Amazon RDS DB instances.
F. Enable Multi-AZ for your Amazon RDS DB instance.

Answer: ADE

Explanation:
Amazon RDS Read Replicas provide enhanced performance and durability for database (DB) instances. This replication feature makes it easy to elastically scale out
beyond the capacity constraints of a single DB Instance for read-heavy database workloads. You can create one or more replicas of a given source DB Instance and
serve high-volume application read traffic from multiple copies of your data, thereby increasing aggregate read throughput
For more information on Read Replica's please refer to the below link:
? https://aws.amazon.com/rds/details/read-replicas/

Sharding is a common concept to split data across multiple tables in a database For more information on sharding please refer to the below link:
https://forums.awsa mazon.com/thread jspa?messageID=203052
Amazon OastiCache is a web service that makes it easy to deploy, operate, and scale an in-memory data store or cache in the cloud. The service improves the performance of web applications by allowing you to retrieve information from fast, managed, in-memory data stores, instead of relying entirely on slower disk-based databases
Amazon OastiCache is an in-memory key/value store that sits between ycbetappiicipiJGra arcdalie data store (database) that it accesses. Whenever your application requests data, it first makes the request to the DastiCache cache. If the data exists in the cache and is current, OastiCache returns the data to your application. If the data does not exist in the cache, or the data in the cache has expired, your application requests the data from your data store which returns the data to your application. Your application then writes the data received from the store to the cache so it can be more quickly retrieved next time it is requested. For more information on Elastic Cache please refer to the below link:
https://aws.amazon.com/elasticache/
Option B is not an ideal way to scale a database
Option C is not ideal to store the data which would go into a database because of the message size Option F is invalid because Multi-AZ feature is only a failover option

NEW QUESTION 10
You have an Auto Scaling group with an Elastic Load Balancer. You decide to suspend the Auto Scaling AddToLoadBalancer for a short period of time. What will happen to the instances launched during the suspension period?

A. The instances will be registered with ELB once the process has resumed
B. Auto Scaling will not launch the instances during this period because of the suspension
C. The instances will not be registered with EL
D. You must manually register when the process is resumed */
E. It is not possible to suspend the AddToLoadBalancer process

Answer: C

Explanation:
If you suspend AddTo Load Balancer, Auto Scaling launches the instances but does not add them to the load balancer or target group. If you resume the AddTo Load Balancer process. Auto Scaling resumes adding instances to the load balancer or target group when they are launched. However, Auto Scaling does
not add the instances that were launched while this process was suspended. You must register those instances manually.
For more information on the Suspension and Resumption process, please visit the below U RL: http://docs.aws.amazon.com/autoscaling/latest/userguide/as-suspend-resume-processes.html

NEW QUESTION 14
You have a current Clouformation template defines in AWS. You need to change the current alarm threshold defined in the Cloudwatch alarm. How can you achieve this?

A. Currently, there is no option to change what is already defined in Cloudformation templates.
B. Update the template and then update the stack with the new templat
C. Automatically all resources will be changed in the stack.
D. Update the template and then update the stack with the new templat
E. Only those resources that need to be changed will be change
F. All other resources which do not need to be changed will remain as they are.
G. Delete the current cloudformation templat
H. Create a new one which will update the current resources.

Answer: C

Explanation:
Option A is incorrect because Cloudformation templates have the option to update resources.
Option B is incorrect because only those resources that need to be changed as part of the stack update are actually updated.
Option D is incorrect because deleting the stack is not the ideal option when you already have a change option available.
When you need to make changes to a stack's settings or change its resources, you update the stack instead of deleting it and creating a new stack. For example, if you
have a stack with an EC2 instance, you can update the stack to change the instance's AMI ID.
When you update a stack, you submit changes, such as new input parameter values or an updated template. AWS CloudFormation compares the changes you submit with the current state of your stack and updates only the changed resources
For more information on stack updates please refer to the below link:
• http://docs.aws.a mazon.com/AWSCIoudFormation/latest/UserGuide/using-cfn-updating- stacks.htmI

NEW QUESTION 18
After reviewing the last quarter's monthly bills, management has noticed an increase in the overall bill from Amazon. After researching this increase in cost, you discovered that one of your new services is doing a lot of GET Bucket API calls to Amazon S3 to build a metadata cache of all objects in the applications bucket. Your boss has asked you to come up with a new cost-effective way to help reduce the amount of these new GET Bucket API calls. What process should you use to help mitigate the cost?

A. Update your Amazon S3 buckets' lifecycle policies to automatically push a list of objects to a new bucket, and use this list to view objects associated with the application's bucket.
B. Create a new DynamoDB tabl
C. Use the new DynamoDB table to store all metadata about all objects uploaded to Amazon S3. Any time a new object is uploaded, update the application's internalAmazon S3 object metadata cache from DynamoDB.C Using Amazon SNS, create a notification on any new Amazon S3 objects that automatical ly updates a new DynamoDB table to store allmetadata about the new objec
D. Subscribe the application to the Amazon SNS topic to update its internal Amazon S3 object metadata cache from the DynamoDB tabl
E. ^/
F. Upload all files to an ElastiCache file cache serve
G. Update your application to now read all file metadata from the ElastiCache file cache server, and configure the ElastiCache policies to push all files to Amazon S3 for long-term storage.

Answer: C

Explanation:
Option A is an invalid option since Lifecycle policies are normally used for expiration of objects or archival of objects.
Option B is partially correct where you store the data in DynamoDB, but then the number of GET requests would still be high if the entire DynamoDB table had to be
traversed and each object compared and updated in S3.
Option D is invalid because uploading all files to Clastic Cache is not an ideal solution.
The best option is to have a notification which can then trigger an update to the application to update the DynamoDB table accordingly.
For more information on SNS triggers and DynamoDB please refer to the below link:
? https://aws.amazon.com/blogs/compute/619/

NEW QUESTION 20
You use Amazon Cloud Watch as your primary monitoring system for your web application. After a
recent software deployment, your users are getting Intermittent 500 Internal Server Errors when using the web application. You want to create a Cloud Watch alarm, and notify an on-call engineer when these occur. How can you accomplish this using AWS services? Choose three answers from the options given below

A. Deploy your web application as an AWS Elastic Beanstalk applicatio
B. Use the default Elastic Beanstalk Cloudwatch metrics to capture 500 Internal Server Error
C. Set a CloudWatch alarm on that metric.
D. Install a CloudWatch Logs Agent on your servers to stream web application logs to CloudWatch.
E. Use Amazon Simple Email Service to notify an on-call engineer when a CloudWatch alarm is triggered.
F. Create a CloudWatch Logs group and define metric filters that capture 500 Internal Server Error
G. Set a CloudWatch alarm on that metric.
H. Use Amazon Simple Notification Service to notify an on-call engineer when a CloudWatch alarm is triggered.

Answer: BDE

Explanation:
You can use Cloud Watch Logs to monitor applications and systems using log data
Cloud Watch Logs uses your log data for monitoring; so, no code changes are required. For example, you can monitor application logs for specific literal terms (such as "NullReferenceCxception") or count the number of occurrences of a literal term at a particular position in log data (such as "404" status codes in an Apache access log). When the term you are searching for is found. Cloud Watch Logs reports the data to a CloudWatch metric that you specify. Log data is encrypted while in transit and while it is at rest
For more information on Cloudwatch logs please refer to the below link: http://docs^ws.amazon.com/AmazonCloudWatch/latest/logs/WhatlsCloudWatchLogs.html
Amazon CloudWatch uses Amazon SNS to send email. First, create and subscribe to an SNS topic.
When you create a CloudWatch alarm, you can add this SNS topic to send an email notification when the alarm changes state.
For more information on SNS and Cloudwatch logs please refer to the below link:
http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/US_SetupSNS.html

NEW QUESTION 22
You are using CloudFormation to launch an EC2 instance and then configure an application after the instance is launched. You need the stack creation of the ELB and Auto Scaling to wait until the EC2 instance is launched and configured properly. How do you do this?

A. It is not possible for the stack creation to wait until one service is created and launched
B. Use the WaitCondition resource to hold the creation of the other dependent resources
C. Use a CreationPolicy to wait for the creation of the other dependent resources >/
D. Use the HoldCondition resource to hold the creation of the other dependent resources

Answer: C

Explanation:
When you provision an Amazon EC2 instance in an AWS Cloud Formation stack, you might specify additional actions to configure the instance, such as install software packages or bootstrap applications. Normally, CloudFormation proceeds with stack creation after the instance has been successfully created. However, you can use a Creation Pol icy so that CloudFormation proceeds with stack creation only after your configuration actions are done. That way you'll know your applications are ready to go after stack creation succeeds.
A Creation Policy instructs CloudFormation to wait on an instance until CloudFormation receives the specified number of signals
Option A is invalid because this is possible
Option B is invalid because this is used make AWS CloudFormation pause the creation of a stack and wait for a signal before it continues to create the stack
For more information on this, please visit the below URL:
• https://aws.amazon.com/blogs/devops/use-a-creationpolicy-to-wait-for-on-instance- configurations/

NEW QUESTION 27
One of the instances in your Auto Scaling group health check returns the status of Impaired to Auto Scaling. What will Auto Scaling do in this case.

A. Terminate the instance and launch a new instance
B. Send an SNS notification
C. Perform a health check until cool down before declaring that the instance has failed
D. Wait for the instance to become healthy before sending traffic

Answer: A

Explanation:
Auto Scaling periodically performs health checks on the instances in your Auto Scaling group and identifies any instances that are unhealthy. You can configure Auto Scaling to determine the health status of an instance using Amazon EC2 status checks. Clastic Load Balancing health checks, or custom health checks
By default. Auto Scaling health checks use the results of the CC2 status checks to determine the health status of an instance. Auto Scaling marks an instance as unhealthy if its instance fails one or more of the status checks.
For more information monitoring in Autoscaling, please visit the below URL: http://docs.aws.a mazon.com/autoscaling/latest/userguide/as-mon itoring-features.html

NEW QUESTION 28
You have enabled Elastic Load Balancing HTTP health checking. After looking at the AWS Management Console, you see that all instances are passing health checks, but your customers are reporting that your site is not responding. What is the cause?

A. The HTTP health checking system is misreportingdue to latency in inter-instance metadata synchronization.
B. The health check in place is not sufficiently evaluating the application function.
C. The application is returning a positive health check too quickly for the AWS Management Console to respond.D- Latency in DNS resolution is interfering with Amazon EC2 metadata retrieval.

Answer: B

Explanation:
You need to have a custom health check which will evaluate the application functionality. Its not enough using the normal health checks. If the application functionality does not work and if you don't have custom health checks, the instances will still be deemed as healthy.
If you have custom health checks, you can send the information from your health checks to Auto Scaling so that Auto Scaling can use this information. For example, if you determine that an instance is not functioning as expected, you can set the health status of the instance to Unhealthy. The next time that Auto Scaling performs a health check on the instance, it will determine that the instance is unhealthy and then launch a replacement instance
For more information on Autoscaling health checks, please refer to the below document link: from AWS
http://docs.aws.amazon.com/autoscaling/latest/userguide/healthcheck.html

NEW QUESTION 29
You have a large number of web servers in an Auto Scalinggroup behind a load balancer. On an hourly basis, you want to filter and process the logs to collect data on unique visitors, and then put that data in a durable data store in order to run reports. Web servers in the Auto Scalinggroup are constantly launching and terminating based on your scaling policies, but you do not want to lose any of the log data from these servers during a stop/termination initiated by a user or by Auto Scaling. What two approaches will meet these requirements? Choose two answers from the optionsgiven below.

A. Install an Amazon Cloudwatch Logs Agent on every web server during the bootstrap proces
B. Create a CloudWatch log group and defineMetric Filters to create custom metrics that track unique visitors from the streaming web server log
C. Create a scheduled task on an Amazon EC2 instance that runs every hour to generate a new report based on the Cloudwatch custom metric
D. ^/
E. On the web servers, create a scheduled task that executes a script to rotate and transmit the logs to Amazon Glacie
F. Ensure that the operating system shutdown procedure triggers a logs transmission when the Amazon EC2 instance is stopped/terminate
G. Use Amazon Data Pipeline to process the data in Amazon Glacier and run reports every hour.
H. On the web servers, create a scheduled task that executes a script to rotate and transmit the logs to an Amazon S3 bucke
I. Ensure that the operating system shutdown procedure triggers a logs transmission when the Amazon EC2 instance is stopped/terminate
J. Use AWS Data Pipeline to move log data from the Amazon S3 bucket to Amazon Redshift In order to process and run reports every hour.
K. Install an AWS Data Pipeline Logs Agent on every web server during the bootstrap proces
L. Create a log group object in AWS Data Pipeline, and define Metric Filters to move processed log data directly from the web servers to Amazon Redshift and run reports every hour.

Answer: AC

Explanation:
You can use the Cloud Watch Logs agent installer on an existing CC2 instance to install and configure the Cloud Watch Logs agent.
For more information, please visit the below link:
• http://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/Qu ickStartCC2Instance.html
You can publish your own metrics to Cloud Watch using the AWS CLI or an API. For more information, please visit the below link:
• http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/publishingMetrics.htmI Amazon Redshift is a fast, fully managed data warehouse that makes it simple and cost-effective to analyze all your data using standard SQL and your existing Business Intelligence (Bl) tools. It allows you to run complex analytic queries against petabytes of structured data, using sophisticated query optimization, columnar storage on high-performance local disks, and massively parallel query execution. Most results come back in seconds. For more information on copying data from S3 to redshift, please refer to the below link:
• http://docs.aws.amazon.com/datapipeline/latest/DeveloperGuide/dp-copydata- redshift html

NEW QUESTION 32
You have a set of EC2 instances hosted in AWS. You have created a role named DemoRole and assigned that role to a policy, but you are unable to use that role with an instance. Why is this the case.

A. You need to create an instance profile and associate it with that specific role.
B. You are not able to associate an 1AM role with an instanceC You won't be able to use that role with an instance unless you also create a user and associate it with that specific role
C. You won't be able to use that role with an instance unless you also create a usergroup and associate it with that specific role.

Answer: A

Explanation:
An instance profile is a container for an 1AM role that you can use to pass role information to an CC2 instance when the instance starts.
Option B is invalid because you can associate a role with an instance
Option C and D are invalid because using users or user groups is not a pre-requisite For more information on instance profiles, please visit the link:
• http://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_use_switch-ro le-ec2_instance- profiles.htm I

NEW QUESTION 35
You work for a startup that has developed a new photo-sharing application for mobile devices. Over recent months your application has increased in popularity; this has resulted in a decrease in the performance of the application clue to the increased load. Your application has a two-tier architecture that is composed of an Auto Scaling PHP application tier and a MySQL RDS instance initially deployed with AWS Cloud Formation. Your Auto Scaling group has a min value of 4 and a max value of 8. The desired capacity is now at 8 because of the high CPU utilization of the instances. After some analysis, you are confident that the performance issues stem from a constraint in CPU capacity, although memory utilization remains low. You therefore decide to move from the general-purpose M3 instances to the compute-optimized C3 instances. How would you deploy this change while minimizing any interruption to your end users?

A. Sign into the AWS Management Console, copy the old launch configuration, and create a new launch configuration that specifies the C3 instance
B. Update the Auto Scalinggroup with the new launch configuratio

C. Auto Scaling will then update the instance type of all running instances.
D. Sign into the AWS Management Console, and update the existing launch configuration with the new C3 instance typ
E. Add an UpdatePolicy attribute to your Auto Scaling group that specifies AutoScalingRollingUpdate.
F. Update the launch configuration specified in the AWS CloudFormation template with the new C3 instance typ
G. Run a stack update with the new templat
H. Auto Scaling will then update the instances with the new instance type.
I. Update the launch configuration specified in the AWS CloudFormation template with the new C3instance typ
J. Also add an UpdatePolicy attribute to your Auto Scalinggroup that specifies AutoScalingRollingUpdat
K. Run a stack update with the new template.

Answer: D

Explanation:
The AWS::AutoScaling::AutoScalingGroup resource supports an UpdatePolicy attribute. This is used to define how an Auto Scalinggroup resource is updated when an update to the Cloud Formation stack occurs. A common approach to updating an Auto Scaling group is to perform a rolling update, which is done by specifying the AutoScalingRollingUpdate policy. This retains the same Auto Scaling group and replaces old instances with new ones, according to the parameters specified. For more information on rolling updates, please visit the below link:
• https://aws.amazon.com/premiumsupport/knowledge-center/auto-scaling-group-rolling- updates/

NEW QUESTION 37
You have an application running on Amazon EC2 in an Auto Scaling group. Instances are being bootstrapped dynamically, and the bootstrapping takes over 15 minutes to complete. You find that instances are reported by Auto Scaling as being In Service before bootstrapping has completed. You are receiving application alarms related to new instances before they have completed bootstrapping, which is causing confusion. You find the cause: your application monitoring tool is polling the Auto Scaling Service API for instances that are In Service, and creating alarms for new previously unknown instances. Which of the following will ensure that new instances are not added to your application monitoring tool before bootstrapping is completed?

A. Create an Auto Scaling group lifecycle hook to hold the instance in a pending: wait state until your bootstrapping is complet
B. Once bootstrapping is complete, notify Auto Scaling to complete the lifecycle hook and move the instance into a pending:proceed state.
C. Use the default Amazon Cloud Watch application metrics to monitor your application's healt
D. Configure an Amazon SNS topic to send these Cloud Watch alarms to the correct recipients.
E. Tag all instances on launch to identify that they are in a pending stat
F. Change your application monitoring tool to look for this tag before adding new instances, and the use the Amazon API to set the instance state to 'pending' until bootstrapping is complete.
G. Increase the desired number of instances in your Auto Scaling group configuration to reduce the time it takes to bootstrap future instances.

Answer: A

Explanation:
Auto Scaling lifecycle hooks enable you to perform custom actions as Auto Scaling launches or terminates instances. For example, you could install or configure software on newly launched instances, or download log files from an instance before it terminates. After you add lifecycle hooks to your Auto Scaling group, they work as follows:
1. Auto Scaling responds to scale out events by launching instances and scale in events by terminating instances.
2. Auto Scaling puts the instance into a wait state (Pending:Wait orTerminating:Wait). The instance remains in this state until either you tell Auto Scaling to continue or the timeout period ends.
For more information on rolling updates, please visit the below link:
• http://docs.aws.amazon.com/autoscaling/latest/userguide/lifecycle-hooks.htm I

NEW QUESTION 40
You are using a configuration management system to manage your Amazon EC2 instances. On your Amazon EC2 Instances, you want to store credentials for connecting to an Amazon RDS MYSQL DB instance. How should you securely store these credentials?

A. Give the Amazon EC2 instances an 1AM role that allows read access to a private Amazon S3 bucke
B. Store a file with database credentials in the Amazon S3 bucke
C. Have your configuration management system pull the file from the bucket when it is needed.
D. Launch an Amazon EC2 instance and use the configuration management system to bootstrap the instance with the Amazon RDS DB credential
E. Create an AMI from this instance.
F. Store the Amazon RDS DB credentials in Amazon EC2 user dat
G. Import the credentials into the Instance on boot.
H. Assign an 1AM role to your Amazon EC2 instance, and use this 1AM role to access the Amazon RDS DB from your Amazon EC2 instances.

Answer: D

Explanation:
Creating and Using an 1AM Policy for 1AM Database Access
To allow an 1AM user or role to connect to your DB instance or DB cluster, you must create an 1AM policy. After that you attach the policy to an 1AM user or role.
Note
To learn more about 1AM policies, see Authentication and Access Control for Amazon RDS.
The following example policy allows an 1AM user to connect to a DB instance using 1AM database authentication.

```
{
   "Version": "2012-10-17",
   "Statement": [
      {
         "Effect": "Allow",
         "Action": [
            "rds-db:connect"
         ],
         "Resource": [
            "arn:aws:rds-db:us-west-2:123456789012:dbuser:db-12ABC34DEFG5HIJ6KLMNOP78QR/jane_doe"
         ]
      }
   ]
}
```

Important
Don't confuse the rds-db: prefix with other Amazon RDS action prefixes that begin with rds:. You use the rds-db: prefix and the rds-db:connect action only for 1AM database authentication. They aren't valid in any other context.

1AM Database Authentication for MySQL and Amazon Aurora
With Amazon RDS for MySQL or Aurora with MySQL compatibility, you can authenticate to your DB instance or DB cluster using AWS Identity and Access Management (IAMJ database authentication. With this authentication method, you don't need to use a password when you connect to a DB instance. Instead, you use an authentication token.
An authentication token is a unique string of characters that Amazon RDS generates on request. Authentication tokens are generated using AWS Signature Version 4. Each token has a lifetime of 15 minutes. You don't need to store user credentials in the database, because authentication is managed externally using 1AM. You can also still use standard database authentication.
IAM database authentication provides the following benefits:
• Network traffic to and from the database is encrypted using Secure Sockets Layer (SSL).
• You can use IAM to centrally manage access to your database resources, instead of managing access individually on each DB instance or DB cluster.
• For applications running on Amazon EC2, you can use EC2 instance profile credentials to access the database instead of a password, for greater security.
For more information please refer to the below document link from AWS
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/UsingWithRDS.IAMDBAuth.html
https://docs^ws.amazon.com/AmazonRDS/latest/UserGuide/UsingWithRDS.IAMDBAuth.lAMPolicy. html
You can use roles to delegate access to users, applications, or services that don't normally have access to your AWS resources. For example, you might want to grant users in your AWS account access to resources they don't usually have, or grant users in one AWS account access to resources in another account. Or you might want to allow a mobile app to use AWS resources, but not want to embed AWS keys within the app (where they can be difficult to rotate and where users can potentially extract them). Sometimes you want to give AWS access to users who already have identities defined outside of AWS, such as in your corporate directory. Or, you might want to grant access to your account to third parties so that they can perform an audit on your resources. For more information on 1AM Roles, please refer to the below document link: from AWS
http://docs.aws.a mazon.com/IAM/latest/UserGuide/id_roles. html

NEW QUESTION 44
You have an application hosted in AWS. This application was created using Cloudformation Templates and Autoscaling. Now your application has got a surge of users which is decreasing the performance of the application. As per your analysis, a change in the instance type to C3 would resolve the issue. Which of the below option can introduce this change while minimizing downtime for end users?

A. Copy the old launch configuration, and create a new launch configuration with the C3 instance
B. Update the Auto Scalinggroup with the new launch configuratio
C. Auto Scaling will then update the instance type of all running instances.
D. Update the launch configuration in the AWS CloudFormation template with the new C3 instance typ
E. Add an UpdatePolicy attribute to the Auto Scaling group that specifies an AutoScalingRollingUpdat
F. Run a stack update with the updated template.
G. Update the existing launch configuration with the new C3 instance typ
H. Add an UpdatePolicy attribute to your Auto Scalinggroup that specifies an AutoScaling RollingUpdate in order to avoid downtime.
I. Update the AWS CloudFormation template that contains the launch configuration with the new C3 instance typ
J. Run a stack update with the updated template, and Auto Scaling will then update the instances one at a time with the new instance type.

Answer: B

Explanation:
Ensure first that the cloudformation template is updated with the new instance type.
The AWS::AutoScaling::AutoScalingGroup resource supports an UpdatePoIicy attribute. This is used to define how an Auto Scalinggroup resource is updated when
an update to the Cloud Formation stack occurs. A common approach to updating an Auto Scaling group is to perform a rolling update, which is done by specifying the AutoScalingRollingUpdate policy. This retains the same Auto Scaling group and replaces old instances with new ones, according to the parameters specified.
Option A is invalid because this will cause an interruption to the users.
Option C is partially correct, but it does not have all the steps as mentioned in option B.
Option D is partially correct, but we need the AutoScalingRollingUpdate attribute to ensure a rolling update is peformed.
For more information on AutoScaling Rolling updates please refer to the below link:
• https://aws.amazon.com/premiumsupport/knowledge-center/auto-scaling-group-rolling- updates/

NEW QUESTION 45
You have been asked to de-risk deployments at your company. Specifically, the CEO is concerned about outages that occur because of accidental inconsistencies between Staging and Production, which sometimes cause unexpected behaviors in Production even when Staging tests pass. You already use Docker to get high consistency between Staging and Production for the application environment on your EC2 instances. How do you further de-risk the rest of the execution environment, since in AWS, there are many service components you may use beyond EC2 virtual machines?

A. Develop models of your entire cloud system in CloudFormatio
B. Use this model in Staging and Production to achieve greater parit
C. */
D. Use AWS Config to force the Staging and Production stacks to have configuration parit
E. Any differences will be detected for you so you are aware of risks.
F. Use AMIs to ensure the whole machine, including the kernel of the virual machines, is consistent,since Docker uses Linux Container (LXC) technology, and we need to make sure the container environment is consistent.
G. Use AWS ECS and Docker clusterin
H. This will make sure that the AMIs and machine sizes are the same across both environments.

Answer: A

Explanation:
After you have your stacks and resources set up, you can reuse your templates to replicate your infrastructure in multiple environments. For example, you can create environments for development, testing, and production so that you can test changes before implementing them into production. To make templates reusable, use the parameters, mappings, and conditions sections so that you can customize your stacks when you create them. For example, for your development environments, you can specify a lower-cost instance type compared to your production environment, but all other configurations and settings remain the same
For more information on Cloudformation best practices please refer to the below link: http://docs.aws.amazon.com/AWSCIoudFormation/latest/UserGuide/best-practices.html

NEW QUESTION 48

You have a development team that is continuously spending a lot of time rolling back updates for an application. They work on changes, and if the change fails, they spend more than 5-6h in rolling back the update. Which of the below options can help reduce the time for rolling back application versions.

A. Use Elastic Beanstalk and re-deploy using Application Versions
B. Use S3 to store each version and then re-deploy with Elastic Beanstalk
C. Use CloudFormation and update the stack with the previous template
D. Use OpsWorks and re-deploy using rollback feature.

