NOT ANSWERED

MARK FOR REVIEW

A company is trying to reduce their storage costs and want a more cost effective solution than Amazon S3. Secondly they claim that their data store is not frequently accessed. What is the best and cost efficient solution that should be considered?

Please select:

- A. Amazon Storage Gateway
- B. Amazon Glacier
- C. Amazon EBS
- D. Amazon S3

Your answer is incorrect.

Answer: B – Since the data is not required to be accessed frequently, the data can be stored on Amazon glacier for cheaper storage. Remember that the recovery time for getting data from Glacier is from 3-5 hours.

All other options are not correct and expensive compared to Amazon Glacier service.

General

Q: What is Amazon Glacier?

Amazon Glacier is an extremely low-cost storage service that provides secure, durable, and flexible storage for data backup and archival. With Amazon Glacier, customers can reliably store their data for as little as \$0.004 per gigabyte per month. Amazon Glacier enables customers to offload the administrative burdens of operating and scaling storage to AWS, so that they don't have to worry about capacity planning, hardware provisioning, data replication, hardware failure detection and repair, or time-consuming hardware migrations.

For more information on Glacier please visit the below URL:

https://aws.amazon.com/glacier/faqs/

The correct answer is: Amazon Glacier

Feedback about this question and answer

QUESTION 2

NOT ANSWERED

MARK FOR REVIEW

A company does not want to manage their databases. Which of the following services are fully managed databases provided by AWS?

Please select:

- A. AWS RDS
- B. DynamoDB
- C. Oracle RDS
- D. Elastic Map Reduce

Your answer is incorrect.

Answer: - B

DynamoDB is a fully managed NoSQL offering provided by AWS. It is now available in most regions for users to consume. **AWS RDS database is not fully managed database, it is partially managed. For RDS, we still need to specify the server capacity, security group etc.**

This is the point most of them are confused, because they assume that RDS is the fully managed database. Even though the question doesn't ask about the type of database (NOSQL), the correct option is DynamoDB.

For the fully managed option it is Aurora and DynamoDB . So, the correct option in this question is DynamoDB.

The link provides the full details on the product

- 1. http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Introduction.html
- 2. https://aws.amazon.com/products/databases/

The correct answer is: DynamoDB

Feedback about this question and answer

QUESTION 3

NOT ANSWERED



Which of the following requires a custom CloudWatch metric to monitor?

Please select:

- A. Memory Utilization of an EC2 instance
- B. CPU Utilization of an EC2 instance
- C. Disk Reads activity of an EC2 instance
- D. Networks packets out of an EC2 instance

Your answer is incorrect.

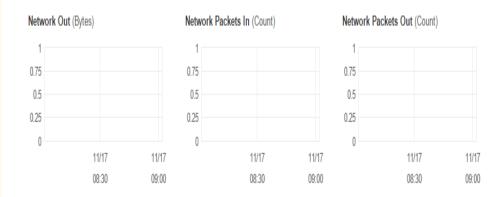
Answer - A

Memory Utilization is a metric not offered directly by Cloudwatch.

So when you view the Cloudwatch metrics for your EC2 instance, you can see CPU Utilization and Disk Read Operations metrics.



You can also see Network statistics for Data transfer, but you will not be able to see Memory Utilization. This will be a custom Cloudwatch metric.



For more information on Cloudwatch, please refer the below URL:

https://aws.amazon.com/cloudwatch/faqs/

The correct answer is: Memory Utilization of an EC2 instance

Feedback about this question and answer



There is an urgent requirement to monitor few database metrics for a database hosted on AWS and send notifications. Which AWS services can accomplish this requirements?

Choose 2 answers from the options given below.

- A. Amazon Simple Email Service
- B. Amazon CloudWatch
- C. Amazon Simple Queue Service (SQS)
- D. Amazon Route 53

Simple Notification Service (SNS)

Your answer is incorrect.

Answer - B and E.

Amazon Cloudwatch will be used to monitor the IOP's metrics from the RDS instance and Amazon Simple Notification Service will be used to send the notification if any alarm is triggered.

For more information on Cloudwatch and SNS, please visit the below URLs:

- https://aws.amazon.com/cloudwatch/
- https://aws.amazon.com/sns/

The correct answers are: Amazon CloudWatch, Amazon Simple Notification Service (SNS)

Feedback about this question and answer

Which of the following instance types are available as SSD backed storage? Choose 2 answers from the options below

Please select:

- A. General purpose T2
- B. General purpose M3
- C. Compute-optimized C4
- D. Compute-optimized C3

Your answer is incorrect.

Answer – B and D

The below screenshots show the details for M3 and C3 instance types.

C3

Features:

- High Frequency Intel Xeon E5-2680 v2 (Ivy Bridge) Processors
- Support for Enhanced Networking
- Support for clustering
- SSD-backed instance storage

Model vCPU (GiB)	(GB)
c3.large 2 3.75	2 x 16
c3.xlarge 4 7.5	2 x 40
c3.2xlarge 8 15	2 x 80
c3.4xlarge 16 30	2 x 160
c3.8xlarge 32 60	2 x 320

M3

This family includes the M3 instance types and provides a balance of compute, memory, and network resources, and it is a good choice for many applications.

Features:

- High Frequency Intel Xeon E5-2670 v2 (Ivy Bridge) Processors*
- SSD-based instance storage for fast I/O performance
- Balance of compute, memory, and network resources

Model	vCPU	Mem (GiB)	SSD Storage (GB)
m3.medium	1	3.75	1 x 4
m3.large	2	7.5	1 x 32
m3.xlarge	4	15	2 x 40
m3.2xlarge	8	30	2 x 80

For details for all instance types, please visit the URL:

https://aws.amazon.com/ec2/instance-types/

The correct answers are: General purpose M3, Compute-optimized C3

Feedback about this question and answer

QUESTION 6	NOT ANSWERED	MARK FOR REVIEW	
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There is a requirement to install Perl on a Linux instance when it is launched. Which feature allows you to accomplish this requirement?

Please select:

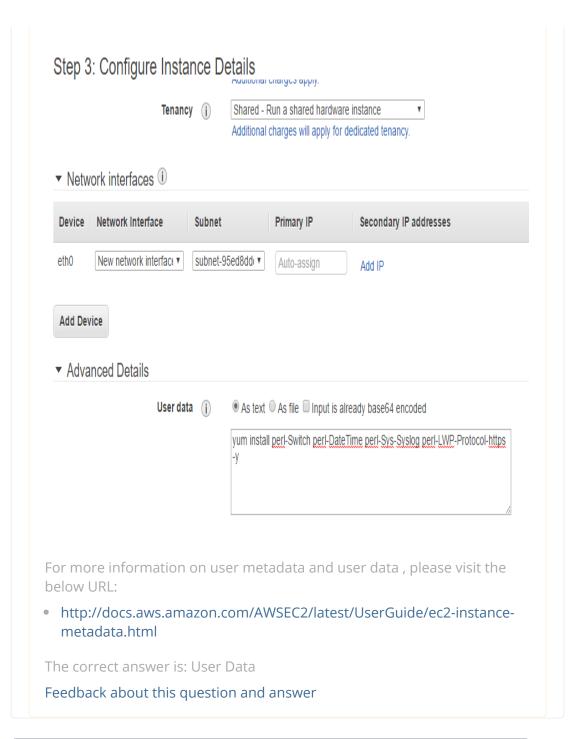
- A. User Data
- B. EC2Config Service
- C. IAM Roles
- D. AWS Config

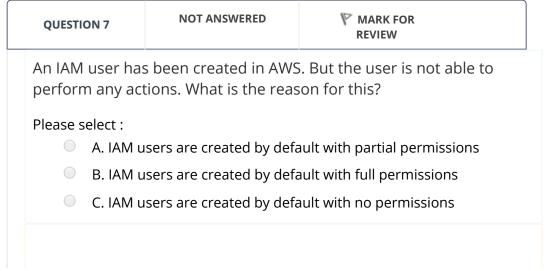
Your answer is incorrect.

