

## AWS-Solution-Architect-Associate Dumps

### Amazon AWS Certified Solutions Architect - Associate

<https://www.certleader.com/AWS-Solution-Architect-Associate-dumps.html>



**NEW QUESTION 1**

You have set up an Auto Scaling group. The cool down period for the Auto Scaling group is 7 minutes. The first instance is launched after 3 minutes, while the second instance is launched after 4 minutes. How many minutes after the first instance is launched will Auto Scaling accept another scaling actMty request?

- A. 11 minutes
- B. 7 minutes
- C. 10 minutes
- D. 14 minutes

**Answer:** A

**Explanation:**

If an Auto Scaling group is launching more than one instance, the cool down period for each instance starts after that instance is launched. The group remains locked until the last instance that was launched has completed its cool down period. In this case the cool down period for the first instance starts after 3 minutes and finishes at the 10th minute (3+7 cool down), while for the second instance it starts at the 4th minute and finishes at the 11th minute (4+7 cool down). Thus, the Auto Scaling group will receive another request only after 11 minutes.

Reference: [http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/AS\\_Concepts.html](http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/AS_Concepts.html)

**NEW QUESTION 2**

In Amazon EC2 Container Service components, what is the name of a logical grouping of container instances on which you can place tasks?

- A. A cluster
- B. A container instance
- C. A container
- D. A task definition

**Answer:** A

**Explanation:**

Amazon ECS contains the following components:

A Cluster is a logical grouping of container instances that you can place tasks on.

A Container instance is an Amazon EC2 instance that is running the Amazon ECS agent and has been registered into a cluster.

A Task definition is a description of an application that contains one or more container definitions. A Scheduler is the method used for placing tasks on container instances.

A Service is an Amazon ECS service that allows you to run and maintain a specified number of instances of a task definition simultaneously.

A Task is an instantiation of a task definition that is running on a container instance. A Container is a Linux container that was created as part of a task.

Reference: <http://docs.aws.amazon.com/AmazonECS/latest/developerguide/Welcome.html>

**NEW QUESTION 3**

Amazon EBS provides the ability to create backups of any Amazon EC2 volume into what is known as

- A. snapshots
- B. images
- C. instance backups
- D. mirrors

**Answer:** A

**Explanation:**

Amazon allows you to make backups of the data stored in your EBS volumes through snapshots that can later be used to create a new EBS volume.

Reference: <http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/Storage.html>

**NEW QUESTION 4**

One of the criteria for a new deployment is that the customer wants to use AWS Storage Gateway. However you are not sure whether you should use gateway-cached volumes or gateway-stored volumes or even what the differences are. Which statement below best describes those differences?

- A. Gateway-cached lets you store your data in Amazon Simple Storage Service (Amazon S3) and retain a copy of frequently accessed data subsets locally
- B. Gateway-stored enables you to configure your on-premises gateway to store all your data locally and then asynchronously back up point-in-time snapshots of this data to Amazon S3.
- C. Gateway-cached is free whilst gateway-stored is not.
- D. Gateway-cached is up to 10 times faster than gateway-stored.
- E. Gateway-stored lets you store your data in Amazon Simple Storage Service (Amazon S3) and retain a copy of frequently accessed data subsets locally
- F. Gateway-cached enables you to configure your on-premises gateway to store all your data locally and then asynchronously back up point-in-time snapshots of this data to Amazon S3.

**Answer:** A

**Explanation:**

Volume gateways provide cloud-backed storage volumes that you can mount as Internet Small Computer System Interface (iSCSI) devices from your on-premises application servers. The gateway supports the following volume configurations:

Gateway-cached volumes — You store your data in Amazon Simple Storage Service (Amazon S3) and retain a copy of frequently accessed data subsets locally.

Gateway-cached volumes offer a substantial cost savings on primary storage and minimize the need to scale your storage on-premises. You also retain low-latency access to your frequently accessed data.

Gateway-stored volumes — If you need low-latency access to your entire data set, you can configure your on-premises gateway to store all your data locally and then asynchronously back up point-in-time snapshots of this data to Amazon S3. This configuration provides durable and inexpensive off-site backups that you can recover to your local data center or Amazon EC2. For example, if you need replacement capacity for disaster recovery, you can recover the backups to Amazon EC2.

Reference: <http://docs.aws.amazon.com/storagegateway/latest/userguide/volume-gateway.html>

**NEW QUESTION 5**

You are migrating an internal server on your DC to an EC2 instance with EBS volume. Your server disk usage is around 500GB so you just copied all your data to a 2TB disk to be used with AWS Import/Export. Where will the data be imported once it arrives at Amazon?

- A. to a 2TB EBS volume
- B. to an S3 bucket with 2 objects of 1TB
- C. to an 500GB EBS volume
- D. to an S3 bucket as a 2TB snapshot

**Answer:** B

**Explanation:**

An import to Amazon EBS will have different results depending on whether the capacity of your storage device is less than or equal to 1 TB or greater than 1 TB. The maximum size of an Amazon EBS snapshot is 1 TB, so if the device image is larger than 1 TB, the image is chunked and stored on Amazon S3. The target location is determined based on the total capacity of the device, not the amount of data on the device.

Reference: <http://docs.aws.amazon.com/AWSImportExport/latest/DG/Concepts.html>

**NEW QUESTION 6**

A client needs you to import some existing infrastructure from a dedicated hosting provider to AWS to try and save on the cost of running his current website. He also needs an automated process that manages backups, software patching, automatic failure detection, and recovery. You are aware that his existing set up currently uses an Oracle database. Which of the following AWS databases would be best for accomplishing this task?

- A. Amazon RDS
- B. Amazon Redshift
- C. Amazon SimpleDB
- D. Amazon ElastiCache

**Answer:** A

**Explanation:**

Amazon RDS gives you access to the capabilities of a familiar MySQL, Oracle, SQL Server, or PostgreSQL database engine. This means that the code, applications, and tools you already use today with your existing databases can be used with Amazon RDS. Amazon RDS automatically patches the database software and backs up your database, storing the backups for a user-defined retention period and enabling point-in-time recovery.

Reference: <http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html>

**NEW QUESTION 7**

Your manager has just given you access to multiple VPN connections that someone else has recently set up between all your company's offices. She needs you to make sure that the communication between the VPNs is secure. Which of the following services would be best for providing a low-cost hub-and-spoke model for primary or backup connectivity between these remote offices?

- A. Amazon CloudFront
- B. AWS Direct Connect
- C. AWS CloudHSM
- D. AWS VPN CloudHub

**Answer:** D

**Explanation:**

If you have multiple VPN connections, you can provide secure communication between sites using the AWS VPN CloudHub. The VPN CloudHub operates on a simple hub-and-spoke model that you can use with or without a VPC. This design is suitable for customers with multiple branch offices and existing Internet connections who would like to implement a convenient, potentially low-cost hub-and-spoke model for primary or backup connectivity between these remote offices.

Reference: [http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPN\\_CloudHub.html](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPN_CloudHub.html)

**NEW QUESTION 8**

Amazon EC2 provides a . It is an HTTP or HTTPS request that uses the HTTP verbs GET or POST.

- A. web database
- B. .net framework
- C. Query API
- D. C library

**Answer:** C

**Explanation:**

Amazon EC2 provides a Query API. These requests are HTTP or HTTPS requests that use the HTTP verbs GET or POST and a Query parameter named Action.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/APIReference/making-api-requests.html>

**NEW QUESTION 9**

An organization has three separate AWS accounts, one each for development, testing, and production. The organization wants the testing team to have access to certain AWS resources in the production account. How can the organization achieve this?

- A. It is not possible to access resources of one account with another account.
- B. Create the IAM roles with cross account access.
- C. Create the IAM user in a test account, and allow it access to the production environment with the IAM policy.
- D. Create the IAM users with cross account access

**Answer:**

B

**Explanation:**

An organization has multiple AWS accounts to isolate a development environment from a testing or production environment. At times the users from one account need to access resources in the other account, such as promoting an update from the development environment to the production environment. In this case the IAM role with cross account access will provide a solution. Cross account access lets one account share access to their resources with users in the other AWS accounts.

Reference: [http://media.amazonwebservices.com/AWS\\_Security\\_Best\\_Practices.pdf](http://media.amazonwebservices.com/AWS_Security_Best_Practices.pdf)

**NEW QUESTION 10**

A user has created an EBS volume with 1000 IOPS. What is the average IOPS that the user will get for most of the year as per EC2 SLA if the instance is attached to the EBS optimized instance?

- A. 950
- B. 990
- C. 1000
- D. 900

**Answer:** D

**Explanation:**

As per AWS SLA if the instance is attached to an EBS-Optimized instance, then the Provisioned IOPS volumes are designed to deliver within 10% of the provisioned IOPS performance 99.9% of the time in a given year. Thus, if the user has created a volume of 1000 IOPS, the user will get a minimum 900 IOPS 99.9% time of the year.

Reference: <http://aws.amazon.com/ec2/faqs/>

**NEW QUESTION 10**

You need to migrate a large amount of data into the cloud that you have stored on a hard disk and you decide that the best way to accomplish this is with AWS Import/Export and you mail the hard disk to AWS. Which of the following statements is incorrect in regards to AWS Import/Export?

- A. It can export from Amazon S3
- B. It can Import to Amazon Glacier
- C. It can export from Amazon Glacier.
- D. It can Import to Amazon EBS

**Answer:** C

**Explanation:**

AWS Import/Export supports: Import to Amazon S3

Export from Amazon S3 Import to Amazon EBS Import to Amazon Glacier

AWS Import/Export does not currently support export from Amazon EBS or Amazon Glacier. Reference:

<https://docs.aws.amazon.com/AWSImportExport/latest/DG/whatisdisk.html>

**NEW QUESTION 14**

In Amazon EC2, partial instance-hours are billed .

- A. per second used in the hour
- B. per minute used
- C. by combining partial segments into full hours
- D. as full hours

**Answer:** D

**Explanation:**

Partial instance-hours are billed to the next hour. Reference: <http://aws.amazon.com/ec2/faqs/>

**NEW QUESTION 15**

In EC2, what happens to the data in an instance store if an instance reboots (either intentionally or unintentionally)?

- A. Data is deleted from the instance store for security reasons.
- B. Data persists in the instance store.
- C. Data is partially present in the instance store.
- D. Data in the instance store will be lost

**Answer:** B

**Explanation:**

The data in an instance store persists only during the lifetime of its associated instance. If an instance reboots (intentionally or unintentionally), data in the instance store persists. However, data on instance store volumes is lost under the following circumstances.

Failure of an underlying drive

Stopping an Amazon EBS-backed instance Terminating an instance

Reference: <http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/InstanceStorage.html>

**NEW QUESTION 20**

You are setting up a VPC and you need to set up a public subnet within that VPC. Which following requirement must be met for this subnet to be considered a public subnet?

- A. Subnet's traffic is not routed to an internet gateway but has its traffic routed to a virtual private gateway.
- B. Subnet's traffic is routed to an internet gateway.
- C. Subnet's traffic is not routed to an internet gateway.
- D. None of these answers can be considered a public subne

**Answer:** B

**Explanation:**

A virtual private cloud (VPC) is a virtual network dedicated to your AWS account. It is logically isolated from other virtual networks in the AWS cloud. You can launch your AWS resources, such as Amazon EC2 instances, into your VPC. You can configure your VPC: you can select its IP address range, create subnets, and configure route tables, network gateways, and security settings.

A subnet is a range of IP addresses in your VPC. You can launch AWS resources into a subnet that you select. Use a public subnet for resources that must be connected to the internet, and a private subnet for resources that won't be connected to the Internet.

If a subnet's traffic is routed to an internet gateway, the subnet is known as a public subnet.

If a subnet doesn't have a route to the internet gateway, the subnet is known as a private subnet.

If a subnet doesn't have a route to the internet gateway, but has its traffic routed to a virtual private gateway, the subnet is known as a VPN-only subnet.

Reference: [http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC\\_Subnets.html](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Subnets.html)

**NEW QUESTION 23**

You are checking the workload on some of your General Purpose (SSD) and Provisioned IOPS (SSD) volumes and it seems that the I/O latency is higher than you require. You should probably check the to make sure that your application is not trying to drive more IOPS than you have provisioned.

- A. Amount of IOPS that are available
- B. Acknowledgement from the storage subsystem
- C. Average queue length
- D. Time it takes for the I/O operation to complete

**Answer:** C

**Explanation:**

In EBS workload demand plays an important role in getting the most out of your General Purpose (SSD) and Provisioned IOPS (SSD) volumes. In order for your volumes to deliver the amount of IOPS that are available, they need to have enough I/O requests sent to them. There is a relationship between the demand on the volumes, the amount of IOPS that are available to them, and the latency of the request (the amount of time it takes for the I/O operation to complete).

Latency is the true end-to-end client time of an I/O operation; in other words, when the client sends a IO, how long does it take to get an acknowledgement from the storage subsystem that the IO read or write is complete.

If your I/O latency is higher than you require, check your average queue length to make sure that your application is not trying to drive more IOPS than you have provisioned. You can maintain high IOPS while keeping latency down by maintaining a low average queue length (which is achieved by provisioning more IOPS for your volume).

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-workload-demand.html>

**NEW QUESTION 26**

Which of the below mentioned options is not available when an instance is launched by Auto Scaling with EC2 Classic?

- A. Public IP
- B. Elastic IP
- C. Private DNS
- D. Private IP

**Answer:** B

**Explanation:**

Auto Scaling supports both EC2 classic and EC2-VPC. When an instance is launched as a part of EC2 classic, it will have the public IP and DNS as well as the private IP and DNS.