Answer: A

Explanation:
Option B is invalid because Clastic Beanstalk already has the facility to manage various versions and you don't need to use S3 separately for this.
Option C is invalid because in Cloudformation you will need to maintain the versions. Clastic Beanstalk can so that automatically for you.
Option D is good for production scenarios and Clastic Beanstalk is great for development scenarios. AWS beanstalk is the perfect solution for developers to maintain application versions.
With AWS Clastic Beanstalk, you can quickly deploy and manage applications in the AWS Cloud without worrying about the infrastructure that runs those applications. AWS Clastic Beanstalk reduces management complexity without restricting choice or control. You simply upload your application, and AWS Clastic Beanstalk automatically handles the details of capacity provisioning, load balancing, scaling, and application health monitoring.
For more information on AWS Beanstalk please refer to the below link: https://aws.amazon.com/documentation/elastic-beanstalk/

NEW QUESTION 52
You are designing a system which needs, at a minimum, 8 m4.large instances operating to service traffic. When designing a system for high availability in the us-east-1 region, which has 6 Availability Zones, your company needs to be able to handle the death of a full availability zone. How should you distribute the servers, to save as much cost as possible, assuming all of the EC2 nodes are properly linked to an ELB? Your VPC account can utilize us-east-1's AZ's a through f, inclusive.

A. 3 servers in each of AZ's a through d, inclusiv
B. 8 servers in each of AZ's a and b.
C. 2 servers in each of AZ's a through e, inclusive.
D. 4 servers in each of AZ's a through conclusive.

Answer: C

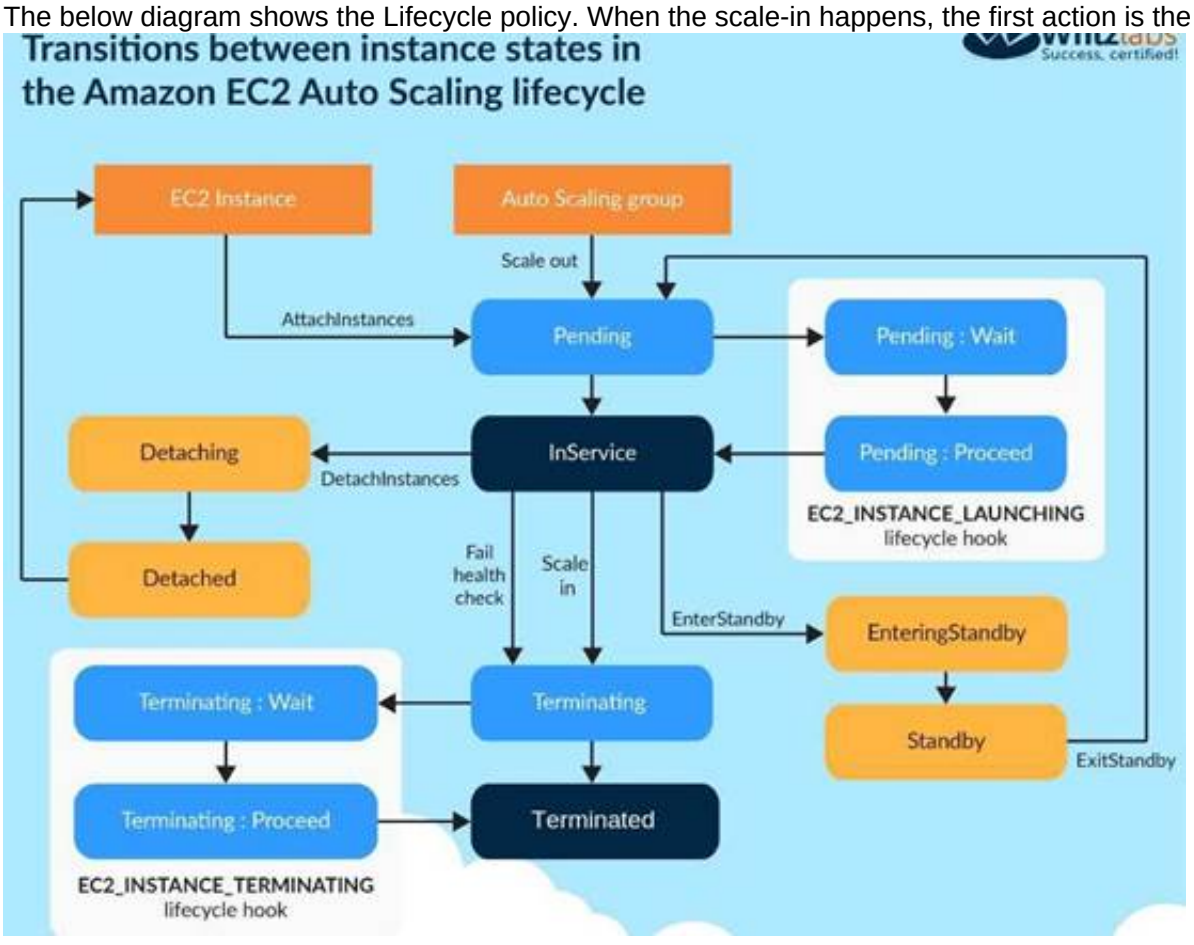
Explanation:
The best way is to distribute the instances across multiple AZ's to get the best and avoid a disaster scenario. With this scenario, you will always a minimum of more than 8 servers even if one AZ were to go down. Even though A and D are also valid options, the best option when it comes to distribution is Option C. For more information on High Availability and Fault tolerance, please refer to the below link:
https://media.amazonwebservices.com/architecturecenter/AWS_ac_ra_ftha_04.pdf

NEW QUESTION 53
For AWS Auto Scaling, what is the first transition state an instance enters after leaving steady state when scaling in due to health check failure or decreased load?

A. Terminating
B. Detaching
C. Terminating:Wait
D. EnteringStandby

Answer: A

Explanation:
The below diagram shows the Lifecycle policy. When the scale-in happens, the first action is the Terminating action.



For more information on Autoscaling Lifecycle, please refer to the below link:
http://docs.aws.amazon.com/autoscaling/latest/userguide/AutoScaingGroupLifecycle.html

NEW QUESTION 54
You have an application hosted in AWS. You wanted to ensure that when certain thresholds are reached, a Devops Engineer is notified. Choose 3 answers from the options given below

A. Use CloudWatch Logs agent to send log data from the app to CloudWatch Logs from Amazon EC2 instances
B. Pipe data from EC2 to the application logs using AWS Data Pipeline and CloudWatch
C. Once a CloudWatch alarm is triggered, use SNS to notify the Senior DevOps Engineer.
D. Set the threshold your application can tolerate in a CloudWatch Logs group and link a CloudWatch alarm on that threshold.

Answer: ACD

Explanation:
You can use Cloud Watch Logs to monitor applications and systems using log data. For example,
CloudWatch Logs can track the number of errors that occur in your
application logs and send you a notification whenever the rate of errors exceeds a threshold you specify. CloudWatch Logs uses your log data for monitoring; so, no code changes are required. For example, you can monitor application logs for specific literal terms (such as "NullReferenceLxception") or count the number of occurrences of a literal term at a particular position in log data (such as "404" status codes in an Apache access log). When the term you are searching for is found, CloudWatch Logs reports the data to a CloudWatch metric that you specify. For more information on Cloudwatch Logs please refer to the below link:
http://docs.ws.amazon.com/AmazonCloudWatch/latest/logs/WhatIsCloudWatchLogs.html
Amazon CloudWatch uses Amazon SNS to send email. First, create and subscribe to an SNS topic.
When you create a CloudWatch alarm, you can add this SNS topic to send an email notification when the alarm changes state.
For more information on Cloudwatch and SNS please refer to the below link:
http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/US_SetupSNS.html

NEW QUESTION 58
You are using Chef in your data center. Which service is designed to let the customer leverage existing Chef recipes in AWS?

A. AWS Elastic Beanstalk
B. AWSOpsWorks
C. AWS CloudFormation
D. Amazon Simple Workflow Service

Answer: B

Explanation:
AWS OpsWorks is a configuration management service that uses Chef, an automation platform that treats server configurations as code. OpsWorks uses Chef to automate how servers are configured, deployed, and managed across your Amazon Clastic Compute Cloud (Amazon CC2) instances or on-premises compute environments. OpsWorks has two offerings, AWS Opsworks for Chef Automate, and AWS OpsWorks Stacks.
For more information on Opswork and SNS please refer to the below link:
• https://aws.amazon.com/opsworks/

NEW QUESTION 63
Your company releases new features with high frequency while demanding high application availability. As part of the application's A/B testing, logs from each updated Amazon EC2 instance of the application need to be analyzed in near real-time, to ensure that the application is working
flawlessly after each deployment. If the logs show any anomalous behavior, then the application version of the instance is changed to a more stable one. Which of the following methods should you use for shipping and analyzing the logs in a highly available manner?

A. Ship the logs to Amazon S3 for durability and use Amazon EMR to analyze the logs in a batch manner each hour.
B. Ship the logs to Amazon CloudWatch Logs and use Amazon EMR to analyze the logs in a batch manner each hour.
C. Ship the logs to an Amazon Kinesis stream and have the consumers analyze the logs in a live manner.
D. Ship the logs to a large Amazon EC2 instance and analyze the logs in a live manner.

Answer: C

Explanation:
Answer - C
You can use Kinesis Streams for rapid and continuous data intake and aggregation. The type of data used includes IT infrastructure log data, application logs, social media, market data feeds, and web clickstream data. Because the response time for the data intake and processing is in real time, the processing is typically lightweight.
The following are typical scenarios for using Kinesis Streams:
• Accelerated log and data feed intake and processing - You can have producers push data directly into a stream. For example, push system and application logs and they'll be available for processing in seconds. This prevents the log data from being lost if the front end or application server fails. Kinesis Streams provides accelerated data feed intake because you don't batch the data on the servers before you submit it for intake.
• Real-time metrics and reporting - You can use data collected into Kinesis Streams for simple data analysis and reporting in real time. For example, your data-processing application can work on metrics and reporting for system and application logs as the data is streaming in, rather than wait to receive batches of data.
For more information on Amazon Kinesis and SNS please refer to the below link:
• http://docs.aws.a mazon.com/streams/latest/dev/introduction.html

NEW QUESTION 64
You have been given a business requirement to retain log files for your application for 10 years. You need to regularly retrieve the most recent logs for troubleshooting. Your logging system must be cost-effective, given the large volume of logs. What technique should you use to meet these requirements?

A. Store your log in Amazon CloudWatch Logs.
B. Store your logs in Amazon Glacier.
C. Store your logs in Amazon S3, and use lifecycle policies to archive to Amazon Glacier.
D. Store your logs on Amazon EBS, and use Amazon EBS snapshots to archive them.

Answer: C

Explanation:

Option A is invalid, because cloud watch will not store the logs indefinitely and secondly it won't be the cost effective option.
Option B is invalid, because it won't server the purpose of regularly retrieve the most recent logs for troubleshooting. You will need to pay more to retrieve the logs faster from this storage.
Option D is invalid, because it is not an ideal or cost effective option.
You can define lifecycle configuration rules for objects that have a well-defined lifecycle. For example: if you are uploading periodic logs to your bucket, your application might need these logs for a week or a month after creation, and after that you might want to delete them.
Some documents are frequently accessed for a limited period of time. After that, these documents are less frequently accessed. Over time, you might not need real-time access to these objects, but your organization or regulations might require you to archive them for a longer period and then optionally delete them later. You might also upload some types of data to Amazon S3 primarily for archival purposes, for example digital media archives, financial and healthcare records, raw genomics sequence data, long-term database backups, and data that must be retained for regulatory compliance.
For more information on Lifecycle management please refer to the below link: http://docs.aws.amazon.com/AmazonS3/latest/dev/object-lifecycle-mgmt.html
Note:
Option C is the cheapest option, but Cloud watch can store logs indefinetly or between 10 years and
one day.
"Log Retention—By default, logs are kept indefinitely and never expire. You can adjust the retention policy for each log group, keeping the indefinite retention, or choosing a retention periods between 10 years and one day." https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/WhatIsCloudWatchLogs.html

NEW QUESTION 65
There is a requirement to monitor API calls against your AWS account by different users and entities. There needs to be a history of those calls. The history of those calls are needed in in bulk for later review. Which 2 services can be used in this scenario

A. AWS Config; AWS Inspector
B. AWS CloudTrail; AWS Config
C. AWS CloudTrail; CloudWatch Events
D. AWS Config; AWS Lambda

Answer: C

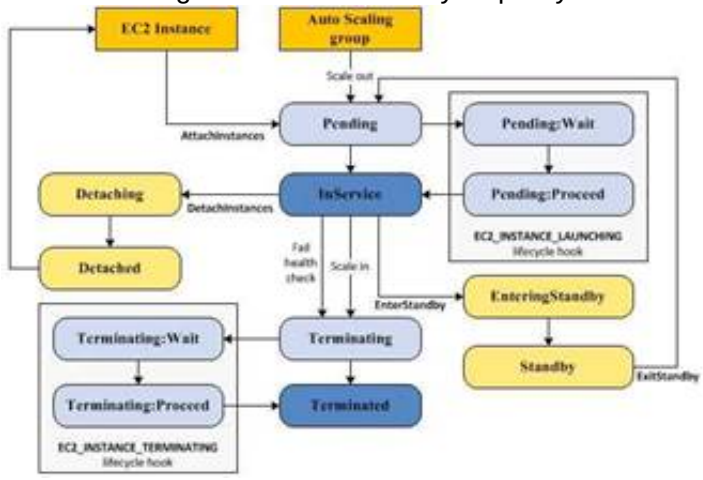
Explanation:
You can use AWS CloudTrail to get a history of AWS API calls and related events for your account. This history includes calls made with the AWS Management Console, AWS Command Line Interface, AWS SDKs, and other AWS services. For more information on Cloudtrail, please visit the below URL:
• http://docs.aws.a mazon.com/awscloudtrail/latest/userguide/cloudtrai l-user-guide.html
Amazon Cloud Watch Cvents delivers a near real-time stream of system events that describe changes in Amazon Web Services (AWS) resources. Using simple rules that you can quickly set up, you can match events and route them to one or more target functions or streams. Cloud Watch Cvents becomes aware of operational changes as they occur. Cloud Watch Cvents responds to these operational changes and takes corrective action as necessary, by sending messages to respond to the environment, activating functions, making changes, and capturing state information. For more information on Cloud watch events, please visit the below U RL:
• http://docs.aws.a mazon.com/AmazonCloudWatch/latest/events/Whatl sCloudWatchCvents.html

NEW QUESTION 69
For AWS Auto Scaling, what is the first transition state an existing instance enters after leaving Standby state?

A. Detaching
B. Terminating:Wait
C. Pending
D. EnteringStandby

Answer: C

Explanation:
The below diagram shows the Lifecycle policy. When the stand-by state is exited, the next state is pending.



For more information on Autoscaling Lifecycle, please refer to the below link:
http://docs.aws.amazon.com/autoscaling/latest/userguide/AutoScaingGroupLifecycle.html

NEW QUESTION 71
You are building out a layer in a software stack on AWS that needs to be able to scale out to react to increased demand as fast as possible. You are running the code on EC2 instances in an Auto Scaling Group behind an ELB. Which application code deployment method should you use?

A. SSH into new instances that come online, and deploy new code onto the system by pulling it from an S3 bucket, which is populated by code that you refresh from source control on new pushes.
B. Bake an AMI when deploying new versions of code, and use that AMI for the Auto Scaling Launch Configuration.
C. Create a Dockerfile when preparing to deploy a new version to production and publish it to S3. Use UserData in the Auto Scaling Launch configuration to pull down the Dockerfile from S3 and run it when new instances launch.
D. Create a new Auto Scaling Launch Configuration with UserData scripts configured to pull the latest code at all times.

Answer: B

Explanation:
Since the time required to spin up an instance is required to be fast, its better to create an AMI rather than use User Data. When you use User Data, the script will be
run during boot up, and hence this will be slower.
An Amazon Machine Image (AMI) provides the information required to launch an instance, which is a virtual server in the cloud. You specify an AM I when you launch
an instance, and you can launch as many instances from the AMI as you need. You can also launch instances from as many different AMIs as you need.
For more information on the AMI, please refer to the below link:
• http://docs.aws.amazon.com/AWSCC2/latest/UserGuide/AMIs.html

NEW QUESTION 76
You need to scale an RDS deployment. You are operating at 10% writes and 90% reads, based on your logging. How best can you scale this in a simple way?

A. Create a second master RDS instance and peer the RDS groups.
B. Cache all the database responses on the read side with CloudFront.
C. Create read replicas for RDS since the load is mostly reads.
D. Create a Multi-AZ RDS installs and route read traffic to standby.

Answer: C

Explanation:
Amazon RDS Read Replicas provide enhanced performance and durability for database (DB) instances. This replication feature makes it easy to elastically scale out beyond the capacity constraints of a single DB Instance for read-heavy database workloads. You can create one or more replicas of a given source DB Instance and serve high-volume application read traffic from multiple copies of your data, thereby increasing aggregate read throughput. Read replicas can also be promoted when needed to become standalone DB instances.
Option A is invalid because you would need to maintain the synchronization yourself with a secondary instance.
Option B is invalid because you are introducing another layer unnecessarily when you already have read replica's Option D is invalid because you only use this for Standy's
For more information on Read Replica's, please refer to the below link: https://aws.amazon.com/rds/details/read-replicas/

NEW QUESTION 78
Your company needs to automate 3 layers of a large cloud deployment. You want to be able to track this deployment's evolution as it changes over time, and carefully control any alterations. What is a good way to automate a stack to meet these requirements?

A. Use OpsWorks Stacks with three layers to model the layering in your stack.
B. Use CloudFormation Nested Stack Templates, with three child stacks to represent the three logical layers of your cloud.
C. Use AWS Config to declare a configuration set that AWS should roll out to your cloud.
D. Use Elastic Beanstalk Linked Applications, passing the important DNS entires between layers using the metadata interface.

Answer: B

Explanation:
As your infrastructure grows, common patterns can emerge in which you declare the same components in each of your templates. You can separate out these common components and create dedicated templates for them. That way, you can mix and match different templates but use nested stacks to create a single, unified stack. Nested stacks are stacks that create other stacks. To create nested stacks, use the AWS:: Cloud Form ation::Stackresource in your template to reference other templates.
For more information on nested stacks, please visit the below URL:
• http://docs^ws.amazon.com/AWSCIoudFormation/latest/UserGuide/best-practices.html#nested Note:
The query is, how you can automate a stack over the period of time, when changes are required, with out recreating the stack.
The function of Nested Stacks are to reuse Common Template Patterns.
For example, assume that you have a load balancer configuration that you use for most of your stacks. Instead of copying and pasting the same configurations into your templates, you can create a dedicated template for the load balancer. Then, you just use the resource to reference that template from within other templates. Yet another example is if you have a launch configuration with certain specific configuration and you need to change the instance size only in the production environment and to leave it as it is in the development environment.
AWS also recommends that updates to nested stacks are run from the parent stack.
When you apply template changes to update a top-level stack, AWS CloudFormation updates the top-level stack and initiates an update to its nested stacks. AWS Cloud Formation updates the resources of modified nested stacks, but does not update the resources of unmodified nested stacks.

NEW QUESTION 79
You are planning on using encrypted snapshots in the design of your AWS Infrastructure. Which of the following statements are true with regards to EBS Encryption

A. Snapshottingan encrypted volume makes an encrypted snapshot; restoring an encrypted snapshot creates an encrypted volume when specified / requested.
B. Snapshotting an encrypted volume makes an encrypted snapshot when specified / requested; restoring an encrypted snapshot creates an encrypted volume when specified / requested.
C. Snapshotting an encrypted volume makes an encrypted snapshot; restoring an encrypted snapshot always creates an encrypted volume.
D. Snapshotting an encrypted volume makes an encrypted snapshot when specified / requested; restoring an encrypted snapshot always creates an encrypted volume.

Answer: C

Explanation:
Amazon CBS encryption offers you a simple encryption solution for your CBS volumes without the need for you to build, maintain, and secure your own key management infrastructure. When you create an encrypted CBS volume and attach it to a supported instance type, the following types of data are encrypted:
• Data at rest inside the volume
• All data moving between the volume and the instance
• All snapshots created from the volume
Snapshots that are taken from encrypted volumes are automatically encrypted. Volumes that are created from encrypted snapshots are also automatically encrypted.
For more information on CBS encryption, please visit the below URL:

• http://docs.aws.amazon.com/AWSCC2/latest/UserGuide/ CBSCncryption.html

NEW QUESTION 82
You have an asynchronous processing application usingan Auto Scaling Group and an SQS Queue. The Auto Scaling Group scales according to the depth of the job queue. The completion velocity of the jobs has gone down, the Auto Scaling Group size has maxec out, but the inbound job velocity did not increase. What is a possible issue?

A. Some of the new jobs coming in are malformed and unprocessable.
B. The routing tables changed and none of the workers can process events anymore.
C. Someone changed the 1AM Role Policy on the instances in the worker group and broke permissions to access the queue.
D. The scaling metric is not functioning correctly.

Answer: A

Explanation:
This question is more on the grounds of validating each option
Option B is invalid, because the Route table would have an effect on all worker processes and no jobs would have been completed.
Option C is invalid because if the 1AM Role was invalid then no jobs would be completed.
Option D is invalid because the scaling is happening, its just that the jobs are not getting completed. For more information on Scaling on Demand, please visit the below URL:
• http://docs.aws.a mazon.com/autoscaling/latest/userguide/as-scale-based-on-demand.html

NEW QUESTION 86
You need to create an audit log of all changes to customer banking data. You use DynamoDB to store this customer banking data. It's important not to lose any information due to server failures. What is an elegant way to accomplish this?

A. Use a DynamoDB StreamSpecification and stream all changes to AWS Lambd
B. Log the changes to AWS CloudWatch Logs, removing sensitive information before logging.
C. Before writing to DynamoDB, do a pre-write acknoledgment to disk on the application server, removing sensitive information before loggin
D. Periodically rotate these log files into S3.
E. Use a DynamoDB StreamSpecification and periodically flush to an EC2 instance store, removing sensitive information before putting the object
F. Periodically flush these batches to S3.
G. Before writing to DynamoDB, do a pre-write acknoledgment to disk on the application server, removing sensitive information before loggin
H. Periodically pipe these files into CloudWatch Logs.

Answer: A

Explanation:
You can use Lambda functions as triggers for your Amazon DynamoDB table. Triggers are custom actions you take in response to updates made to the DynamoDB table. To create a trigger, first you enable Amazon DynamoDB Streams for your table. Then, you write a Lambda function to process the updates published to the stream.
For more information on DynamoDB with Lambda, please visit the below URL: http://docs.aws.a mazon.com/lambda/latest/dg/with-ddb.html

NEW QUESTION 87
What is required to achieve gigabit network throughput on EC2? You already selected cluster- compute, 10GB instances with enhanced networking, and your workload is already network-bound, but you are not seeing 10 gigabit speeds.

A. Enable biplex networking on your servers, so packets are non-blocking in both directions and there's no switching overhead.
B. Ensure the instances are in different VPCs so you don't saturate the Internet Gateway on any one VPC.
C. Select PIOPS for your drives and mount several, so you can provision sufficient disk throughput.
D. Use a placement group for your instances so the instances are physically near each other in the same Availability Zone.

Answer: D

Explanation:
A placement group is a logical grouping of instances within a single Availability Zone. Placement groups are recommended for applications that benefit from low network latency, high network throughput, or both. To provide the lowest latency, and the highest packet-per-second network performance for your placement group, choose an instance type that supports enhanced networking. For more information on Placement Groups, please visit the below URL:
http://docs.aws.amazon.com/AWSCC2/latest/UserGuide/placement-groups.html

NEW QUESTION 92
Your CTO has asked you to make sure that you know what all users of your AWS account are doing to change resources at all times. She wants a report of who is doing what over time, reported to her once per week, for as broad a resource type group as possible. How should you do this?

A. Create a global AWS CloudTrail Trai
B. Configure a script to aggregate the log data delivered to S3 once per week and deliver this to the CTO.
C. Use CloudWatch Events Rules with an SNS topic subscribed to all AWS API call
D. Subscribe the CTO to an email type delivery on this SNS Topic.
E. Use AWS 1AM credential reports to deliver a CSV of all uses of 1AM UserTokens overtime to the CTO.
F. Use AWS Config with an SNS subscription on a Lambda, and insert these changes over time into a DynamoDB tabl
G. Generate reports based on the contents of this table.

Answer: A

Explanation:
AWS CloudTrail is an AWS service that helps you enable governance, compliance, and operational and risk auditing of your AWS account. Actions taken by a user, role, or an AWS service are recorded as events in CloudTrail. Events include actions taken in the AWS Management Console, AWS Command Line Interface, and AWS SDKs and APIs.
Visibility into your AWS account activity is a key aspect of security and operational best practices. You can use CloudTrail to view, search, download, archive,

analyze, and respond to account activity across your AWS infrastructure. You can identify who or what took which action, what resources were acted upon, when the event occurred, and other details to help you analyze and respond to activity in your AWS account.
For more information on Cloudtrail, please visit the below URL:
• http://docs.aws.amazon.com/awscloudtrail/latest/userguide/cloudtrail-user-guide.html

NEW QUESTION 94
You are building a mobile app for consumers to post cat pictures online. You will be storing the images in AWS S3. You want to run the system very cheaply and simply. Which one of these options allows you to build a photo sharing application with the right authentication/authorization implementation.

A. Build the application out using AWS Cognito and web identity federation to allow users to log in using Facebook or Google Account
B. Once they are logged in, the secret token passed to that user is used to directly access resources on AWS, like AWS S3. ^/
C. Use JWT or SAML compliant systems to build authorization policie
D. Users log in with a username and password, and are given a token they can use indefinitely to make calls against the photo infrastructure.C Use AWS API Gateway with a constantly rotating API Key to allow access from the client-sid
E. Construct a custom build of the SDK and include S3 access in it.
F. Create an AWS oAuth Service Domain ad grant public signup and access to the domai
G. During setup, add at least one major social media site as a trusted Identity Provider for users.

Answer: A

Explanation:
Amazon Cognito lets you easily add user sign-up and sign-in and manage permissions for your mobile and web apps. You can create your own user directory within Amazon Cognito. You can also choose to authenticate users through social identity providers such as Facebook, Twitter, or Amazon; with SAML identity solutions; or by using your own identity system. In addition, Amazon Cognito enables you to save data locally on users' devices, allowing your applications to work even when the devices are offline. You can then synchronize data across users' devices so that their app experience remains consistent regardless of the device they use.
For more information on AWS Cognito, please visit the below URL:
• http://docs.aws.amazon.com/cognito/latest/developerguide/what-is-amazon-cognito.html

NEW QUESTION 99
Your team wants to begin practicing continuous delivery using CloudFormation, to enable automated builds and deploys of whole, versioned stacks or stack layers. You have a 3-tier, mission-critical system. Which of the following is NOT a best practice for using CloudFormation in a continuous delivery environment?