Answer - A

When you configure an instance during creation, you can add custom scripts to the User data section.

So in Step 3 of creating an instance, in the Advanced Details section, we can enter custom scripts in the User Data section. The below script installs Perl during the instance creation of the EC2 instance.

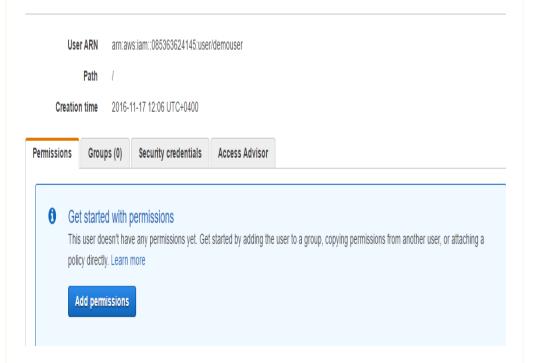




Answer - C

By default no permissions are given to the user when they are created. Below is a snapshot of a newly created user. You can see that by default no permissions are assigned to the user.

Users: demouser



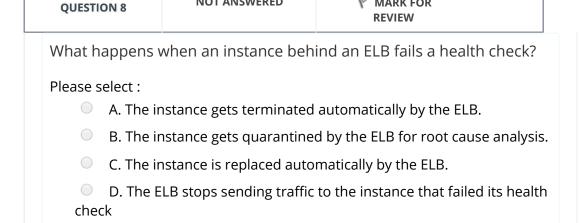
For more information on IAM users, please visit the below URL:

https://aws.amazon.com/iam/details/manage-users/

NOT ANSWERED

The correct answer is: IAM users are created by default with no permissions

Feedback about this question and answer



MARK FOR

Answer - D

To discover the availability of your EC2 instances, a load balancer periodically sends pings, attempts connections, or sends requests to test the EC2 instances. These tests are called health checks. The status of the instances that are healthy at the time of the health check is InService. The status of any instances that are unhealthy at the time of the health check is OutOfService. The load balancer performs health checks on all registered instances, whether the instance is in a healthy state or an unhealthy state.

The load balancer routes requests only to the healthy instances. When the load balancer determines that an instance is unhealthy, it stops routing requests to that instance. The load balancer resumes routing requests to the instance when it has been restored to a healthy state.

You can see the status of the instance in the Registered Instances section of the load balancer.

Registered instances

Instance ID	Name	Port	Availability Zone	Status
i-09f54a79fc36966e4		80	us-east-1b	unhealthy (j
i-023260ed8c205079d		80	us-east-1b	unhealthy (j

For more information on ELB health checks, please visit the below URL:

 http://docs.aws.amazon.com/elasticloadbalancing/latest/classic/elbhealthchecks.html

The correct answer is: The ELB stops sending traffic to the instance that failed its health check

Feedback about this question and answer



In S3, what is the feature that is available to automatically transfer or archive data to Glacier?

- A. Use an EC2 instance and schedule a job to transfer the stale data from their S3 location to Amazon Glacier.
- B. Use Life-Cycle Policies
- C. Use AWS SQS
- D. There is no option, the users will have to download the data and then transfer the data to AWS manually.

Your answer is incorrect.

Answer - B

With Amazon lifecycle policies you can create transition actions in which you define when objects transition to another Amazon S3 storage class. For example, you may choose to transition objects to the STANDARD_IA (IA, for infrequent access) storage class 30 days after creation, or archive objects to the GLACIER storage class one year after creation.

Follow the below steps to get this in place:

Step 1) Go the Lifecycle section of the S3 bucket and click on Add Rule

⋆ Lifecycle

You can manage the lifecycle of objects by using Lifecycle rules. Lifecycle rules enable you to automatically transition objects to the Standard - Infrequent Access Storage Class, and/or archive objects to the Glacier Storage Class, and/or remove objects after a specified time period. Rules are applied to all the objects that share the specified prefix.

Versioning is currently enabled on this bucket.

You can use Lifecycle rules to manage all versions of your objects. This includes both the Current version and Previous versions.





Step 2) Choose what you want to export

Step 1: Choose Rule Target

Apply the Rule to:

Whole Bucket: devtoolslogging

A Prefix

e.g. MyFolder/ or MyFolder/MyObject

Step 3: Review and Name

Step 3) Choose the Action to perform and then confirm on the Rule creation in the next screen.

☐ Transition to the Standard - Infrequent Access Storage Class	Days after the object's creation date
Standard - Infrequent Access has a 30-day minimum retention period and a 128K about Standard - Infrequent Access.	B minimum object size. Lifecycle policy will not transition objects that are less than 128KB. Refer here to learn more
□ Expire	Days after the object's creation date
For versioning-enabled buckets, an expire will retain the current version as a previous the Expire action here with the Permanently Delete previous versions a	ious version and place a delete marker as the current version. If you wish to permanently delete previous versions, action below.
Action on Previous Versions	
Transition to the Standard - Infrequent Access Storage Class	Days after becoming a previous version
Standard - Infrequent Access has a 30-day minimum retention period and a 128k about Standard - Infrequent Access.	KB minimum object size. Lifecycle policy will not transition objects that are less than 128KB. Refer here to learn more
Permanently Delete	Days after becoming a previous version
•	, , ,
This rule will permanently delete a previous version of an object as the version be	comes eligible for expiration. You cannot recover permanently deleted versions of objects.
This rule will permanently delete a previous version of an object as the version be Action on Incomplete Multipart Uploads	, , , , , , , , , , , , , , , , , , , ,
	, , , , , , , , , , , , , , , , , , , ,
Action on Incomplete Multipart Uploads	comes eligible for expiration. You cannot recover permanently deleted versions of objects. Days after an upload initiation date
Action on Incomplete Multipart Uploads End and Clean up Incomplete Multipart Uploads This rule will end and clean up multipart uploads that are not completed within a p	comes eligible for expiration. You cannot recover permanently deleted versions of objects. Days after an upload initiation date
Action on Incomplete Multipart Uploads End and Clean up Incomplete Multipart Uploads This rule will end and clean up multipart uploads that are not completed within a p	Comes eligible for expiration. You cannot recover permanently deleted versions of objects. Days after an upload initiation date redefined number of days after initiation. Learn more.

Someone has initiated the snapshot creation of an EBS volume. One of the application still needs to use the same EBS volume. Which of the following scenarios are possible when it comes to usage of an EBS volume while the snapshot is initiated and not completed? Please select: A. Can be used while the snapshot is in progress. B. Cannot be detached or attached to an EC2 instance until the snapshot completes C. Can be used in read-only mode while the snapshot is in progress. D. Cannot be used until the snapshot completes.