Reference: <http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/GettingStartedTutorial.html>

**NEW QUESTION 31**

You have been given a scope to deploy some AWS infrastructure for a large organisation. The requirements are that you will have a lot of EC2 instances but may need to add more when the average utilization of your Amazon EC2 fileet is high and conversely remove them when CPU utilization is low. Which AWS services would be best to use to accomplish this?

- A. Auto Scaling, Amazon CloudWatch and AWS Elastic Beanstalk
- B. Auto Scaling, Amazon CloudWatch and Elastic Load Balancing.
- C. Amazon CloudFront, Amazon CloudWatch and Elastic Load Balancing.
- D. AWS Elastic Beanstalk , Amazon CloudWatch and Elastic Load Balancin

**Answer:** B

**Explanation:**

Auto Scaling enables you to follow the demand curve for your applications closely, reducing the need to manually provision Amazon EC2 capacity in advance. For example, you can set a condition to add new

Amazon EC2 instances in increments to the Auto Scaling group when the average utilization of your Amazon EC2 fileet is high; and similarly, you can set a condition to remove instances in the same increments when CPU utilization is low. If you have predictable load changes, you can set a schedule through Auto Scaling to plan your scaling actMties. You can use Amazon CloudWatch to send alarms to trigger scaling actMties and Elastic Load Balancing to help distribute traffic to your instances within Auto Scaling groups. Auto Scaling enables you to run your Amazon EC2 fileet at optimal utilization. Reference:

<http://aws.amazon.com/autoscaling/>

**NEW QUESTION 32**

Much of your company's data does not need to be accessed often, and can take several hours for retrieval time, so it's stored on Amazon Glacier. However

someone within your organization has expressed concerns that his data is more sensitive than the other data, and is wondering whether the high level of encryption that he knows is on S3 is also used on the much cheaper Glacier service. Which of the following statements would be most applicable in regards to this concern?

- A. There is no encryption on Amazon Glacier, that's why it is cheaper.
- B. Amazon Glacier automatically encrypts the data using AES-128 a lesser encryption method than Amazon S3 but you can change it to AES-256 if you are willing to pay more.
- C. Amazon Glacier automatically encrypts the data using AES-256, the same as Amazon S3.
- D. Amazon Glacier automatically encrypts the data using AES-128 a lesser encryption method than Amazon S3.

**Answer: C**

**Explanation:**

Like Amazon S3, the Amazon Glacier service provides low-cost, secure, and durable storage. But where S3 is designed for rapid retrieval, Glacier is meant to be used as an archival service for data that is not accessed often, and for which retrieval times of several hours are suitable.

Amazon Glacier automatically encrypts the data using AES-256 and stores it durably in an immutable form. Amazon Glacier is designed to provide average annual durability of 99.999999999% for an archive. It stores each archive in multiple facilities and multiple devices. Unlike traditional systems which can require laborious data verification and manual repair, Glacier performs regular, systematic data integrity checks, and is built to be automatically self-healing.

Reference: <http://d0.awsstatic.com/whitepapers/Security/AWS%20Security%20Whitepaper.pdf>

**NEW QUESTION 35**

Your EBS volumes do not seem to be performing as expected and your team leader has requested you look into improving their performance. Which of the following is not a true statement relating to the performance of your EBS volumes?

- A. Frequent snapshots provide a higher level of data durability and they will not degrade the performance of your application while the snapshot is in progress.
- B. General Purpose (SSD) and Provisioned IOPS (SSD) volumes have a throughput limit of 128 MB/s per volume.
- C. There is a relationship between the maximum performance of your EBS volumes, the amount of I/O you are drMng to them, and the amount of time it takes for each transaction to complete.
- D. There is a 5 to 50 percent reduction in IOPS when you first access each block of data on a newly created or restored EBS volume

**Answer: A**

**Explanation:**

Several factors can affect the performance of Amazon EBS volumes, such as instance configuration, I/O characteristics, workload demand, and storage configuration.

Frequent snapshots provide a higher level of data durability, but they may slightly degrade the

performance of your application while the snapshot is in progress. This trade off becomes critical when you have data that changes rapidly. Whenever possible, plan for snapshots to occur during off-peak times in order to minimize workload impact.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSPerformance.html>

**NEW QUESTION 37**

You need to set up a complex network infrastructure for your organization that will be reasonably easy to deploy, replicate, control, and track changes on. Which AWS service would be best to use to help you accomplish this?

- A. AWS Import/Export
- B. AWS CloudFormation
- C. Amazon Route 53
- D. Amazon CloudWatch

**Answer: B**

**Explanation:**

AWS CloudFormation is a service that helps you model and set up your Amazon Web Services resources so that you can spend less time managing those resources and more time focusing on your applications that run in AWS. You create a template that describes all the AWS resources that you want (like Amazon EC2 instances or Amazon RDS DB instances), and AWS CloudFormation takes care of provisioning and configuring those resources for you. You don't need to indMdually create and configure AWS resources

and figure out what's dependent on what. AWS CloudFormation handles all of that.

Reference: <http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/Welcome.html>

**NEW QUESTION 42**

You have just been given a scope for a new client who has an enormous amount of data(petabytes) that he constantly needs analysed. Currently he is paying a huge amount of money for a data warehousing company to do this for him and is wondering if AWS can provide a cheaper solution. Do you think AWS has a solution for this?

- A. Ye
- B. Amazon SimpleDB
- C. N
- D. Not presently
- E. Ye
- F. Amazon Redshift
- G. Ye
- H. Your choice of relational AMLs on Amazon EC2 and EBS

**Answer: C**

**Explanation:**

Amazon Redshift is a fast, fully managed, petabyte-scale data warehouse service that makes it simple and cost-effective to efficiently analyze all your data using your existing business intelligence tools. You can start small for just \$0.25 per hour with no commitments or upfront costs and scale to a petabyte or more for \$1,000 per terabyte per year, less than a tenth of most other data warehousing solutions. Amazon Redshift delivers fast query performance by using columnar storage technology to improve I/O efficiency and parallelizing queries across multiple nodes. Redshift uses standard PostgreSQL JDBC and ODBC drivers,

allowing you to use a wide range of familiar SQL clients. Data load speed scales linearly with cluster size, with integrations to Amazon S3, Amazon DynamoDB, Amazon Elastic MapReduce, Amazon Kinesis or any SSH-enabled host.  
Reference: [https://aws.amazon.com/running\\_databases/#redshift\\_anchor](https://aws.amazon.com/running_databases/#redshift_anchor)

**NEW QUESTION 44**

An organization has created an application which is hosted on the AWS EC2 instance. The application stores images to S3 when the end user uploads to it. The organization does not want to store the AWS secure credentials required to access the S3 inside the instance. Which of the below mentioned options is a possible solution to avoid any security threat?

- A. Use the IAM based single sign between the AWS resources and the organization application.
- B. Use the IAM role and assign it to the instance.
- C. Since the application is hosted on EC2, it does not need credentials to access S3.
- D. Use the X.509 certificates instead of the access and the secret access key

**Answer:** B

**Explanation:**

The AWS IAM role uses temporary security credentials to access AWS services. Once the role is assigned to an instance, it will not need any security credentials to be stored on the instance. Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/iam-roles-for-amazon-ec2.html>

**NEW QUESTION 46**

You have been doing a lot of testing of your VPC Network by deliberately failing EC2 instances to test whether instances are failing over properly. Your customer who will be paying the AWS bill for all this asks you if he being charged for all these instances. You try to explain to him how the billing works on EC2 instances to the best of your knowledge. What would be an appropriate response to give to the customer in regards to this?

- A. Billing commences when Amazon EC2 AM instance is completely up and billing ends as soon as the instance starts to shutdown.
- B. Billing only commences only after 1 hour of uptime and billing ends when the instance terminates.
- C. Billing commences when Amazon EC2 initiates the boot sequence of an AM instance and billing ends when the instance shuts down.
- D. Billing commences when Amazon EC2 initiates the boot sequence of an AM instance and billing ends as soon as the instance starts to shutdown.

**Answer:** C

**Explanation:**

Billing commences when Amazon EC2 initiates the boot sequence of an AM instance. Billing ends when the instance shuts down, which could occur through a web services command, by running "shutdown -h", or through instance failure.  
Reference: <http://aws.amazon.com/ec2/faqs/#Billing>

**NEW QUESTION 47**

You log in to IAM on your AWS console and notice the following message. "Delete your root access keys." Why do you think IAM is requesting this?

- A. Because the root access keys will expire as soon as you log out.
- B. Because the root access keys expire after 1 week.
- C. Because the root access keys are the same for all users.
- D. Because they provide unrestricted access to your AWS resource

**Answer:** D

**Explanation:**

In AWS an access key is required in order to sign requests that you make using the command-line interface (CLI), using the AWS SDKs, or using direct API calls. Anyone who has the access key for your root account has unrestricted access to all the resources in your account, including billing information. One of the best ways to protect your account is to not have an access key for your root account. We recommend that unless you must have a root access key (this is very rare), that you do not generate one. Instead, AWS best practice is to create one or more AWS Identity and Access Management (IAM) users, give them the necessary permissions, and use IAM users for everyday interaction with AWS.

Reference:

<http://docs.aws.amazon.com/general/latest/gr/aws-access-keys-best-practices.html#root-password>

**NEW QUESTION 50**

You are in the process of building an online gaming site for a client and one of the requirements is that it must be able to process vast amounts of data easily. Which AWS Service would be very helpful in processing all this data?

- A. Amazon S3
- B. AWS Data Pipeline
- C. AWS Direct Connect
- D. Amazon EMR

**Answer:** D

**Explanation:**

Managing and analyzing high data volumes produced by online games platforms can be difficult. The back-end infrastructures of online games can be challenging to maintain and operate. Peak usage periods, multiple players, and high volumes of write operations are some of the most common problems that operations teams face.

Amazon Elastic MapReduce (Amazon EMR) is a service that processes vast amounts of data easily. Input data can be retrieved from web server logs stored on Amazon S3 or from player data stored in Amazon DynamoDB tables to run analytics on player behavior, usage patterns, etc. Those results can be stored again on Amazon S3, or inserted in a relational database for further analysis with classic business intelligence tools.

Reference: [http://media.amazonwebservices.com/architecturecenter/AWS\\_ac\\_ra\\_games\\_10.pdf](http://media.amazonwebservices.com/architecturecenter/AWS_ac_ra_games_10.pdf)

**NEW QUESTION 53**

What does the following policy for Amazon EC2 do?

```
{
  "Statement": [{
    "Effect": "Allow", "Action": "ec2:Describe*", "Resource": "*"
  }]
}
```

- A. Allow users to use actions that start with "Describe" over all the EC2 resources.
- B. Share an AMI with a partner
- C. Share an AMI within the account
- D. Allow a group to only be able to describe, run, stop, start, and terminate instances

**Answer:** A

**Explanation:**

You can use IAM policies to control the actions that your users can perform against your EC2 resources. For instance, a policy with the following statement will allow users to perform actions whose name start with "Describe" against all your EC2 resources.

```
{
  "Statement": [{
    "Effect": "Allow", "Action": "ec2:Describe*", "Resource": "*"
  }]
}
```

Reference: <http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/UsingIAM.html>

**NEW QUESTION 58**

What does Amazon DynamoDB provide?

- A. A predictable and scalable MySQL database
- B. A fast and reliable PL/SQL database cluster
- C. A standalone Cassandra database, managed by Amazon Web Services
- D. A fast, highly scalable managed NoSQL database service

**Answer:** D

**Explanation:**

Amazon DynamoDB is a managed NoSQL database service offered by Amazon. It automatically manages tasks like scalability for you while it provides high availability and durability for your data, allowing you to concentrate in other aspects of your application.

Reference: check link - [https://aws.amazon.com/running\\_databases/](https://aws.amazon.com/running_databases/)

**NEW QUESTION 60**

You want to use AWS Import/Export to send data from your S3 bucket to several of your branch offices. What should you do if you want to send 10 storage units to AWS?

- A. Make sure your disks are encrypted prior to shipping.
- B. Make sure you format your disks prior to shipping.
- C. Make sure your disks are 1TB or more.
- D. Make sure you submit a separate job request for each device

**Answer:** D

**Explanation:**

When using Amazon Import/Export, a separate job request needs to be submitted for each physical device even if they belong to the same import or export job.

Reference: <http://docs.aws.amazon.com/AWSImportExport/latest/DG/Concepts.html>

**NEW QUESTION 63**

What would be the best way to retrieve the public IP address of your EC2 instance using the CLI?

- A. Using tags
- B. Using traceroute
- C. Using ipconfig
- D. Using instance metadata

**Answer:** D

**Explanation:**

To determine your instance's public IP address from within the instance, you can use instance metadata. Use the following command to access the public IP address: For Linux use, \$ curl

<http://169.254.169.254/latest/meta-data/public-ipv4>, and for Windows use, \$ wget <http://169.254.169.254/latest/meta-data/public-ipv4>.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-instance-addressing.html>

**NEW QUESTION 66**

AWS CloudFormation is a service that helps you model and set up your Amazon Web Services resources so that you can spend less time managing those resources and more time focusing on your applications that run in AWS. You create a template that describes all the AWS resources that you want (like Amazon EC2 instances or Amazon RDS DB instances), and AWS CloudFormation takes care of provisioning and configuring those resources for you. What formatting is required for this template?