A. Use the AWS CloudFormation ValidateTemplate call before publishing changes to AWS.
B. Model your stack in one template, so you can leverage CloudFormation's state management and dependency resolution to propagate all changes.
C. Use CloudFormation to create brand new infrastructure for all stateless resources on each push, and run integration tests on that set of infrastructure.
D. Parametrize the template and use Mappings to ensure your template works in multiple Regions.

Answer: B

Explanation:
Answer - B
Some of the best practices for Cloudformation are
• Created Nested stacks
As your infrastructure grows, common patterns can emerge in which you declare the same components in each of your templates. You can separate out these common components and create dedicated templates for them. That way, you can mix and match different templates but use nested stacks to create a single, unified stack. Nested stacks are stacks that create other stacks. To create nested stacks, use the AWS::CloudFormation::Stackresource in your template to reference other templates.
• Reuse Templates
After you have your stacks and resources set up, you can reuse your templates to replicate your infrastructure in multiple environments. For example, you can create environments for development, testing, and production so that you can test changes before implementing them into production. To make templates reusable, use the parameters, mappings, and conditions sections so that you can customize your stacks when you create them. For example, for your development environments, you can specify a lower-cost instance type compared to your production environment, but all other configurations and settings remain the same. For more information on Cloudformation best practises, please visit the below URL:
http://docs.aws.amazon.com/AWSCIoudFormation/latest/UserGuide/best-practices.html

NEW QUESTION 101
You need to deploy an AWS stack in a repeatable manner across multiple environments. You have selected CloudFormation as the right tool to accomplish this, but have found that there is a resource type you need to create and model, but is unsupported by CloudFormation. How should you overcome this challenge?

A. Use a CloudFormation Custom Resource Template by selecting an API call to proxy for create, update, and delete action
B. CloudFormation will use the AWS SDK, CLI, or API method of your choosing as the state transition function for the resource type you are modeling.
C. Submit a ticket to the AWS Forum
D. AWS extends CloudFormation Resource Types by releasing tooling to the AWS Labs organization on GitHu
E. Their response time is usually 1 day, and theycomplete requests within a week or two.
F. Instead of depending on CloudFormation, use Chef, Puppet, or Ansible to author Heat templates, which are declarative stack resource definitions that operate over the OpenStack hypervisor and cloud environment.
G. Create a CloudFormation Custom Resource Type by implementing create, update, and delete functionality, either by subscribing a Custom Resource Provider to an SNS topic, or by implementing the logic in AWS Lambda.

Answer: D

Explanation:
Custom resources enable you to write custom provisioning logic in templates that AWS Cloud Formation runs anytime you create, update (if you changed the custom resource), or delete stacks. For example, you might want to include resources that aren't available as AWS Cloud Formation resource types. You can include those resources by using custom resources. That way you can still manage all your related resources in a single stack.
Use the AWS:: Cloud Formation:: Custom Resource or Custom ::String resource type to define custom resources in your templates. Custom resources require one property: the service token, which specifies where AWS CloudFormation sends requests to, such as an Amazon SNS topic.
For more information on Custom Resources in Cloudformation, please visit the below U RL:
http://docs.aws.amazon.com/AWSCIoudFormation/latest/UserGuide/template-custom- resources.html

NEW QUESTION 104
Your CTO thinks your AWS account was hacked. What is the only way to know for certain if there was unauthorized access and what they did, assuming your hackers are very sophisticated AWS engineers and doing everything they can to cover their tracks?

A. Use CloudTrail Log File Integrity Validation.
B. Use AWS Config SNS Subscriptions and process events in real time.
C. Use CloudTrail backed up to AWS S3 and Glacier.
D. Use AWS Config Timeline forensics.

Answer: A

Explanation:
To determine whether a log file was modified, deleted, or unchanged after CloudTrail delivered it, you can use CloudTrail log file integrity validation. This feature is built using industry standard algorithms: SHA-256 for hashing and SHA-256 with RSA for digital signing. This makes it computationally infeasible to modify, delete or forge CloudTrail log files without detection. You can use the AWS CLI to validate the files in the location where CloudTrail delivered them
Validated log files are invaluable in security and forensic investigations. For example, a validated log file enables you to assert positively that the log file itself has not changed, or that particular user credentials performed specific API activity. The CloudTrail log file integrity validation process also lets you know if a log file has been deleted or changed, or assert positively that no log files were delivered to your account during a given period of time.
For more information on Cloudtrail log file validation, please visit the below URL:
http://docs.aws.a mazon.com/awscloudtrail/latest/userguide/cloudtrai l-log-file-validation- intro.html

NEW QUESTION 108
You need your CI to build AM Is with code pre-installed on the images on every new code push. You need to do this as cheaply as possible. How do you do this?
A. Bid on spot instances just above the asking price as soon as new commits come in, perform all instance configuration and setup, then create an AM I based on the spot instance.
B. Have the CI launch a new on-demand EC2 instance when new commits come in, perform all instance configuration and setup, then create an AMI based on the on-demand instance.
C. Purchase a Light Utilization Reserved Instance to save money on the continuous integration machin
D. Use these credits whenever your create AMIs on instances.
E. When the CI instance receives commits, attach a new EBS volume to the CI machin
F. Perform all setup on this EBS volume so you don't need

Answer: A

Explanation:
Amazon CC2 Spot instances allow you to bid on spare Amazon CC2 computing capacity. Since Spot instances are often available at a discount compared to On-Demand pricing, you can significantly reduce the cost of running your applications, grow your application's compute capacity and throughput for the same budget, and enable new types of cloud computing applications.
For more information on Spot Instances, please visit the below URL: https://aws.amazon.com/ec2/spot/

NEW QUESTION 109
You currently have an application deployed via Elastic Beanstalk. You are now deploying a new application and have ensured that Elastic beanstalk has detached the current instances and deployed and reattached new instances. But the new instances are still not receiving any sort of traffic. Why is this the case.

A. The instances are of the wrong AMI, hence they are not being detected by the ELB.
B. It takes time for the ELB to register the instances, hence there is a small timeframe before your instances can start receiving traffic
C. You need to create a new Elastic Beanstalk application, because you cannot detach and then reattach instances to an ELB within an Elastic Beanstalk application
D. The instances needed to be reattached before the new application version was deployed

Answer: B

Explanation:
Before the CC2 Instances can start receiving traffic, they will be checked via the health checks of the CLB. Once the health checks are successful, the CC2 Instance
will change its state to InService and then the EC2 Instances can start receiving traffic. For more information on ELB health checks, please refer to the below link:
http://docs.aws.amazon.com/elasticloadbalancing/latest/classic/elb-healthchecks.html

NEW QUESTION 112
Which of the following is the default deployment mechanism used by Elastic Beanstalk when the application is created via Console or EBCLI?

A. All at Once
B. Rolling Deployments
C. Rolling with additional batch
D. Immutable

Answer: B

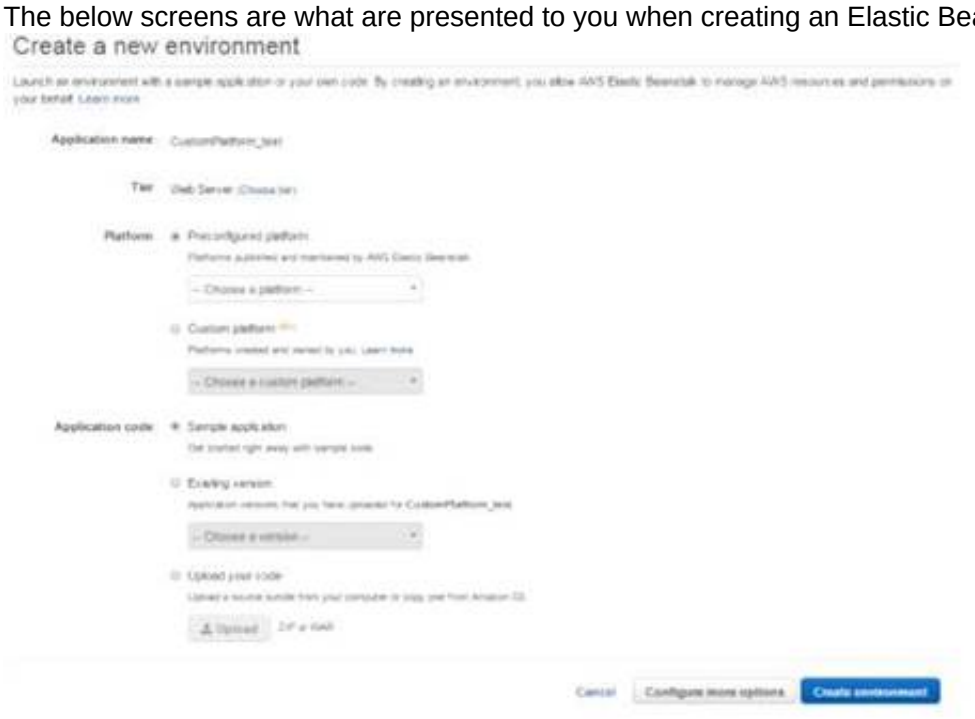
Explanation:
The AWS documentation mentions
AWS Elastic Beanstalk provides several options for how deployments are processed, including deployment policies (All at once. Rolling, Rolling with additional batch,
and Immutable) and options that let you configure batch size and health check behavior during deployments. By default, your environment uses rolling deployments
if you created it with the console or EB CLI, or all at once deployments if you created it with a different client (API, SDK or AWS CLI).
For more information on Elastic Beanstalk deployments, please refer to the below link:
• http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/using-features.rolling-version- deploy.html

NEW QUESTION 116
When creating an Elastic Beanstalk environment using the Wizard, what are the 3 configuration options presented to you

A. Choosingthetypeof Environment- Web or Worker environment
B. Choosingtheplatformtype-Nodejs,IIS,etc
C. Choosing the type of Notification - SNS or SQS
D. Choosing whether you want a highly available environment or not

Answer: ABD

Explanation:
The below screens are what are presented to you when creating an Elastic Beanstalk environment



The high availability preset includes a load balancer; the low cost preset does not For more information on the configuration settings, please refer to the below link:
http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/environments-create-wizard.html

NEW QUESTION 120
You have an Autoscaling Group configured to launch EC2 Instances for your application. But you notice that the Autoscaling Group is not launching instances in the right proportion. In fact instances are being launched too fast. What can you do to mitigate this issue? Choose 2 answers from the options given below

A. Adjust the cooldown period set for the Autoscaling Group
B. Set a custom metric which monitors a key application functionality forthe scale-in and scale-out process.
C. Adjust the CPU threshold set for the Autoscaling scale-in and scale-out process.
D. Adjust the Memory threshold set forthe Autoscaling scale-in and scale-out process.

Answer: AB

Explanation:
The Auto Scaling cooldown period is a configurable setting for your Auto Scaling group that helps to ensure that Auto Scaling doesn't launch or terminate additional instances before the previous scaling activity takes effect.
For more information on the cool down period, please refer to the below link:
• http://docs^ws.a mazon.com/autoscaling/latest/userguide/Cooldown.html
Also it is better to monitor the application based on a key feature and then trigger the scale-in and scale-out feature accordingly. In the question, there is no mention of CPU or memory causing the issue.

NEW QUESTION 122
You are deciding on a deployment mechanism for your application. Which of the following deployment mechanisms provides the fastest rollback after failure.

A. Rolling-Immutable
B. Canary
C. Rolling-Mutable
D. Blue/Green

Answer: D

Explanation:
In Blue Green Deployments, you will always have the previous version of your application available.
So anytime there is an issue with a new deployment, you can just quickly switch back to the older version of your application.
For more information on Blue Green Deployments, please refer to the below link: https://docs.cloudfoundry.org/devguide/deploy-apps/blue-green.html

NEW QUESTION 124
When building a multicontainer Docker platform using Elastic Beanstalk, which of the following is required

A. DockerFile to create custom images during deployment
B. Prebuilt Images stored in a public or private online image repository.
C. Kurbernetes to manage the docker containers.
D. RedHatOpensift to manage the docker containers.

Answer: B

Explanation:
This is a special note given in the AWS Documentation for Multicontainer Docker platform for Elastic Beanstalk
Building custom images during deployment with a Dockerfile is not supported by the multicontainer Docker platform on Elastic Beanstalk. Build your images and deploy them to an online repository before creating an Elastic Beanstalk environment.
For more information on Multicontainer Docker platform for Elastic Beanstalk, please refer to the below link:
http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/create_deploy_docker_ecs.html

NEW QUESTION 126
Which of the following Deployment types are available in the CodeDeploy service. Choose 2 answers from the options given below

A. In-place deployment
B. Rolling deployment
C. Immutable deployment
D. Blue/green deployment

Answer: AD

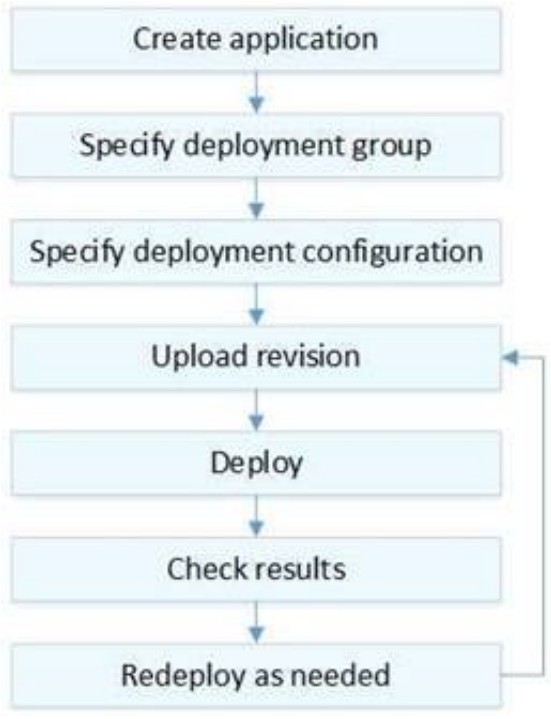
Explanation:
The following deployment types are available
1. In-place deployment: The application on each instance in the deployment group is stopped, the latest application revision is installed, and the new version of the application is started and validated.
2. Blue/green deployment: The instances in a deployment group (the original environment) are replaced by a different set of instances (the replacement environment)
For more information on Code Deploy please refer to the below link:
• http://docs.aws.amazon.com/codedeploy/latest/userguide/primary-components.html

NEW QUESTION 129
Which of the following is the right sequence of initial steps in the deployment of application revisions using Code Deploy
1) Specify deployment configuration
2) Upload revision
3) Create application
4) Specify deployment group

A. 3, 2, 1 and 4
B. 3,1,2 and 4
C. 3,4,1 and 2
D. 3,4,2 and 1

Answer: C

Explanation:
The below diagram from the AWS documentation shows the deployment steps



For more information on the deployment steps please refer to the below link:
• http://docs.aws.amazon.com/codedeploy/latest/userguide/de ployment-steps.html

NEW QUESTION 130
You have an Opswork stack setup in AWS. You want to install some updates to the Linux instances in the stack. Which of the following can be used to publish those updates. Choose 2 answers from the options given below

A. Create and start new instances to replace your current online instance
B. Then delete the current instances.
C. Use Auto-scaling to launch new instances and then delete the older instances
D. On Linux-based instances in Chef 11.10 or older stacks, run the Update Dependencies stack command
E. Delete the stack and create a new stack with the instances and their relavant updates

Answer: AC

Explanation:
As per AWS documentation.

By default, AWS OpsWorks Stacks automatically installs the latest updates during setup, after an instance finishes booting. AWS OpsWorks Stacks does not automatically install updates after an instance is online, to avoid interruptions such as restarting application servers. Instead, you manage updates to your online instances yourself, so you can minimize any disruptions.
We recommend that you use one of the following to update your online instances.
•Create and start new instances to replace your current online instances. Then delete the current instances.
The new instances will have the latest set of security patches installed during setup.
•On Linux-based instances in Chef 11.10 or older stacks, run the Update Dependencies stack command, which installs the current set of security patches and other updates
on the specified instances.
More information is available at: https://docs.aws.amazon.com/opsworks/latest/userguide/workingsecurity-updates.html

NEW QUESTION 131
Which of the following services can be used to implement DevOps in your company.

A. AWS Elastic Beanstalk
B. AWSOpswork
C. AWS Cloudformation
D. All of the above

Answer: D

Explanation:
All of the services can be used to implement Devops in your company
1) AWS Elastic Beanstalk, an easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker on servers such as Apache, Nginx, Passenger, and I IS.
2) AWS Ops Works, a configuration management service that helps you configure and operate applications of all shapes and sizes using Chef
3) AWS Cloud Formation, which is an easy way to create and manage a collection of related AWS resources, provisioning and updating them in an orderly and predictable fashion.
For more information on AWS Devops please refer to the below link:
• http://docs.aws.amazon.com/devops/latest/gsg/welcome.html

NEW QUESTION 136
You need to deploy a multi-container Docker environment on to Elastic beanstalk. Which of the following files can be used to deploy a set of Docker containers to Elastic beanstalk

A. Dockerfile
B. DockerMultifile
C. Dockerrun.aws.json
D. Dockerrun

Answer: C

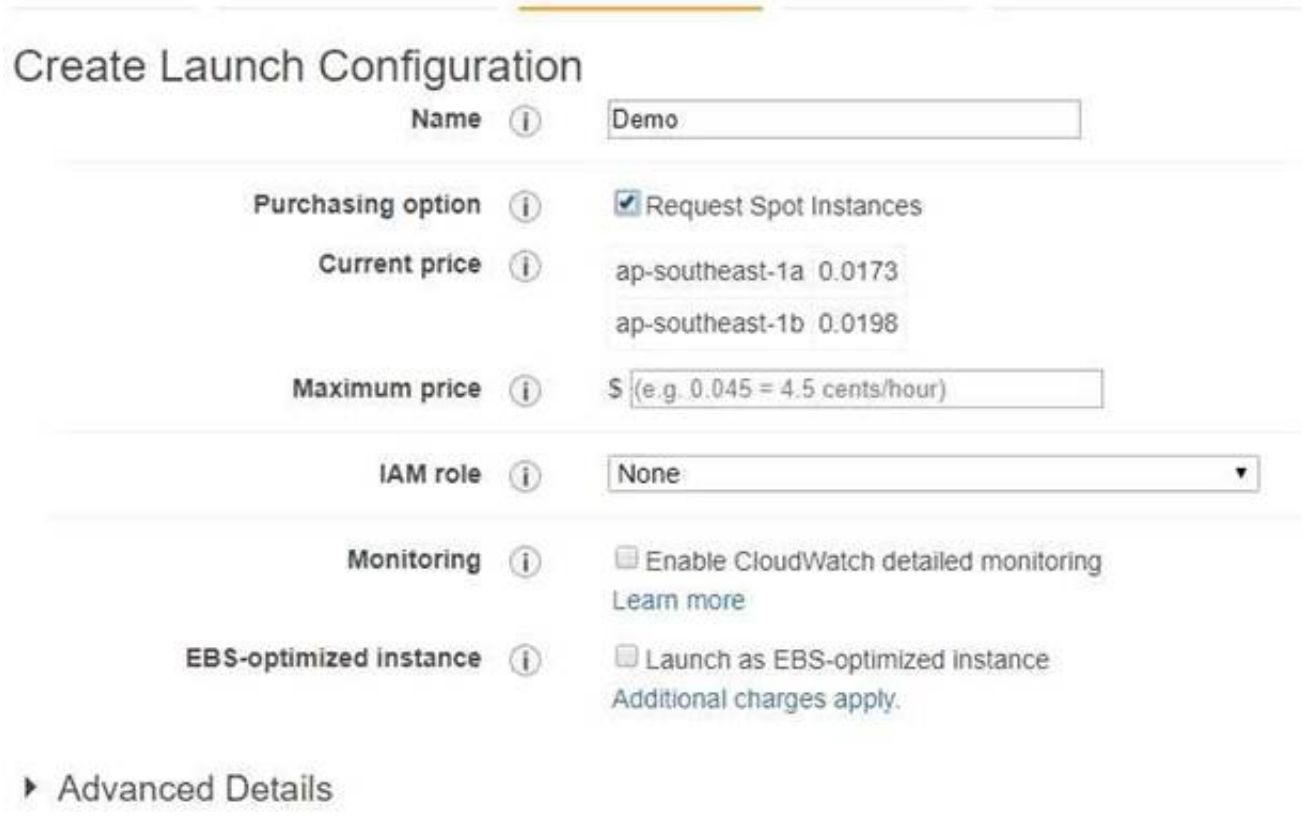
Explanation:
The AWS Documentation specifies
A Dockerrun.aws.json file is an Clastic Beanstalk-specific JSON file that describes how to deploy a set of Docker containers as an Clastic Beanstalk application.
You can use aDockerrun.aws.json file for a multicontainer Docker environment.
Dockerrun.aws.json describes the containers to deploy to each container instance in the environment as well as the data volumes to create on the host instance for the containers to mount.
For more information on this, please visit the below URL:
http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/create_deploy_docker_v2config.html

NEW QUESTION 139
You have ana video processing application hosted in AWS. The video's are uploaded by users onto the site. You have a program that is custom built to process those videos. The program is able to recover incase there are any failures when processing the videos. Which of the following mechanisms can be used to deploy the instances for carrying out the video processing activities, ensuring that the cost is kept at a minimum.

A. Create a launch configuration with Reserved Instance
B. Ensure the User Data section details the installation of the custom softwar
C. Create an Autoscalinggroup with the launch configuration.
D. Create a launch configuration with Spot Instance
E. Ensure the User Data section details the installation of the custom softwar
F. Create an Autoscalinggroupwith the launch configuration.
G. Create a launch configuration with Dedicated Instance
H. Ensure the User Data section details the installation of the custom softwar
I. Create an Autoscaling group with the launch configuration.
J. Create a launch configuration with On-Demand Instance
K. Ensure the User Data section details the installation of the custom softwar
L. Create an Autoscaling group with the launch configuration.

Answer: B

Explanation:
Since the application can recover from failures and cost is the priority, then Spot instances are the best bet for this requirement. The launch configuration has the facility to request for Spot Instances.
The below snapshot from the Launch configuration section shows that Spot Instances can be used for AutoScaling Groups.



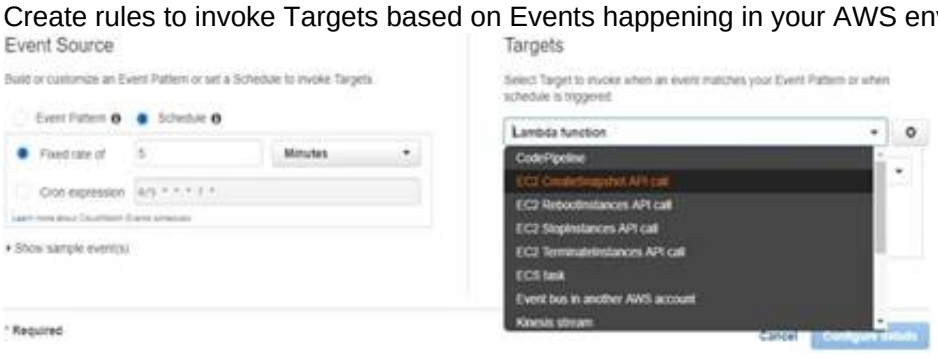
For more information on Spot Instances and Autoscaling, please visit the below URL:
• http://docs^ws.amazon.com/autoscaling/latest/userguide/US-SpotInstances.html

NEW QUESTION 144
You have a requirement to automate the creation of EBS Snapshots. Which of the following can be used to achieve this in the best way possible.

A. Create a powershell script which uses the AWS CLI to get the volumes and then run the script as a cron job.
B. Use the AWSConfig service to create a snapshot of the AWS Volumes
C. Use the AWS CodeDeploy service to create a snapshot of the AWS Volumes
D. Use Cloudwatch Events to trigger the snapshots of EBS Volumes

Answer: D

Explanation:
The best is to use the inbuilt service from Cloudwatch, as Cloud watch Events to automate the creation of CBS Snapshots. With Option A, you would be restricted to
running the powrshell script on Windows machines and maintaining the script itself And then you have the overhead of having a separate instance just to run that script.
When you go to Cloudwatch events, you can use the Target as EC2 CreateSnapshot API call as shown below.
Create rules to invoke Targets based on Events happening in your AWS environment.



The AWS Documentation mentions
Amazon Cloud Watch Cvents delivers a near real-time stream of system events that describe changes in Amazon Web Services (AWS) resources. Using simple rules
that you can quickly set up, you can match events and route them to one or more target functions or streams. Cloud Watch Cvents becomes aware of operational changes as they occur. Cloud Watch Cvents responds to these operational changes and takes corrective action as necessary, by sending messages to respond to the environment, activating functions, making changes, and capturing state information. For more information on Cloud watch Cvents, please visit the below U RL:
• http://docs.aws.amazon.com/AmazonCloudWatch/latest/events/Whatl sCloudWatchCvents.html

NEW QUESTION 145
Your company has a set of resources hosted in AWS. They want to be notified when the costs of the AWS resources running in the account reaches a certain threshold. How can this be accomplished in an ideal way.

A. Create a script which monitors all the running resources and calculates the costs accordingly.
B. Download the cost reports and analyze the reports to see if the costs are going beyond the threshold
C. Create a billing alarm which can alert you when the costs are going beyond a certain threshold
D. Create a consolidated billing report and see if the costs are going beyond the threshold.