Answer - A

Snapshots occur asynchronously; the point-in-time snapshot is created immediately, but the status of the snapshot is pending until the snapshot is complete (when all of the modified blocks have been transferred to Amazon S3), which can take several hours for large initial snapshots or subsequent snapshots where many blocks have changed. While it is completing, an in-progress snapshot is not affected by ongoing reads and writes to the volume.

You can easily create a snapshot from a volume while the instance is running and the volume is in use. You can do this from the EC2 dashboard.



Amazon EBS Snapshots

You can back up the data on your Amazon EBS volumes to Amazon S3 by taking point-in-time snapshots. Snapshots are *incremental* backups, which means that only the blocks on the device that have changed after your most recent snapshot are saved. This minimizes the time required to create the snapshot and saves on storage costs by not duplicating data. When you delete a snapshot, only the data unique to that snapshot is removed. Each snapshot contains all of the information needed to restore your data (from the moment when the snapshot was taken) to a new EBS volume.

When you create an EBS volume based on a snapshot, the new volume begins as an exact replica of the original volume that was used to create the snapshot. The replicated volume loads data lazily in the background so that you can begin using it immediately. If you access data that hasn't been loaded yet, the volume immediately downloads the requested data from Amazon S3, and then continues loading the rest of the volume's data in the background. For more information, see Creating an Amazon EBS Snapshot.

For more information on EBS snapshots, please visit the link:

http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnapshots.html

The correct answer is: Can be used while the snapshot is in progress.

Feedback about this question and answer

QUESTION 11

NOT ANSWERED

MARK FOR REVIEW

There is a requirement to ensure that an EC2 instance can only be accessed from an IP address of 72.34.51.100. The users should be able to SSH into the instance. Which option will meet the customer requirement?

Please select:

- A. Security Group Inbound Rule: Protocol TCP. Port Range 22, Source 72.34.51.100/32
- B. Security Group Inbound Rule: Protocol UDP, Port Range 22, Source 72.34.51.100/32
- C. Network ACL Inbound Rule: Protocol UDP, Port Range 22, Source 72.34.51.100/32
- D. Network ACL Inbound Rule: Protocol TCP, Port Range-22, Source 72.34.51.100/0

Your answer is incorrect.

Answer - A

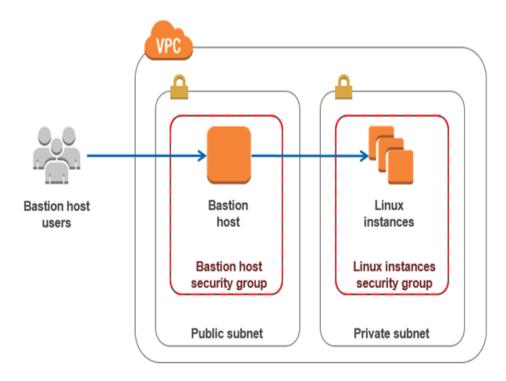
For SSH access, the protocol has to be TCP, so Option B and C are wrong.

For Bastion host, only the IP of the client should be put and not the entire network of 72.34.51.100/0 as given in option D. So this option is also wrong.

A bastion host is a special purpose computer on a network specifically designed and configured to withstand attacks. The computer generally hosts a single application, for example a proxy server, and all other services are removed or limited to reduce the threat to the computer.

In AWS, A bastion host is kept on a public subnet. Users log on to the bastion host via SSH or RDP and then use that session to manage other hosts in the private subnets.

This is a security practice adopted by many organization to secure the assets in their private subnets.



Not all flows of traffic are tracked. If a security group rule permits TCP or UDP flows for all traffic (0.0.0.0/0) and there is a corresponding rule in the other direction that permits all response traffic (0.0.0.0/0), then that flow of traffic is not tracked. The response traffic is therefore allowed to flow based on the inbound or outbound rule that permits the response traffic, and not on tracking information. In the following example, the security group has specific inbound rules for SSH, HTTP, and ICMP traffic, and an outbound rule that allows all outbound traffic.

Inbound rules					
Protocol type Port number Source IP					
TCP	22 (SSH)	203.0.113.1/32			
TCP	80 (HTTP)	0.0.0.0/0			
ICMP	All	0.0.0.0/0			
Outbound rules					
Protocol type Port number Destination IP					
All	All	0.0.0.0/0			

For more information on security groups, please refer the below URL:

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

The correct answer is: Security Group Inbound Rule: Protocol – TCP. Port Range – 22, Source 72.34.51.100/32

QUESTION 12 NOT ANSWERED	MARK FOR REVIEW
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Which of the following statements are true about Amazon Reduced Redundancy Storage (RRS) when it comes to availability?

Please select:

- A. RRS has the ability to provide eleven nines availability.
- B. RRS has the ability to provide 99.99% availability.
- C. RRS has the ability to provide 99% availability.
- D. RRS has the ability to provide 100% durability.

Your answer is incorrect.

Answer: B. The Durability and availability are given in the aws site for RRS.

	Standard	Standard - Infrequent Access	Reduced Redundancy Storage
Durability	99.9999999%	99,99999999%	99.99%
Availability	99.99%	99.9%	99.99%

Reduced Redundancy Storage (RRS) is an Amazon S3 storage option that enables customers to store noncritical, reproducible data at lower levels of redundancy than Amazon S3's standard storage. It provides a highly available solution for distributing or sharing content that is durably stored elsewhere, or for storing thumbnails, transcoded media, or other processed data that can be easily reproduced. The RRS option stores objects on multiple devices across multiple facilities, providing 400 times the durability of a typical disk drive, but does not replicate objects as many times as standard Amazon S3 storage.

Reduced Redundancy Storage is:

- Backed with the Amazon S3 Service Level Agreement for availability.
- Designed to provide 99.99% durability and 99.99% availability of objects over a given year. This durability level corresponds to an average annual expected loss of 0.01% of objects.
- Designed to sustain the loss of data in a single facility.

For more information on RRS please visit the URL:

https://aws.amazon.com/s3/reduced-redundancy/

The correct answer is: RRS has the ability to provide 99.99% availability.

Feedback about this question and answer

Which service from AWS allows one to work with existing Chef server configuration?

Please select:

- A. AWS OpsWorks
- B. AWS Elastic Beanstalk
- C. AWS CloudFormation
- D. AWS SNS

Your answer is incorrect.

AWS OpsWorks is a configuration management service that helps you configure and operate applications of all shapes and sizes using Chef. You can define the application's architecture and the specification of each component including package installation, software configuration and resources such as storage. Start from templates for common technologies like application servers and databases or build your own to perform any task that can be scripted. AWS OpsWorks includes automation to scale your application based on time or load and dynamic configuration to orchestrate changes as your environment scales.

AWS OpsWorks for Chef Automate provides a fully managed Chef server and suite of automation tools that give you workflow automation for continuous deployment, automated testing for compliance and security, and a user interface that gives you visibility into your nodes and their status. The Chef server gives you full stack automation by handling operational tasks such as software and operating system configurations, package installations, database setups, and more. The Chef server centrally stores your configuration tasks and provides them to each node in your compute environment at any scale, from a few nodes to thousands of nodes. OpsWorks for Chef Automate is completely compatible with tooling and cookbooks from the Chef community and automatically registers new nodes with your Chef server.

For more information on Opswork, please visit the link:

- https://aws.amazon.com/opsworks/
- https://aws.amazon.com/opsworks/chefautomate/

The correct answer is: AWS OpsWorks

Feedback about this question and answer

QUESTION 14	NOT ANSWERED	MARK FOR REVIEW
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Which of the below AWS service can be used to deploy infrastructure using stacks and templates?