- A. JSON-formatted document
- B. CSS-formatted document
- C. XML-formatted document

D. HTML-formatted document

**Answer:** A

**Explanation:**

You can write an AWS CloudFormation template (a JSON-formatted document) in a text editor or pick an existing template. The template describes the resources you want and their settings. For example, suppose you want to create an Amazon EC2. Your template can declare an instance Amazon EC2 and describe its properties, as shown in the following example:

```
{
  "AWSTemplateFormatVersion" : "2010-09-09",
  "Description" : "A simple Amazon EC2 instance", "Resources" : {
    "MyEC2Instance" : {
      "Type" : "AWS::EC2::Instance", "Properties" : {
        "ImageId" : "ami-2f726546", "InstanceType" : "t1.micro"
      }
    }
  }
}
```

Reference:

<http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/cfn-what-is-how-does-it-work.html>

**NEW QUESTION 69**

True or False: In Amazon Route 53, you can create a hosted zone for a top-level domain (TLD).

- A. FALSE
- B. False, Amazon Route 53 automatically creates it for you.
- C. True, only if you send an XML document with a CreateHostedZoneRequest element for TLD.
- D. TRUE

**Answer:** A

**Explanation:**

In Amazon Route 53, you cannot create a hosted zone for a top-level domain (TLD).

Reference: [http://docs.aws.amazon.com/Route53/latest/APIReference/API\\_CreateHostedZone.html](http://docs.aws.amazon.com/Route53/latest/APIReference/API_CreateHostedZone.html)

**NEW QUESTION 74**

You are setting up your first Amazon Virtual Private Cloud (Amazon VPC) so you decide to use the VPC wizard in the AWS console to help make it easier for you. Which of the following statements is correct regarding instances that you launch into a default subnet via the VPC wizard?

- A. Instances that you launch into a default subnet receive a public IP address and 10 private IP addresses.
- B. Instances that you launch into a default subnet receive both a public IP address and a private IP address.
- C. Instances that you launch into a default subnet don't receive any IP addresses and you need to define them manually.
- D. Instances that you launch into a default subnet receive a public IP address and 5 private IP addresses.

**Answer:** B

**Explanation:**

Instances that you launch into a default subnet receive both a public IP address and a private IP address. Instances in a default subnet also receive both public and private DNS hostnames. Instances that you launch into a nondefault subnet in a default VPC don't receive a public IP address or a DNS hostname. You can change your subnet's default public IP addressing behavior.

Reference: <http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/default-vpc.html>

**NEW QUESTION 75**

A user has configured ELB with two EBS-backed EC2 instances. The user is trying to understand the DNS access and IP support for ELB. Which of the below mentioned statements may not help the user understand the IP mechanism supported by ELB?

- A. The client can connect over IPv4 or IPv6 using Dualstack
- B. Communication between the load balancer and back-end instances is always through IPv4
- C. ELB DNS supports both IPv4 and IPv6
- D. The ELB supports either IPv4 or IPv6 but not both

**Answer:** D

**Explanation:**

Elastic Load Balancing supports both Internet Protocol version 6 (IPv6) and Internet Protocol version 4 (IPv4). Clients can connect to the user's load balancer using either IPv4 or IPv6 (in EC2-Classic) DNS. However, communication between the load balancer and its back-end instances uses only IPv4. The user can use the Dualstack-prefixed DNS name to enable IPv6 support for communications between the client and the load balancers. Thus, the clients are able to access the load balancer using either IPv4 or IPv6 as their individual connectivity needs dictate.

Reference: <http://docs.aws.amazon.com/ElasticLoadBalancing/latest/DeveloperGuide/UserScenariosForEC2.html>

**NEW QUESTION 76**

Does AWS CloudFormation support Amazon EC2 tagging?

- A. Yes, AWS CloudFormation supports Amazon EC2 tagging
- B. No, CloudFormation doesn't support any tagging
- C. No, it doesn't support Amazon EC2 tagging.
- D. It depends if the Amazon EC2 tagging has been defined in the template

**Answer:** A

**Explanation:**

In AWS CloudFormation, Amazon EC2 resources that support the tagging feature can also be tagged in an AWS template. The tag values can refer to template parameters, other resource names, resource attribute values (e.g. addresses), or values computed by simple functions (e.g., a concatenated list of strings).

Reference: <http://aws.amazon.com/cloudformation/faqs/>

**NEW QUESTION 79**

Amazon S3 allows you to set per-file permissions to grant read and/or write access. However you have decided that you want an entire bucket with 100 files already in it to be accessible to the public. You don't want to go through 100 files individually and set permissions. What would be the best way to do this?

- A. Move the bucket to a new region
- B. Add a bucket policy to the bucket.
- C. Move the files to a new bucket.
- D. Use Amazon EBS instead of S3

**Answer: B**

**Explanation:**

Amazon S3 supports several mechanisms that give you flexibility to control who can access your data as well as how, when, and where they can access it.

Amazon S3 provides four different access control mechanisms: AWS Identity and Access Management (IAM) policies, Access Control Lists (ACLs), bucket policies, and query string authentication. IAM enables organizations to create and manage multiple users under a single AWS account. With IAM policies, you can grant IAM users fine-grained control to your Amazon S3 bucket or objects. You can use ACLs to selectively add (grant) certain permissions on individual objects.

Amazon S3 bucket policies can be used to add or deny permissions across some or all of the objects within a single bucket.

With Query string authentication, you have the ability to share Amazon S3 objects through URLs that are valid for a specified period of time.

Reference: <http://aws.amazon.com/s3/details/#security>

**NEW QUESTION 83**

A user is accessing an EC2 instance on the SSH port for IP 10.20.30.40. Which one is a secure way to configure that the instance can be accessed only from this IP?

- A. In the security group, open port 22 for IP 10.20.30.40
- B. In the security group, open port 22 for IP 10.20.30.40/32
- C. In the security group, open port 22 for IP 10.20.30.40/24
- D. In the security group, open port 22 for IP 10.20.30.40/0

**Answer: B**

**Explanation:**

In AWS EC2, while configuring a security group, the user needs to specify the IP address in CIDR notation. The CIDR IP range 10.20.30.40/32 says it is for a single IP 10.20.30.40. If the user specifies the IP as 10.20.30.40 only, the security group will not accept and ask it in a CIDR format.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-network-security.html>

**NEW QUESTION 84**

Which of the following statements is true of creating a launch configuration using an EC2 instance?

- A. The launch configuration can be created only using the Query APIs.
- B. Auto Scaling automatically creates a launch configuration directly from an EC2 instance.
- C. A user should manually create a launch configuration before creating an Auto Scaling group.
- D. The launch configuration should be created manually from the AWS CL

**Answer: B**

**Explanation:**

You can create an Auto Scaling group directly from an EC2 instance. When you use this feature, Auto Scaling automatically creates a launch configuration for you as well.

Reference:

<http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/create-lc-with-instanceID.html>

**NEW QUESTION 89**

A user has created an application which will be hosted on EC2. The application makes calls to DynamoDB to fetch certain data. The application is using the DynamoDB SDK to connect with from the EC2 instance. Which of the below mentioned statements is true with respect to the best practice for security in this scenario?

- A. The user should create an IAM user with DynamoDB access and use its credentials within the application to connect with DynamoDB
- B. The user should attach an IAM role with DynamoDB access to the EC2 instance
- C. The user should create an IAM role, which has EC2 access so that it will allow deploying the application
- D. The user should create an IAM user with DynamoDB and EC2 access
- E. Attach the user with the application so that it does not use the root account credentials

**Answer: B**

**Explanation:**

With AWS IAM a user is creating an application which runs on an EC2 instance and makes requests to

AWS, such as DynamoDB or S3 calls. Here it is recommended that the user should not create an IAM user and pass the user's credentials to the application or embed those credentials inside the application. Instead, the user should use roles for EC2 and give that role access to DynamoDB / S3. When the roles are attached to EC2, it will give temporary security credentials to the application hosted on that EC2, to connect with DynamoDB / S3.

Reference: [http://docs.aws.amazon.com/IAM/latest/UserGuide/Using\\_WorkingWithGroupsAndUsers.html](http://docs.aws.amazon.com/IAM/latest/UserGuide/Using_WorkingWithGroupsAndUsers.html)

**NEW QUESTION 91**

You are building a system to distribute confidential documents to employees. Using CloudFront, what method could be used to serve content that is stored in S3, but not publically accessible from S3 directly?

- A. Add the CloudFront account security group "amazon-cf/amazon-cf-sg" to the appropriate S3 bucket policy.
- B. Create a S3 bucket policy that lists the CloudFront distribution ID as the Principal and the target bucket as the Amazon Resource Name (ARN).
- C. Create an Identity and Access Management (IAM) User for CloudFront and grant access to the objects in your S3 bucket to that IAM User.
- D. Create an Origin Access Identity (OAI) for CloudFront and grant access to the objects in your S3 bucket to that OAI.

**Answer:** D

**Explanation:**

You restrict access to Amazon S3 content by creating an origin access identity, which is a special CloudFront user. You change Amazon S3 permissions to give the origin access identity permission to access your objects, and to remove permissions from everyone else. When your users access your Amazon S3 objects using CloudFront URLs, the CloudFront origin access identity gets the objects on your users' behalf. If your users try to access objects using Amazon S3 URLs, they're denied access. The origin access identity has permission to access objects in your Amazon S3 bucket, but users don't. Reference: <http://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-restricting-access-to-s3.html>

**NEW QUESTION 92**

A user has attached 1 EBS volume to a VPC instance. The user wants to achieve the best fault tolerance of data possible. Which of the below mentioned options can help achieve fault tolerance?

- A. Attach one more volume with RAID 1 configuration.
- B. Attach one more volume with RAID 0 configuration.
- C. Connect multiple volumes and stripe them with RAID 6 configuration.
- D. Use the EBS volume as a root device

**Answer:** A

**Explanation:**

The user can join multiple provisioned IOPS volumes together in a RAID 1 configuration to achieve better fault tolerance. RAID 1 does not provide a write performance improvement; it requires more bandwidth than non-RAID configurations since the data is written simultaneously to multiple volumes. Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/raid-config.html>

**NEW QUESTION 96**

A user has created photo editing software and hosted it on EC2. The software accepts requests from the user about the photo format and resolution and sends a message to S3 to enhance the picture accordingly. Which of the below mentioned AWS services will help make a scalable software with the AWS infrastructure in this scenario?

- A. AWS Simple Notification Service
- B. AWS Simple Queue Service
- C. AWS Elastic Transcoder
- D. AWS Glacier

**Answer:** B

**Explanation:**

Amazon Simple Queue Service (SQS) is a fast, reliable, scalable, and fully managed message queuing service. SQS provides a simple and cost-effective way to decouple the components of an application. The user can configure SQS, which will decouple the call between the EC2 application and S3. Thus, the application does not keep waiting for S3 to provide the data. Reference: <http://aws.amazon.com/sqs/faqs/>

**NEW QUESTION 97**

A user is planning to launch a scalable web application. Which of the below mentioned options will not affect the latency of the application?

- A. Region.
- B. Provisioned IOPS.
- C. Availability Zone.
- D. Instance size

**Answer:** C

**Explanation:**

In AWS, the instance size decides the I/O characteristics. The provisioned IOPS ensures higher throughput, and lower latency. The region does affect the latency; latency will always be less when the instance is near to the end user. Within a region the user uses any AZ and this does not affect the latency. The AZ is mainly for fault tolerance or HA.

Reference: [http://media.amazonwebservices.com/AWS\\_Security\\_Best\\_Practices.pdf](http://media.amazonwebservices.com/AWS_Security_Best_Practices.pdf)

**NEW QUESTION 98**

Which of the following strategies can be used to control access to your Amazon EC2 instances?

- A. DB security groups
- B. IAM policies
- C. None of these
- D. EC2 security groups

**Answer:** D

**Explanation:**

IAM policies allow you to specify what actions your IAM users are allowed to perform against your EC2 Instances. However, when it comes to access control, security groups are what you need in order to define and control the way you want your instances to be accessed, and whether or not certain kind of communications are allowed or not.

Reference: <http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/UsingIAM.html>

**NEW QUESTION 100**

Do you need to shutdown your EC2 instance when you create a snapshot of EBS volumes that serve as root devices?

- A. No, you only need to shutdown an instance before deleting it.
- B. Yes
- C. No, the snapshot would turn off your instance automatically.
- D. No

**Answer: B**

**Explanation:**

Yes, to create a snapshot for Amazon EBS volumes that serve as root devices, you should stop the instance before taking the snapshot.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-creating-snapshot.html>

**NEW QUESTION 105**

An organization has a statutory requirement to protect the data at rest for data stored in EBS volumes. Which of the below mentioned options can the organization use to achieve data protection?

- A. Data replication.
- B. Data encryption.
- C. Data snapshot.
- D. All the options listed her

**Answer: D**

**Explanation:**

For protecting the Amazon EBS data at REST, the user can use options, such as Data Encryption (Windows / Linux / third party based), Data Replication (AWS internally replicates data for redundancy), and Data Snapshot (for point in time backup).

Reference: [http://media.amazonwebservices.com/AWS\\_Security\\_Best\\_Practices.pdf](http://media.amazonwebservices.com/AWS_Security_Best_Practices.pdf)

**NEW QUESTION 109**

A client of yours has a huge amount of data stored on Amazon S3, but is concerned about someone stealing it while it is in transit. You know that all data is encrypted in transit on AWS, but which of the following is wrong when describing server-side encryption on AWS?

- A. Amazon S3 server-side encryption employs strong multi-factor encryption.
- B. Amazon S3 server-side encryption uses one of the strongest block ciphers available, 256-bit Advanced Encryption Standard (AES-256), to encrypt your data.
- C. In server-side encryption, you manage encryption/decryption of your data, the encryption keys, and related tools.
- D. Server-side encryption is about data encryption at rest—that is, Amazon S3 encrypts your data as it writes it to disks.