Answer: C

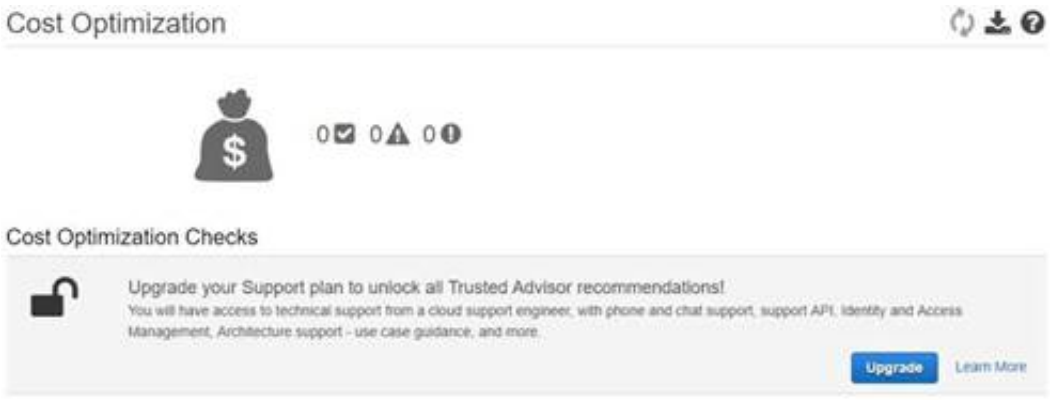
Explanation:
The AWS Documentation mentions
You can monitor your AWS costs by using Cloud Watch. With Cloud Watch, you can create billing alerts that notify you when your usage of your services exceeds thresholds that you define. You specify these threshold amounts when you create the billing alerts.
When your usage exceeds these amounts, AWS sends you an email notification. You can also sign up to receive notifications when AWS prices change. For more information on billing alarms, please visit the below URL:
• http://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/monitor-charges.html

NEW QUESTION 147
Your company has a set of resources hosted in AWS. Your IT Supervisor is concerned with the costs being incurred by the resources running in AWS and wants to optimize on the costs as much as possible. Which of the following ways could help achieve this efficiently? Choose 2 answers from the options given below.

A. Create Cloudwatch alarms to monitor underutilized resources and either shutdown or terminate resources which are not required.
B. Use the Trusted Advisor to see underutilized resources
C. Create a script which monitors all the running resources and calculates the costs accordingl
D. The analyze those resources accordingly and see which can be optimized.
E. Create Cloudwatch logs to monitor underutilized resources and either shutdown or terminate resources which are not required.

Answer: AB

Explanation:
You can use Cloudwatch alarms to see if resources are below a threshold for long periods of time. If so you can take the decision to either stop them or to terminate the resources.
For more information on Cloudwatch alarms, please visit the below URL:
• <http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/Ala rmThatSendsCmail.html>
In the Trusted Advisor, when you enable the Cost optimization section, you will get all sorts of checks which can be used to optimize the costs of your AWS resources.



For more information on the Trusted Advisor, please visit the below U RL:
• https://aws.amazon.com/premiumsupport/trustedadvisor/

NEW QUESTION 148
You are currently using Elastic Beanstalk to host your production environment. You need to rollout updates to your application hosted on this environment. This is a critical application which is why there is a requirement that the rollback, if required, should be carried out with the least amount of downtime. Which of the following deployment strategies would ideally help achieve this purpose

A. Create a Cloudformation template with the same resources as those in the Elastic beanstalk environmen
B. If the deployment fails, deploy the Cloudformation template.
C. Use Rolling updates in Elastic Beanstalk so that if the deployment fails, the rolling updates feature would roll back to the last deployment.
D. Create another parallel environment in elastic beanstal
E. Use the Swap URL feature.
F. Create another parallel environment in elastic beanstal
G. Create a new Route53 Domain name for the new environment and release that url to the users.

Answer: C

Explanation:
Since the requirement is to have the least amount of downtime, the ideal way is to create a blue green deployment environment and then use the Swap URL feature
to swap environments for the new deployment and then do the swap back, incase the deployment fails.
The AWS Documentation mentions the following on the SWAP url feature of Elastic Beanstalk
Because Elastic Beanstalk performs an in-place update when you update your application versions, your application may become unavailable to users for a short period of time. It is possible to avoid this downtime by performing a blue/green deployment, where you deploy the new version to a separate environment, and then swap CNAMCs of the two environments to redirect traffic to the new version instantly.

NEW QUESTION 153
Your company has an on-premise Active Directory setup in place. The company has extended their footprint on AWS, but still want to have the ability to use their on-premise Active Directory for authentication. Which of the following AWS services can be used to ensure that AWS resources such as AWS Workspaces can continue to use the existing credentials stored in the on-premise Active Directory.

A. Use the Active Directory service on AWS
B. Use the AWS Simple AD service
C. Use the Active Directory connector service on AWS
D. Use the ClassicLink feature on AWS

Answer: C

Explanation:
The AWS Documentation mentions the following
AD Connector is a directory gateway with which you can redirect directory requests to your on- premises Microsoft Active Directory without caching any information in the cloud. AD Connector comes in two sizes, small and large. A small AD Connector is designed for
smaller organizations of up to 500 users. A large AD Connector can support larger organizations of up to 5,000 users.
For more information on the AD connector, please refer to the below URL: http://docs.aws.amazon.com/directoryservice/latest/admin-guide/directory_ad_connector.html

NEW QUESTION 154
The company you work for has a huge amount of infrastructure built on AWS. However there has been some concerns recently about the security of this

infrastructure, and an external auditor has been given the task of running a thorough check of all of your company's AWS assets. The auditor will be in the USA while your company's infrastructure resides in the Asia Pacific (Sydney) region on AWS. Initially, he needs to check all of your VPC assets, specifically, security groups and NACLs You have been assigned the task of providing the auditor with a login to be able to do this. Which of the following would be the best and most secure solution to provide the auditor with so he can begin his initial investigations? Choose the correct answer from the options below

A. Create an 1AM user tied to an administrator rol
B. Also provide an additional level of security with MFA.
C. Give him root access to your AWS Infrastructure, because he is an auditor he will need access to every service.
D. Create an 1AM user who will have read-only access to your AWS VPC infrastructure and provide the auditor with those credentials.
E. Create an 1AM user with full VPC access but set a condition that will not allow him to modify anything if the request is from any IP other than his own.

Answer: C

Explanation:
Generally you should refrain from giving high level permissions and give only the required permissions. In this case option C fits well by just providing the relevant access which is required.
For more information on 1AM please see the below link:
• https://aws.amazon.com/iam/

NEW QUESTION 159
You're building a mobile application game. The application needs permissions for each user to communicate and store data in DynamoDB tables. What is the best method for granting each mobile device that installs your application to access DynamoDB tables for storage when required? Choose the correct answer from the options below

A. During the install and game configuration process, have each user create an 1AM credential and assign the 1AM user to a group with proper permissions to communicate with DynamoDB.
B. Create an 1AM group that only gives access to your application and to the DynamoDB table
C. Then, when writing to DynamoDB, simply include the unique device ID to associate the data with that specific user.
D. Create an 1AM role with the proper permission policy to communicate with the DynamoDB tabl
E. Use web identity federation, which assumes the 1AM role using AssumeRoleWithWebIdentity, when the user signs in, granting temporary security credentials using STS.
F. Create an Active Directory server and an AD user for each mobile application use
G. When the user signs in to the AD sign-on, allow the AD server to federate using SAML 2.0 to 1AM and assign a role to the AD user which is the assumed with AssumeRoleWithSAML

Answer: C

Explanation:
Answer - C
For access to any AWS service, the ideal approach for any application is to use Roles. This is the first preference.
For more information on 1AM policies please refer to the below link:
http://docs.aws.amazon.com/IAM/latest/UserGuide/access_policies.html
Next for any web application, you need to use web identity federation. Hence option D is the right option. This along with the usage of roles is highly stressed in the aws documentation.
The AWS documentation mentions the following
When developing a web application it is recommend not to embed or distribute long-term AWS credentials with apps that a user downloads to a device, even in an encrypted store. Instead, build your app so that it requests temporary AWS security credentials dynamically when needed using web identity federation. The supplied temporary credentials map to an AWS role that has only the permissions needed to perform the tasks required by the mobile app.
For more information on web identity federation please refer to the below link: http://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_providers_oidc.html

NEW QUESTION 161
You are the IT administrator for your company. You have the responsibility of creating development environments which would confirm to the LAMP development stack. The requirement is that the
development team always gets the latest version of the LAMP stack each time a new instance is launched. Which of the following is an efficient and effective way to implement this requirement? Choose 2 answers from the options given below

A. Create an AMI with all the artifacts of the LAMP stack and provide an instance to the development team based on the AMI.
B. Create a cloudformation template and use the cloud-init directives to download and the install the LAMP stack packages.
C. Use the User data section and use a custom script which will be used to download the necessary LAMP stack packages.
D. Create an EBS Volume with the LAMP stack and attach it to an instance whenever it is required.

Answer: BC

Explanation:
Using User data and cloud-init directives you can always ensure you download the latest version of the LAMP stack and give it to the development teams. With AMI's
you will always have the same version and will need to create an AMI everytime the version of the LAMP stack changes.
The AWS Documentation mentions
When you launch an instance in Amazon CC2, you have the option of passing user data to the instance that can be used to perform common automated configuration tasks and even run scripts after the instance starts. You can pass two types of user data to Amazon CC2: shell scripts and cloud-init directives. You can
also pass this data into the launch wizard as plain text, as a file (this is useful for launching instances using the command line tools), or as base64-encoded text (for API calls).
For more information on User data please refer to the below link: http://docs.aws.amazon.com/AWSCC2/latest/UserGuide/user-data.html

NEW QUESTION 166
Your security officer has told you that you need to tighten up the logging of all events that occur on your AWS account. He wants to be able to access all events that occur on the account across all regions quickly and in the simplest way possible. He also wants to make sure he is the only person that has access to these events in the most secure way possible. Which of the following would be the best solution to assure his requirements are met? Choose the correct answer from the options below

A. Use CloudTrail to logall events to one S3 bucke
B. Make this S3 bucket only accessible by your security officer with a bucket policy that restricts access to his user only and also add MFA to the policy for a further level of securit
C. ^/
D. Use CloudTrail to log all events to an Amazon Glacier Vaul
E. Make sure the vault access policy only grants access to the security officer's IP address.
F. Use CloudTrail to send all API calls to CloudWatch and send an email to the security officer every time an API call is mad
G. Make sure the emails are encrypted.
H. Use CloudTrail to log all events to a separate S3 bucket in each region as CloudTrail cannot write to a bucket in a different regio
I. Use MFA and bucket policies on all the different buckets.

Answer: A

Explanation:
AWS CloudTrail is a service that enables governance, compliance, operational auditing, and risk auditing of your AWS account. With CloudTrail, you can log, continuously monitor, and retain events related to API calls across your AWS infrastructure. CloudTrail provides a history of AWS API calls for your account, including API calls made through the AWS Management Console, AWS SDKs, command line tools, and other AWS services. This history simplifies security analysis, resource change tracking, and troubleshooting.
You can design cloudtrail to send all logs to a central S3 bucket. For more information on cloudtrail, please visit the below URL:
? https://aws.amazon.com/cloudtrail/

NEW QUESTION 171
You are in charge of designing Cloudformation templates for your company. One of the key requirements is to ensure that if a Cloudformation stack is deleted, a snapshot of the relational database is created which is part of the stack. How can you achieve this in the best possible way?

A. Create a snapshot of the relational database beforehand so that when the cloudformation stack is deleted, the snapshot of the database will be present.
B. Use the Update policy of the cloudformation template to ensure a snapshot is created of the relational database.
C. Use the Deletion policy of the cloudformation template to ensure a snapshot is created of the relational database.
D. Create a new cloudformation template to create a snapshot of the relational database.

Answer: C

Explanation:
The AWS documentation mentions the following
With the Deletion Policy attribute you can preserve or (in some cases) backup a resource when its stack is deleted. You specify a DeletionPolicy attribute for each resource that you want to control. If a resource has no DeletionPolicy attribute, AWS Cloud Formation deletes the resource by default. Note that this capability also applies to update operations that lead to resources being removed.
For more information on the Deletion policy, please visit the below URL: http://docs.aws.amazon.com/AWSCIoudFormation/latest/UserGuide/aws-attri bute-deletionpolicy.html

NEW QUESTION 175
An enterprise wants to use a third-party SaaS application running on AWS.. The SaaS application needs to have access to issue several API commands to discover Amazon EC2 resources running within the enterprise's account. The enterprise has internal security policies that require any outside access to their environment must conform to the principles of least privilege and there must be controls in place to ensure that the credentials used by the SaaS vendor cannot be used by any other third party. Which of the following would meet all of these conditions?

A. From the AWS Management Console, navigate to the Security Credentials page and retrieve the access and secret key for your account.
B. Create an 1AM user within the enterprise account assign a user policy to the 1AM user that allows only the actions required by the SaaS applicatio
C. Create a new access and secret key for the user and provide these credentials to the SaaS provider.
D. Create an 1AM role for cross-account access allows the SaaS provider's account to assume the role and assign it a policy that allows only the actions required by the SaaS application.
E. Create an 1AM role for EC2 instances, assign it a policy that allows only the actions required tor the Saas application to work, provide the role ARN to the SaaS provider to use when launching their application instances.

Answer: C

Explanation:
Many SaaS platforms can access aws resources via a Cross account access created in aws. If you go to Roles in your identity management, you will see the ability to add a cross account role.

For more information on cross account role, please visit the below URL:
• http://docs.aws.amazon.com/IAM/latest/UserGuide/tuto rial_cross-account-with-roles.htm I

NEW QUESTION 179
Your company is planning to develop an application in which the front end is in .Net and the backend is in DynamoDB. There is an expectation of a high load on the application. How could you ensure the scalability of the application to reduce the load on the DynamoDB database? Choose an answer from the options below.

A. Add more DynamoDB databases to handle the load.

B. Increase write capacity of Dynamo DB to meet the peak loads
C. Use SQS to assist and let the application pull messages and then perform the relevant operation in DynamoDB.
D. Launch DynamoDB in Multi-AZ configuration with a global index to balance writes

Answer: C

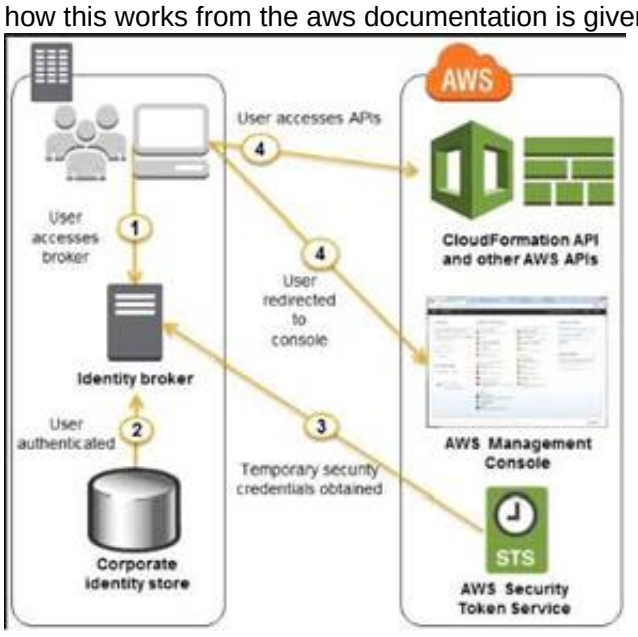
Explanation:
When the idea comes for scalability then SQS is the best option. Normally DynamoDB is scalable, but since one is looking for a cost effective solution, the messaging in SQS can assist in managing the situation mentioned in the question.
Amazon Simple Queue Service (SQS) is a fully-managed message queuing service for reliably communicating among distributed software components and microservices - at any scale. Building applications from individual components that each perform a discrete function improves scalability and reliability, and is best practice design for modern applications. SQS makes it simple and cost- effective to decouple and coordinate the components of a cloud application. Using SQS, you can send, store, and receive messages between software components at any volume, without losing messages or requiring other services to be always available
For more information on SQS, please refer to the below URL:
• https://aws.amazon.com/sqs/

NEW QUESTION 181
There is a requirement for an application hosted on a VPC to access the On-premise LDAP server. The VPC and the On-premise location are connected via an I PSec VPN. Which of the below are the right options for the application to authenticate each user. Choose 2 answers from the options below

A. Develop an identity broker that authenticates against 1AM security Token service to assume a 1AM role in order to get temporary AWS security credentials The application calls the identity broker to get AWS temporary security credentials.
B. The application authenticates against LDAP and retrieves the name of an 1AM role associated with the use
C. The application then calls the 1AM Security Token Service to assume that 1AM rol
D. The application can use the temporary credentials to access any AWS resources.
E. Develop an identity broker that authenticates against LDAP and then calls 1AM Security Token Service to get 1AM federated user credential
F. The application calls the identity broker to get 1AM federated user credentials with access to the appropriate AWS service.
G. The application authenticates against LDAP the application then calls the AWS identity and Access Management (1AM) Security service to log in to 1AM using the LDAP credentials the application can use the 1AM temporary credentials to access the appropriate AWS service.

Answer: BC

Explanation:
When you have the need for an in-premise environment to work with a cloud environment, you would normally have 2 artefacts for authentication purposes
• An identity store - So this is the on-premise store such as Active Directory which stores all the information for the user's and the groups they below to.
• An identity broker - This is used as an intermediate agent between the on-premise location and the cloud environment. In Windows you have a system known as Active Directory Federation services to provide this facility.
Hence in the above case, you need to have an identity broker which can work with the identity store and the Security Token service in aws. An example diagram of how this works from the aws documentation is given below.



For more information on federated access, please visit the below link: http://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_common-scenarios_federated-users.htm l

NEW QUESTION 183
Which of the following is incorrect when it comes to using the instances in an Opswork stack?

A. In a stack you can use a mix of both Windowsand Linux operating systems
B. You can start and stop instances manually in a stack
C. You can use custom AMI'S as long as they are based on one of the AWS OpsWorks Stacks- supported AMIs
D. You can use time-based automatic scaling with any stack

Answer: A

Explanation:
The AWS documentation mentions the following about Opswork stack
• A stack's instances can run either Linux or Windows.
A stack can have different Linux versions or distributions on different instances, but you cannot mix Linux and Windows instances.
• You can use custom AMIs (Amazon Machine Images), but they must be based on one of the AWS Ops Works Stacks-supported AMIs
• You can start and stop instances manually or have AWS OpsWorks Stacks automatically scale the number of instances. You can use time-based automatic scaling with any stack; Linux stacks also can use load-based scaling.
• In addition to using AWS OpsWorks Stacks to create Amazon EC2 instances, you can also register instances with a Linux stack that were created outside of AWS OpsWorks Stacks.
For more information on Opswork stacks, please visit the below link: http://docs.aws.amazon.com/opsworks/latest/userguide/workinginstances-os.html

NEW QUESTION 184
You are using Autoscaling for managing the instances in your AWS environment. You need to deploy a new version of your application. You'd prefer to use all new instances if possible, but you cannot have any downtime. You also don't want to swap any environment urls. Which of the following deployment methods would you implement

A. Using "All at once" deployment method.
B. Using "Blue Green" deployment method.
C. Using"RollingUpdates"deploymentmethod.
D. Using "Blue Green" with "All at once" deployment method.

Answer: C

Explanation:
In Rolling deployment, you can mention a new set of servers which can replace the existing set of servers. This replacement will happen in a phased out manner. Since there is a requirement to not swap URL's, you must not use Blue Green deployments.
For more information on the differences between Rolling Updates and Blue Green deployments, please refer to the below URL:
• https://cloudnative.io/docs/blue-green-deployment/

NEW QUESTION 188
A user is trying to save some cost on the AWS services. Which of the below mentioned options will not help him save cost?

A. Delete the unutilized EBS volumes once the instance is terminated
B. Delete the AutoScaling launch configuration after the instances are terminated
C. Release the elastic IP if not required once the instance is terminated
D. Delete the AWS ELB after the instances are terminated

Answer: B

Explanation:
Option A is wrong because CBS volumes does have a costing aspect and hence deleting the volumes will save on cost
Option C is wrong because Elastic IP will consume cost if not removed. Option D is wrong because CLB also incur costs.
Only Autoscaling groups are free of cost. It's only the underlying resources which you are charged for. For more information on AWS Pricing, please visit the link:
https://aws.amazon.com/pricing/services/

NEW QUESTION 193
.....

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NEW QUESTION 1
You have an application running a specific process that is critical to the application's functionality, and have added the health check process to your Auto Scaling Group. The instances are showing healthy but the application itself is not working as it should. What could be the issue with the health check, since it is still showing the instances as healthy.

A. You do not have the time range in the health check properly configured
B. It is not possible for a health check to monitor a process that involves the application
C. The health check is not configured properly
D. The health check is not checking the application process

Answer: D

Explanation:
If you have custom health checks, you can send the information from your health checks to Auto Scaling so that Auto Scaling can use this information. For example, if
you determine that an instance is not functioning as expected, you can set the health status of the instance to Unhealthy. The next time that Auto Scaling performs a
health check on the instance, it will determine that the instance is unhealthy and then launch a replacement instance
For more information on Autoscaling health checks, please refer to the below document link: from AWS
http://docs.aws.amazon.com/autoscaling/latest/userguide/healthcheck.html

NEW QUESTION 2
Your company has multiple applications running on AWS. Your company wants to develop a tool that notifies on-call teams immediately via email when an alarm is triggered in your environment. You have multiple on-call teams that work different shifts, and the tool should handle notifying the correct teams at the correct times. How should you implement this solution?

A. Create an Amazon SNS topic and an Amazon SQS queu
B. Configure the Amazon SQS queue as a subscriber to the Amazon SNS topic.Configure CloudWatch alarms to notify this topic when an alarm is triggere
C. Create an Amazon EC2 Auto Scaling group with both minimum and desired Instances configured to 0. Worker nodes in thisgroup spawn when messages are added to the queu
D. Workers then use Amazon Simple Email Service to send messages to your on call teams.
E. Create an Amazon SNS topic and configure your on-call team email addresses as subscriber
F. Use the AWS SDK tools to integrate your application with Amazon SNS and send messages to this new topi
G. Notifications will be sent to on-call users when a CloudWatch alarm is triggered.
H. Create an Amazon SNS topic and configure your on-call team email addresses as subscriber
I. Create a secondary Amazon SNS topic for alarms and configure your CloudWatch alarms to notify this topic when triggere
J. Create an HTTP subscriber to this topic that notifies your application via HTTP POST when an alarm is triggere
K. Use the AWS SDK tools to integrate your application with Amazon SNS and send messages to the first topic so that on-call engineers receive alerts.
L. Create an Amazon SNS topic for each on-call group, and configure each of these with the team member emails as subscriber
M. Create another Amazon SNS topic and configure your CloudWatch alarms to notify this topic when triggere
N. Create an HTTP subscriber to this topic that notifies your application via HTTP POST when an alarm is triggere
O. Use the AWS SDK tools to integrate your application with Amazon SNS and send messages to the correct team topic when on shift.

Answer: D

Explanation:
Option D fulfils all the requirements
1) First is to create a SNS topic for each group so that the required members get the email addresses.
2) Ensure the application uses the HTTPS endpoint and the SDK to publish messages Option A is invalid because the SQS service is not required.
Option B and C are incorrect. As per the requirement we need to provide notification to only those on-call teams who are working in that particular shift when an alarm is triggered. It need not have to be send to all the on-call teams of the company. With Option B & C, since we are not configuring the SNS topic for each on call team the notifications will be send to all the on-call teams. Hence these 2 options are invalid. For more information on setting up notifications, please refer to the below document link: from AWS http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/US_SetupSNS.html

NEW QUESTION 3
During metric analysis, your team has determined that the company's website during peak hours is experiencing response times higher than anticipated. You currently rely on Auto Scaling to make sure that you are scaling your environment during peak windows. How can you improve your Auto Scaling policy to reduce this high response time? Choose 2 answers.

A. Push custom metrics to CloudWatch to monitor your CPU and network bandwidth from your servers, which will allow your Auto Scaling policy to have betterfine-grain insight.
B. IncreaseyourAutoScalinggroup'snumberofmaxservers.
C. Create a script that runs and monitors your servers; when it detects an anomaly in load, it posts to an Amazon SNS topic that triggers Elastic Load Balancing to add more servers to the load balancer.
D. Push custom metrics to CloudWatch for your application that include more detailed information about your web application, such as how many requests it is handling and how many are waiting to be processed.

Answer: BD

Explanation:
Option B makes sense because maybe the max servers is low hence the application cannot handle the peak load.
Option D helps in ensuring Autoscaling can scale the group on the right metrics.
For more information on Autoscaling health checks, please refer to the below document link: from AWS
http://docs.aws.amazon.com/autoscaling/latest/userguide/healthcheck.html

NEW QUESTION 4
Management has reported an increase in the monthly bill from Amazon Web Services, and they are extremely concerned with this increased cost. Management has asked you to determine the exact cause of this increase. After reviewing the billing report, you notice an increase in the data transfer cost. How can you

provide management with a better insight into data transfer use?

A. Update your Amazon CloudWatch metrics to use five-second granularity, which will give better detailed metrics that can be combined with your billing data to pinpoint anomalies.
B. Use Amazon CloudWatch Logs to run a map-reduce on your logs to determine high usage and data transfer.
C. Deliver custom metrics to Amazon CloudWatch per application that breaks down application data transfer into multiple, more specific data points.D- Using Amazon CloudWatch metrics, pull your Elastic Load Balancing outbound data transfer metrics monthly, and include them with your billing report to show which application is causing higher bandwidth usage.

Answer: C

Explanation:
You can publish your own metrics to CloudWatch using the AWS CLI or an API. You can view statistical graphs of your published metrics with the AWS Management Console.
CloudWatch stores data about a metric as a series of data points. Each data point has an associated time stamp. You can even publish an aggregated set of data points called a statistic set.
If you have custom metrics specific to your application, you can give a breakdown to the management on the exact issue.
Option A won't be sufficient to provide better insights.
Option B is an overhead when you can make the application publish custom metrics Option D is invalid because just the ELB metrics will not give the entire picture
For more information on custom metrics, please refer to the below document link: from AWS
http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/publishingMetrics.html

NEW QUESTION 5
You currently run your infrastructure on Amazon EC2 instances behind an Auto Scalinggroup. All logs for your application are currentl\ written to ephemeral storage. Recently your company experienced a major bug in the code that made it through testing and was ultimately deployed to your fleet. This bug triggered your Auto Scalinggroup to scale up and back down before you could successfully retrieve the logs off your server to better assist you in troubleshooting the bug. Which technique should you use to make sure you are able to review your logs after your instances have shut down?

A. Configure the ephemeral policies on your Auto Scaling group to back up on terminate.
B. Configure your Auto Scaling policies to create a snapshot of all ephemeral storage on terminate.
C. Install the CloudWatch Logs Agent on your AMI, and configure CloudWatch Logs Agent to stream your logs.V
D. Install the CloudWatch monitoring agent on your AMI, and set up new SNS alert for CloudWatch metrics that triggers the CloudWatch monitoring agent to backup all logs on the ephemeral drive.