Please select:

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

Your answer is incorrect.

Answer - C

AWS CloudFormation gives developers and systems administrators an easy way to create and manage a collection of related AWS resources, provisioning and updating them in an orderly and predictable fashion.

You can use AWS Cloud Formation's sample templates or create your own templates to describe the AWS resources, and any associated dependencies or runtime parameters, required to run your application. You don't need to figure out the order for provisioning AWS services or the subtleties of making those dependencies work. CloudFormation takes care of this for you. After the AWS resources are deployed, you can modify and update them in a controlled and predictable way, in effect applying version control to your AWS infrastructure the same way you do with your software. You can also visualize your templates as diagrams and edit them using a drag-and-drop interface with the AWS CloudFormation Designer.

AWS CloudFormation gives developers and systems administrators an easy way to create and manage a collection of related AWS resources, provisioning and updating them in an orderly and predictable fashion.

You can use AWS CloudFormation's sample templates or create your own templates to describe the AWS resources, and any associated dependencies or runtime parameters, required to run your application. You don't need to figure out the order for provisioning AWS services or the subtleties of making those dependencies work. CloudFormation takes care of this for you. After the AWS resources are deployed, you can modify and update them in a controlled and predictable way, in effect applying version control to your AWS infrastructure the same way you do with your software. You can also

For more information on Cloudformation, please visit the link:

https://aws.amazon.com/cloudformation/

The correct answer is: AWS CloudFormation

Feedback about this question and answer

QUESTION 15 NOT ANSWERED

W MARK FOR REVIEW

Your company currently uses templates to deploy servers in their onpremise infrastructure. They want to have the same template configurations applied when deploying EC2 Instances. Which of the following can be done to ensure that EC2 Instances can be deployed as per the template standards defined by the organization.

- A. Use the EC2 metadata feature to deploy those features at runtime.
- B. Use the AWSConfig service to deploy updates to the EC2

- C. Create pre-built AMI's with the desired configuration as the organization templates.
- D. It is not possible to define templates for EC2 Instances. You need to deploy the changes manually

Your answer is incorrect.

Answer - C

The AWS Documentation mentions the following

An Amazon Machine Image (AMI) provides the information required to launch an instance, which is a virtual server in the cloud. You specify an AMI when you launch an instance, and you can launch as many instances from the AMI as you need. You can also launch instances from as many different AMIs as you need.

An AMI includes the following:

- · A template for the root volume for the instance (for example, an operating system, an application server, and applications)
- · Launch permissions that control which AWS accounts can use the AMI to launch instances
- \cdot $\,$ A block device mapping that specifies the volumes to attach to the instance when it's launched

For more information on AMI's, please visit the below URL:

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

The correct answer is: Create pre-built AMI's with the desired configuration as the organization templates.

Feedback about this question and answer

QUESTION 16	NOT ANSWERED	MARK FOR REVIEW	
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What can be used for EC2 instances in a private subnet to connect to the internet? Choose an answer from the options below.

Please select:

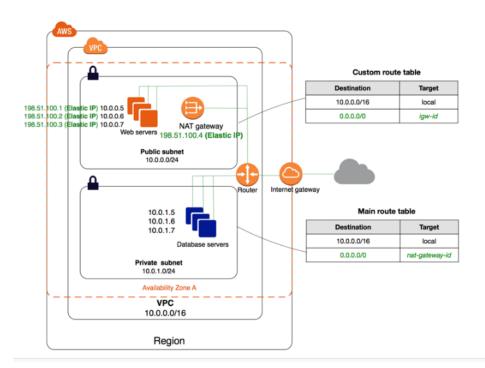
- A. WAF
- B. Direct Connect
- C. NAT Gateway
- D. VPN

Your answer is incorrect.

Answer - C

You can use a Network Address Translation (NAT) gateway to enable instances in a private subnet to connect to the Internet or other AWS services, but prevent the Internet from initiating a connection with those instances.

The below diagram from aws showcases how the NAT instance is used



For more information on NAT Gateways, please visit the URL:

http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/vpc-nat-gateway.html

The correct answer is: NAT Gateway

Feedback about this question and answer



Which AWS service allows businesses and web application developers an easy and cost effective way to distribute content with low latency and high data transfer speeds?

Please select:

- A. Amazon SES
- B. Amazon Cloudtrail
- C. Amazon CloudFront
- D. Amazon S3

Your answer is incorrect.

Amazon CloudFront is a web service that gives businesses and web application developers an easy and cost effective way to distribute content with low latency and high data transfer speeds. Like other AWS services, Amazon CloudFront is a self-service, pay-per-use offering, requiring no long term commitments or minimum fees. With CloudFront, your files are delivered to end-users using a global network of edge locations.

For more information on CloudFront, please visit the link:

https://aws.amazon.com/cloudfront/

The correct answer is: Amazon CloudFront

Feedback about this question and answer

QUESTION 18	NOT ANSWERED	MARK FOR REVIEW	
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You try to connect via SSH to a newly created Amazon EC2 instance and get one of the following error messages

- Error: Server refused our key (or)
- Error: No supported authentication methods available

What steps should you take to identify the source of the behavior? Choose 2 answers

Please select:

- A. You should also verify that your private key (.pem) file has been correctly converted to the format recognized by PuTTY (.ppk).
- B. Verify that your IAM user policy has permission to launch Amazon EC2 instances.
- C. Verify that you are connecting with the appropriate user name for your AMI.
- D. Verify that the Amazon EC2 Instance was launched with the proper IAM role.

Your answer is incorrect.

Answer - A and C

This is clearly given in the AWS documentation:

Error: Server refused our key or No supported authentication methods available

If you use PuTTY to connect to your instance and get either of the following errors, Error: Server refused our key Or Error: No supported authentication methods available, verify that you are connecting with the appropriate user name for your AMI. Enter the user name in the **User name** box in the **PuTTY Configuration** window.

The appropriate user names are as follows:

- For an Amazon Linux AMI, the user name is ec2-user.
- For a RHEL AMI, the user name is ec2-user or root.
- . For an Ubuntu AMI, the user name is ubuntu or root.
- . For a Centos AMI, the user name is centos.
- For a Fedora AMI, the user name is ec2-user.
- For SUSE, the user name is ec2-user or root.
- . Otherwise, if ec2-user and root don't work, check with the AMI provider.

You should also verify that your private key (.pem) file has been correctly converted to the format recognized by PuTTY (.ppk). For more information about converting your private key, see Connecting to Your Linux Instance from Windows Using PuTTY.

For more information on the connection errors to EC2 instances, please visit the link:

http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/TroubleshootingInstancesConnecting.html

The correct answers are: You should also verify that your private key (.pem) file has been correctly converted to the format recognized by PuTTY (.ppk)., Verify that you are connecting with the appropriate user name for your AMI.

Feedback about this question and answer

Which feature in AWS is commonly used to store session data for web based applications?

Please select:

- A. MySQL Installed on two Amazon EC2 Instances in a single Availability Zone
- B. Amazon RDS for MySQL with Multi-AZ
- C. Amazon ElastiCache
- D. Amazon DynamoDB

Your answer is incorrect.

Answer - C

Amazon ElastiCache is a web service that makes it easy to deploy, operate, and scale an in-memory data store or cache in the cloud. The service improves the performance of web applications by allowing you to retrieve information from fast, managed, in-memory data stores, instead of relying entirely on slower disk-based databases.