**Answer: C**

**Explanation:**

Amazon S3 encrypts your object before saving it on disks in its data centers and decrypts it when you download the objects. You have two options depending on how you choose to manage the encryption keys: Server-side encryption and client-side encryption.

Server-side encryption is about data encryption at rest—that is, Amazon S3 encrypts your data as it writes it to disks in its data centers and decrypts it for you when you access it. As long as you authenticate your request and you have access permissions, there is no difference in the way you access encrypted or unencrypted objects. Amazon S3 manages encryption and decryption for you. For example, if you share your objects using a pre-signed URL, that URL works the same way for both encrypted and unencrypted objects.

In client-side encryption, you manage encryption/decryption of your data, the encryption keys, and related tools. Server-side encryption is an alternative to client-side encryption in which Amazon S3 manages the encryption of your data, freeing you from the tasks of managing encryption and encryption keys.

Amazon S3 server-side encryption employs strong multi-factor encryption. Amazon S3 encrypts each object with a unique key. As an additional safeguard, it encrypts the key itself with a master key that it regularly rotates. Amazon S3 server-side encryption uses one of the strongest block ciphers available, 256-bit Advanced Encryption Standard (AES-256), to encrypt your data.

Reference: <http://docs.aws.amazon.com/AmazonS3/latest/dev/UsingServerSideEncryption.html>

**NEW QUESTION 114**

A user is running a batch process which runs for 1 hour every day. Which of the below mentioned options is the right instance type and costing model in this case if the user performs the same task for the whole year?

- A. EBS backed instance with on-demand instance pricing.
- B. EBS backed instance with heavy utilized reserved instance pricing.
- C. EBS backed instance with low utilized reserved instance pricing.
- D. Instance store backed instance with spot instance pricin

**Answer: A**

**Explanation:**

For Amazon Web Services, the reserved instance helps the user save money if the user is going to run the same instance for a longer period. Generally if the user uses the instances around 30-40% annually it is recommended to use RI. Here as the instance runs only for 1 hour daily it is not recommended to have RI as it will be costlier. The user should use on-demand with EBS in this case.

Reference: <http://aws.amazon.com/ec2/purchasing-options/reserved-instances/>

**NEW QUESTION 116**

You have just set up a large site for a client which involved a huge database which you set up with Amazon RDS to run as a Multi-AZ deployment. You now start to worry about what will happen if the database instance fails. Which statement best describes how this database will function if there is a database failure?

- A. Updates to your DB Instance are synchronously replicated across Availability Zones to the standby in order to keep both in sync and protect your latest database updates against DB Instance failure.
- B. Your database will not resume operation without manual administrative intervention.
- C. Updates to your DB Instance are asynchronously replicated across Availability Zones to the standby in order to keep both in sync and protect your latest database updates against DB Instance failure.
- D. Updates to your DB Instance are synchronously replicated across S3 to the standby in order to keep both in sync and protect your latest database updates against DB Instance failure.

**Answer:** A

**Explanation:**

Amazon Relational Database Service (Amazon RDS) is a managed service that makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity, while managing time-consuming database administration tasks, freeing you up to focus on your applications and business.

When you create or modify your DB Instance to run as a Multi-AZ deployment, Amazon RDS automatically provisions and maintains a synchronous "standby" replica in a different Availability Zone. Updates to your DB Instance are synchronously replicated across Availability Zones to the standby in order to keep both in sync and protect your latest database updates against DB Instance failure.

During certain types of planned maintenance, or in the unlikely event of DB Instance failure or Availability Zone failure, Amazon RDS will automatically failover to the standby so that you can resume database writes and reads as soon as the standby is promoted. Since the name record for your DB Instance remains the same, your application can resume database operation without the need for manual administrative intervention. With Multi-AZ deployments, replication is transparent: you do not interact directly with the standby, and it cannot be used to serve read traffic. If you are using Amazon RDS for MySQL and are looking to scale read traffic beyond the capacity constraints of a single DB Instance, you can deploy one or more Read Replicas.

Reference: <http://aws.amazon.com/rds/faqs/>

**NEW QUESTION 118**

You have a number of image files to encode. In an Amazon SQS worker queue, you create an Amazon SQS message for each file specifying the command (jpeg-encode) and the location of the file in Amazon S3. Which of the following statements best describes the functionality of Amazon SQS?

- A. Amazon SQS is a distributed queuing system that is optimized for horizontal scalability, not for single-threaded sending or receiving speeds.
- B. Amazon SQS is for single-threaded sending or receiving speeds.
- C. Amazon SQS is a non-distributed queuing system.
- D. Amazon SQS is a distributed queuing system that is optimized for vertical scalability and for single-threaded sending or receiving speeds.

**Answer:** A

**Explanation:**

Amazon SQS is a distributed queuing system that is optimized for horizontal scalability, not for single-threaded sending or receiving speeds. A single client can send or receive Amazon SQS messages at a rate of about 5 to 50 messages per second. Higher receive performance can be achieved by requesting multiple messages (up to 10) in a single call. It may take several seconds before a message that has been to a queue is available to be received.

Reference: [http://media.amazonwebservices.com/AWS\\_Storage\\_Options.pdf](http://media.amazonwebservices.com/AWS_Storage_Options.pdf)

**NEW QUESTION 119**

A user is observing the EC2 CPU utilization metric on CloudWatch. The user has observed some interesting patterns while filtering over the 1 week period for a particular hour. The user wants to zoom that data point to a more granular period. How can the user do that easily with CloudWatch?

- A. The user can zoom a particular period by selecting that period with the mouse and then releasing the mouse
- B. The user can zoom a particular period by specifying the aggregation data for that period
- C. The user can zoom a particular period by double clicking on that period with the mouse
- D. The user can zoom a particular period by specifying the period in the Time Range

**Answer:** A

**Explanation:**

Amazon CloudWatch provides the functionality to graph the metric data generated either by the AWS services or the custom metric to make it easier for the user to analyse. The AWS CloudWatch console provides the option to change the granularity of a graph and zoom in to see data over a shorter time period. To zoom, the user has to click in the graph details pane, drag on the graph area for selection, and then release the mouse button.

Reference: [http://docs.aws.amazon.com/AmazonCloudWatch/latest/DeveloperGuide/zoom\\_in\\_on\\_graph.html](http://docs.aws.amazon.com/AmazonCloudWatch/latest/DeveloperGuide/zoom_in_on_graph.html)

**NEW QUESTION 123**

A user comes to you and wants access to Amazon CloudWatch but only wants to monitor a specific LoadBalancer. Is it possible to give him access to a specific set of instances or a specific LoadBalancer?

- A. No because you can't use IAM to control access to CloudWatch data for specific resources.
- B. Yes
- C. You can use IAM to control access to CloudWatch data for specific resources.
- D. No because you need to be Sysadmin to access CloudWatch data.
- E. Yes
- F. Any user can see all CloudWatch data and needs no access right

**Answer:** A

**Explanation:**

Amazon CloudWatch integrates with AWS Identity and Access Management (IAM) so that you can specify which CloudWatch actions a user in your AWS Account can perform. For example, you could create an IAM policy that gives only certain users in your organization permission to use GetMetricStatistics. They could then use the action to retrieve data about your cloud resources.

You can't use IAM to control access to CloudWatch data for specific resources. For example, you can't give a user access to CloudWatch data for only a specific set of instances or a specific LoadBalancer. Permissions granted using IAM cover all the cloud resources you use with CloudWatch. In addition, you can't use IAM roles with the Amazon CloudWatch command line tools.

Using Amazon CloudWatch with IAM doesn't change how you use CloudWatch. There are no changes to CloudWatch actions, and no new CloudWatch actions related to users and access control.

Reference: <http://docs.aws.amazon.com/AmazonCloudWatch/latest/DeveloperGuide/UsingIAM.html>

#### NEW QUESTION 124

A user is planning to make a mobile game which can be played online or offline and will be hosted on EC2.

The user wants to ensure that if someone breaks the highest score or they achieve some milestone they can inform all their colleagues through email. Which of the below mentioned AWS services helps achieve this goal?

- A. AWS Simple Workflow Service.
- B. AWS Simple Email Service.
- C. Amazon Cognito
- D. AWS Simple Queue Service

**Answer: B**

#### Explanation:

Amazon Simple Email Service (Amazon SES) is a highly scalable and cost-effective email-sending service for businesses and developers. It integrates with other AWS services, making it easy to send emails from applications that are hosted on AWS.

Reference: <http://aws.amazon.com/ses/faqs/>

#### NEW QUESTION 129

You need to create an Amazon Machine Image (AMI) for a customer for an application which does not appear to be part of the standard AWS AM template that you can see in the AWS console. What are the alternative possibilities for creating an AM on AWS?

- A. You can purchase an AMs from a third party but cannot create your own AM.
- B. You can purchase an AMIs from a third party or can create your own AMI.
- C. Only AWS can create AMIs and you need to wait till it becomes available.
- D. Only AWS can create AMIs and you need to request them to create one for you

**Answer: B**

#### Explanation:

You can purchase an AMIs from a third party, including AMIs that come with service contracts from organizations such as Red Hat. You can also create an AMI and sell it to other Amazon EC2 users. After you create an AMI, you can keep it private so that only you can use it, or you can share it with a specified list of AWS accounts. You can also make your custom AMI public so that the community can use it. Building a safe, secure, usable AMI for public consumption is a fairly straightforward process, if you follow a few simple guidelines.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AMIs.html>

#### NEW QUESTION 134

A user has deployed an application on his private cloud. The user is using his own monitoring tool. He wants to configure it so that whenever there is an error, the monitoring tool will notify him via SMS. Which of the below mentioned AWS services will help in this scenario?

- A. AWS SES
- B. AWS SNS
- C. None because the user infrastructure is in the private cloud.
- D. AWS SMS

**Answer: B**

#### Explanation:

Amazon Simple Notification Service (Amazon SNS) is a fast, flexible, and fully managed push messaging service. Amazon SNS can be used to make push notifications to mobile devices. Amazon SNS can deliver notifications by SMS text message or email to the Amazon Simple Queue Service (SQS) queues or to any HTTP endpoint. In this case user can use the SNS apis to send SMS.

Reference: <http://aws.amazon.com/sns/>

#### NEW QUESTION 139

After setting up an EC2 security group with a cluster of 20 EC2 instances, you find an error in the security group settings. You quickly make changes to the security group settings. When will the changes to the settings be effective?

- A. The settings will be effective immediately for all the instances in the security group.
- B. The settings will be effective only when all the instances are restarted.
- C. The settings will be effective for all the instances only after 30 minutes.
- D. The settings will be effective only for the new instances added to the security group

**Answer: A**

#### Explanation:

Amazon Redshift applies changes to a cluster security group immediately. So if you have associated the cluster security group with a cluster, inbound cluster access rules in the updated cluster security group apply immediately.

Reference: <http://docs.aws.amazon.com/redshift/latest/mgmt/working-with-security-groups.html>

#### NEW QUESTION 142

A user is currently building a website which will require a large number of instances in six months, when a demonstration of the new site will be given upon launch.

Which of the below mentioned options allows the user to procure the resources beforehand so that they need not worry about infrastructure availability during the demonstration?

- A. Procure all the instances as reserved instances beforehand.
- B. Launch all the instances as part of the cluster group to ensure resource availability.
- C. Pre-warm all the instances one month prior to ensure resource availability.
- D. Ask AWS now to procure the dedicated instances in 6 month

**Answer:** A

**Explanation:**

Amazon Web Services has massive hardware resources at its data centers, but they are finite. The best way for users to maximize their access to these resources is by reserving a portion of the computing capacity that they require. This can be done through reserved instances. With reserved instances, the user literally reserves the computing capacity in the Amazon Web Services cloud.

Reference: [http://media.amazonwebservices.com/AWS\\_Building\\_Fault\\_Tolerant\\_Applications.pdf](http://media.amazonwebservices.com/AWS_Building_Fault_Tolerant_Applications.pdf)

**NEW QUESTION 144**

You are setting up some EBS volumes for a customer who has requested a setup which includes a RAID (redundant array of inexpensive disks). AWS has some recommendations for RAID setups. Which RAID setup is not recommended for Amazon EBS?

- A. RAID 5 only
- B. RAID 5 and RAID 6
- C. RAID 1 only
- D. RAID 1 and RAID 6

**Answer:** B

**Explanation:**

With Amazon EBS, you can use any of the standard RAID configurations that you can use with a traditional bare metal server, as long as that particular RAID configuration is supported by the operating system for your instance. This is because all RAID is accomplished at the software level. For greater I/O performance than you can achieve with a single volume, RAID 0 can stripe multiple volumes together; for on-instance redundancy, RAID 1 can mirror two volumes together. RAID 5 and RAID 6 are not recommended for Amazon EBS because the parity write operations of these RAID modes consume some of the IOPS available to your volumes.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/raid-config.html>

**NEW QUESTION 149**

You receive the following request from a client to quickly deploy a static website for them, specifically on AWS. The requirements are low-cost, reliable, online storage, and a reliable and cost-effective way to route customers to the website, as well as a way to deliver content with low latency and high data transfer speeds so that visitors to his website don't experience unnecessary delays. What do you think would be the minimum AWS services that could fulfill the client's request?

- A. Amazon Route 53, Amazon CloudFront and Amazon VPC.
- B. Amazon S3, Amazon Route 53 and Amazon RDS
- C. Amazon S3, Amazon Route 53 and Amazon CloudFront
- D. Amazon S3 and Amazon Route 53.