Answer: C

Explanation:
You can use Cloud Watch Logs to monitor applications and systems using log data. For example,
CloudWatch Logs can track the number of errors that occur in your
application logs and send you a notification whenever the rate of errors exceeds a threshold you specify. CloudWatch Logs uses your log data for monitoring; so, no
code changes are required.
Option A and B are invalid because Autoscaling policies are not designed for these purposes. Option D is invalid because you use Cloudwatch Logs Agent and not the monitoring agent. For more information on Cloudwatch logs, please refer to the below link:
http://docsws.amazon.com/AmazonCloudWatch/latest/logs/WhatlsCloudWatchLogs.html

NEW QUESTION 6
You have a code repository that uses Amazon S3 as a data store. During a recent audit of your security controls, some concerns were raised about maintaining the integrity of the data in the Amazon S3 bucket. Another concern was raised around securely deploying code from Amazon S3 to applications running on Amazon EC2 in a virtual private cloud. What are some measures that you can implement to mitigate these concerns? Choose two answers from the options given below.

A. Add an Amazon S3 bucket policy with a condition statement to allow access only from Amazon EC2 instances with RFC 1918 IP addresses and enable bucket versioning.
B. Add an Amazon S3 bucket policy with a condition statement that requires multi-factor authentication in order to delete objects and enable bucket versioning.
C. Use a configuration management service to deploy AWS Identity and Access Management user credentials to the Amazon EC2 instance
D. Use these credentials to securely access the Amazon S3 bucket when deploying code.
E. Create an Amazon Identity and Access Management role with authorization to access the Amazon S3 bucket, and launch all of your application's Amazon EC2 instances with this role.
F. Use AWS Data Pipeline to lifecycle the data in your Amazon S3 bucket to Amazon Glacier on a weekly basis.
G. Use AWS Data Pipeline with multi-factor authentication to securely deploy code from the Amazon S3 bucket to your Amazon EC2 instances.

Answer: BD

Explanation:
You can add another layer of protection by enabling MFA Delete on a versioned bucket. Once you do
so, you must provide your AWS account's access keys and a
valid code from the account's MFA device in order to permanently delete an object version or suspend or reactivate versioning on the bucket.
For more information on MFA please refer to the below link: https://aws.amazon.com/blogs/security/securing-access-to-aws-using-mfa-part-3/
IAM roles are designed so that your applications can securely make API requests from your instances, without requiring you to manage the security credentials that the applications use. Instead of creating and distributing your AWS credentials, you can delegate permission to make API requests using 1AM roles For more information on Roles for CC2 please refer to the below link: http://docs.aws.a mazon.com/AWSCC2/latest/UserGuide/iam-roles-for-amazon-ec2. html
Option A is invalid because this will not address either the integrity or security concern completely. Option C is invalid because user credentials should never be used in CC2 instances to access AWS resources.
Option C and F are invalid because AWS Pipeline is an unnecessary overhead when you already have inbuilt controls to manager security for S3.

NEW QUESTION 7
You have the following application to be setup in AWS
1) A web tier hosted on EC2 Instances
2) Session data to be written to DynamoDB

3) Log files to be written to Microsoft SQL Server
How can you allow an application to write data to a DynamoDB table?

A. Add an 1AM user to a running EC2 instance.
B. Add an 1AM user that allows write access to the DynamoDB table.
C. Create an 1AM role that allows read access to the DynamoDB table.
D. Create an 1AM role that allows write access to the DynamoDB table.

Answer: D

Explanation:
I AM roles are designed so that your applications can securely make API requests from your instances, without requiring you to manage the security credentials that
the applications use. Instead of creating and distributing your AWS credentials For more information on 1AM Roles please refer to the below link:
http://docs.aws.amazon.com/AWSCC2/latest/UserGuide/iam-roles-for-amazon-ec2.html

NEW QUESTION 8
Your mobile application includes a photo-sharing service that is expecting tens of thousands of users at launch. You will leverage Amazon Simple Storage Service (S3) for storage of the user Images, and you must decide how to authenticate and authorize your users for access to these images. You also need to manage the storage of these images. Which two of the following approaches should you use? Choose two answers from the options below

A. Create an Amazon S3 bucket per user, and use your application to generate the S3 URI for the appropriate content.
B. Use AWS Identity and Access Management (1AM) user accounts as your application-level user database, and offload the burden of authentication from your application code.
C. Authenticate your users at the application level, and use AWS Security Token Service (STS) to grant token-based authorization to S3 objects.
D. Authenticate your users at the application level, and send an SMS token message to the use
E. Create an Amazon S3 bucket with the same name as the SMS message token, and move the user's objects to that bucket.
F. Use a key-based naming scheme comprised from the user IDs for all user objects in a single Amazon S3 bucket.

Answer: CE

Explanation:
The AWS Security Token Service (STS) is a web service that enables you to request temporary, limited-privilege credentials for AWS Identity and Access Management (1AM) users or for users that you authenticate (federated users). The token can then be used to grant access to the objects in S3.
You can then provides access to the objects based on the key values generated via the user id. Option A is possible but then becomes a maintenance overhead because of the number of buckets. Option B is invalid because 1AM users is not a good security practice.
Option D is invalid because SMS tokens are not efficient for this requirement.
For more information on the Security Token Service please refer to the below link: http://docs.aws.amazon.com/STS/latest/APIReference/Welcome.htrril

NEW QUESTION 9
You have an Auto Scaling group with 2 AZs. One AZ has 4 EC2 instances and the other has 3 EC2 instances. None of the instances are protected from scale in. Based on the default Auto Scaling termination policy what will happen?

A. Auto Scaling selects an instance to terminate randomly
B. Auto Scaling will terminate unprotected instances in the Availability Zone with the oldest launch configuration.
C. Auto Scaling terminates which unprotected instances are closest to the next billing hour.
D. Auto Scaling will select the AZ with 4 EC2 instances and terminate an instance.

Answer: D

Explanation:
The default termination policy is designed to help ensure that your network architecture spans Availability Zones evenly. When using the default termination policy. Auto Scaling selects an instance to terminate as follows:
Auto Scaling determines whether there are instances in multiple Availability Zones. If so, it selects the Availability Zone with the most instances and at least one instance that is not protected from scale in. If there is more than one Availability Zone with this number of instances. Auto Scaling selects the Availability Zone with the instances that use the oldest launch configuration. For more information on Autoscaling instance termination please refer to the below link:
http://docs.aws.amazon.com/autoscaling/latest/userguide/as-instance-termination.html

NEW QUESTION 10
You are doing a load testing exercise on your application hosted on AWS. While testing your Amazon RDS MySQL DB instance, you notice that when you hit 100% CPU utilization on it, your application becomes non- responsive. Your application is read-heavy. What are methods to scale your data tier to meet the application's needs? Choose three answers from the options given below

A. Add Amazon RDS DB read replicas, and have your application direct read queries to them.
B. Add your Amazon RDS DB instance to an Auto Scalinggroup and configure your Cloud Watch metricbased on CPU utilization.
C. Use an Amazon SQS queue to throttle data going to the Amazon RDS DB instance.
D. Use ElastiCache in front of your Amazon RDS DB to cache common queries.
E. Shard your data set among multiple Amazon RDS DB instances.
F. Enable Multi-AZ for your Amazon RDS DB instance.

Answer: ADE

Explanation:
Amazon RDS Read Replicas provide enhanced performance and durability for database (DB) instances. This replication feature makes it easy to elastically scale out
beyond the capacity constraints of a single DB Instance for read-heavy database workloads. You can create one or more replicas of a given source DB Instance and
serve high-volume application read traffic from multiple copies of your data, thereby increasing aggregate read throughput
For more information on Read Replica's please refer to the below link:
? https://aws.amazon.com/rds/details/read-replicas/

Sharding is a common concept to split data across multiple tables in a database For more information on sharding please refer to the below link:
https://forums.awsa mazon.com/thread jspa?messageID=203052
Amazon OastiCache is a web service that makes it easy to deploy, operate, and scale an in-memory data store or cache in the cloud. The service improves the performance of web applications by allowing you to retrieve information from fast, managed, in-memory data stores, instead of relying entirely on slower disk-based databases
Amazon OastiCache is an in-memory key/value store that sits between ycbetappiicipiJGra arcdalie data store (database) that it accesses. Whenever your application requests data, it first makes the request to the DastiCache cache. If the data exists in the cache and is current, OastiCache returns the data to your application. If the data does not exist in the cache, or the data in the cache has expired, your application requests the data from your data store which returns the data to your application. Your application then writes the data received from the store to the cache so it can be more quickly retrieved next time it is requested. For more information on Elastic Cache please refer to the below link:
https://aws.amazon.com/elasticache/
Option B is not an ideal way to scale a database
Option C is not ideal to store the data which would go into a database because of the message size Option F is invalid because Multi-AZ feature is only a failover option

NEW QUESTION 10
You have an Auto Scaling group with an Elastic Load Balancer. You decide to suspend the Auto Scaling AddToLoadBalancer for a short period of time. What will happen to the instances launched during the suspension period?

A. The instances will be registered with ELB once the process has resumed
B. Auto Scaling will not launch the instances during this period because of the suspension
C. The instances will not be registered with EL
D. You must manually register when the process is resumed */
E. It is not possible to suspend the AddToLoadBalancer process

Answer: C

Explanation:
If you suspend AddTo Load Balancer, Auto Scaling launches the instances but does not add them to the load balancer or target group. If you resume the AddTo Load Balancer process. Auto Scaling resumes adding instances to the load balancer or target group when they are launched. However, Auto Scaling does
not add the instances that were launched while this process was suspended. You must register those instances manually.
For more information on the Suspension and Resumption process, please visit the below U RL: http://docs.aws.amazon.com/autoscaling/latest/userguide/as-suspend-resume-processes.html

NEW QUESTION 14
You have a current Clouformation template defines in AWS. You need to change the current alarm threshold defined in the Cloudwatch alarm. How can you achieve this?

A. Currently, there is no option to change what is already defined in Cloudformation templates.
B. Update the template and then update the stack with the new templat
C. Automatically all resources will be changed in the stack.
D. Update the template and then update the stack with the new templat
E. Only those resources that need to be changed will be change
F. All other resources which do not need to be changed will remain as they are.
G. Delete the current cloudformation templat
H. Create a new one which will update the current resources.

Answer: C

Explanation:
Option A is incorrect because Cloudformation templates have the option to update resources.
Option B is incorrect because only those resources that need to be changed as part of the stack update are actually updated.
Option D is incorrect because deleting the stack is not the ideal option when you already have a change option available.
When you need to make changes to a stack's settings or change its resources, you update the stack instead of deleting it and creating a new stack. For example, if you
have a stack with an EC2 instance, you can update the stack to change the instance's AMI ID.
When you update a stack, you submit changes, such as new input parameter values or an updated template. AWS CloudFormation compares the changes you submit with the current state of your stack and updates only the changed resources
For more information on stack updates please refer to the below link:
• http://docs.aws.a mazon.com/AWSCIoudFormation/latest/UserGuide/using-cfn-updating- stacks.htmI

NEW QUESTION 18
After reviewing the last quarter's monthly bills, management has noticed an increase in the overall bill from Amazon. After researching this increase in cost, you discovered that one of your new services is doing a lot of GET Bucket API calls to Amazon S3 to build a metadata cache of all objects in the applications bucket. Your boss has asked you to come up with a new cost-effective way to help reduce the amount of these new GET Bucket API calls. What process should you use to help mitigate the cost?

A. Update your Amazon S3 buckets' lifecycle policies to automatically push a list of objects to a new bucket, and use this list to view objects associated with the application's bucket.
B. Create a new DynamoDB tabl
C. Use the new DynamoDB table to store all metadata about all objects uploaded to Amazon S3. Any time a new object is uploaded, update the application's internalAmazon S3 object metadata cache from DynamoDB.C Using Amazon SNS, create a notification on any new Amazon S3 objects that automatical ly updates a new DynamoDB table to store allmetadata about the new objec
D. Subscribe the application to the Amazon SNS topic to update its internal Amazon S3 object metadata cache from the DynamoDB tabl
E. ^/
F. Upload all files to an ElastiCache file cache serve
G. Update your application to now read all file metadata from the ElastiCache file cache server, and configure the ElastiCache policies to push all files to Amazon S3 for long-term storage.

Answer: C

Explanation:
Option A is an invalid option since Lifecycle policies are normally used for expiration of objects or archival of objects.
Option B is partially correct where you store the data in DynamoDB, but then the number of GET requests would still be high if the entire DynamoDB table had to be
traversed and each object compared and updated in S3.
Option D is invalid because uploading all files to Clastic Cache is not an ideal solution.
The best option is to have a notification which can then trigger an update to the application to update the DynamoDB table accordingly.
For more information on SNS triggers and DynamoDB please refer to the below link:
? https://aws.amazon.com/blogs/compute/619/

NEW QUESTION 20
You use Amazon Cloud Watch as your primary monitoring system for your web application. After a
recent software deployment, your users are getting Intermittent 500 Internal Server Errors when using the web application. You want to create a Cloud Watch alarm, and notify an on-call engineer when these occur. How can you accomplish this using AWS services? Choose three answers from the options given below

A. Deploy your web application as an AWS Elastic Beanstalk applicatio
B. Use the default Elastic Beanstalk Cloudwatch metrics to capture 500 Internal Server Error
C. Set a CloudWatch alarm on that metric.
D. Install a CloudWatch Logs Agent on your servers to stream web application logs to CloudWatch.
E. Use Amazon Simple Email Service to notify an on-call engineer when a CloudWatch alarm is triggered.
F. Create a CloudWatch Logs group and define metric filters that capture 500 Internal Server Error
G. Set a CloudWatch alarm on that metric.
H. Use Amazon Simple Notification Service to notify an on-call engineer when a CloudWatch alarm is triggered.

Answer: BDE

Explanation:
You can use Cloud Watch Logs to monitor applications and systems using log data
Cloud Watch Logs uses your log data for monitoring; so, no code changes are required. For example, you can monitor application logs for specific literal terms (such as "NullReferenceCxception") or count the number of occurrences of a literal term at a particular position in log data (such as "404" status codes in an Apache access log). When the term you are searching for is found. Cloud Watch Logs reports the data to a CloudWatch metric that you specify. Log data is encrypted while in transit and while it is at rest
For more information on Cloudwatch logs please refer to the below link: http://docs^ws.amazon.com/AmazonCloudWatch/latest/logs/WhatlsCloudWatchLogs.html
Amazon CloudWatch uses Amazon SNS to send email. First, create and subscribe to an SNS topic.
When you create a CloudWatch alarm, you can add this SNS topic to send an email notification when the alarm changes state.
For more information on SNS and Cloudwatch logs please refer to the below link:
http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/US_SetupSNS.html

NEW QUESTION 22
You are using CloudFormation to launch an EC2 instance and then configure an application after the instance is launched. You need the stack creation of the ELB and Auto Scaling to wait until the EC2 instance is launched and configured properly. How do you do this?

A. It is not possible for the stack creation to wait until one service is created and launched
B. Use the WaitCondition resource to hold the creation of the other dependent resources
C. Use a CreationPolicy to wait for the creation of the other dependent resources >/
D. Use the HoldCondition resource to hold the creation of the other dependent resources

Answer: C

Explanation:
When you provision an Amazon EC2 instance in an AWS Cloud Formation stack, you might specify additional actions to configure the instance, such as install software packages or bootstrap applications. Normally, CloudFormation proceeds with stack creation after the instance has been successfully created. However, you can use a Creation Pol icy so that CloudFormation proceeds with stack creation only after your configuration actions are done. That way you'll know your applications are ready to go after stack creation succeeds.
A Creation Policy instructs CloudFormation to wait on an instance until CloudFormation receives the specified number of signals
Option A is invalid because this is possible
Option B is invalid because this is used make AWS CloudFormation pause the creation of a stack and wait for a signal before it continues to create the stack
For more information on this, please visit the below URL:
• https://aws.amazon.com/blogs/devops/use-a-creationpolicy-to-wait-for-on-instance- configurations/

NEW QUESTION 27
One of the instances in your Auto Scaling group health check returns the status of Impaired to Auto Scaling. What will Auto Scaling do in this case.

A. Terminate the instance and launch a new instance
B. Send an SNS notification
C. Perform a health check until cool down before declaring that the instance has failed
D. Wait for the instance to become healthy before sending traffic

Answer: A

Explanation:
Auto Scaling periodically performs health checks on the instances in your Auto Scaling group and identifies any instances that are unhealthy. You can configure Auto Scaling to determine the health status of an instance using Amazon EC2 status checks. Clastic Load Balancing health checks, or custom health checks
By default. Auto Scaling health checks use the results of the CC2 status checks to determine the health status of an instance. Auto Scaling marks an instance as unhealthy if its instance fails one or more of the status checks.
For more information monitoring in Autoscaling, please visit the below URL: http://docs.aws.a mazon.com/autoscaling/latest/userguide/as-mon itoring-features.html

NEW QUESTION 28
You have enabled Elastic Load Balancing HTTP health checking. After looking at the AWS Management Console, you see that all instances are passing health checks, but your customers are reporting that your site is not responding. What is the cause?

A. The HTTP health checking system is misreportingdue to latency in inter-instance metadata synchronization.
B. The health check in place is not sufficiently evaluating the application function.
C. The application is returning a positive health check too quickly for the AWS Management Console to respond.D- Latency in DNS resolution is interfering with Amazon EC2 metadata retrieval.

Answer: B

Explanation:
You need to have a custom health check which will evaluate the application functionality. Its not enough using the normal health checks. If the application functionality does not work and if you don't have custom health checks, the instances will still be deemed as healthy.
If you have custom health checks, you can send the information from your health checks to Auto Scaling so that Auto Scaling can use this information. For example, if you determine that an instance is not functioning as expected, you can set the health status of the instance to Unhealthy. The next time that Auto Scaling performs a health check on the instance, it will determine that the instance is unhealthy and then launch a replacement instance
For more information on Autoscaling health checks, please refer to the below document link: from AWS
http://docs.aws.amazon.com/autoscaling/latest/userguide/healthcheck.html

NEW QUESTION 29
You have a large number of web servers in an Auto Scalinggroup behind a load balancer. On an hourly basis, you want to filter and process the logs to collect data on unique visitors, and then put that data in a durable data store in order to run reports. Web servers in the Auto Scalinggroup are constantly launching and terminating based on your scaling policies, but you do not want to lose any of the log data from these servers during a stop/termination initiated by a user or by Auto Scaling. What two approaches will meet these requirements? Choose two answers from the optionsgiven below.

A. Install an Amazon Cloudwatch Logs Agent on every web server during the bootstrap proces
B. Create a CloudWatch log group and defineMetric Filters to create custom metrics that track unique visitors from the streaming web server log
C. Create a scheduled task on an Amazon EC2 instance that runs every hour to generate a new report based on the Cloudwatch custom metric
D. ^/
E. On the web servers, create a scheduled task that executes a script to rotate and transmit the logs to Amazon Glacie
F. Ensure that the operating system shutdown procedure triggers a logs transmission when the Amazon EC2 instance is stopped/terminate
G. Use Amazon Data Pipeline to process the data in Amazon Glacier and run reports every hour.
H. On the web servers, create a scheduled task that executes a script to rotate and transmit the logs to an Amazon S3 bucke
I. Ensure that the operating system shutdown procedure triggers a logs transmission when the Amazon EC2 instance is stopped/terminate
J. Use AWS Data Pipeline to move log data from the Amazon S3 bucket to Amazon Redshift In order to process and run reports every hour.
K. Install an AWS Data Pipeline Logs Agent on every web server during the bootstrap proces
L. Create a log group object in AWS Data Pipeline, and define Metric Filters to move processed log data directly from the web servers to Amazon Redshift and run reports every hour.

Answer: AC

Explanation:
You can use the Cloud Watch Logs agent installer on an existing CC2 instance to install and configure the Cloud Watch Logs agent.
For more information, please visit the below link:
• http://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/Qu ickStartCC2Instance.html
You can publish your own metrics to Cloud Watch using the AWS CLI or an API. For more information, please visit the below link:
• http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/publishingMetrics.htmI Amazon Redshift is a fast, fully managed data warehouse that makes it simple and cost-effective to analyze all your data using standard SQL and your existing Business Intelligence (Bl) tools. It allows you to run complex analytic queries against petabytes of structured data, using sophisticated query optimization, columnar storage on high-performance local disks, and massively parallel query execution. Most results come back in seconds. For more information on copying data from S3 to redshift, please refer to the below link:
• http://docs.aws.amazon.com/datapipeline/latest/DeveloperGuide/dp-copydata- redshift html

NEW QUESTION 32
You have a set of EC2 instances hosted in AWS. You have created a role named DemoRole and assigned that role to a policy, but you are unable to use that role with an instance. Why is this the case.

A. You need to create an instance profile and associate it with that specific role.
B. You are not able to associate an 1AM role with an instanceC You won't be able to use that role with an instance unless you also create a user and associate it with that specific role
C. You won't be able to use that role with an instance unless you also create a usergroup and associate it with that specific role.

Answer: A

Explanation:
An instance profile is a container for an 1AM role that you can use to pass role information to an CC2 instance when the instance starts.
Option B is invalid because you can associate a role with an instance
Option C and D are invalid because using users or user groups is not a pre-requisite For more information on instance profiles, please visit the link:
• http://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_use_switch-ro le-ec2_instance- profiles.htm I

NEW QUESTION 35
You work for a startup that has developed a new photo-sharing application for mobile devices. Over recent months your application has increased in popularity; this has resulted in a decrease in the performance of the application clue to the increased load. Your application has a two-tier architecture that is composed of an Auto Scaling PHP application tier and a MySQL RDS instance initially deployed with AWS Cloud Formation. Your Auto Scaling group has a min value of 4 and a max value of 8. The desired capacity is now at 8 because of the high CPU utilization of the instances. After some analysis, you are confident that the performance issues stem from a constraint in CPU capacity, although memory utilization remains low. You therefore decide to move from the general-purpose M3 instances to the compute-optimized C3 instances. How would you deploy this change while minimizing any interruption to your end users?

A. Sign into the AWS Management Console, copy the old launch configuration, and create a new launch configuration that specifies the C3 instance
B. Update the Auto Scalinggroup with the new launch configuratio

C. Auto Scaling will then update the instance type of all running instances.
D. Sign into the AWS Management Console, and update the existing launch configuration with the new C3 instance typ
E. Add an UpdatePolicy attribute to your Auto Scaling group that specifies AutoScalingRollingUpdate.
F. Update the launch configuration specified in the AWS CloudFormation template with the new C3 instance typ
G. Run a stack update with the new templat
H. Auto Scaling will then update the instances with the new instance type.
I. Update the launch configuration specified in the AWS CloudFormation template with the new C3instance typ
J. Also add an UpdatePolicy attribute to your Auto Scalinggroup that specifies AutoScalingRollingUpdat
K. Run a stack update with the new template.

Answer: D

Explanation:
The AWS::AutoScaling::AutoScalingGroup resource supports an UpdatePolicy attribute. This is used to define how an Auto Scalinggroup resource is updated when an update to the Cloud Formation stack occurs. A common approach to updating an Auto Scaling group is to perform a rolling update, which is done by specifying the AutoScalingRollingUpdate policy. This retains the same Auto Scaling group and replaces old instances with new ones, according to the parameters specified. For more information on rolling updates, please visit the below link:
• https://aws.amazon.com/premiumsupport/knowledge-center/auto-scaling-group-rolling- updates/

NEW QUESTION 37
You have an application running on Amazon EC2 in an Auto Scaling group. Instances are being bootstrapped dynamically, and the bootstrapping takes over 15 minutes to complete. You find that instances are reported by Auto Scaling as being In Service before bootstrapping has completed. You are receiving application alarms related to new instances before they have completed bootstrapping, which is causing confusion. You find the cause: your application monitoring tool is polling the Auto Scaling Service API for instances that are In Service, and creating alarms for new previously unknown instances. Which of the following will ensure that new instances are not added to your application monitoring tool before bootstrapping is completed?

A. Create an Auto Scaling group lifecycle hook to hold the instance in a pending: wait state until your bootstrapping is complet
B. Once bootstrapping is complete, notify Auto Scaling to complete the lifecycle hook and move the instance into a pending:proceed state.
C. Use the default Amazon Cloud Watch application metrics to monitor your application's healt
D. Configure an Amazon SNS topic to send these Cloud Watch alarms to the correct recipients.
E. Tag all instances on launch to identify that they are in a pending stat
F. Change your application monitoring tool to look for this tag before adding new instances, and the use the Amazon API to set the instance state to 'pending' until bootstrapping is complete.
G. Increase the desired number of instances in your Auto Scaling group configuration to reduce the time it takes to bootstrap future instances.

Answer: A

Explanation:
Auto Scaling lifecycle hooks enable you to perform custom actions as Auto Scaling launches or terminates instances. For example, you could install or configure software on newly launched instances, or download log files from an instance before it terminates. After you add lifecycle hooks to your Auto Scaling group, they work as follows:
1. Auto Scaling responds to scale out events by launching instances and scale in events by terminating instances.
2. Auto Scaling puts the instance into a wait state (Pending:Wait orTerminating:Wait). The instance remains in this state until either you tell Auto Scaling to continue or the timeout period ends.
For more information on rolling updates, please visit the below link:
• http://docs.aws.amazon.com/autoscaling/latest/userguide/lifecycle-hooks.htm I

NEW QUESTION 40
You are using a configuration management system to manage your Amazon EC2 instances. On your Amazon EC2 Instances, you want to store credentials for connecting to an Amazon RDS MYSQL DB instance. How should you securely store these credentials?

A. Give the Amazon EC2 instances an 1AM role that allows read access to a private Amazon S3 bucke
B. Store a file with database credentials in the Amazon S3 bucke
C. Have your configuration management system pull the file from the bucket when it is needed.
D. Launch an Amazon EC2 instance and use the configuration management system to bootstrap the instance with the Amazon RDS DB credential
E. Create an AMI from this instance.
F. Store the Amazon RDS DB credentials in Amazon EC2 user dat
G. Import the credentials into the Instance on boot.
H. Assign an 1AM role to your Amazon EC2 instance, and use this 1AM role to access the Amazon RDS DB from your Amazon EC2 instances.