Q: What can I cache using Amazon ElastiCache for Memcached?

You can cache a variety of objects using the service, from the content in persistent data stores (such as Amazon RDS, DynamoDB, or self-managed databases hosted on EC2) to dynamically generated web pages (with Nginx for example), or transient session data that may not require a persistent backing store. You can also use it to implement high-frequency counters to deploy admission control in high volume web applications.

For more information on Elastic cache, please visit the link:

https://aws.amazon.com/elasticache/

The correct answer is: Amazon ElastiCache

Feedback about this question and answer

QUESTION 20 NOT ANSWERED

W MARK FOR REVIEW

Your application is having a very high traffic, so you have enabled autoscaling in multi availability zone to suffice the needs of your application but you observe that one of the availability zone is not receiving any traffic. What can be wrong here?

Please select:

- A. Autoscaling only works for single availability zone
- B. Autoscaling can be enabled for multi AZ only in north Virginia region
- C. Availability zone is not added to Elastic load balancer
- D. Instances need to manually added to availability zone

Your answer is incorrect.

Answer - C

When you add an Availability Zone to your load balancer, Elastic Load Balancing creates a load balancer node in the Availability Zone. Load balancer nodes accept traffic from clients and forward requests to the healthy registered instances in one or more Availability Zones.

For more information on adding AZ's to ELB, please refer to the below URL:

 http://docs.aws.amazon.com/elasticloadbalancing/latest/classic/enabledisable-az.html The correct answer is: Availability zone is not added to Elastic load balancer

Feedback about this question and answer

QUESTION 21 NOT ANSWERED

MARK FOR REVIEW

Your company currently has an application hosted in their on-premise infrastructure. There is a mandate from management to move the application to the AWS Cloud. AS an architect you want to be cautious for the deployment of the application onto AWS. You have suggested to divert a percentage of the traffic from the users to the new application in AWS during the launch. Once it is confirmed that the cloud based application works with no issues , a full diversion to the new site can be implemented. Which of the following mechanisms can be used to ensure this scenario can be implemented.

Please select:

- A. Use the Classic Elastic Load balancer to divert and proportion the traffic between the on-premise and AWS hosted application.
- B. Use the Application Elastic Load balancer to divert and proportion the traffic between the on-premise and AWS hosted application.
- C. Use Route53 with failover routing policy to divert and proportion the traffic between the on-premise and AWS hosted application.
- D. Use Route53 with Weighted routing policy to divert and proportion the traffic between the on-premise and AWS hosted application.

Your answer is incorrect.

Answer - D

The Weighted Routing policy is the best option here. You can ensure that the CNAME for your domain gets a lower proportion for the application hosted in AWS initially. Later on the percentage can be increased based on the application performance

The AWS documentation mentions the following on Route 53 Weighted Routing policy

Weighted routing lets you associate multiple resources with a single domain name (example.com) or subdomain name (acme.example.com) and choose how much traffic is routed to each resource. This can be useful for a variety of purposes, including load balancing and testing new versions of software.

For more information on Weighted Routing policy, please refer to the below URL:

http://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-policy.html

The correct answer is: Use Route53 with Weighted routing policy to divert and proportion the traffic between the on-premise and AWS hosted application.

Feedback about this question and answer



What step from the below options can be carried out to ensure that after an EBS volume is deleted, a similar volume with the same data can be created at a later stage.

Please select:

- A. Create a copy of the EBS volume (not a snapshot)
- B. Store a snapshot of the volume
- C. Download the content to an EC2 instance
- D. Back up the data in to a physical disk

Your answer is incorrect.

Answer - B

Snapshots occur asynchronously; the point-in-time snapshot is created immediately, but the status of the snapshot is pending until the snapshot is complete (when all of the modified blocks have been transferred to Amazon S3), which can take several hours for large initial snapshots or subsequent snapshots where many blocks have changed. While it is completing, an in-progress snapshot is not affected by ongoing reads and writes to the volume.

You can easily create a snapshot from a volume while the instance is running and the volume is in use. You can do this from the EC2 dashboard.



Amazon EBS Snapshots

You can back up the data on your EBS volumes to Amazon S3 by taking point-in-time snapshots. Snapshots are incremental backups, which means that only the blocks on the device that have changed after your most recent snapshot are saved. This minimizes the time required to create the snapshot and saves on storage costs. When you delete a snapshot, only the data unique to that snapshot is removed. Active snapshots contain all of the information needed to restore your data (from the time the snapshot was taken) to a new EBS volume.

For more information on EBS snapshots, please visit the link:

http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnapshots.html

The correct answer is: Store a snapshot of the volume

Feedback about this question and answer

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NOT ANSWERED

MARK FOR REVIEW

Which of the AWS Services following can be used to build an application based on a serverless architecture. Choose 3 answers from the options given below

Please select:

- A. AWS API Gateway
- B. AWS Lambda
- C. AWS DynamoDB
- D. AWS EC2

Your answer is incorrect.

Answer - A,B and C

This is given in the AWS documentation

AWS Serverless Platform

AWS provides a set of fully managed services that you can use to build and run serveriess applications. You use these services to build serveriess applications that don't require provisioning, maintaining, and administering servers for backend components such as compute, databases, storage, stream processing, message queueing, and more. You also no longer need to worry about ensuring application fault tolerance and availability. Instead, AWS handles all of these capabilities for you, allowing you to focus on product innovation and get faster time-to-market.









Compute

AWS Lambda lets you run code without provisioning or managing servers. You pay only for the compute time you consume - there is no charge when your code is not running. Just upload your code and Lambda takes care of everything required to run and

Amazon API Gateway is a fully managed service that makes it easy for developers to create, publish, maintain, monitor, and secure APIs at any scale. Amazon API Gateway allows you to process hundreds of thousands of concurrent API calls and

API Proxy

Storage

Amazon Simple Storage Service (Amazon S3), provides developers and IT teams with secure, durable, highly-scalable object storage. Amazon S3 is easy to use, with a simple web service interface to store and retrieve any amount of data from anywhere

Database

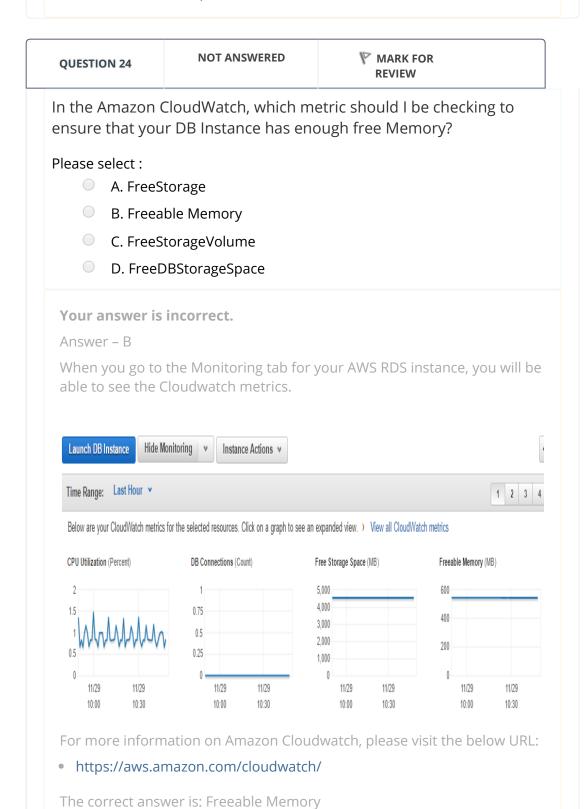
Amazon DynamoDB is a fast and flexible NoSQL database service for all applications that need consistent, single-digit millisecond latency at any scale. It is a fully managed cloud database and supports both document and key-value store models.