**Answer:** C

**Explanation:**

You can easily and inexpensively use AWS to host a website that uses client-side technologies (such as HTML, CSS, and JavaScript) and does not require server-side technologies (such as PHP and ASP.NET). This type of site is called a static website, and is used to display content that does not change frequently. Before you create and deploy a static website, you must plan your architecture to ensure that it meets your requirements. Amazon S3, Amazon Route 53, and Amazon CloudFront would be required in this instance.

Reference: <http://docs.aws.amazon.com/gettingstarted/latest/swlh/website-hosting-intro.html>

**NEW QUESTION 152**

What is the network performance offered by the c4.8xlarge instance in Amazon EC2?

- A. 20 Gigabit
- B. 10 Gigabit
- C. Very High but variable
- D. 5 Gigabit

**Answer:** B

**Explanation:**

Networking performance offered by the c4.8xlarge instance is 10 Gigabit. Reference: <http://aws.amazon.com/ec2/instance-types/>

**NEW QUESTION 157**

You have been asked to tighten up the password policies in your organization after a serious security breach, so you need to consider every possible security measure. Which of the following is not an account password policy for IAM Users that can be set?

- A. Force IAM users to contact an account administrator when the user has allowed his or her password to expue.
- B. A minimum password length.
- C. Force IAM users to contact an account administrator when the user has entered his password incorrectly.
- D. Prevent IAM users from reusing previous password

**Answer:** C

**Explanation:**

IAM users need passwords in order to access the AWS Management Console. (They do not need passwords if they will access AWS resources programmatically by using the CLI, AWS SDKs, or the APIs.)

You can use a password policy to do these things: Set a minimum password length.

Require specific character types, including uppercase letters, lowercase letters, numbers, and non-alphanumeric characters. Be sure to remind your users that passwords are case sensitive. Allow all IAM users to change their own passwords.

Require IAM users to change their password after a specified period of time (enable password expiration). Prevent IAM users from reusing previous passwords.

Force IAM users to contact an account administrator when the user has allowed his or her password to expire.

Reference: [http://docs.aws.amazon.com/IAM/latest/UserGuide/Using\\_ManagingPasswordPolicies.html](http://docs.aws.amazon.com/IAM/latest/UserGuide/Using_ManagingPasswordPolicies.html)

#### NEW QUESTION 162

Your organization is in the business of architecting complex transactional databases. For a variety of reasons, this has been done on EBS. What is AWS's recommendation for customers who have architected databases using EBS for backups?

- A. Backups to Amazon S3 be performed through the database management system.
- B. Backups to AWS Storage Gateway be performed through the database management system.
- C. If you take regular snapshots no further backups are required.
- D. Backups to Amazon Glacier be performed through the database management system.

**Answer:** A

#### Explanation:

Data stored in Amazon EBS volumes is redundantly stored in multiple physical locations as part of normal operation of those services and at no additional charge. However, Amazon EBS replication is stored within the same availability zone, not across multiple zones; therefore, it is highly recommended that you conduct regular snapshots to Amazon S3 for long-term data durability.

For customers who have architected complex transactional databases using EBS, it is recommended that backups to Amazon S3 be performed through the database management system so that distributed transactions and logs can be checkpointed.

AWS does not perform backups of data that are maintained on virtual disks attached to running instances on Amazon EC2.

Reference: <http://d0.awsstatic.com/whitepapers/Security/AWS%20Security%20Whitepaper.pdf>

#### NEW QUESTION 167

You have three Amazon EC2 instances with Elastic IP addresses in the US East (Virginia) region, and you want to distribute requests across all three IPs evenly for users for whom US East (Virginia) is the appropriate region.

How many EC2 instances would be sufficient to distribute requests in other regions?

- A. 3
- B. 9
- C. 2
- D. 1

**Answer:** D

#### Explanation:

If your application is running on Amazon EC2 instances in two or more Amazon EC2 regions, and if you have more than one Amazon EC2 instance in one or more regions, you can use latency-based routing to route traffic to the correct region and then use weighted resource record sets to route traffic to instances within the region based on weights that you specify.

For example, suppose you have three Amazon EC2 instances with Elastic IP addresses in the US East (Virginia) region and you want to distribute requests across all three IPs evenly for users for whom US East (Virginia) is the appropriate region. Just one Amazon EC2 instance is sufficient in the other regions, although you can apply the same technique to many regions at once.

Reference: <http://docs.aws.amazon.com/Route53/latest/DeveloperGuide/Tutorials.html>

#### NEW QUESTION 171

A major client who has been spending a lot of money on his internet service provider asks you to set up an AWS Direct Connection to try and save him some money. You know he needs high-speed connectivity. Which connection port speeds are available on AWS Direct Connect?

- A. 50Mbps and 1Gbps
- B. 1Gbps and 10Gbps
- C. 100Mbps and 1Gbps
- D. 1Gbps

**Answer:** B

#### Explanation:

AWS Direct Connect is a network service that provides an alternative to using the internet to utilize AWS cloud services.

Using AWS Direct Connect, data that would have previously been transported over the Internet can now be delivered through a private network connection between AWS and your datacenter or corporate network.

1Gbps and 10Gbps ports are available. Speeds of 50Mbps, 100Mbps, 200Mbps, 300Mbps, 400Mbps, and 500Mbps can be ordered from any APN partners supporting AWS Direct Connect.

Reference: <https://aws.amazon.com/directconnect/faqs/>

#### NEW QUESTION 175

In Amazon EC2, what is the limit of Reserved Instances per Availability Zone each month?

- A. 5
- B. 20
- C. 50
- D. 10

**Answer:** B

**Explanation:**

There are 20 Reserved Instances per Availability Zone in each month.

Reference: [http://docs.aws.amazon.com/general/latest/gr/aws\\_service\\_limits.html](http://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html)

**NEW QUESTION 179**

You have just finished setting up an advertisement server in which one of the obvious choices for a service was Amazon Elastic Map Reduce (EMR) and are now troubleshooting some weird cluster states that you are seeing. Which of the below is not an Amazon EMR cluster state?

- A. STARTING
- B. STOPPED
- C. RUNNING
- D. WAITING

**Answer:** B

**Explanation:**

Amazon Elastic Map Reduce (EMR) is a web service that enables businesses, researchers, data analysts, and developers to easily and cost-effectively process vast amounts of data.

Amazon EMR historically referred to an Amazon EMR cluster (and all processing steps assigned to it) as a "cluster". Every cluster has a unique identifier that starts with "j-".

The different cluster states of an Amazon EMR cluster are listed below. STARTING — The cluster provisions, starts, and configures EC2 instances.

BOOTSTRAPPING — Bootstrap actions are being executed on the cluster. RUNNING — A step for the cluster is currently being run.

WAITING — The cluster is currently active, but has no steps to run. TERMINATING - The cluster is in the process of shutting down. TERMINATED - The cluster was shut down without error. TERMINATED\_WITH\_ERRORS - The cluster was shut down with errors.

Reference: <https://aws.amazon.com/elasticmapreduce/faqs/>

**NEW QUESTION 183**

Is it possible to get a history of all EC2 API calls made on your account for security analysis and operational troubleshooting purposes?

- A. Yes, by default, the history of your API calls is logged.
- B. Yes, you should turn on the CloudTrail in the AWS console.
- C. No, you can only get a history of VPC API calls.
- D. No, you cannot store history of EC2 API calls on Amazon.

**Answer:** B

**Explanation:**

To get a history of all EC2 API calls (including VPC and EBS) made on your account, you simply turn on CloudTrail in the AWS Management Console.

Reference: <https://aws.amazon.com/ec2/faqs/>

**NEW QUESTION 184**

After setting up some EC2 instances you now need to set up a monitoring solution to keep track of these instances and to send you an email when the CPU hits a certain threshold. Which statement below best describes what thresholds you can set to trigger a CloudWatch Alarm?

- A. Set a target value and choose whether the alarm will trigger when the value is greater than (>), greater than or equal to (>=), less than (<), or less than or equal to (<=) that value.
- B. Thresholds need to be set in IAM not CloudWatch
- C. Only default thresholds can be set you can't choose your own thresholds.
- D. Set a target value and choose whether the alarm will trigger when the value hits this threshold

**Answer:** A

**Explanation:**

Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. You can use Amazon CloudWatch to collect and track metrics, collect and monitor log files, and set alarms.

When you create an alarm, you first choose the Amazon CloudWatch metric you want it to monitor. Next, you choose the evaluation period (e.g., five minutes or one hour) and a statistical value to measure (e.g., Average or Maximum).

To set a threshold, set a target value and choose whether the alarm will trigger when the value is greater than (>), greater than or equal to (>=), less than (<), or less than or equal to (<=) that value.

Reference: <http://aws.amazon.com/cloudwatch/faqs/>

**NEW QUESTION 186**

What happens to Amazon EBS root device volumes, by default, when an instance terminates?

- A. Amazon EBS root device volumes are moved to IAM.
- B. Amazon EBS root device volumes are copied into Amazon RDS.
- C. Amazon EBS root device volumes are automatically deleted.
- D. Amazon EBS root device volumes remain in the database until you delete the

**Answer:** C

**Explanation:**

By default, Amazon EBS root device volumes are automatically deleted when the instance terminates. Reference:

<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/terminating-instances.html>

**NEW QUESTION 187**

A favored client needs you to quickly deploy a database that is a relational database service with minimal administration as he wants to spend the least amount of time administering it. Which database would be the best option?

- A. Amazon SimpleDB
- B. Your choice of relational AMs on Amazon EC2 and EBS.
- C. Amazon RDS
- D. Amazon Redshift

**Answer:** C

**Explanation:**

Amazon Relational Database Service (Amazon RDS) is a web service that makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity while managing time-consuming database administration tasks, freeing you up to focus on your applications and business.

Amazon RDS gives you access to the capabilities of a familiar MySQL, Oracle, SQL Server, or PostgreSQL database engine. This means that the code, applications, and tools you already use today with your existing databases can be used with Amazon RDS. Amazon RDS automatically patches the database software and backs up your database, storing the backups for a user-defined retention period and enabling point-in-time recovery.

Reference: [https://aws.amazon.com/running\\_databases/#rds\\_anchor](https://aws.amazon.com/running_databases/#rds_anchor)

**NEW QUESTION 192**

You need to set up security for your VPC and you know that Amazon VPC provides two features that you can use to increase security for your VPC: Security groups and network access control lists (ACLs). You start to look into security groups first. Which statement below is incorrect in relation to security groups?

- A. Are stateful: Return traffic is automatically allowed, regardless of any rules.
- B. Evaluate all rules before deciding whether to allow traffic.
- C. Support allow rules and deny rules.
- D. Operate at the instance level (first layer of defense).

**Answer:** C

**Explanation:**

Amazon VPC provides two features that you can use to increase security for your VPC:

Security groups—Act as a firewall for associated Amazon EC2 instances, controlling both inbound and outbound traffic at the instance level and supports allow rules only.

Network access control lists (ACLs)—Act as a firewall for associated subnets, controlling both inbound and outbound traffic at the subnet level and supports allow rules and deny rules.

Reference: [http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC\\_Security.html](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Security.html)

**NEW QUESTION 193**

You are setting up some IAM user policies and have also become aware that some services support resource-based permissions, which let you attach policies to the service's resources instead of to IAM users or groups. Which of the below statements is true in regards to resource-level permissions?

- A. All services support resource-level permissions for all actions.
- B. Resource-level permissions are supported by Amazon CloudFront
- C. All services support resource-level permissions only for some actions.
- D. Some services support resource-level permissions only for some action

**Answer:** D

**Explanation:**

AWS Identity and Access Management is a web service that enables Amazon Web Services (AWS) customers to manage users and user permissions in AWS. The service is targeted at organizations with multiple users or systems that use AWS products such as Amazon EC2, Amazon RDS, and the AWS Management Console. With IAM, you can centrally manage users, security credentials such as access keys, and permissions that control which AWS resources users can access.

In addition to supporting IAM user policies, some services support resource-based permissions, which let you attach policies to the service's resources instead of to IAM users or groups. Resource-based permissions are supported by Amazon S3, Amazon SNS, and Amazon SQS.

The resource-level permissions service supports IAM policies in which you can specify individual resources using Amazon Resource Names (ARNs) in the policy's Resource element.

Some services support resource-level permissions only for some actions.

Reference: [http://docs.aws.amazon.com/IAM/latest/UserGuide/Using\\_SpecificProducts.html](http://docs.aws.amazon.com/IAM/latest/UserGuide/Using_SpecificProducts.html)

**NEW QUESTION 195**

You have set up an S3 bucket with a number of images in it and you have decided that you want anybody to be able to access these images, even anonymous users. To accomplish this you create a bucket policy. You will need to use an Amazon S3 bucket policy that specifies a in the principal element, which means anyone can access the bucket.

- A. hash tag (#)
- B. anonymous user
- C. wildcard (\*)
- D. S3 user

**Answer:** C

**Explanation:**

You can use the AWS Policy Generator to create a bucket policy for your Amazon S3 bucket. You can then use the generated document to set your bucket policy by using the Amazon S3 console, by a number of third-party tools, or via your application.

You use an Amazon S3 bucket policy that specifies a wildcard (\*) in the principal element, which means anyone can access the bucket. With anonymous access, anyone (including users without an AWS account) will be able to access the bucket.

Reference: <http://docs.aws.amazon.com/IAM/latest/UserGuide/iam-troubleshooting.htm#d0e20565>

**NEW QUESTION 199**

Which of the following features are provided by Amazon EC2?