Answer: D

Explanation:
Creating and Using an 1AM Policy for 1AM Database Access
To allow an 1AM user or role to connect to your DB instance or DB cluster, you must create an 1AM policy. After that you attach the policy to an 1AM user or role.
Note
To learn more about 1AM policies, see Authentication and Access Control for Amazon RDS.
The following example policy allows an 1AM user to connect to a DB instance using 1AM database authentication.

```
{
   "Version": "2012-10-17",
   "Statement": [
      {
         "Effect": "Allow",
         "Action": [
            "rds-db:connect"
         ],
         "Resource": [
            "arn:aws:rds-db:us-west-2:123456789012:dbuser:db-12ABC34DEFG5HIJ6KLMNOP78QR/jane_doe"
         ]
      }
   ]
}
```

Important
Don't confuse the rds-db: prefix with other Amazon RDS action prefixes that begin with rds:. You use the rds-db: prefix and the rds-db:connect action only for 1AM database authentication. They aren't valid in any other context.

1AM Database Authentication for MySQL and Amazon Aurora
With Amazon RDS for MySQL or Aurora with MySQL compatibility, you can authenticate to your DB instance or DB cluster using AWS Identity and Access Management (IAMJ database authentication. With this authentication method, you don't need to use a password when you connect to a DB instance. Instead, you use an authentication token.
An authentication token is a unique string of characters that Amazon RDS generates on request. Authentication tokens are generated using AWS Signature Version 4. Each token has a lifetime of 15 minutes. You don't need to store user credentials in the database, because authentication is managed externally using 1AM. You can also still use standard database authentication.
IAM database authentication provides the following benefits:
• Network traffic to and from the database is encrypted using Secure Sockets Layer (SSL).
• You can use IAM to centrally manage access to your database resources, instead of managing access individually on each DB instance or DB cluster.
• For applications running on Amazon EC2, you can use EC2 instance profile credentials to access the database instead of a password, for greater security.
For more information please refer to the below document link from AWS
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/UsingWithRDS.IAMDBAuth.html
https://docs^ws.amazon.com/AmazonRDS/latest/UserGuide/UsingWithRDS.IAMDBAuth.lAMPolicy. html
You can use roles to delegate access to users, applications, or services that don't normally have access to your AWS resources. For example, you might want to grant users in your AWS account access to resources they don't usually have, or grant users in one AWS account access to resources in another account. Or you might want to allow a mobile app to use AWS resources, but not want to embed AWS keys within the app (where they can be difficult to rotate and where users can potentially extract them). Sometimes you want to give AWS access to users who already have identities defined outside of AWS, such as in your corporate directory. Or, you might want to grant access to your account to third parties so that they can perform an audit on your resources. For more information on 1AM Roles, please refer to the below document link: from AWS
http://docs.aws.a mazon.com/IAM/latest/UserGuide/id_roles. html

NEW QUESTION 44
You have an application hosted in AWS. This application was created using Cloudformation Templates and Autoscaling. Now your application has got a surge of users which is decreasing the performance of the application. As per your analysis, a change in the instance type to C3 would resolve the issue. Which of the below option can introduce this change while minimizing downtime for end users?

A. Copy the old launch configuration, and create a new launch configuration with the C3 instance
B. Update the Auto Scalinggroup with the new launch configuratio
C. Auto Scaling will then update the instance type of all running instances.
D. Update the launch configuration in the AWS CloudFormation template with the new C3 instance typ
E. Add an UpdatePolicy attribute to the Auto Scaling group that specifies an AutoScalingRollingUpdat
F. Run a stack update with the updated template.
G. Update the existing launch configuration with the new C3 instance typ
H. Add an UpdatePolicy attribute to your Auto Scalinggroup that specifies an AutoScaling RollingUpdate in order to avoid downtime.
I. Update the AWS CloudFormation template that contains the launch configuration with the new C3 instance typ
J. Run a stack update with the updated template, and Auto Scaling will then update the instances one at a time with the new instance type.

Answer: B

Explanation:
Ensure first that the cloudformation template is updated with the new instance type.
The AWS::AutoScaling::AutoScalingGroup resource supports an UpdatePoIicy attribute. This is used to define how an Auto Scalinggroup resource is updated when
an update to the Cloud Formation stack occurs. A common approach to updating an Auto Scaling group is to perform a rolling update, which is done by specifying the AutoScalingRollingUpdate policy. This retains the same Auto Scaling group and replaces old instances with new ones, according to the parameters specified.
Option A is invalid because this will cause an interruption to the users.
Option C is partially correct, but it does not have all the steps as mentioned in option B.
Option D is partially correct, but we need the AutoScalingRollingUpdate attribute to ensure a rolling update is peformed.
For more information on AutoScaling Rolling updates please refer to the below link:
• https://aws.amazon.com/premiumsupport/knowledge-center/auto-scaling-group-rolling- updates/

NEW QUESTION 45
You have been asked to de-risk deployments at your company. Specifically, the CEO is concerned about outages that occur because of accidental inconsistencies between Staging and Production, which sometimes cause unexpected behaviors in Production even when Staging tests pass. You already use Docker to get high consistency between Staging and Production for the application environment on your EC2 instances. How do you further de-risk the rest of the execution environment, since in AWS, there are many service components you may use beyond EC2 virtual machines?

A. Develop models of your entire cloud system in CloudFormatio
B. Use this model in Staging and Production to achieve greater parit
C. */
D. Use AWS Config to force the Staging and Production stacks to have configuration parit
E. Any differences will be detected for you so you are aware of risks.
F. Use AMIs to ensure the whole machine, including the kernel of the virual machines, is consistent,since Docker uses Linux Container (LXC) technology, and we need to make sure the container environment is consistent.
G. Use AWS ECS and Docker clusterin
H. This will make sure that the AMIs and machine sizes are the same across both environments.

Answer: A

Explanation:
After you have your stacks and resources set up, you can reuse your templates to replicate your infrastructure in multiple environments. For example, you can create environments for development, testing, and production so that you can test changes before implementing them into production. To make templates reusable, use the parameters, mappings, and conditions sections so that you can customize your stacks when you create them. For example, for your development environments, you can specify a lower-cost instance type compared to your production environment, but all other configurations and settings remain the same
For more information on Cloudformation best practices please refer to the below link: http://docs.aws.amazon.com/AWSCIoudFormation/latest/UserGuide/best-practices.html

NEW QUESTION 48

You have a development team that is continuously spending a lot of time rolling back updates for an application. They work on changes, and if the change fails, they spend more than 5-6h in rolling back the update. Which of the below options can help reduce the time for rolling back application versions.

A. Use Elastic Beanstalk and re-deploy using Application Versions
B. Use S3 to store each version and then re-deploy with Elastic Beanstalk
C. Use CloudFormation and update the stack with the previous template
D. Use OpsWorks and re-deploy using rollback feature.

Answer: A

Explanation:
Option B is invalid because Clastic Beanstalk already has the facility to manage various versions and you don't need to use S3 separately for this.
Option C is invalid because in Cloudformation you will need to maintain the versions. Clastic Beanstalk can so that automatically for you.
Option D is good for production scenarios and Clastic Beanstalk is great for development scenarios. AWS beanstalk is the perfect solution for developers to maintain application versions.
With AWS Clastic Beanstalk, you can quickly deploy and manage applications in the AWS Cloud without worrying about the infrastructure that runs those applications. AWS Clastic Beanstalk reduces management complexity without restricting choice or control. You simply upload your application, and AWS Clastic Beanstalk automatically handles the details of capacity provisioning, load balancing, scaling, and application health monitoring.
For more information on AWS Beanstalk please refer to the below link: https://aws.amazon.com/documentation/elastic-beanstalk/

NEW QUESTION 52
You are designing a system which needs, at a minimum, 8 m4.large instances operating to service traffic. When designing a system for high availability in the us-east-1 region, which has 6 Availability Zones, your company needs to be able to handle the death of a full availability zone. How should you distribute the servers, to save as much cost as possible, assuming all of the EC2 nodes are properly linked to an ELB? Your VPC account can utilize us-east-1's AZ's a through f, inclusive.

A. 3 servers in each of AZ's a through d, inclusiv
B. 8 servers in each of AZ's a and b.
C. 2 servers in each of AZ's a through e, inclusive.
D. 4 servers in each of AZ's a through conclusive.

Answer: C

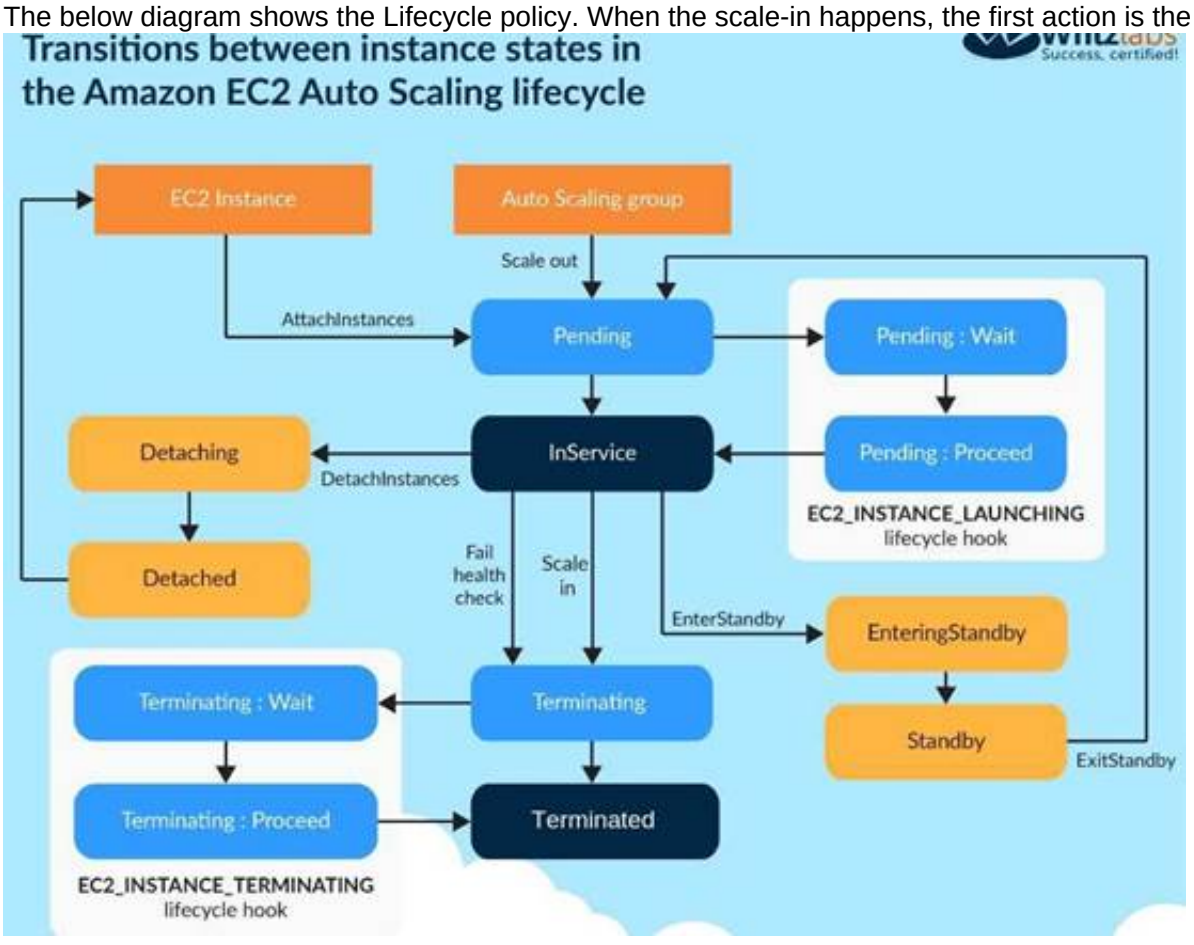
Explanation:
The best way is to distribute the instances across multiple AZ's to get the best and avoid a disaster scenario. With this scenario, you will always a minimum of more than 8 servers even if one AZ were to go down. Even though A and D are also valid options, the best option when it comes to distribution is Option C. For more information on High Availability and Fault tolerance, please refer to the below link:
https://media.amazonwebservices.com/architecturecenter/AWS_ac_ra_ftha_04.pdf

NEW QUESTION 53
For AWS Auto Scaling, what is the first transition state an instance enters after leaving steady state when scaling in due to health check failure or decreased load?

A. Terminating
B. Detaching
C. Terminating:Wait
D. EnteringStandby

Answer: A

Explanation:
The below diagram shows the Lifecycle policy. When the scale-in happens, the first action is the Terminating action.



For more information on Autoscaling Lifecycle, please refer to the below link:
http://docs.aws.amazon.com/autoscaling/latest/userguide/AutoScaingGroupLifecycle.html

NEW QUESTION 54
You have an application hosted in AWS. You wanted to ensure that when certain thresholds are reached, a Devops Engineer is notified. Choose 3 answers from the options given below

A. Use CloudWatch Logs agent to send log data from the app to CloudWatch Logs from Amazon EC2 instances
B. Pipe data from EC2 to the application logs using AWS Data Pipeline and CloudWatch
C. Once a CloudWatch alarm is triggered, use SNS to notify the Senior DevOps Engineer.
D. Set the threshold your application can tolerate in a CloudWatch Logs group and link a CloudWatch alarm on that threshold.

Answer: ACD

Explanation:
You can use Cloud Watch Logs to monitor applications and systems using log data. For example,
CloudWatch Logs can track the number of errors that occur in your
application logs and send you a notification whenever the rate of errors exceeds a threshold you specify. CloudWatch Logs uses your log data for monitoring; so, no code changes are required. For example, you can monitor application logs for specific literal terms (such as "NullReferenceLxception") or count the number of occurrences of a literal term at a particular position in log data (such as "404" status codes in an Apache access log). When the term you are searching for is found, CloudWatch Logs reports the data to a CloudWatch metric that you specify. For more information on Cloudwatch Logs please refer to the below link:
http://docs.ws.amazon.com/AmazonCloudWatch/latest/logs/WhatIsCloudWatchLogs.html
Amazon CloudWatch uses Amazon SNS to send email. First, create and subscribe to an SNS topic.
When you create a CloudWatch alarm, you can add this SNS topic to send an email notification when the alarm changes state.
For more information on Cloudwatch and SNS please refer to the below link:
http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/US_SetupSNS.html

NEW QUESTION 58
You are using Chef in your data center. Which service is designed to let the customer leverage existing Chef recipes in AWS?

A. AWS Elastic Beanstalk
B. AWSOpsWorks
C. AWS CloudFormation
D. Amazon Simple Workflow Service

Answer: B

Explanation:
AWS OpsWorks is a configuration management service that uses Chef, an automation platform that treats server configurations as code. OpsWorks uses Chef to automate how servers are configured, deployed, and managed across your Amazon Clastic Compute Cloud (Amazon CC2) instances or on-premises compute environments. OpsWorks has two offerings, AWS Opsworks for Chef Automate, and AWS OpsWorks Stacks.
For more information on Opswork and SNS please refer to the below link:
• https://aws.amazon.com/opsworks/

NEW QUESTION 63
Your company releases new features with high frequency while demanding high application availability. As part of the application's A/B testing, logs from each updated Amazon EC2 instance of the application need to be analyzed in near real-time, to ensure that the application is working
flawlessly after each deployment. If the logs show any anomalous behavior, then the application version of the instance is changed to a more stable one. Which of the following methods should you use for shipping and analyzing the logs in a highly available manner?

A. Ship the logs to Amazon S3 for durability and use Amazon EMR to analyze the logs in a batch manner each hour.
B. Ship the logs to Amazon CloudWatch Logs and use Amazon EMR to analyze the logs in a batch manner each hour.
C. Ship the logs to an Amazon Kinesis stream and have the consumers analyze the logs in a live manner.
D. Ship the logs to a large Amazon EC2 instance and analyze the logs in a live manner.

Answer: C

Explanation:
Answer - C
You can use Kinesis Streams for rapid and continuous data intake and aggregation. The type of data used includes IT infrastructure log data, application logs, social media, market data feeds, and web clickstream data. Because the response time for the data intake and processing is in real time, the processing is typically lightweight.
The following are typical scenarios for using Kinesis Streams:
• Accelerated log and data feed intake and processing - You can have producers push data directly into a stream. For example, push system and application logs and they'll be available for processing in seconds. This prevents the log data from being lost if the front end or application server fails. Kinesis Streams provides accelerated data feed intake because you don't batch the data on the servers before you submit it for intake.
• Real-time metrics and reporting - You can use data collected into Kinesis Streams for simple data analysis and reporting in real time. For example, your data-processing application can work on metrics and reporting for system and application logs as the data is streaming in, rather than wait to receive batches of data.
For more information on Amazon Kinesis and SNS please refer to the below link:
• http://docs.aws.a mazon.com/streams/latest/dev/introduction.html

NEW QUESTION 64
You have been given a business requirement to retain log files for your application for 10 years. You need to regularly retrieve the most recent logs for troubleshooting. Your logging system must be cost-effective, given the large volume of logs. What technique should you use to meet these requirements?

A. Store your log in Amazon CloudWatch Logs.
B. Store your logs in Amazon Glacier.
C. Store your logs in Amazon S3, and use lifecycle policies to archive to Amazon Glacier.
D. Store your logs on Amazon EBS, and use Amazon EBS snapshots to archive them.

Answer: C

Explanation:

Option A is invalid, because cloud watch will not store the logs indefinitely and secondly it won't be the cost effective option.
Option B is invalid, because it won't server the purpose of regularly retrieve the most recent logs for troubleshooting. You will need to pay more to retrieve the logs faster from this storage.
Option D is invalid, because it is not an ideal or cost effective option.
You can define lifecycle configuration rules for objects that have a well-defined lifecycle. For example: if you are uploading periodic logs to your bucket, your application might need these logs for a week or a month after creation, and after that you might want to delete them.
Some documents are frequently accessed for a limited period of time. After that, these documents are less frequently accessed. Over time, you might not need real-time access to these objects, but your organization or regulations might require you to archive them for a longer period and then optionally delete them later. You might also upload some types of data to Amazon S3 primarily for archival purposes, for example digital media archives, financial and healthcare records, raw genomics sequence data, long-term database backups, and data that must be retained for regulatory compliance.
For more information on Lifecycle management please refer to the below link: http://docs.aws.amazon.com/AmazonS3/latest/dev/object-lifecycle-mgmt.html
Note:
Option C is the cheapest option, but Cloud watch can store logs indefinetly or between 10 years and
one day.
"Log Retention—By default, logs are kept indefinitely and never expire. You can adjust the retention policy for each log group, keeping the indefinite retention, or choosing a retention periods between 10 years and one day." https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/WhatIsCloudWatchLogs.html

NEW QUESTION 65
There is a requirement to monitor API calls against your AWS account by different users and entities. There needs to be a history of those calls. The history of those calls are needed in in bulk for later review. Which 2 services can be used in this scenario

A. AWS Config; AWS Inspector
B. AWS CloudTrail; AWS Config
C. AWS CloudTrail; CloudWatch Events
D. AWS Config; AWS Lambda

Answer: C

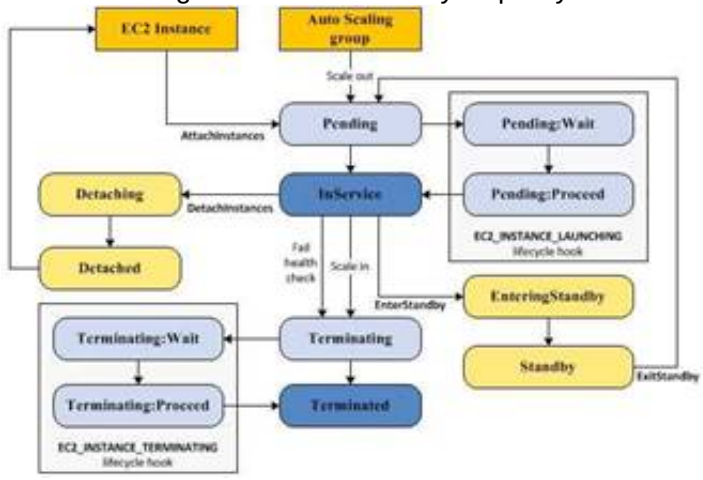
Explanation:
You can use AWS CloudTrail to get a history of AWS API calls and related events for your account. This history includes calls made with the AWS Management Console, AWS Command Line Interface, AWS SDKs, and other AWS services. For more information on Cloudtrail, please visit the below URL:
• http://docs.aws.a mazon.com/awscloudtrail/latest/userguide/cloudtrai l-user-guide.html
Amazon Cloud Watch Cvents delivers a near real-time stream of system events that describe changes in Amazon Web Services (AWS) resources. Using simple rules that you can quickly set up, you can match events and route them to one or more target functions or streams. Cloud Watch Cvents becomes aware of operational changes as they occur. Cloud Watch Cvents responds to these operational changes and takes corrective action as necessary, by sending messages to respond to the environment, activating functions, making changes, and capturing state information. For more information on Cloud watch events, please visit the below U RL:
• http://docs.aws.a mazon.com/AmazonCloudWatch/latest/events/Whatl sCloudWatchCvents.html

NEW QUESTION 69
For AWS Auto Scaling, what is the first transition state an existing instance enters after leaving Standby state?

A. Detaching
B. Terminating:Wait
C. Pending
D. EnteringStandby

Answer: C

Explanation:
The below diagram shows the Lifecycle policy. When the stand-by state is exited, the next state is pending.



For more information on Autoscaling Lifecycle, please refer to the below link:
http://docs.aws.amazon.com/autoscaling/latest/userguide/AutoScaingGroupLifecycle.html

NEW QUESTION 71
You are building out a layer in a software stack on AWS that needs to be able to scale out to react to increased demand as fast as possible. You are running the code on EC2 instances in an Auto Scaling Group behind an ELB. Which application code deployment method should you use?

A. SSH into new instances that come online, and deploy new code onto the system by pulling it from an S3 bucket, which is populated by code that you refresh from source control on new pushes.
B. Bake an AMI when deploying new versions of code, and use that AMI for the Auto Scaling Launch Configuration.
C. Create a Dockerfile when preparing to deploy a new version to production and publish it to S3. Use UserData in the Auto Scaling Launch configuration to pull down the Dockerfile from S3 and run it when new instances launch.
D. Create a new Auto Scaling Launch Configuration with UserData scripts configured to pull the latest code at all times.

Answer: B

Explanation:
Since the time required to spin up an instance is required to be fast, its better to create an AMI rather than use User Data. When you use User Data, the script will be
run during boot up, and hence this will be slower.
An Amazon Machine Image (AMI) provides the information required to launch an instance, which is a virtual server in the cloud. You specify an AM I when you launch
an instance, and you can launch as many instances from the AMI as you need. You can also launch instances from as many different AMIs as you need.
For more information on the AMI, please refer to the below link:
• http://docs.aws.amazon.com/AWSCC2/latest/UserGuide/AMIs.html

NEW QUESTION 76
You need to scale an RDS deployment. You are operating at 10% writes and 90% reads, based on your logging. How best can you scale this in a simple way?

A. Create a second master RDS instance and peer the RDS groups.
B. Cache all the database responses on the read side with CloudFront.
C. Create read replicas for RDS since the load is mostly reads.
D. Create a Multi-AZ RDS installs and route read traffic to standby.

Answer: C

Explanation:
Amazon RDS Read Replicas provide enhanced performance and durability for database (DB) instances. This replication feature makes it easy to elastically scale out beyond the capacity constraints of a single DB Instance for read-heavy database workloads. You can create one or more replicas of a given source DB Instance and serve high-volume application read traffic from multiple copies of your data, thereby increasing aggregate read throughput. Read replicas can also be promoted when needed to become standalone DB instances.
Option A is invalid because you would need to maintain the synchronization yourself with a secondary instance.
Option B is invalid because you are introducing another layer unnecessarily when you already have read replica's Option D is invalid because you only use this for Standy's
For more information on Read Replica's, please refer to the below link: https://aws.amazon.com/rds/details/read-replicas/

NEW QUESTION 78
Your company needs to automate 3 layers of a large cloud deployment. You want to be able to track this deployment's evolution as it changes over time, and carefully control any alterations. What is a good way to automate a stack to meet these requirements?

A. Use OpsWorks Stacks with three layers to model the layering in your stack.
B. Use CloudFormation Nested Stack Templates, with three child stacks to represent the three logical layers of your cloud.
C. Use AWS Config to declare a configuration set that AWS should roll out to your cloud.
D. Use Elastic Beanstalk Linked Applications, passing the important DNS entires between layers using the metadata interface.

Answer: B

Explanation:
As your infrastructure grows, common patterns can emerge in which you declare the same components in each of your templates. You can separate out these common components and create dedicated templates for them. That way, you can mix and match different templates but use nested stacks to create a single, unified stack. Nested stacks are stacks that create other stacks. To create nested stacks, use the AWS:: Cloud Form ation::Stackresource in your template to reference other templates.
For more information on nested stacks, please visit the below URL:
• http://docs^ws.amazon.com/AWSCIoudFormation/latest/UserGuide/best-practices.html#nested Note:
The query is, how you can automate a stack over the period of time, when changes are required, with out recreating the stack.
The function of Nested Stacks are to reuse Common Template Patterns.
For example, assume that you have a load balancer configuration that you use for most of your stacks. Instead of copying and pasting the same configurations into your templates, you can create a dedicated template for the load balancer. Then, you just use the resource to reference that template from within other templates. Yet another example is if you have a launch configuration with certain specific configuration and you need to change the instance size only in the production environment and to leave it as it is in the development environment.
AWS also recommends that updates to nested stacks are run from the parent stack.
When you apply template changes to update a top-level stack, AWS CloudFormation updates the top-level stack and initiates an update to its nested stacks. AWS Cloud Formation updates the resources of modified nested stacks, but does not update the resources of unmodified nested stacks.

NEW QUESTION 79
You are planning on using encrypted snapshots in the design of your AWS Infrastructure. Which of the following statements are true with regards to EBS Encryption

A. Snapshottingan encrypted volume makes an encrypted snapshot; restoring an encrypted snapshot creates an encrypted volume when specified / requested.
B. Snapshotting an encrypted volume makes an encrypted snapshot when specified / requested; restoring an encrypted snapshot creates an encrypted volume when specified / requested.
C. Snapshotting an encrypted volume makes an encrypted snapshot; restoring an encrypted snapshot always creates an encrypted volume.
D. Snapshotting an encrypted volume makes an encrypted snapshot when specified / requested; restoring an encrypted snapshot always creates an encrypted volume.