For more information on serverless platform, please refer to the below URL:

https://aws.amazon.com/serverless/

The correct answers are: AWS API Gateway, AWS Lambda, AWS DynamoDB

Feedback about this question and answer



QUESTION 25	NOT ANSWERED	MARK FOR REVIEW	
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You have an Autoscaling Group which is launching a set of t2.small instances. You now need to replace those instances with a larger instance type. How would you go about making this change in an ideal manner?

Please select:

- A. Change the Instance type in the current launch configuration to the new instance type.
- B. Create another Autoscaling Group and attach the new instance type.
- C. Create a new launch configuration with the new instance type and update your Autoscaling Group.
- D. Change the Instance type of the Underlying EC2 instance directly.

Your answer is incorrect.

Answer - C

The AWS Documentation mentions

A launch configuration is a template that an Auto Scaling group uses to launch EC2 instances. When you create a launch configuration, you specify information for the instances such as the ID of the Amazon Machine Image (AMI), the instance type, a key pair, one or more security groups, and a block device mapping. If you've launched an EC2 instance before, you specified the same information in order to launch the instance.

When you create an Auto Scaling group, you must specify a launch configuration. You can specify your launch configuration with multiple Auto Scaling groups. However, you can only specify one launch configuration for an Auto Scaling group at a time, and you can't modify a launch configuration after you've created it. Therefore, if you want to change the launch configuration for your Auto Scaling group, you must create a launch configuration and then update your Auto Scaling group with the new launch configuration.

For more information on launch configurations please see the below link:

http://docs.aws.amazon.com/autoscaling/latest/userguide/LaunchConfiguration.html

The correct answer is: Create a new launch configuration with the new instance type and update your Autoscaling Group.

Feedback about this question and answer

In what events would cause Amazon RDS to initiate a failover to the standby replica?

Choose 3 answers from the options given below

Please select:

- A. Loss of availability in primary Availability Zone
- B. Loss of network connectivity to primary
- C. Storage failure on secondary
- D. Compute unit failure on primary

Your answer is incorrect.

Answer - A. B and D

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.

For more information on read replicas, please visit the below URL:

https://aws.amazon.com/rds/details/read-replicas/

The correct answers are: Loss of availability in primary Availability Zone, Loss of network connectivity to primary, Compute unit failure on primary

Feedback about this question and answer

QUESTION 27 NOT ANSWERED

W MARK FOR REVIEW

Which of the following tools is available to send log data from EC2 Instances.

- B. CloudWatch Agent
- C. Logs Stream

Your answer is incorrect.

Answer - A

The AWS Documentation mentions the following

The CloudWatch Logs agent provides an automated way to send log data to CloudWatch Logs from Amazon EC2 instances. The agent is comprised of the following components:

- A plug-in to the AWS CLI that pushes log data to CloudWatch Logs.
- A script (daemon) that initiates the process to push data to CloudWatch Logs.
- · A cron job that ensures that the daemon is always running.

For more information on Cloudwatch logs Agent, please see the below link:

• http://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/AgentReference.html

The correct answer is: Logs Agent

Feedback about this question and answer

QUESTION 28	NOT ANSWERED	MARK FOR REVIEW	
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You have a business-critical two tier web app currently deployed in 2 availability zones in a single region, using Elastic Load Balancing (ELB) and Auto-Scaling. The app depends on synchronous replication at the database layer. The application needs to remain fully available even if one application AZ goes off-line and AutoScaling cannot launch new instances in the remaining AZ. How can the current architecture be enhanced to ensure this requirement?

- A. Deploy in 2 regions using Weighted Round Robin with AutoScaling minimums set of 50% peak load per Region.
- B. Deploy in 3 AZ with Autoscaling minimum set to handle 33 percent peak load per zone.
- C. Deploy in 3 AZ with Autoscaling minimum set to handle 50 percent peak load per zone.

D. Deploy in 2 regions using Weighted Round Robin with AutoScaling minimums set of 100% peak load per Region.

Your answer is incorrect.

Answer - C

Since the requirement is that the application should never go down even if an AZ is not available, we need to maintain 100% availability.

Option A and D are incorrect because region deployment is not possible for ELB. ELB's can manage traffic within a region and not between regions.

Option B is incorrect because even if one AZ goes down, we would be operating at only 66% and not the required 100%.

For more information on Autoscaling please visit the below URL:

https://aws.amazon.com/autoscaling/

The correct answer is: Deploy in 3 AZ with Autoscaling minimum set to handle 50 percent peak load per zone.

Feedback about this question and answer

QUESTION 29	NOT ANSWERED	MARK FOR REVIEW
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A VPC public subnet is one that (choose one of the correct option below):

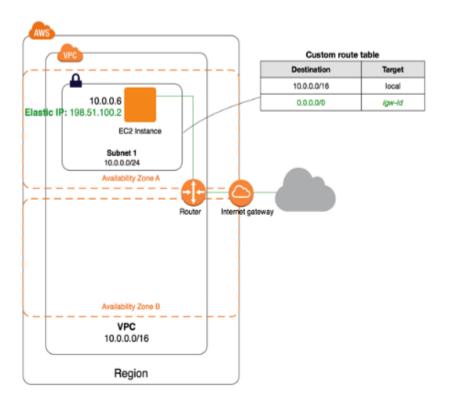
Please select:

- A. Has at least one route in its associated routing table that uses an Internet gateway
- B. Includes a route in its associated routing table via a Network Address Translation(NAT) instance.
- C. Has a Network Access Control List(NACL) permitting outbound traffic to 0.0.0.0/0
- D. Has the public Subnet option selected in its configuration

Your answer is incorrect.

Answer - A

The below diagram shows a public subnet. The public subnet has a route table that uses the internet gateway



For more information on public subnets please visit the below URL:

http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Scenario1.html

The correct answer is: Has at least one route in its associated routing table that uses an Internet gateway

Feedback about this question and answer

A customer nightly EMR job processes a single 2-TB data file stored on S3. The EMR job runs on 2 on-demand core nodes and 3 on-demand task nodes. Which of the following may help reduce the EMR job completion time?

Choose 2 answers from the options below

- A. Use 3 spot instances rather than 3 on-demand instances for the task nodes.
- B. Change the input split size in the MapReduce job configuration
- C. Use a bootstrap action to present the S3 bucket as a local filesystem
 - D. Launch the core nodes and the task nodes with a VPC
- E. Adjust the number of simultaneous mapper tasks

Your answer is incorrect.

Answer - B and E

As per the AWS documentation, if you have too few tasks, then you have nodes sitting idle. You can increase the number of simultaneous mapper tasks and reduce the size of the MapReduce job configuration

When your cluster runs, Hadoop creates a number of map and reduce tasks. These determine the number of tasks that can run simultaneously during your cluster. Run too few tasks and you have nodes sitting idle; run too many and there is significant framework overhead.

Amazon EMR determines the number of map tasks from the size and number of files of your input data. You configure the reducer setting. There are four settings you can modify to adjust the reducer setting.

The parameters for configuring the reducer setting are described in the following table.