- A. Exadata Database Machine, Optimized Storage Management, Flashback Technology, and Data Warehousing
- B. Instances, Amazon Machine Images (AMIs), Key Pairs, Amazon EBS Volumes, Firewall, Elastic IP address, Tags, and Virtual Private Clouds (VPCs)
- C. Real Application Clusters (RAC), ElastiCache Machine Images (EMIs), Data Warehousing, Flashback Technology, Dynamic IP address
- D. Exadata Database Machine, Real Application Clusters (RAC), Data Guard, Table and Index Partitioning, and Data Pump Compression

**Answer: B**

**Explanation:**

Amazon EC2 provides the following features:

- Virtual computing environments, known as instances;
- Pre-configured templates for your instances, known as Amazon Machine Images (AMIs), that package the bits you need for your server (including the operating system and additional software)
- Various configurations of CPU, memory, storage, and networking capacity for your instances, known as instance types
- Secure login information for your instances using key pairs (AWS stores the public key, and you store the private key in a secure place)
- Storage volumes for temporary data that's deleted when you stop or terminate your instance, known as instance store volumes
- Persistent storage volumes for your data using Amazon Elastic Block Store (Amazon EBS), known as Amazon EBS volumes
- Multiple physical locations for your resources, such as instances and Amazon EBS volumes, known as regions and Availability Zones
- A firewall that enables you to specify the protocols, ports, and source IP ranges that can reach your instances using security groups
- Static IP addresses for dynamic cloud computing, known as Elastic IP addresses
- Metadata, known as tags, that you can create and assign to your Amazon EC2 resources
- Virtual networks you can create that are logically isolated from the rest of the AWS cloud, and that you can optionally connect to your own network, known as virtual private clouds (VPCs).

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html>

**NEW QUESTION 204**

A friend tells you he is being charged \$100 a month to host his WordPress website, and you tell him you can move it to AWS for him and he will only pay a fraction of that, which makes him very happy. He then tells you he is being charged \$50 a month for the domain, which is registered with the same people that set it up, and he asks if it's possible to move that to AWS as well. You tell him you aren't sure, but will look into it. Which of the following statements is true in regards to transferring domain names to AWS?

- A. You can't transfer existing domains to AWS.
- B. You can transfer existing domains into Amazon Route 53's management.
- C. You can transfer existing domains via AWS Direct Connect.
- D. You can transfer existing domains via AWS Import/Export

**Answer: B**

**Explanation:**

With Amazon Route 53, you can create and manage your public DNS records with the AWS Management Console or with an easy-to-use API. If you need a domain name, you can find an available name and register it using Amazon Route 53. You can also transfer existing domains into Amazon Route 53's management.

Reference: <http://aws.amazon.com/route53/>

**NEW QUESTION 209**

Are penetration tests allowed as long as they are limited to the customer's instances?

- A. Yes, they are allowed but only for selected regions.
- B. No, they are never allowed.
- C. Yes, they are allowed without any permission.
- D. Yes, they are allowed but only with approval.

**Answer: D**

**Explanation:**

Penetration tests are allowed after obtaining permission from AWS to perform them. Reference: <http://aws.amazon.com/security/penetration-testing/>

**NEW QUESTION 213**

A user is sending bulk emails using AWS SES. The emails are not reaching some of the targeted audience because they are not authorized by the ISPs. How can the user ensure that the emails are all delivered?

- A. Send an email using DKIM with SES.
- B. Send an email using SMTP with SES.
- C. Open a ticket with AWS support to get it authorized with the ISP.
- D. Authorize the ISP by sending emails from the development account

**Answer: A**

**Explanation:**

Domain Keys Identified Mail (DKIM) is a standard that allows senders to sign their email messages and ISPs, and use those signatures to verify that those messages are legitimate and have not been modified by a third party in transit.

Reference: <http://docs.aws.amazon.com/ses/latest/DeveloperGuide/dkim.html>

**NEW QUESTION 216**

Which one of the below doesn't affect Amazon CloudFront billing?

- A. Distribution Type

- B. Data Transfer Out
- C. Dedicated IP SSL Certificates
- D. Requests

**Answer:** A

**Explanation:**

Amazon CloudFront is a web service for content delivery. CloudFront delivers your content using a global network of edge locations and works seamlessly with Amazon S3 which durably stores the original and definitive versions of your files.  
Amazon CloudFront billing is mainly affected by Data Transfer Out  
Edge Location Traffic Distribution Requests  
Dedicated IP SSL Certificates  
Reference: <http://calculator.s3.amazonaws.com/index.html>

**NEW QUESTION 220**

Your company has multiple IT departments, each with their own VPC. Some VPCs are located within the same AWS account, and others in a different AWS account. You want to peer together all VPCs to enable the IT departments to have full access to each others' resources. There are certain limitations placed on VPC peering. Which of the following statements is incorrect in relation to VPC peering?

- A. Private DNS values cannot be resolved between instances in peered VPCs.
- B. You can have up to 3 VPC peering connections between the same two VPCs at the same time.
- C. You cannot create a VPC peering connection between VPCs in different regions.
- D. You have a limit on the number active and pending VPC peering connections that you can have per VPC.

**Answer:** B

**Explanation:**

To create a VPC peering connection with another VPC, you need to be aware of the following limitations and rules:  
You cannot create a VPC peering connection between VPCs that have matching or overlapping CIDR blocks.  
You cannot create a VPC peering connection between VPCs in different regions.  
You have a limit on the number active and pending VPC peering connections that you can have per VPC. VPC peering does not support transitive peering relationships; in a VPC peering connection, your VPC will not have access to any other VPCs that the peer VPC may be peered with. This includes VPC peering connections that are established entirely within your own AWS account.  
You cannot have more than one VPC peering connection between the same two VPCs at the same time. The Maximum Transmission Unit (MTU) across a VPC peering connection is 1500 bytes.  
A placement group can span peered VPCs; however, you will not get full-bisection bandwidth between instances in peered VPCs.  
Unicast reverse path forwarding in VPC peering connections is not supported.  
You cannot reference a security group from the peer VPC as a source or destination for ingress or egress rules in your security group. Instead, reference CIDR blocks of the peer VPC as the source or destination of your security group's ingress or egress rules.  
Private DNS values cannot be resolved between instances in peered VPCs. Reference:  
<http://docs.aws.amazon.com/AmazonVPC/latest/PeeringGuide/vpc-peering-overview.html#vpc-peering-limitations>

**NEW QUESTION 222**

You are architecting a highly-scalable and reliable web application which will have a huge amount of content. You have decided to use CloudFront as you know it will speed up distribution of your static and dynamic web content and know that Amazon CloudFront integrates with Amazon CloudWatch metrics so that you can monitor your web application. Because you live in Sydney you have chosen the Asia Pacific (Sydney) region in the AWS console. However you have set up this up but no CloudFront metrics seem to be appearing in the CloudWatch console. What is the most likely reason from the possible choices below for this?

- A. Metrics for CloudWatch are available only when you choose the same region as the application you are monitoring.
- B. You need to pay for CloudWatch for it to become active.
- C. Metrics for CloudWatch are available only when you choose the US East (N. Virginia)
- D. Virginia)
- E. Metrics for CloudWatch are not available for the Asia Pacific region as yet

**Answer:** C

**Explanation:**

CloudFront is a global service, and metrics are available only when you choose the US East (N. Virginia) region in the AWS console. If you choose another region, no CloudFront metrics will appear in the CloudWatch console.  
Reference:  
<http://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/monitoring-using-cloudwatch.html>

**NEW QUESTION 223**

In Route 53, what does a Hosted Zone refer to?

- A. A hosted zone is a collection of geographical load balancing rules for Route 53.
- B. A hosted zone is a collection of resource record sets hosted by Route 53.
- C. A hosted zone is a selection of specific resource record sets hosted by CloudFront for distribution to Route 53.
- D. A hosted zone is the Edge Location that hosts the Route 53 records for a use

**Answer:** B

**Explanation:**

A Hosted Zone refers to a selection of resource record sets hosted by Route 53.  
Reference: <http://docs.aws.amazon.com/Route53/latest/DeveloperGuide/AboutHostedZones.html>

**NEW QUESTION 224**

While creating a network in the VPC, which of the following is true of a NAT device?

- A. You have to administer the NAT Gateway Service provided by AWS.
- B. You can choose to use any of the three kinds of NAT devices offered by AWS for special purposes.
- C. You can use a NAT device to enable instances in a private subnet to connect to the Internet.
- D. You are recommended to use AWS NAT instances over NAT gateways, as the instances provide better availability and bandwidth.

**Answer:** C

**Explanation:**

You can use a NAT device to enable instances in a private subnet to connect to the Internet (for example, for software updates) or other AWS services, but prevent the Internet from initiating connections with the instances. AWS offers two kinds of NAT devices u a NAT gateway or a NAT instance. We recommend NAT gateways, as they provide better availability and bandwidth over NAT instances. The NAT Gateway service is also a managed service that does not require your administration efforts. A NAT instance is launched from a NAT AM. You can choose to use a NAT instance for special purposes.

Reference: <http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/vpc-nat.html>

**NEW QUESTION 228**

George has launched three EC2 instances inside the US-East-1a zone with his AWS account. Ray has launched two EC2 instances in the US-East-1a zone with his AWS account. Which of the below mentioned statements will help George and Ray understand the availability zone (AZ) concept better?

- A. All the instances of George and Ray can communicate over a private IP with a minimal cost
- B. The US-East-1a region of George and Ray can be different availability zones
- C. All the instances of George and Ray can communicate over a private IP without any cost
- D. The instances of George and Ray will be running in the same data centre

**Answer:** B

**Explanation:**

Each AWS region has multiple, isolated locations known as Availability Zones. To ensure that the AWS resources are distributed across the Availability Zones for a region, AWS independently maps the Availability Zones to identifiers for each account. In this case the Availability Zone US-East-1a where George's EC2 instances are running might not be the same location as the US-East-1a zone of Ray's EC2 instances. There is no way for the user to coordinate the Availability Zones between accounts.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html>

**NEW QUESTION 231**

In Amazon EC2, you are billed instance-hours when .

- A. your EC2 instance is in a running state
- B. the instance exits from Amazon S3 console
- C. your instance still exits the EC2 console
- D. EC2 instances stop

**Answer:** A

**Explanation:**

You are billed instance-hours as long as your EC2 instance is in a running state. Reference: <http://aws.amazon.com/ec2/faqs/>

**NEW QUESTION 236**

A user is running a webserver on EC2. The user wants to receive the SMS when the EC2 instance utilization is above the threshold limit. Which AWS services should the user configure in this case?

- A. AWS CloudWatch + AWS SQS.
- B. AWS CloudWatch + AWS SNS.
- C. AWS CloudWatch + AWS SES.
- D. AWS EC2 + AWS Cloudwatc

**Answer:** B

**Explanation:**

Amazon SNS makes it simple and cost-effective to push to mobile devices, such as iPhone, iPad, Android, Kindle Fire, and internet connected smart devices, as well as pushing to other distributed services. In this case, the user can configure that Cloudwatch sends an alarm on when the threshold is crossed to SNS which will trigger an SMS.

Reference: <http://aws.amazon.com/sns/>

**NEW QUESTION 239**

Just when you thought you knew every possible storage option on AWS you hear someone mention Reduced Redundancy Storage (RRS) within Amazon S3. What is the ideal scenario to use Reduced Redundancy Storage (RRS)?

- A. Huge volumes of data
- B. Sensitive data
- C. Non-critical or reproducible data
- D. Critical data

**Answer:** C

**Explanation:**

Reduced Redundancy Storage (RRS) is a new storage option within Amazon S3 that enables customers to reduce their costs by storing non-critical, reproducible data at lower levels of redundancy than Amazon S3's standard storage. RRS provides a lower cost, less durable, highly available storage option that is designed to sustain the loss of data in a single facility.

RRS is ideal for non-critical or reproducible data.

For example, RRS is a cost-effective solution for sharing media content that is durably stored elsewhere. RRS also makes sense if you are storing thumbnails and other resized images that can be easily reproduced from an original image.

Reference: <https://aws.amazon.com/s3/faqs/>

**NEW QUESTION 241**

You have some very sensitive data stored on AWS S3 and want to try every possible alternative to keeping it secure in regards to access control. What are the mechanisms available for access control on AWS S3?

- A. (IAM) policies, Access Control Lists (ACLs), bucket policies, and query string authentication.
- B. (IAM) policies, Access Control Lists (ACLs) and bucket policies.
- C. Access Control Lists (ACLs), bucket policies, and query string authentication
- D. (IAM) policies, Access Control Lists (ACLs), bucket policies, query string authentication and encryption.

**Answer:** A

**Explanation:**

Amazon S3 supports several mechanisms that give you flexibility to control who can access your data as well as how, when, and where they can access it.

Amazon S3 provides four different access control mechanisms:

AWS Identity and Access Management (IAM) policies, Access Control Lists (ACLs), bucket policies, and query string authentication.

IAM enables organizations to create and manage multiple users under a single AWS account. With IAM policies, you can grant IAM users fine-grained control to your Amazon S3 bucket or objects. You can use ACLs to selectively add (grant) certain permissions on individual objects.

Amazon S3 bucket policies can be used to add or deny permissions across some or all of the objects within a single bucket.

With Query string authentication, you have the ability to share Amazon S3 objects through URLs that are valid for a specified period of time.

**NEW QUESTION 245**

Your manager has come to you saying that he is very confused about the bills he is receiving from AWS as he is getting different bills for every user and needs you to look into making it more understandable. Which of the following would be the best solution to meet his request?