Answer: C

Explanation:
Amazon CBS encryption offers you a simple encryption solution for your CBS volumes without the need for you to build, maintain, and secure your own key management infrastructure. When you create an encrypted CBS volume and attach it to a supported instance type, the following types of data are encrypted:
• Data at rest inside the volume
• All data moving between the volume and the instance
• All snapshots created from the volume
Snapshots that are taken from encrypted volumes are automatically encrypted. Volumes that are created from encrypted snapshots are also automatically encrypted.
For more information on CBS encryption, please visit the below URL:

• http://docs.aws.amazon.com/AWSCC2/latest/UserGuide/ CBSCncryption.html

NEW QUESTION 82
You have an asynchronous processing application usingan Auto Scaling Group and an SQS Queue. The Auto Scaling Group scales according to the depth of the job queue. The completion velocity of the jobs has gone down, the Auto Scaling Group size has maxec out, but the inbound job velocity did not increase. What is a possible issue?

A. Some of the new jobs coming in are malformed and unprocessable.
B. The routing tables changed and none of the workers can process events anymore.
C. Someone changed the 1AM Role Policy on the instances in the worker group and broke permissions to access the queue.
D. The scaling metric is not functioning correctly.

Answer: A

Explanation:
This question is more on the grounds of validating each option
Option B is invalid, because the Route table would have an effect on all worker processes and no jobs would have been completed.
Option C is invalid because if the 1AM Role was invalid then no jobs would be completed.
Option D is invalid because the scaling is happening, its just that the jobs are not getting completed. For more information on Scaling on Demand, please visit the below URL:
• http://docs.aws.a mazon.com/autoscaling/latest/userguide/as-scale-based-on-demand.html

NEW QUESTION 86
You need to create an audit log of all changes to customer banking data. You use DynamoDB to store this customer banking data. It's important not to lose any information due to server failures. What is an elegant way to accomplish this?

A. Use a DynamoDB StreamSpecification and stream all changes to AWS Lambd
B. Log the changes to AWS CloudWatch Logs, removing sensitive information before logging.
C. Before writing to DynamoDB, do a pre-write acknoledgment to disk on the application server, removing sensitive information before loggin
D. Periodically rotate these log files into S3.
E. Use a DynamoDB StreamSpecification and periodically flush to an EC2 instance store, removing sensitive information before putting the object
F. Periodically flush these batches to S3.
G. Before writing to DynamoDB, do a pre-write acknoledgment to disk on the application server, removing sensitive information before loggin
H. Periodically pipe these files into CloudWatch Logs.

Answer: A

Explanation:
You can use Lambda functions as triggers for your Amazon DynamoDB table. Triggers are custom actions you take in response to updates made to the DynamoDB table. To create a trigger, first you enable Amazon DynamoDB Streams for your table. Then, you write a Lambda function to process the updates published to the stream.
For more information on DynamoDB with Lambda, please visit the below URL: http://docs.aws.a mazon.com/lambda/latest/dg/with-ddb.html

NEW QUESTION 87
What is required to achieve gigabit network throughput on EC2? You already selected cluster- compute, 10GB instances with enhanced networking, and your workload is already network-bound, but you are not seeing 10 gigabit speeds.

A. Enable biplex networking on your servers, so packets are non-blocking in both directions and there's no switching overhead.
B. Ensure the instances are in different VPCs so you don't saturate the Internet Gateway on any one VPC.
C. Select PIOPS for your drives and mount several, so you can provision sufficient disk throughput.
D. Use a placement group for your instances so the instances are physically near each other in the same Availability Zone.

Answer: D

Explanation:
A placement group is a logical grouping of instances within a single Availability Zone. Placement groups are recommended for applications that benefit from low network latency, high network throughput, or both. To provide the lowest latency, and the highest packet-per-second network performance for your placement group, choose an instance type that supports enhanced networking. For more information on Placement Groups, please visit the below URL:
http://docs.aws.amazon.com/AWSCC2/latest/UserGuide/placement-groups.html

NEW QUESTION 92
Your CTO has asked you to make sure that you know what all users of your AWS account are doing to change resources at all times. She wants a report of who is doing what over time, reported to her once per week, for as broad a resource type group as possible. How should you do this?

A. Create a global AWS CloudTrail Trai
B. Configure a script to aggregate the log data delivered to S3 once per week and deliver this to the CTO.
C. Use CloudWatch Events Rules with an SNS topic subscribed to all AWS API call
D. Subscribe the CTO to an email type delivery on this SNS Topic.
E. Use AWS 1AM credential reports to deliver a CSV of all uses of 1AM UserTokens overtime to the CTO.
F. Use AWS Config with an SNS subscription on a Lambda, and insert these changes over time into a DynamoDB tabl
G. Generate reports based on the contents of this table.

Answer: A

Explanation:
AWS CloudTrail is an AWS service that helps you enable governance, compliance, and operational and risk auditing of your AWS account. Actions taken by a user, role, or an AWS service are recorded as events in CloudTrail. Events include actions taken in the AWS Management Console, AWS Command Line Interface, and AWS SDKs and APIs.
Visibility into your AWS account activity is a key aspect of security and operational best practices. You can use CloudTrail to view, search, download, archive,

analyze, and respond to account activity across your AWS infrastructure. You can identify who or what took which action, what resources were acted upon, when the event occurred, and other details to help you analyze and respond to activity in your AWS account.
For more information on Cloudtrail, please visit the below URL:
• http://docs.aws.amazon.com/awscloudtrail/latest/userguide/cloudtrail-user-guide.html

NEW QUESTION 94
You are building a mobile app for consumers to post cat pictures online. You will be storing the images in AWS S3. You want to run the system very cheaply and simply. Which one of these options allows you to build a photo sharing application with the right authentication/authorization implementation.

A. Build the application out using AWS Cognito and web identity federation to allow users to log in using Facebook or Google Account
B. Once they are logged in, the secret token passed to that user is used to directly access resources on AWS, like AWS S3. ^/
C. Use JWT or SAML compliant systems to build authorization policie
D. Users log in with a username and password, and are given a token they can use indefinitely to make calls against the photo infrastructure.C Use AWS API Gateway with a constantly rotating API Key to allow access from the client-sid
E. Construct a custom build of the SDK and include S3 access in it.
F. Create an AWS oAuth Service Domain ad grant public signup and access to the domai
G. During setup, add at least one major social media site as a trusted Identity Provider for users.

Answer: A

Explanation:
Amazon Cognito lets you easily add user sign-up and sign-in and manage permissions for your mobile and web apps. You can create your own user directory within Amazon Cognito. You can also choose to authenticate users through social identity providers such as Facebook, Twitter, or Amazon; with SAML identity solutions; or by using your own identity system. In addition, Amazon Cognito enables you to save data locally on users' devices, allowing your applications to work even when the devices are offline. You can then synchronize data across users' devices so that their app experience remains consistent regardless of the device they use.
For more information on AWS Cognito, please visit the below URL:
• http://docs.aws.amazon.com/cognito/latest/developerguide/what-is-amazon-cognito.html

NEW QUESTION 99
Your team wants to begin practicing continuous delivery using CloudFormation, to enable automated builds and deploys of whole, versioned stacks or stack layers. You have a 3-tier, mission-critical system. Which of the following is NOT a best practice for using CloudFormation in a continuous delivery environment?

A. Use the AWS CloudFormation ValidateTemplate call before publishing changes to AWS.
B. Model your stack in one template, so you can leverage CloudFormation's state management and dependency resolution to propagate all changes.
C. Use CloudFormation to create brand new infrastructure for all stateless resources on each push, and run integration tests on that set of infrastructure.
D. Parametrize the template and use Mappings to ensure your template works in multiple Regions.

Answer: B

Explanation:
Answer - B
Some of the best practices for Cloudformation are
• Created Nested stacks
As your infrastructure grows, common patterns can emerge in which you declare the same components in each of your templates. You can separate out these common components and create dedicated templates for them. That way, you can mix and match different templates but use nested stacks to create a single, unified stack. Nested stacks are stacks that create other stacks. To create nested stacks, use the AWS::CloudFormation::Stackresource in your template to reference other templates.
• Reuse Templates
After you have your stacks and resources set up, you can reuse your templates to replicate your infrastructure in multiple environments. For example, you can create environments for development, testing, and production so that you can test changes before implementing them into production. To make templates reusable, use the parameters, mappings, and conditions sections so that you can customize your stacks when you create them. For example, for your development environments, you can specify a lower-cost instance type compared to your production environment, but all other configurations and settings remain the same. For more information on Cloudformation best practises, please visit the below URL:
http://docs.aws.amazon.com/AWSCIoudFormation/latest/UserGuide/best-practices.html

NEW QUESTION 101
You need to deploy an AWS stack in a repeatable manner across multiple environments. You have selected CloudFormation as the right tool to accomplish this, but have found that there is a resource type you need to create and model, but is unsupported by CloudFormation. How should you overcome this challenge?

A. Use a CloudFormation Custom Resource Template by selecting an API call to proxy for create, update, and delete action
B. CloudFormation will use the AWS SDK, CLI, or API method of your choosing as the state transition function for the resource type you are modeling.
C. Submit a ticket to the AWS Forum
D. AWS extends CloudFormation Resource Types by releasing tooling to the AWS Labs organization on GitHu
E. Their response time is usually 1 day, and theycomplete requests within a week or two.
F. Instead of depending on CloudFormation, use Chef, Puppet, or Ansible to author Heat templates, which are declarative stack resource definitions that operate over the OpenStack hypervisor and cloud environment.
G. Create a CloudFormation Custom Resource Type by implementing create, update, and delete functionality, either by subscribing a Custom Resource Provider to an SNS topic, or by implementing the logic in AWS Lambda.

Answer: D

Explanation:
Custom resources enable you to write custom provisioning logic in templates that AWS Cloud Formation runs anytime you create, update (if you changed the custom resource), or delete stacks. For example, you might want to include resources that aren't available as AWS Cloud Formation resource types. You can include those resources by using custom resources. That way you can still manage all your related resources in a single stack.
Use the AWS:: Cloud Formation:: Custom Resource or Custom ::String resource type to define custom resources in your templates. Custom resources require one property: the service token, which specifies where AWS CloudFormation sends requests to, such as an Amazon SNS topic.
For more information on Custom Resources in Cloudformation, please visit the below U RL:
http://docs.aws.amazon.com/AWSCIoudFormation/latest/UserGuide/template-custom- resources.html

NEW QUESTION 104
Your CTO thinks your AWS account was hacked. What is the only way to know for certain if there was unauthorized access and what they did, assuming your hackers are very sophisticated AWS engineers and doing everything they can to cover their tracks?

A. Use CloudTrail Log File Integrity Validation.
B. Use AWS Config SNS Subscriptions and process events in real time.
C. Use CloudTrail backed up to AWS S3 and Glacier.
D. Use AWS Config Timeline forensics.

Answer: A

Explanation:
To determine whether a log file was modified, deleted, or unchanged after CloudTrail delivered it, you can use CloudTrail log file integrity validation. This feature is built using industry standard algorithms: SHA-256 for hashing and SHA-256 with RSA for digital signing. This makes it computationally infeasible to modify, delete or forge CloudTrail log files without detection. You can use the AWS CLI to validate the files in the location where CloudTrail delivered them
Validated log files are invaluable in security and forensic investigations. For example, a validated log file enables you to assert positively that the log file itself has not changed, or that particular user credentials performed specific API activity. The CloudTrail log file integrity validation process also lets you know if a log file has been deleted or changed, or assert positively that no log files were delivered to your account during a given period of time.
For more information on Cloudtrail log file validation, please visit the below URL:
http://docs.aws.a mazon.com/awscloudtrail/latest/userguide/cloudtrai l-log-file-validation- intro.html

NEW QUESTION 108
You need your CI to build AM Is with code pre-installed on the images on every new code push. You need to do this as cheaply as possible. How do you do this?
A. Bid on spot instances just above the asking price as soon as new commits come in, perform all instance configuration and setup, then create an AM I based on the spot instance.
B. Have the CI launch a new on-demand EC2 instance when new commits come in, perform all instance configuration and setup, then create an AMI based on the on-demand instance.
C. Purchase a Light Utilization Reserved Instance to save money on the continuous integration machin
D. Use these credits whenever your create AMIs on instances.
E. When the CI instance receives commits, attach a new EBS volume to the CI machin
F. Perform all setup on this EBS volume so you don't need

Answer: A

Explanation:
Amazon CC2 Spot instances allow you to bid on spare Amazon CC2 computing capacity. Since Spot instances are often available at a discount compared to On-Demand pricing, you can significantly reduce the cost of running your applications, grow your application's compute capacity and throughput for the same budget, and enable new types of cloud computing applications.
For more information on Spot Instances, please visit the below URL: https://aws.amazon.com/ec2/spot/

NEW QUESTION 109
You currently have an application deployed via Elastic Beanstalk. You are now deploying a new application and have ensured that Elastic beanstalk has detached the current instances and deployed and reattached new instances. But the new instances are still not receiving any sort of traffic. Why is this the case.

A. The instances are of the wrong AMI, hence they are not being detected by the ELB.
B. It takes time for the ELB to register the instances, hence there is a small timeframe before your instances can start receiving traffic
C. You need to create a new Elastic Beanstalk application, because you cannot detach and then reattach instances to an ELB within an Elastic Beanstalk application
D. The instances needed to be reattached before the new application version was deployed

Answer: B

Explanation:
Before the CC2 Instances can start receiving traffic, they will be checked via the health checks of the CLB. Once the health checks are successful, the CC2 Instance
will change its state to InService and then the EC2 Instances can start receiving traffic. For more information on ELB health checks, please refer to the below link:
http://docs.aws.amazon.com/elasticloadbalancing/latest/classic/elb-healthchecks.html

NEW QUESTION 112
Which of the following is the default deployment mechanism used by Elastic Beanstalk when the application is created via Console or EBCLI?

A. All at Once
B. Rolling Deployments
C. Rolling with additional batch
D. Immutable

Answer: B

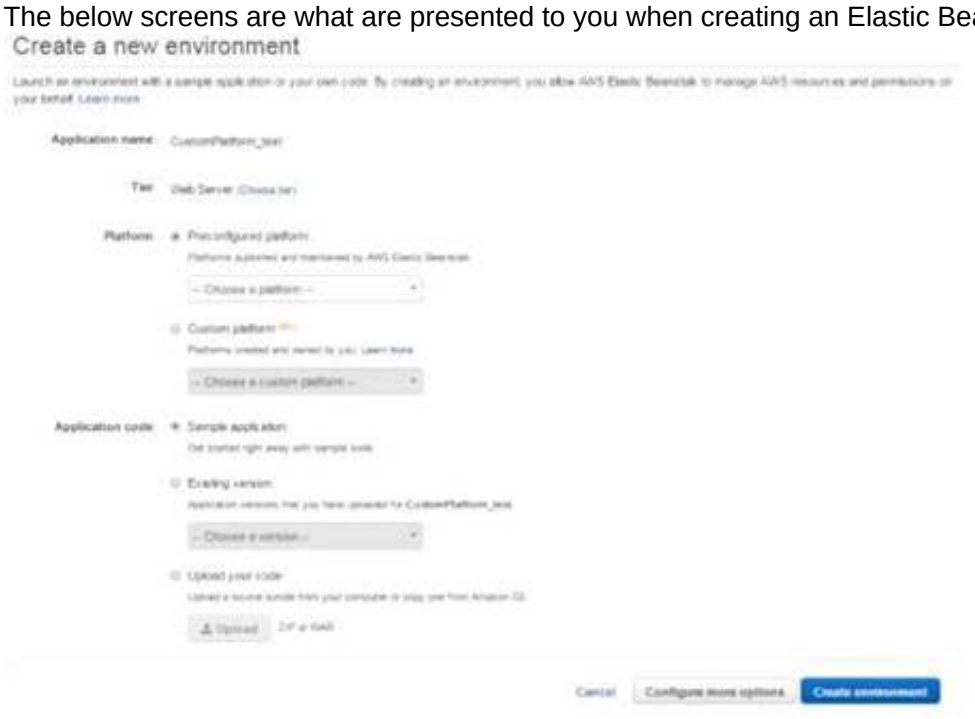
Explanation:
The AWS documentation mentions
AWS Elastic Beanstalk provides several options for how deployments are processed, including deployment policies (All at once. Rolling, Rolling with additional batch,
and Immutable) and options that let you configure batch size and health check behavior during deployments. By default, your environment uses rolling deployments
if you created it with the console or EB CLI, or all at once deployments if you created it with a different client (API, SDK or AWS CLI).
For more information on Elastic Beanstalk deployments, please refer to the below link:
• http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/using-features.rolling-version- deploy.html

NEW QUESTION 116
When creating an Elastic Beanstalk environment using the Wizard, what are the 3 configuration options presented to you

A. Choosingthetypeof Environment- Web or Worker environment
B. Choosingtheplatformtype-Nodejs,IIS,etc
C. Choosing the type of Notification - SNS or SQS
D. Choosing whether you want a highly available environment or not

Answer: ABD

Explanation:
The below screens are what are presented to you when creating an Elastic Beanstalk environment



The high availability preset includes a load balancer; the low cost preset does not For more information on the configuration settings, please refer to the below link:
http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/environments-create-wizard.html

NEW QUESTION 120
You have an Autoscaling Group configured to launch EC2 Instances for your application. But you notice that the Autoscaling Group is not launching instances in the right proportion. In fact instances are being launched too fast. What can you do to mitigate this issue? Choose 2 answers from the options given below

A. Adjust the cooldown period set for the Autoscaling Group
B. Set a custom metric which monitors a key application functionality forthe scale-in and scale-out process.
C. Adjust the CPU threshold set for the Autoscaling scale-in and scale-out process.
D. Adjust the Memory threshold set forthe Autoscaling scale-in and scale-out process.

Answer: AB

Explanation:
The Auto Scaling cooldown period is a configurable setting for your Auto Scaling group that helps to ensure that Auto Scaling doesn't launch or terminate additional instances before the previous scaling activity takes effect.
For more information on the cool down period, please refer to the below link:
• http://docs^ws.a mazon.com/autoscaling/latest/userguide/Cooldown.html
Also it is better to monitor the application based on a key feature and then trigger the scale-in and scale-out feature accordingly. In the question, there is no mention of CPU or memory causing the issue.

NEW QUESTION 122
You are deciding on a deployment mechanism for your application. Which of the following deployment mechanisms provides the fastest rollback after failure.

A. Rolling-Immutable
B. Canary
C. Rolling-Mutable
D. Blue/Green

Answer: D

Explanation:
In Blue Green Deployments, you will always have the previous version of your application available.
So anytime there is an issue with a new deployment, you can just quickly switch back to the older version of your application.
For more information on Blue Green Deployments, please refer to the below link: https://docs.cloudfoundry.org/devguide/deploy-apps/blue-green.html

NEW QUESTION 124
When building a multicontainer Docker platform using Elastic Beanstalk, which of the following is required

A. DockerFile to create custom images during deployment
B. Prebuilt Images stored in a public or private online image repository.
C. Kurbernetes to manage the docker containers.
D. RedHatOpensift to manage the docker containers.

Answer: B

Explanation:
This is a special note given in the AWS Documentation for Multicontainer Docker platform for Elastic Beanstalk
Building custom images during deployment with a Dockerfile is not supported by the multicontainer Docker platform on Elastic Beanstalk. Build your images and deploy them to an online repository before creating an Elastic Beanstalk environment.
For more information on Multicontainer Docker platform for Elastic Beanstalk, please refer to the below link:
http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/create_deploy_docker_ecs.html

NEW QUESTION 126
Which of the following Deployment types are available in the CodeDeploy service. Choose 2 answers from the options given below

A. In-place deployment
B. Rolling deployment
C. Immutable deployment
D. Blue/green deployment

Answer: AD

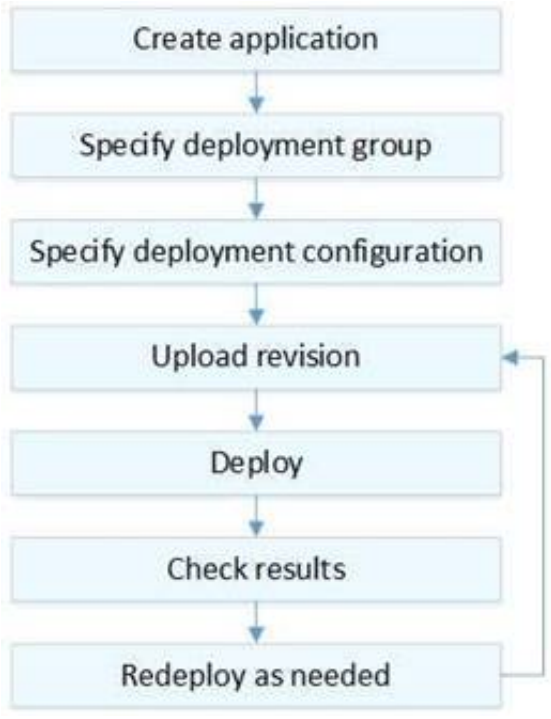
Explanation:
The following deployment types are available
1. In-place deployment: The application on each instance in the deployment group is stopped, the latest application revision is installed, and the new version of the application is started and validated.
2. Blue/green deployment: The instances in a deployment group (the original environment) are replaced by a different set of instances (the replacement environment)
For more information on Code Deploy please refer to the below link:
• http://docs.aws.amazon.com/codedeploy/latest/userguide/primary-components.html

NEW QUESTION 129
Which of the following is the right sequence of initial steps in the deployment of application revisions using Code Deploy
1) Specify deployment configuration
2) Upload revision
3) Create application
4) Specify deployment group

A. 3, 2, 1 and 4
B. 3,1,2 and 4
C. 3,4,1 and 2
D. 3,4,2 and 1

Answer: C

Explanation:
The below diagram from the AWS documentation shows the deployment steps



For more information on the deployment steps please refer to the below link:
• http://docs.aws.amazon.com/codedeploy/latest/userguide/de ployment-steps.html

NEW QUESTION 130
You have an Opswork stack setup in AWS. You want to install some updates to the Linux instances in the stack. Which of the following can be used to publish those updates. Choose 2 answers from the options given below

A. Create and start new instances to replace your current online instance
B. Then delete the current instances.
C. Use Auto-scaling to launch new instances and then delete the older instances
D. On Linux-based instances in Chef 11.10 or older stacks, run the Update Dependencies stack command
E. Delete the stack and create a new stack with the instances and their relavant updates

Answer: AC

Explanation:
As per AWS documentation.

By default, AWS OpsWorks Stacks automatically installs the latest updates during setup, after an instance finishes booting. AWS OpsWorks Stacks does not automatically install updates after an instance is online, to avoid interruptions such as restarting application servers. Instead, you manage updates to your online instances yourself, so you can minimize any disruptions.
We recommend that you use one of the following to update your online instances.
•Create and start new instances to replace your current online instances. Then delete the current instances.
The new instances will have the latest set of security patches installed during setup.
•On Linux-based instances in Chef 11.10 or older stacks, run the Update Dependencies stack command, which installs the current set of security patches and other updates
on the specified instances.
More information is available at: https://docs.aws.amazon.com/opsworks/latest/userguide/workingsecurity-updates.html

NEW QUESTION 131
Which of the following services can be used to implement DevOps in your company.

A. AWS Elastic Beanstalk
B. AWSOpswork
C. AWS Cloudformation
D. All of the above

Answer: D

Explanation:
All of the services can be used to implement Devops in your company
1) AWS Elastic Beanstalk, an easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker on servers such as Apache, Nginx, Passenger, and I IS.
2) AWS Ops Works, a configuration management service that helps you configure and operate applications of all shapes and sizes using Chef
3) AWS Cloud Formation, which is an easy way to create and manage a collection of related AWS resources, provisioning and updating them in an orderly and predictable fashion.
For more information on AWS Devops please refer to the below link:
• http://docs.aws.amazon.com/devops/latest/gsg/welcome.html

NEW QUESTION 136
You need to deploy a multi-container Docker environment on to Elastic beanstalk. Which of the following files can be used to deploy a set of Docker containers to Elastic beanstalk

A. Dockerfile
B. DockerMultifile
C. Dockerrun.aws.json
D. Dockerrun

Answer: C

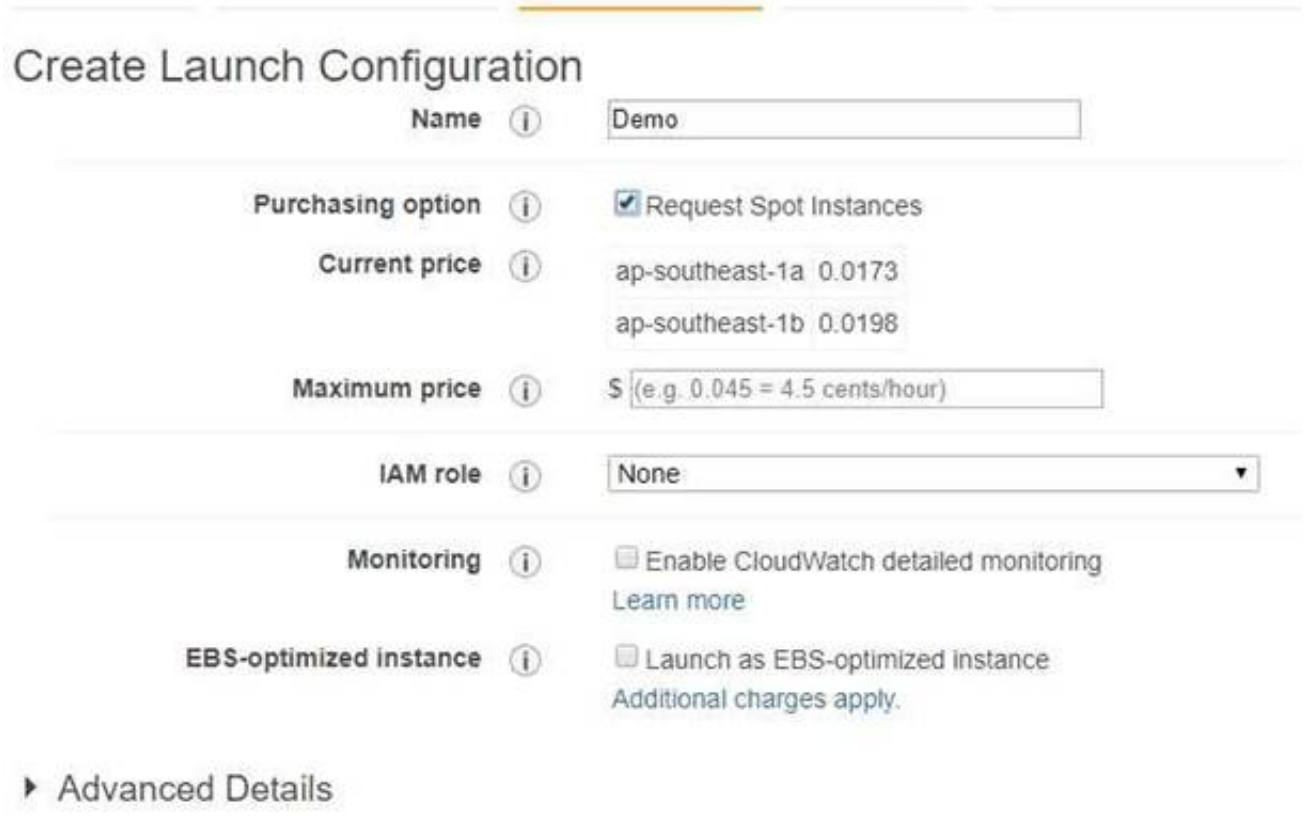
Explanation:
The AWS Documentation specifies
A Dockerrun.aws.json file is an Clastic Beanstalk-specific JSON file that describes how to deploy a set of Docker containers as an Clastic Beanstalk application.
You can use aDockerrun.aws.json file for a multicontainer Docker environment.
Dockerrun.aws.json describes the containers to deploy to each container instance in the environment as well as the data volumes to create on the host instance for the containers to mount.
For more information on this, please visit the below URL:
http://docs.aws.amazon.com/elasticbeanstalk/latest/dg/create_deploy_docker_v2config.html

NEW QUESTION 139
You have ana video processing application hosted in AWS. The video's are uploaded by users onto the site. You have a program that is custom built to process those videos. The program is able to recover incase there are any failures when processing the videos. Which of the following mechanisms can be used to deploy the instances for carrying out the video processing activities, ensuring that the cost is kept at a minimum.