Parameter	Description
mapred.map.tasks	Target number of map tasks to run. The actual number of tasks created is sometimes different than this number.
mapred.map.tasksperslot	Target number of map tasks to run as a ratio to the number of map slots in the cluster. This is used if mapred.map.tasks is not set.
mapred.reduce.tasks	Number of reduce tasks to run.
mapred.reduce.tasksperslot	Number of reduce tasks to run as a ratio of the number of reduce slots in the cluster.

For more information on EMR tasks please visit the below URL:

http://docs.aws.amazon.com/emr/latest/DeveloperGuide/TaskConfiguration_H1.0.3.html

The correct answers are: Change the input split size in the MapReduce job configuration, Adjust the number of simultaneous mapper tasks

Feedback about this question and answer

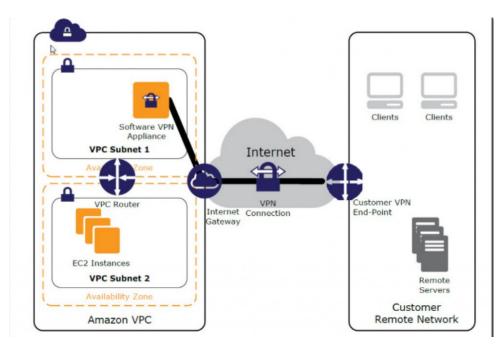
What action is required to establish an VPC VPN connection between an on-premise data center and an VPC virtual private gateway?

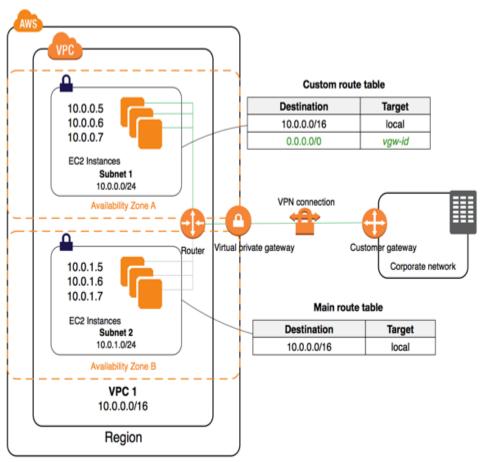
- A. Assign a static internet-routable IP Address to an Amazon VPC customer gateway
- B. Modify the main route table to allow traffic to a network address translation instance.
- C. Use a dedicated network address translation instance in the public subnet
- D. Establish a dedicated networking connection using Direct
 Connect

Your answer is incorrect.

Answer - A

When defining a VPN connection between the on-premise network and the VPC, you need to have a customer gateway defined. Since this is accessed over the internet, it needs to have a static internet-routable IP Address.





For more information on VPC VPN connections please visit the below URL:

- http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Introduction.html
- http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/vpn-connections.html

.

The correct answer is: Assign a static internet-routable IP Address to an Amazon VPC customer gateway

Feedback about this question and answer

What combination of the following options will protect S3 objects from both accidental deletion and accidental overwriting? Choose 2 answers from the options below

Please select:

- A. Enable S3 versioning on the bucket
- B. Access S3 data using only signed URL's
- C. Disable S3 delete using an IAM bucket policy
- D. Enable S3 RRS
- E. Enable MFA protected access

Your answer is incorrect.

Answer - A and E

This is clearly given in the AWS documentation:

Q: How can I ensure maximum protection of my preserved versions?

Versioning's MFA Delete capability, which uses multi-factor authentication, can be used to provide an additional layer of security. By default, all requests to your Amazon S3 bucket require your AWS account credentials. If you enable Versioning with MFA Delete on your Amazon S3 bucket, two forms of authentication are required to permanently delete a version of an object: your AWS account credentials and a valid six-digit code and serial number from an authentication device in your physical possession. To learn more about enabling Versioning with MFA Delete, including how to purchase and activate an authentication device, please refer to the Amazon S3 Technical Documentation.

For more information on S3 please visit the below URL:

https://aws.amazon.com/s3/faqs/

The correct answers are: Enable S3 versioning on the bucket, Enable MFA protected access

Feedback about this question and answer

A startup company hired you to help them build a mobile application that will ultimately store billions of images and videos on S3. The company is lean on funding and wants to minimize operational costs however they have an aggressive marketing plan, and expect to double their current installation base every six months. Due to the nature of their business they are expecting a sudden and large increases in traffic to and from S3 and need to ensure that it can handle the performance needs of their application. What other information must you gather from this customer in order to determine whether S3 is the right option?

Please select:

- A. You must know how many customers the company has today because this is critical in understanding what their customer base will be in 2 years.
- B. You must find out the total number of requests per second at peak usage.
- C. You must know the size of the individual objects being written to S3, in order to properly design the key namespace.
- D. In order to build the key namespace correctly you must understand the total amount of storage needs for each S3 bucket.

Your answer is incorrect.

Answer - B

When you define an S3 bucket the billing is done on the requests. If you go to the URL:

http://calculator.s3.amazonaws.com/index.html

which is the calculator for S3 costs, you can see that the cost is related to the total number of requests in addition to the storage. In order to find the estimated cost for the S3 storage, you should get a number of requests.

Standard Storage: Storage: PUT/COPY/POST/LIST Requests: GET and Other Requests: 0 Requests 0 Requests

The correct answer is: You must find out the total number of requests per second at peak usage.

Feedback about this question and answer

NOT ANSWERED

MARK FOR REVIEW

You have configuring a solution which uses EC2 Instances and an Elastic Load Balancer. Which of the following protocols can be used to ensure that traffic is secure from the client machine to the Elastic Load Balancer. Choose 2 answers from the options given below

Please select:

- A. HTTP
- B. HTTPS
- C. TCP
- D. SSL

Your answer is incorrect.

Answer - B and D

The HTTPS protocol uses the SSL protocol to establish secure connections over the HTTP layer. You can also use the SSL protocol to establish secure connections over the TCP layer.

For more information on ELB Listener configuration please see the below link:

 http://docs.aws.amazon.com/elasticloadbalancing/latest/classic/elblistener-config.html

The correct answers are: HTTPS, SSL

Feedback about this question and answer

QUESTION 35

NOT ANSWERED

MARK FOR REVIEW

After creating a new AWS account, you use the API to request 40 ondemand EC2 instances in a single AZ. After 20 successful requests, subsequent requests failed. What could be a reason for this issue, and how can you resolve it?

- A. You encountered a soft limit of 20 instances per region. Submit the limit increase form and retry the failed requests once approved.
- B. AWS allows you to provision no more than 20 instances per AZ. Select a different AZ and retry the failed request.
- C. You need to use VPC in order to provision more than 20 instances in a single AZ. Simply terminate the resources already provisioned and re-launch them all in a VPC.

• D. You encountered an API throttling situation and should try the failed requests using an exponential decay retry algorithm.

Your answer is incorrect.

Answer - A

There is a soft limits of 20 instances. Since this is across an instance family, option B is wrong because it will not work even if you try another availability zone.

Q: How many instances can I run in Amazon EC2?

You are limited to running up to at total of 20 On-Demand instances across the instance family, purchasing 20 Reserved Instances, and requesting Spot Instances per your dynamic Spot limit per region. New AWS accounts may start with limits that are lower than the limits described here. Certain instance types are further limited per region as follows:

For more information on all service limits please visit the below URL:

- https://aws.amazon.com/ec2/faqs/#How_many_instances_can_I_run_in_Amazon_EC2
- http://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html

The correct answer is: You encountered a soft limit of 20 instances per region. Submit the limit increase form and retry the failed requests once approved.