- A. AWS Billing Aggregation
- B. Consolidated Billing
- C. Deferred Billing
- D. Aggregated Billing

**Answer:** B

**Explanation:**

Consolidated Billing enables you to consolidate payment for multiple AWS accounts within your company by designating a single paying account. Consolidated Billing enables you to see a combined view of AWS costs incurred by all accounts, as well as obtain a detailed cost report for each of the individual AWS accounts associated with your "Paying Account". Consolidated Billing is offered at no additional charge. Reference: <https://aws.amazon.com/billing/faqs/>

**NEW QUESTION 248**

A user is planning to host a mobile game on EC2 which sends notifications to active users on either high score or the addition of new features. The user should get this notification when he is online on his mobile device. Which of the below mentioned AWS services can help achieve this functionality?

- A. AWS Simple Notification Service.
- B. AWS Simple Email Service.
- C. AWS Mobile Communication Service.
- D. AWS Simple Queue Service.

**Answer:** A

**Explanation:**

Amazon Simple Notification Service (Amazon SNS) is a fast, flexible, and fully managed push messaging service. Amazon SNS makes it simple and cost-effective to push to mobile devices, such as iPhone, iPad, Android, Kindle Fire, and internet connected smart devices, as well as pushing to other distributed services.

Reference: <http://aws.amazon.com/sns>

**NEW QUESTION 252**

You need to quickly set up an email-sending service because a client needs to start using it in the next hour. Amazon Simple Email Service (Amazon SES) seems to be the logical choice but there are several options available to set it up. Which of the following options to set up SES would best meet the needs of the client?

- A. Amazon SES console
- B. AWS CloudFormation
- C. SMTP Interface
- D. AWS Elastic Beanstalk

**Answer:** A

**Explanation:**

Amazon SES is an outbound-only email-sending service that provides an easy, cost-effective way for you to send email.

There are several ways that you can send an email by using Amazon SES. You can use the Amazon SES console, the Simple Mail Transfer Protocol (SMTP) interface, or you can call the Amazon SES API. Amazon SES console—This method is the quickest way to set up your system

Reference: <http://docs.aws.amazon.com/ses/latest/DeveloperGuide/Welcome.html>

**NEW QUESTION 256**

In Amazon EC2, how many Elastic IP addresses can you have by default?

- A. 10
- B. 2

- C. 5  
D. 20

**Answer:** C

**Explanation:**

The number of Elastic IP addresses you can have in EC2 is 5.

Reference: [http://docs.aws.amazon.com/general/latest/gr/aws\\_service\\_limits.html#limits\\_ec2](http://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html#limits_ec2)

**NEW QUESTION 259**

A user has launched one EC2 instance in the US West region. The user wants to access the RDS instance launched in the US East region from that EC2 instance. How can the user configure the access for that EC2 instance?

- A. Configure the IP range of the US West region instance as the ingress security rule of RDS  
B. It is not possible to access RDS of the US East region from the US West region  
C. Open the security group of the US West region in the RDS security group's ingress rule  
D. Create an IAM role which has access to RDS and launch an instance in the US West region with it

**Answer:** A

**Explanation:**

The user cannot authorize an Amazon EC2 security group if it is in a different AWS Region than the RDS DB instance. The user can authorize an IP range or specify an Amazon EC2 security group in the same region that refers to an IP address in another region.

Reference: [http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_WorkingWithSecurityGroups.html](http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_WorkingWithSecurityGroups.html)

**NEW QUESTION 261**

A 3-tier e-commerce web application is currently deployed on-premises and will be migrated to AWS for greater scalability and elasticity. The web server currently shares read-only data using a network distributed file system. The app server tier uses a clustering mechanism for discovery and shared session state that depends on IP multicast. The database tier uses shared-storage clustering to provide database failover capability, and uses several read slaves for scaling. Data on all servers and the distributed file system directory is backed up weekly to off-site tapes. Which AWS storage and database architecture meets the requirements of the application?

- A. Web servers: store read-only data in S3, and copy from S3 to root volume at boot time  
B. App servers: share state using a combination of DynamoDB and IP unicast  
C. Database: use RDS with multi-AZ deployment and one or more read replica  
D. Backup: web servers, app servers, and database backed up weekly to Glacier using snapshots.  
E. Web servers: store read-only data in an EC2 NFS server, mount to each web server at boot time  
F. App servers: share state using a combination of DynamoDB and IP multicast  
G. Database: use RDS with multi-AZ deployment and one or more Read Replica  
H. Backup: web and app servers backed up weekly via AMIs, database backed up via DB snapshots.  
I. Web servers: store read-only data in S3, and copy from S3 to root volume at boot time  
J. App servers: share state using a combination of DynamoDB and IP unicast  
K. Database: use RDS with multi-AZ deployment and one or more Read Replica  
L. Backup: web and app servers backed up weekly via AMIs, database backed up via DB snapshots.  
M. Web servers: store read-only data in S3, and copy from S3 to root volume at boot time  
N. App servers: share state using a combination of DynamoDB and IP unicast  
O. Database: use RDS with multi-AZ deployment  
P. Backup: web and app servers backed up weekly via AMIs, database backed up via DB snapshots.

**Answer:** C

**Explanation:**

Amazon RDS Multi-AZ deployments provide enhanced availability and durability for Database (DB) Instances, making them a natural fit for production database workloads. When you provision a Multi-AZ DB Instance, Amazon RDS automatically creates a primary DB Instance and synchronously replicates the data to a standby instance in a different Availability Zone (AZ). Each AZ runs on its own physically distinct, independent infrastructure, and is engineered to be highly reliable. In case of an infrastructure failure (for example, instance hardware failure, storage failure, or network disruption), Amazon RDS performs an automatic failover to the standby, so that you can resume database operations as soon as the failover is complete. Since the endpoint for your DB Instance remains the same after a failover, your application can resume database operation without the need for manual administrative intervention.

**Benefits**

**Enhanced Durability**

Multi-AZ deployments for the MySQL, Oracle, and PostgreSQL engines utilize synchronous physical replication to keep data on the standby up-to-date with the primary. Multi-AZ deployments for the SQL Server engine use synchronous logical replication to achieve the same result, employing SQL Server-native Mirroring technology. Both approaches safeguard your data in the event of a DB Instance failure or loss of an Availability Zone.

If a storage volume on your primary fails in a Multi-AZ deployment, Amazon RDS automatically initiates a failover to the up-to-date standby. Compare this to a Single-AZ deployment: in case of a Single-AZ database failure, a user-initiated point-in-time-restore operation will be required. This operation can take several hours to complete, and any data updates that occurred after the latest restorable time (typically within the last five minutes) will not be available.

Amazon Aurora employs a highly durable, SSD-backed virtualized storage layer purpose-built for database workloads. Amazon Aurora automatically replicates your volume six ways, across three Availability Zones. Amazon Aurora storage is fault-tolerant, transparently handling the loss of up to two copies of data without affecting database write availability and up to three copies without affecting read availability. Amazon Aurora storage is also self-healing. Data blocks and disks are continuously scanned for errors and replaced automatically.

**Increased Availability**

You also benefit from enhanced database availability when running Multi-AZ deployments. If an Availability Zone failure or DB Instance failure occurs, your availability impact is limited to the time automatic failover takes to complete: typically under one minute for Amazon Aurora and one to two minutes for other database engines (see the RDS FAQ for details).

The availability benefits of Multi-AZ deployments also extend to planned maintenance and backups.

In the case of system upgrades like OS patching or DB Instance scaling, these operations are applied first on the standby, prior to the automatic failover. As a result, your availability impact is, again, only the time required for automatic failover to complete.

Unlike Single-AZ deployments, I/O activity is not suspended on your primary during backup for Multi-AZ deployments for the MySQL, Oracle, and PostgreSQL engines, because the backup is taken from the standby. However, note that you may still experience elevated latencies for a few minutes during backups for Multi-AZ deployments.

On instance failure in Amazon Aurora deployments, Amazon RDS uses RDS Multi-AZ technology to automate failover to one of up to 15 Amazon Aurora Replicas

you have created in any of three Availability Zones. If no Amazon Aurora Replicas have been provisioned, in the case of a failure, Amazon RDS will attempt to create a new Amazon Aurora DB instance for you automatically.

No Administrative Intervention

DB Instance failover is fully automatic and requires no administrative intervention. Amazon RDS monitors the health of your primary and standbys, and initiates a failover automatically in response to a variety of failure conditions.

Failover conditions

Amazon RDS detects and automatically recovers from the most common failure scenarios for Multi-AZ deployments so that you can resume database operations as quickly as possible without administrative intervention. Amazon RDS automatically performs a failover in the event of any of the following:

Loss of availability in primary Availability Zone  
Loss of network connectivity to primary  
Compute unit failure on primary

Storage failure on primary

Note: When operations such as DB Instance scaling or system upgrades like OS patching are initiated for Multi-AZ deployments, for enhanced availability, they are applied first on the standby prior to an automatic failover. As a result, your availability impact is limited only to the time required for automatic failover to complete.

Note that Amazon RDS Multi-AZ deployments do not failover automatically in response to database operations such as long running queries, deadlocks or database corruption errors.

#### NEW QUESTION 264

You have recently joined a startup company building sensors to measure street noise and air quality in urban areas. The company has been running a pilot deployment of around 100 sensors for 3 months each sensor uploads 1KB of sensor data every minute to a backend hosted on AWS.

During the pilot, you measured a peak of 10 IOPS on the database, and you stored an average of 3GB of sensor data per month in the database.

The current deployment consists of a load-balanced auto scaled Ingestion layer using EC2 instances and a PostgreSQL RDS database with 500GB standard storage.

The pilot is considered a success and your CEO has managed to get the attention of some potential investors. The business plan requires a deployment of at least 100K sensors which needs to be supported by the backend. You also need to store sensor data for at least two years to be able to compare year over year improvements.

To secure funding, you have to make sure that the platform meets these requirements and leaves room for further scaling. Which setup will meet the requirements?

- A. Add an SQS queue to the ingestion layer to buffer writes to the RDS instance
- B. Ingest data into a DynamoDB table and move old data to a Redshift cluster
- C. Replace the RDS instance with a 6 node Redshift cluster with 96TB of storage
- D. Keep the current architecture but upgrade RDS storage to 3TB and IOPS provisioned IOPS

**Answer: C**

#### NEW QUESTION 265

Your company is in the process of developing a next generation pet collar that collects biometric information to assist families with promoting healthy lifestyles for their pets. Each collar will push 30kb of biometric data in JSON format every 2 seconds to a collection platform that will process and analyze the data providing health trending information back to the pet owners and veterinarians via a web portal. Management has tasked you to architect the collection platform ensuring the following requirements are met.

Provide the ability for real-time analytics of the inbound biometric data. Ensure processing of the biometric data is highly durable, elastic and parallel. The results of the analytic processing should be persisted for data mining.

Which architecture outlined below will meet the initial requirements for the collection platform?

- A. Utilize S3 to collect the inbound sensor data, analyze the data from S3 with a daily scheduled Data Pipeline and save the results to a Redshift Cluster.
- B. Utilize Amazon Kinesis to collect the inbound sensor data, analyze the data with Kinesis clients and save the results to a Redshift cluster using EMR.
- C. Utilize SQS to collect the inbound sensor data, analyze the data from SQS with Amazon Kinesis and save the results to a Microsoft SQL Server RDS instance.
- D. Utilize EMR to collect the inbound sensor data, analyze the data from S3 with Amazon Kinesis and save the results to DynamoDB.

**Answer: B**

#### NEW QUESTION 269

You would like to create a mirror image of your production environment in another region for disaster recovery purposes. Which of the following AWS resources do not need to be recreated in the second region? (Choose 2 answers)

- A. Route 53 Record Sets
- B. IAM Roles
- C. Elastic IP Addresses (EIP)
- D. EC2 Key Pairs
- E. Launch configurations
- F. Security Groups

**Answer: AC**

#### Explanation:

Reference:

[http://tech.com/wp-content/themes/optimize/download/AWSDisaster\\_Recovery.pdf](http://tech.com/wp-content/themes/optimize/download/AWSDisaster_Recovery.pdf) (page 6)

#### NEW QUESTION 270

Your company runs a customer facing event registration site. This site is built with a 3-tier architecture with web and application tier servers and a MySQL database. The application requires 6 web tier servers and 6 application tier servers for normal operation, but can run on a minimum of 65% server capacity and a single MySQL database. When deploying this application in a region with three availability zones (AZs) which architecture provides high availability?

- A. A web tier deployed across 2 AZs with 3 EC2 (Elastic Compute Cloud) instances in each AZ inside an Auto Scaling Group behind an ELB (elastic load balancer), and an application tier deployed across 2 AZs with 3 EC2 instances in each AZ inside an Auto Scaling Group behind an ELB, and one RDS (Relational Database Service) instance deployed with read replicas in the other AZ.
- B. A web tier deployed across 3 AZs with 2 EC2 (Elastic Compute Cloud) instances in each AZ inside an Auto Scaling Group behind an ELB (elastic load balancer) and an application tier deployed across 3 AZs with 2 EC2 instances in each AZ inside an Auto Scaling Group behind an ELB and one RDS (Relational Database Service) instance deployed with read replicas in the two other AZs.
- C. A web tier deployed across 2 AZs with 3 EC2 (Elastic Compute Cloud) instances in each AZ inside an Auto Scaling Group behind an ELB (elastic load balancer), and an application tier deployed across 2 AZs with 3 EC2 instances in each AZ inside an Auto Scaling Group behind an ELB, and one RDS (Relational Database Service) instance deployed with read replicas in the other AZ.

balancer) and an application tier deployed across 2 AZs with 3 EC2 instances in each AZ inside an Auto Scaling Group behind an ELB and a Multi-AZ RDS (Relational Database Service) deployment.