A. Create a launch configuration with Reserved Instance
B. Ensure the User Data section details the installation of the custom softwar
C. Create an Autoscalinggroup with the launch configuration.
D. Create a launch configuration with Spot Instance
E. Ensure the User Data section details the installation of the custom softwar
F. Create an Autoscalinggroupwith the launch configuration.
G. Create a launch configuration with Dedicated Instance
H. Ensure the User Data section details the installation of the custom softwar
I. Create an Autoscaling group with the launch configuration.
J. Create a launch configuration with On-Demand Instance
K. Ensure the User Data section details the installation of the custom softwar
L. Create an Autoscaling group with the launch configuration.

Answer: B

Explanation:
Since the application can recover from failures and cost is the priority, then Spot instances are the best bet for this requirement. The launch configuration has the facility to request for Spot Instances.
The below snapshot from the Launch configuration section shows that Spot Instances can be used for AutoScaling Groups.



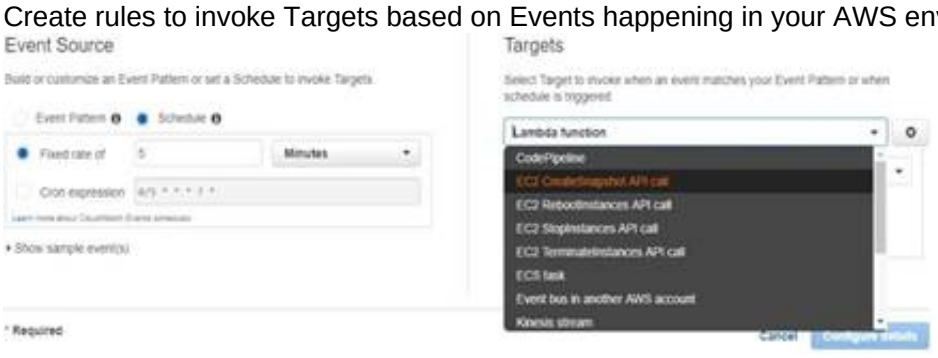
For more information on Spot Instances and Autoscaling, please visit the below URL:
• http://docs^ws.amazon.com/autoscaling/latest/userguide/US-SpotInstances.html

NEW QUESTION 144
You have a requirement to automate the creation of EBS Snapshots. Which of the following can be used to achieve this in the best way possible.

A. Create a powershell script which uses the AWS CLI to get the volumes and then run the script as a cron job.
B. Use the AWSConfig service to create a snapshot of the AWS Volumes
C. Use the AWS CodeDeploy service to create a snapshot of the AWS Volumes
D. Use Cloudwatch Events to trigger the snapshots of EBS Volumes

Answer: D

Explanation:
The best is to use the inbuilt service from Cloudwatch, as Cloud watch Events to automate the creation of CBS Snapshots. With Option A, you would be restricted to
running the powrshell script on Windows machines and maintaining the script itself And then you have the overhead of having a separate instance just to run that script.
When you go to Cloudwatch events, you can use the Target as EC2 CreateSnapshot API call as shown below.
Create rules to invoke Targets based on Events happening in your AWS environment.



The AWS Documentation mentions
Amazon Cloud Watch Cvents delivers a near real-time stream of system events that describe changes in Amazon Web Services (AWS) resources. Using simple rules
that you can quickly set up, you can match events and route them to one or more target functions or streams. Cloud Watch Cvents becomes aware of operational changes as they occur. Cloud Watch Cvents responds to these operational changes and takes corrective action as necessary, by sending messages to respond to the environment, activating functions, making changes, and capturing state information. For more information on Cloud watch Cvents, please visit the below U RL:
• http://docs.aws.amazon.com/AmazonCloudWatch/latest/events/Whatl sCloudWatchCvents.html

NEW QUESTION 145
Your company has a set of resources hosted in AWS. They want to be notified when the costs of the AWS resources running in the account reaches a certain threshold. How can this be accomplished in an ideal way.

A. Create a script which monitors all the running resources and calculates the costs accordingly.
B. Download the cost reports and analyze the reports to see if the costs are going beyond the threshold
C. Create a billing alarm which can alert you when the costs are going beyond a certain threshold
D. Create a consolidated billing report and see if the costs are going beyond the threshold.

Answer: C

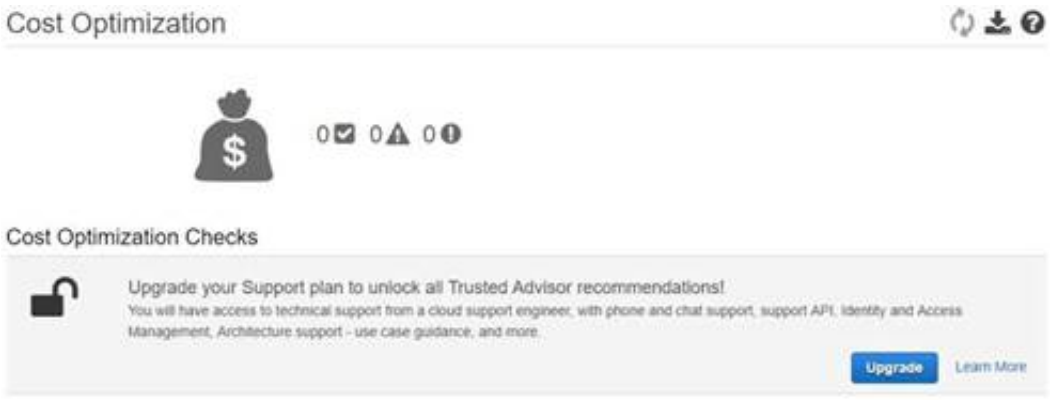
Explanation:
The AWS Documentation mentions
You can monitor your AWS costs by using Cloud Watch. With Cloud Watch, you can create billing alerts that notify you when your usage of your services exceeds thresholds that you define. You specify these threshold amounts when you create the billing alerts.
When your usage exceeds these amounts, AWS sends you an email notification. You can also sign up to receive notifications when AWS prices change. For more information on billing alarms, please visit the below URL:
• http://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/monitor-charges.html

NEW QUESTION 147
Your company has a set of resources hosted in AWS. Your IT Supervisor is concerned with the costs being incurred by the resources running in AWS and wants to optimize on the costs as much as possible. Which of the following ways could help achieve this efficiently? Choose 2 answers from the options given below.

A. Create Cloudwatch alarms to monitor underutilized resources and either shutdown or terminate resources which are not required.
B. Use the Trusted Advisor to see underutilized resources
C. Create a script which monitors all the running resources and calculates the costs accordingl
D. The analyze those resources accordingly and see which can be optimized.
E. Create Cloudwatch logs to monitor underutilized resources and either shutdown or terminate resources which are not required.

Answer: AB

Explanation:
You can use Cloudwatch alarms to see if resources are below a threshold for long periods of time. If so you can take the decision to either stop them or to terminate the resources.
For more information on Cloudwatch alarms, please visit the below URL:
• <http://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/Ala rmThatSendsCmail.html>
In the Trusted Advisor, when you enable the Cost optimization section, you will get all sorts of checks which can be used to optimize the costs of your AWS resources.



For more information on the Trusted Advisor, please visit the below U RL:
• https://aws.amazon.com/premiumsupport/trustedadvisor/

NEW QUESTION 148
You are currently using Elastic Beanstalk to host your production environment. You need to rollout updates to your application hosted on this environment. This is a critical application which is why there is a requirement that the rollback, if required, should be carried out with the least amount of downtime. Which of the following deployment strategies would ideally help achieve this purpose

A. Create a Cloudformation template with the same resources as those in the Elastic beanstalk environmen
B. If the deployment fails, deploy the Cloudformation template.
C. Use Rolling updates in Elastic Beanstalk so that if the deployment fails, the rolling updates feature would roll back to the last deployment.
D. Create another parallel environment in elastic beanstal
E. Use the Swap URL feature.
F. Create another parallel environment in elastic beanstal
G. Create a new Route53 Domain name for the new environment and release that url to the users.

Answer: C

Explanation:
Since the requirement is to have the least amount of downtime, the ideal way is to create a blue green deployment environment and then use the Swap URL feature
to swap environments for the new deployment and then do the swap back, incase the deployment fails.
The AWS Documentation mentions the following on the SWAP url feature of Elastic Beanstalk
Because Elastic Beanstalk performs an in-place update when you update your application versions, your application may become unavailable to users for a short period of time. It is possible to avoid this downtime by performing a blue/green deployment, where you deploy the new version to a separate environment, and then swap CNAMCs of the two environments to redirect traffic to the new version instantly.

NEW QUESTION 153
Your company has an on-premise Active Directory setup in place. The company has extended their footprint on AWS, but still want to have the ability to use their on-premise Active Directory for authentication. Which of the following AWS services can be used to ensure that AWS resources such as AWS Workspaces can continue to use the existing credentials stored in the on-premise Active Directory.

A. Use the Active Directory service on AWS
B. Use the AWS Simple AD service
C. Use the Active Directory connector service on AWS
D. Use the ClassicLink feature on AWS

Answer: C

Explanation:
The AWS Documentation mentions the following
AD Connector is a directory gateway with which you can redirect directory requests to your on- premises Microsoft Active Directory without caching any information in the cloud. AD Connector comes in two sizes, small and large. A small AD Connector is designed for
smaller organizations of up to 500 users. A large AD Connector can support larger organizations of up to 5,000 users.
For more information on the AD connector, please refer to the below URL: http://docs.aws.amazon.com/directoryservice/latest/admin-guide/directory_ad_connector.html

NEW QUESTION 154
The company you work for has a huge amount of infrastructure built on AWS. However there has been some concerns recently about the security of this

infrastructure, and an external auditor has been given the task of running a thorough check of all of your company's AWS assets. The auditor will be in the USA while your company's infrastructure resides in the Asia Pacific (Sydney) region on AWS. Initially, he needs to check all of your VPC assets, specifically, security groups and NACLs You have been assigned the task of providing the auditor with a login to be able to do this. Which of the following would be the best and most secure solution to provide the auditor with so he can begin his initial investigations? Choose the correct answer from the options below

A. Create an 1AM user tied to an administrator rol
B. Also provide an additional level of security with MFA.
C. Give him root access to your AWS Infrastructure, because he is an auditor he will need access to every service.
D. Create an 1AM user who will have read-only access to your AWS VPC infrastructure and provide the auditor with those credentials.
E. Create an 1AM user with full VPC access but set a condition that will not allow him to modify anything if the request is from any IP other than his own.

Answer: C

Explanation:
Generally you should refrain from giving high level permissions and give only the required permissions. In this case option C fits well by just providing the relevant access which is required.
For more information on 1AM please see the below link:
• https://aws.amazon.com/iam/

NEW QUESTION 159
You're building a mobile application game. The application needs permissions for each user to communicate and store data in DynamoDB tables. What is the best method for granting each mobile device that installs your application to access DynamoDB tables for storage when required? Choose the correct answer from the options below

A. During the install and game configuration process, have each user create an 1AM credential and assign the 1AM user to a group with proper permissions to communicate with DynamoDB.
B. Create an 1AM group that only gives access to your application and to the DynamoDB table
C. Then, when writing to DynamoDB, simply include the unique device ID to associate the data with that specific user.
D. Create an 1AM role with the proper permission policy to communicate with the DynamoDB tabl
E. Use web identity federation, which assumes the 1AM role using AssumeRoleWithWebIdentity, when the user signs in, granting temporary security credentials using STS.
F. Create an Active Directory server and an AD user for each mobile application use
G. When the user signs in to the AD sign-on, allow the AD server to federate using SAML 2.0 to 1AM and assign a role to the AD user which is the assumed with AssumeRoleWithSAML

Answer: C

Explanation:
Answer - C
For access to any AWS service, the ideal approach for any application is to use Roles. This is the first preference.
For more information on 1AM policies please refer to the below link:
http://docs.aws.amazon.com/IAM/latest/UserGuide/access_policies.html
Next for any web application, you need to use web identity federation. Hence option D is the right option. This along with the usage of roles is highly stressed in the aws documentation.
The AWS documentation mentions the following
When developing a web application it is recommend not to embed or distribute long-term AWS credentials with apps that a user downloads to a device, even in an encrypted store. Instead, build your app so that it requests temporary AWS security credentials dynamically when needed using web identity federation. The supplied temporary credentials map to an AWS role that has only the permissions needed to perform the tasks required by the mobile app.
For more information on web identity federation please refer to the below link: http://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_providers_oidc.html

NEW QUESTION 161
You are the IT administrator for your company. You have the responsibility of creating development environments which would confirm to the LAMP development stack. The requirement is that the
development team always gets the latest version of the LAMP stack each time a new instance is launched. Which of the following is an efficient and effective way to implement this requirement? Choose 2 answers from the options given below

A. Create an AMI with all the artifacts of the LAMP stack and provide an instance to the development team based on the AMI.
B. Create a cloudformation template and use the cloud-init directives to download and the install the LAMP stack packages.
C. Use the User data section and use a custom script which will be used to download the necessary LAMP stack packages.
D. Create an EBS Volume with the LAMP stack and attach it to an instance whenever it is required.

Answer: BC

Explanation:
Using User data and cloud-init directives you can always ensure you download the latest version of the LAMP stack and give it to the development teams. With AMI's
you will always have the same version and will need to create an AMI everytime the version of the LAMP stack changes.
The AWS Documentation mentions
When you launch an instance in Amazon CC2, you have the option of passing user data to the instance that can be used to perform common automated configuration tasks and even run scripts after the instance starts. You can pass two types of user data to Amazon CC2: shell scripts and cloud-init directives. You can
also pass this data into the launch wizard as plain text, as a file (this is useful for launching instances using the command line tools), or as base64-encoded text (for API calls).
For more information on User data please refer to the below link: http://docs.aws.amazon.com/AWSCC2/latest/UserGuide/user-data.html

NEW QUESTION 166
Your security officer has told you that you need to tighten up the logging of all events that occur on your AWS account. He wants to be able to access all events that occur on the account across all regions quickly and in the simplest way possible. He also wants to make sure he is the only person that has access to these events in the most secure way possible. Which of the following would be the best solution to assure his requirements are met? Choose the correct answer from the options below

A. Use CloudTrail to logall events to one S3 bucke
B. Make this S3 bucket only accessible by your security officer with a bucket policy that restricts access to his user only and also add MFA to the policy for a further level of securit
C. ^/
D. Use CloudTrail to log all events to an Amazon Glacier Vaul
E. Make sure the vault access policy only grants access to the security officer's IP address.
F. Use CloudTrail to send all API calls to CloudWatch and send an email to the security officer every time an API call is mad
G. Make sure the emails are encrypted.
H. Use CloudTrail to log all events to a separate S3 bucket in each region as CloudTrail cannot write to a bucket in a different regio
I. Use MFA and bucket policies on all the different buckets.

Answer: A

Explanation:
AWS CloudTrail is a service that enables governance, compliance, operational auditing, and risk auditing of your AWS account. With CloudTrail, you can log, continuously monitor, and retain events related to API calls across your AWS infrastructure. CloudTrail provides a history of AWS API calls for your account, including API calls made through the AWS Management Console, AWS SDKs, command line tools, and other AWS services. This history simplifies security analysis, resource change tracking, and troubleshooting.
You can design cloudtrail to send all logs to a central S3 bucket. For more information on cloudtrail, please visit the below URL:
? https://aws.amazon.com/cloudtrail/

NEW QUESTION 171
You are in charge of designing Cloudformation templates for your company. One of the key requirements is to ensure that if a Cloudformation stack is deleted, a snapshot of the relational database is created which is part of the stack. How can you achieve this in the best possible way?

A. Create a snapshot of the relational database beforehand so that when the cloudformation stack is deleted, the snapshot of the database will be present.
B. Use the Update policy of the cloudformation template to ensure a snapshot is created of the relational database.
C. Use the Deletion policy of the cloudformation template to ensure a snapshot is created of the relational database.
D. Create a new cloudformation template to create a snapshot of the relational database.

Answer: C

Explanation:
The AWS documentation mentions the following
With the Deletion Policy attribute you can preserve or (in some cases) backup a resource when its stack is deleted. You specify a DeletionPolicy attribute for each resource that you want to control. If a resource has no DeletionPolicy attribute, AWS Cloud Formation deletes the resource by default. Note that this capability also applies to update operations that lead to resources being removed.
For more information on the Deletion policy, please visit the below URL: http://docs.aws.amazon.com/AWSCIoudFormation/latest/UserGuide/aws-attri bute-deletionpolicy.html

NEW QUESTION 175
An enterprise wants to use a third-party SaaS application running on AWS.. The SaaS application needs to have access to issue several API commands to discover Amazon EC2 resources running within the enterprise's account. The enterprise has internal security policies that require any outside access to their environment must conform to the principles of least privilege and there must be controls in place to ensure that the credentials used by the SaaS vendor cannot be used by any other third party. Which of the following would meet all of these conditions?

A. From the AWS Management Console, navigate to the Security Credentials page and retrieve the access and secret key for your account.
B. Create an 1AM user within the enterprise account assign a user policy to the 1AM user that allows only the actions required by the SaaS applicatio
C. Create a new access and secret key for the user and provide these credentials to the SaaS provider.
D. Create an 1AM role for cross-account access allows the SaaS provider's account to assume the role and assign it a policy that allows only the actions required by the SaaS application.
E. Create an 1AM role for EC2 instances, assign it a policy that allows only the actions required tor the Saas application to work, provide the role ARN to the SaaS provider to use when launching their application instances.

Answer: C

Explanation:
Many SaaS platforms can access aws resources via a Cross account access created in aws. If you go to Roles in your identity management, you will see the ability to add a cross account role.

For more information on cross account role, please visit the below URL:
• http://docs.aws.amazon.com/IAM/latest/UserGuide/tuto rial_cross-account-with-roles.htm I

NEW QUESTION 179
Your company is planning to develop an application in which the front end is in .Net and the backend is in DynamoDB. There is an expectation of a high load on the application. How could you ensure the scalability of the application to reduce the load on the DynamoDB database? Choose an answer from the options below.

A. Add more DynamoDB databases to handle the load.

B. Increase write capacity of Dynamo DB to meet the peak loads
C. Use SQS to assist and let the application pull messages and then perform the relevant operation in DynamoDB.
D. Launch DynamoDB in Multi-AZ configuration with a global index to balance writes

Answer: C

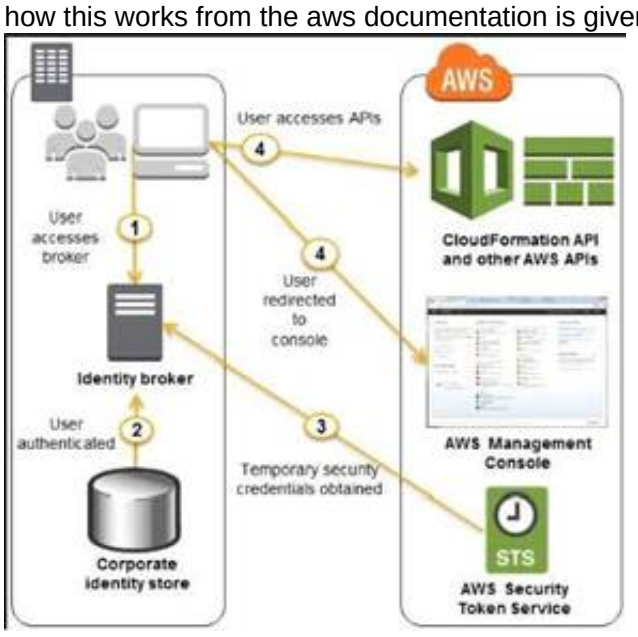
Explanation:
When the idea comes for scalability then SQS is the best option. Normally DynamoDB is scalable, but since one is looking for a cost effective solution, the messaging in SQS can assist in managing the situation mentioned in the question.
Amazon Simple Queue Service (SQS) is a fully-managed message queuing service for reliably communicating among distributed software components and microservices - at any scale. Building applications from individual components that each perform a discrete function improves scalability and reliability, and is best practice design for modern applications. SQS makes it simple and cost- effective to decouple and coordinate the components of a cloud application. Using SQS, you can send, store, and receive messages between software components at any volume, without losing messages or requiring other services to be always available
For more information on SQS, please refer to the below URL:
• https://aws.amazon.com/sqs/

NEW QUESTION 181
There is a requirement for an application hosted on a VPC to access the On-premise LDAP server. The VPC and the On-premise location are connected via an I PSec VPN. Which of the below are the right options for the application to authenticate each user. Choose 2 answers from the options below

A. Develop an identity broker that authenticates against 1AM security Token service to assume a 1AM role in order to get temporary AWS security credentials The application calls the identity broker to get AWS temporary security credentials.
B. The application authenticates against LDAP and retrieves the name of an 1AM role associated with the use
C. The application then calls the 1AM Security Token Service to assume that 1AM rol
D. The application can use the temporary credentials to access any AWS resources.
E. Develop an identity broker that authenticates against LDAP and then calls 1AM Security Token Service to get 1AM federated user credential
F. The application calls the identity broker to get 1AM federated user credentials with access to the appropriate AWS service.
G. The application authenticates against LDAP the application then calls the AWS identity and Access Management (1AM) Security service to log in to 1AM using the LDAP credentials the application can use the 1AM temporary credentials to access the appropriate AWS service.

Answer: BC

Explanation:
When you have the need for an in-premise environment to work with a cloud environment, you would normally have 2 artefacts for authentication purposes
• An identity store - So this is the on-premise store such as Active Directory which stores all the information for the user's and the groups they below to.
• An identity broker - This is used as an intermediate agent between the on-premise location and the cloud environment. In Windows you have a system known as Active Directory Federation services to provide this facility.
Hence in the above case, you need to have an identity broker which can work with the identity store and the Security Token service in aws. An example diagram of how this works from the aws documentation is given below.



For more information on federated access, please visit the below link: http://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_common-scenarios_federated-users.htm l

NEW QUESTION 183
Which of the following is incorrect when it comes to using the instances in an Opswork stack?

A. In a stack you can use a mix of both Windowsand Linux operating systems
B. You can start and stop instances manually in a stack
C. You can use custom AMI'S as long as they are based on one of the AWS OpsWorks Stacks- supported AMIs
D. You can use time-based automatic scaling with any stack

Answer: A

Explanation:
The AWS documentation mentions the following about Opswork stack
• A stack's instances can run either Linux or Windows.
A stack can have different Linux versions or distributions on different instances, but you cannot mix Linux and Windows instances.
• You can use custom AMIs (Amazon Machine Images), but they must be based on one of the AWS Ops Works Stacks-supported AMIs
• You can start and stop instances manually or have AWS OpsWorks Stacks automatically scale the number of instances. You can use time-based automatic scaling with any stack; Linux stacks also can use load-based scaling.
• In addition to using AWS OpsWorks Stacks to create Amazon EC2 instances, you can also register instances with a Linux stack that were created outside of AWS OpsWorks Stacks.
For more information on Opswork stacks, please visit the below link: http://docs.aws.amazon.com/opsworks/latest/userguide/workinginstances-os.html

NEW QUESTION 184
You are using Autoscaling for managing the instances in your AWS environment. You need to deploy a new version of your application. You'd prefer to use all new instances if possible, but you cannot have any downtime. You also don't want to swap any environment urls. Which of the following deployment methods would you implement

A. Using "All at once" deployment method.
B. Using "Blue Green" deployment method.
C. Using"RollingUpdates"deploymentmethod.
D. Using "Blue Green" with "All at once" deployment method.

Answer: C

Explanation:
In Rolling deployment, you can mention a new set of servers which can replace the existing set of servers. This replacement will happen in a phased out manner. Since there is a requirement to not swap URL's, you must not use Blue Green deployments.
For more information on the differences between Rolling Updates and Blue Green deployments, please refer to the below URL:
• https://cloudnative.io/docs/blue-green-deployment/

NEW QUESTION 188
A user is trying to save some cost on the AWS services. Which of the below mentioned options will not help him save cost?

A. Delete the unutilized EBS volumes once the instance is terminated
B. Delete the AutoScaling launch configuration after the instances are terminated
C. Release the elastic IP if not required once the instance is terminated
D. Delete the AWS ELB after the instances are terminated

Answer: B

Explanation:
Option A is wrong because CBS volumes does have a costing aspect and hence deleting the volumes will save on cost
Option C is wrong because Elastic IP will consume cost if not removed. Option D is wrong because CLB also incur costs.
Only Autoscaling groups are free of cost. It's only the underlying resources which you are charged for. For more information on AWS Pricing, please visit the link:
https://aws.amazon.com/pricing/services/

NEW QUESTION 193
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