D. A web tier deployed across 3 AZs with 2 EC2 (Elastic Compute Cloud) instances in each AZ inside an Auto Scaling Group behind an ELB (elastic load balancer). And an application tier deployed across 3 AZs with 2 EC2 instances in each AZ inside an Auto Scaling Group behind an ELB.

E. And a Multi-AZ RDS (Relational Database services) deployment.

**Answer: D**

**Explanation:**

**Amazon RDS Multi-AZ Deployments**

Amazon RDS Multi-AZ deployments provide enhanced availability and durability for Database (DB) Instances, making them a natural fit for production database workloads. When you provision a Multi-AZ DB Instance, Amazon RDS automatically creates a primary DB Instance and synchronously replicates the data to a standby instance in a different Availability Zone (AZ). Each AZ runs on its own physically distinct, independent infrastructure, and is engineered to be highly reliable. In case of an infrastructure failure (for example, instance hardware failure, storage failure, or network disruption), Amazon RDS performs an automatic failover to the standby, so that you can resume database operations as soon as the failover is complete. Since the endpoint for your DB Instance remains the same after a failover, your application can resume database operation without the need for manual administrative intervention.

**Enhanced Durability**

Multi-AZ deployments for the MySQL, Oracle, and PostgreSQL engines utilize synchronous physical replication to keep data on the standby up-to-date with the primary. Multi-AZ deployments for the SQL Server engine use synchronous logical replication to achieve the same result, employing SQL Server-native Mirroring technology. Both approaches safeguard your data in the event of a DB Instance failure or loss of an Availability Zone.

If a storage volume on your primary fails in a Multi-AZ deployment, Amazon RDS automatically initiates a failover to the up-to-date standby. Compare this to a Single-AZ deployment: in case of a Single-AZ database failure, a user-initiated point-in-time-restore operation will be required. This operation can take several hours to complete, and any data updates that occurred after the latest restorable time (typically within the last five minutes) will not be available.

Amazon Aurora employs a highly durable, SSD-backed virtualized storage layer purpose-built for database workloads. Amazon Aurora automatically replicates your volume six ways, across three Availability Zones. Amazon Aurora storage is fault-tolerant, transparently handling the loss of up to two copies of data without affecting database write availability and up to three copies without affecting read availability. Amazon Aurora storage is also self-healing. Data blocks and disks are continuously scanned for errors and replaced automatically.

**Increased Availability**

You also benefit from enhanced database availability when running Multi-AZ deployments. If an Availability Zone failure or DB Instance failure occurs, your availability impact is limited to the time automatic failover takes to complete: typically under one minute for Amazon Aurora and one to two minutes for other database engines (see the RDS FAQ for details).

The availability benefits of Multi-AZ deployments also extend to planned maintenance and backups. In the case of system upgrades like OS patching or DB Instance scaling, these operations are applied first on the standby, prior to the automatic failover. As a result, your availability impact is, again, only the time required for automatic failover to complete.

Unlike Single-AZ deployments, I/O activity is not suspended on your primary during backup for Multi-AZ deployments for the MySQL, Oracle, and PostgreSQL engines, because the backup is taken from the standby. However, note that you may still experience elevated latencies for a few minutes during backups for Multi-AZ deployments.

On instance failure in Amazon Aurora deployments, Amazon RDS uses RDS Multi-AZ technology to automate failover to one of up to 15 Amazon Aurora Replicas you have created in any of three Availability Zones. If no Amazon Aurora Replicas have been provisioned, in the case of a failure, Amazon RDS will attempt to create a new Amazon Aurora DB instance for you automatically.

**NEW QUESTION 271**

An International company has deployed a multi-tier web application that relies on DynamoDB in a single region. For regulatory reasons they need disaster recovery capability in a separate region with a Recovery Time Objective of 2 hours and a Recovery Point Objective of 24 hours. They should synchronize their data on a regular basis and be able to provision the web application rapidly using CloudFormation.

The objective is to minimize changes to the existing web application, control the throughput of DynamoDB used for the synchronization of data and synchronize only the modified elements.

Which design would you choose to meet these requirements?

A. Use AWS data Pipeline to schedule a DynamoDB cross region copy once a day.

B. Create a 'Last updated' attribute in your DynamoDB table that would represent the timestamp of the last update and use it as a filter.

C. Use EMR and write a custom script to retrieve data from DynamoDB in the current region using a SCAN operation and push it to DynamoDB in the second region.

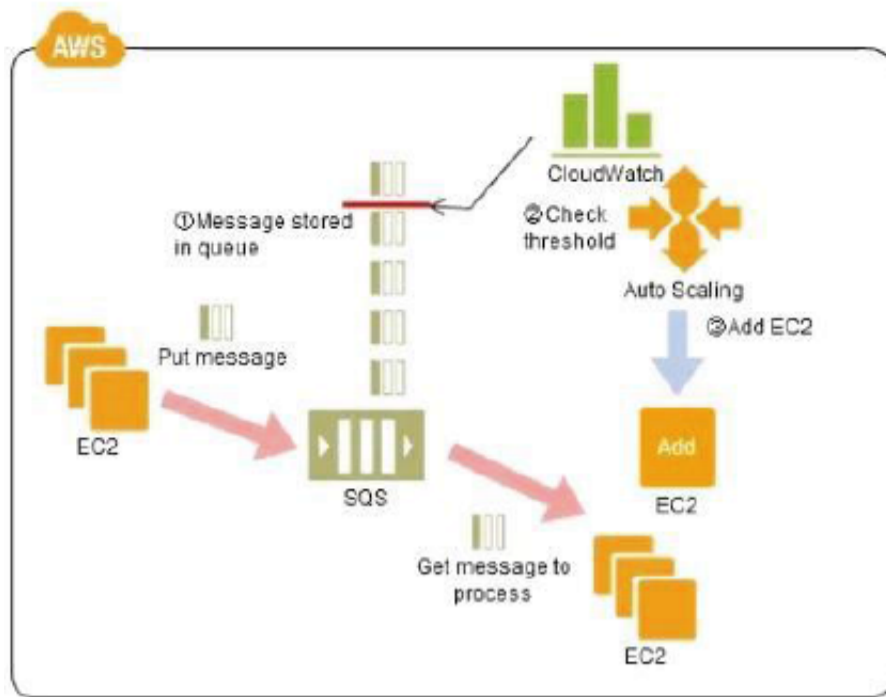
D. Use AWS data Pipeline to schedule an export of the DynamoDB table to S3 in the current region once a day then schedule another task immediately after it that will import data from S3 to DynamoDB in the other region.

E. Send also each item into an SQS queue in the second region; use an auto-scaling group behind the SQS queue to replay the write in the second region.

**Answer: A**

**NEW QUESTION 272**

Refer to the architecture diagram above of a batch processing solution using Simple Queue Service (SQS) to set up a message queue between EC2 instances which are used as batch processors. CloudWatch monitors the number of Job requests (queued messages) and an Auto Scaling group adds or deletes batch processors automatically based on parameters set in CloudWatch alarms. You can use this architecture to implement which of the following features in a cost effective and efficient manner?



- A. Reduce the overall time for executing jobs through parallel processing by allowing a busy EC2 instance that receives a message to pass it to the next instance in a daisy-chain setup.
- B. Implement fault tolerance against EC2 instance failure since messages would remain in SQS and work can continue with recovery of EC2 instances implement fault tolerance against SQS failure by backing up messages to S3.
- C. Implement message passing between EC2 instances within a batch by exchanging messages through SQS.
- D. Coordinate number of EC2 instances with number of job requests automatically thus Improving cost effectiveness.
- E. Handle high priority jobs before lower priority jobs by assigning a priority metadata field to SQS messages.

**Answer: D**

**Explanation:**

Reference:

There are cases where a large number of batch jobs may need processing, and where the jobs may need to be re-prioritized.

For example, one such case is one where there are differences between different levels of services for unpaid users versus subscriber users (such as the time until publication) in services enabling, for example, presentation files to be uploaded for publication from a web browser. When the user uploads a presentation file, the conversion processes, for example, for publication are performed as batch

processes on the system side, and the file is published after the conversion. Is it then necessary to be able to assign the level of priority to the batch processes for each type of subscriber.

Explanation of the Cloud Solution/Pattern

A queue is used in controlling batch jobs. The queue need only be provided with priority numbers. Job requests are controlled by the queue, and the job requests in the queue are processed by a batch server. In Cloud computing, a highly reliable queue is provided as a service, which you can use to structure a highly reliable batch system with ease. You may prepare multiple queues depending on priority levels, with job requests put into the queues depending on their priority levels, to apply prioritization to batch processes. The performance (number) of batch servers corresponding to a queue must be in accordance with the priority level thereof.

Implementation

In AWS, the queue service is the Simple Queue Service (SQS). Multiple SQS queues may be prepared to prepare queues for individual priority levels (with a priority queue and a secondary queue).

Moreover, you may also use the message Delayed Send function to delay process execution. Use SQS to prepare multiple queues for the individual priority levels. Place those processes to be executed immediately (job requests) in the high priority queue. Prepare numbers of batch servers, for processing the job requests of the queues, depending on the priority levels.

Queues have a message "Delayed Send" function. You can use this to delay the time for starting a process.

Configuration

Benefits

You can increase or decrease the number of servers for processing jobs to change automatically the processing speeds of the priority queues and secondary queues.

You can handle performance and service requirements through merely increasing or decreasing the number of EC2 instances used in job processing.

Even if an EC2 were to fail, the messages (jobs) would remain in the queue service, enabling processing to be continued immediately upon recovery of the EC2 instance, producing a system that is robust to failure.

Cautions

Depending on the balance between the number of EC2 instances for performing the processes and the number of messages that are queued, there may be cases where processing in the secondary queue may be completed first, so you need to monitor the processing speeds in the primary queue and the secondary queue.

**NEW QUESTION 273**

Your company currently has a 2-tier web application running in an on-premises data center. You have experienced several infrastructure failures in the past two months resulting in significant financial losses. Your CIO is strongly agreeing to move the application to AWS. While working on achieving buy-in from the other company executives, he asks you to develop a disaster recovery plan to help improve Business continuity in the short term. He specifies a target Recovery Time Objective (RTO) of 4 hours and a Recovery Point Objective (RPO) of 1 hour or less. He also asks you to implement the solution within 2 weeks. Your database is 200GB in size and you have a 20Mbps Internet connection.

How would you do this while minimizing costs?

- A. Create an EBS backed private AMI which includes a fresh install of your application
- B. Develop a CloudFormation template which includes your AMI and the required EC2, AutoScaling, and ELB resources to support deploying the application across Multiple- Availability-Zone
- C. Asynchronously replicate transactions from your on-premises database to a database instance in AWS across a secure VPN connection.
- D. Deploy your application on EC2 instances within an Auto Scaling group across multiple availability zone
- E. Asynchronously replicate transactions from your on-premises database to a database instance in AWS across a secure VPN connection.
- F. Create an EBS backed private AMI which includes a fresh install of your application
- G. Setup a script in your data center to backup the local database every 1 hour and to encrypt and copy the resulting file to an S3 bucket using multi-part upload.
- H. Install your application on a compute-optimized EC2 instance capable of supporting the application's average load
- I. Synchronously replicate transactions from your on-premises database to a database instance in AWS across a secure Direct Connect connection.

**Answer:** A

**Explanation:**

Overview of Creating Amazon EBS-Backed AMIs

First, launch an instance from an AMI that's similar to the AMI that you'd like to create. You can connect to your instance and customize it. When the instance is configured correctly, ensure data integrity by

stopping the instance before you create an AMI, then create the image. When you create an Amazon EBS-backed AMI, we automatically register it for you.

Amazon EC2 powers down the instance before creating the AMI to ensure that everything on the instance is stopped and in a consistent state during the creation process. If you're confident that your instance is in a consistent state appropriate for AMI creation, you can tell Amazon EC2 not to power down and reboot the instance. Some file systems, such as XFS, can freeze and unfreeze actMty, making it safe to create the image without rebooting the instance.

During the AMI-creation process, Amazon EC2 creates snapshots of your instance's root volume and any other EBS volumes attached to your instance. If any volumes attached to the instance are encrypted, the new AMI only launches successfully on instances that support Amazon EBS encryption. For more information, see Amazon EBS Encryption.

Depending on the size of the volumes, it can take several minutes for the AMI-creation process to complete (sometimes up to 24 hours). You may find it more efficient to create snapshots of your volumes prior to creating your AMI. This way, only small, incremental snapshots need to be created when the AMI is created, and the process completes more quickly (the total time for snapshot creation remains the same). For more information, see Creating an Amazon EBS Snapshot. After the process completes, you have a new AMI and snapshot created from the root volume of the instance. When you launch an instance using the new AMI, we create a new EBS volume for its root volume using the snapshot. Both the AMI and the snapshot incur charges to your account until you delete them. For more information, see Deregistering Your AMI.

If you add instance-store volumes or EBS volumes to your instance in addition to the root device volume, the block device mapping for the new AMI contains information for these volumes, and the block device mappings for instances that you launch from the new AMI automatically contain information for these volumes. The instance-store volumes specified in the block device mapping for the new instance are new and don't contain any data from the instance store volumes of the instance you used to create the AMI. The data on EBS volumes persists. For more information, see Block Device Mapping.

**NEW QUESTION 274**

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