Feedback about this question and answer

You have been tasked with creating a VPC network topology for your company. The VPC network must support both internet-facing applications and internally-facing applications accessed only over VPN. Both Internet-facing and internally-facing applications must be able to leverage at least 3 AZs for high availability. At a minimum, how many subnets must you create within your VPC to accommodate these requirements?

Please select:

- A. 2
- B. 3
- C. 4
- D. 6

Your answer is incorrect.

Answer - D

Since each subnet corresponds to one availability zone and you need 3

For more information on VPC and subnets please visit the below URL:

http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Subnets.html

The correct answer is: 6

Feedback about this question and answer

QUESTION 37	NOT ANSWERED	MARK FOR REVIEW
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You receive a Spot Instance at a bid of \$0.05/hr. After 30 minutes, the Spot prices increases to \$0.06/hr and your Spot Instance is terminated by AWS. What was the total EC2 compute cost of running your Spot Instances?

Please select:

- A. \$0.00
- B. \$0.03
- C. \$0.05
- D. \$0.06

Your answer is incorrect.

Answer - A

In AWS partial hours for Spot Instances are billed as full hours. This is true except in the case where a Spot Instance is terminated by AWS. In this case the customer will not be charged for the partial hour. If the customer terminates their instance, they will be charged for all partial hours See more details here:

https://forums.aws.amazon.com/message.jspa?messageID=213375

With Spot instances, you will never be charged more than the maximum price you specified. While your instance runs, you are charged the Spot price that is in effect for that period. If the Spot price exceeds your specified price, your instance will receive a two-minute notification before it is terminated, and you will not be charged for the partial hour that your instance has run.

For more information on spot instance pricing please visit the below URL:

https://aws.amazon.com/ec2/spot/pricing/

The correct answer is: \$0.00

Feedback about this question and answer

QUESTION 38	NOT ANSWERED	№ MARK FOR REVIEW
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Please select:

- A. Amazon Simple Storage Service
- B. Amazon Simple Queue Service
- C. Amazon Simple Workflow Service
- D. Amazon Simple Notification Service

Your answer is incorrect.

Answer - A

This is clearly given in the AWS documentations:

Reference 1:

AWS Documentation » Amazon Simple Storage Service (S3) » Developer Guide » Working with Amazon S3 Objects

Working with Amazon S3 Objects

Amazon S3 is a simple key, value store designed to store as many objects as you want. You store these objects in one or more buckets. An object consists of the following:

- Key The name that you assign to an object. You use the object key to retrieve the object.
 - For more information, see Object Key and Metadata
- Version ID Within a bucket, a key and version ID uniquely identify an object.
 The version ID is a string that Amazon S3 generates when you add an object to a bucket. For more information, see Object Versioning.
- Value The content that you are storing.
 An object value can be any sequence of bytes. Objects can range in size from zero to 5 TB. For more information, see Uploading Objects.
- Metadata A set of name-value pairs with which you can store information regarding the object.

Reference 2:

S3 Object Tagging

With Amazon S3 Object Tagging, you can manage and control access for Amazon S3 objects. S3 Object Tags are key-value pairs applied to S3 objects which can be created, updated or deleted at any time during the lifetime of the object. With these, you'll have the ability to create Identity and Access Management (IAM) policies, setup S3 Lifecycle policies, and customize storage metrics. These object-level tags can then manage transitions between storage classes and expire objects in the background.

For more information on S3 please visit the below URLs:

- http://docs.aws.amazon.com/AmazonS3/latest/dev/UsingObjects.html
- https://aws.amazon.com/s3/details

Feedback about this question and answer

QUESTION 39	NOT ANSWERED	₩ MARK FOR REVIEW	
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In reviewing the Auto-Scaling events for your application you notice that your application is scaling up and down multiple times in the same hour. What design choice could you make to optimize for costs while preserving elasticity?

Select 2 options.

Please select:

- A. Modify the Auto Scaling policy to use scheduled scaling actions
- B. Modify the Auto Scaling Group cool down timers
- C. Modify the Amazon Cloudwatch alarm period that triggers your AutoScaling scale down policy.
- D. Modify the Auto Scaling group termination policy to terminate the newest instance first.

Your answer is incorrect.

Answer - B and C

The Auto Scaling cooldown period is a configurable setting for your Auto Scaling group that helps to ensure that Auto Scaling doesn't launch or terminate additional instances before the previous scaling activity takes effect. After the Auto Scaling group dynamically scales using a simple scaling policy, Auto Scaling waits for the cooldown period to complete before resuming scaling activities. When you manually scale your Auto Scaling group, the default is not to wait for the cooldown period, but you can override the default and honor the cooldown period. Note that if an instance becomes unhealthy, Auto Scaling does not wait for the cooldown period to complete before replacing the unhealthy instance.

For more information on Autoscale cool down timers please visit the URL:

http://docs.aws.amazon.com/autoscaling/latest/userguide/Cooldown.html

You can also modify the Cloudwatch triggers to ensure the thresholds are appropriate for the scale down policy.

For more information on Autoscaling user guide please visit the URL:

 http://docs.aws.amazon.com/autoscaling/latest/userguide/as-scalebased-on-demand.html

The correct answers are: Modify the Auto Scaling Group cool down timers, Modify the Amazon Cloudwatch alarm period that triggers your AutoScaling scale down policy.

Feedback about this question and answer

QUESTION 40

NOT ANSWERED

MARK FOR REVIEW

You have an application running in us-west-2 that requires 6 EC2 instances running at all times. With 3 AZ available in that region, which of the following deployments provides 100% fault tolerance if any single AZ in us-west-2 becomes unavailable? Choose 2 answers from the options below:

Please select:

	A. us-west-2a with 2 instances	s, us-west-2b with 2 instances, u	IS-
west	-2c with 2 instances		

- B. us-west-2a with 3 instances, us-west-2b with 3 instances, us-west-2c with 0 instances
- C. us-west-2a with 4 instances, us-west-2b with 2 instances, us-west-2c with 2 instances
- D. us-west-2a with 6 instances, us-west-2b with 6 instances, us-west-2c with 0 instances
- E. us-west-2a with 3 instances, us-west-2b with 3 instances, us-west-2c with 3 instances

Your answer is incorrect.

Answer - D and E

If you read the question carefully, it asks you the scenario when only one AZ goes down at a time. The requirement is to make 6 instances always running even if any one of the AZ is goes down. The questions doesn't ask you if any 2 or 3 AZ goes down at a time.

Hence D and E ensures that always 6 instances are running if any one AZ goes down at a time. I hope this clears your doubts. Since we need 6 instances running at all times, only D and E fulfill this option.

- Option A is invalid, because if any one of Availability zones goes down, then we are left with only 4 running instances.
- Option B is invalid because if either us-west-2a or us-west-2b goes down then we are left with less than 6 instances.
- Option C is invalid if us-west-2a goes down then we are left with less than 6 instances

For more information on building fault tolerant applications in AWS , please refer to the below link

http://media.amazonwebservices.com/AWS_Building_Fault_Tolerant_Applications.pdf

The correct answers are: us-west-2a with 6 instances, us-west-2b with 6

Feedback about this question and answer

Which route must be added to your routing table in order to allow connections to the internet from your subnet?

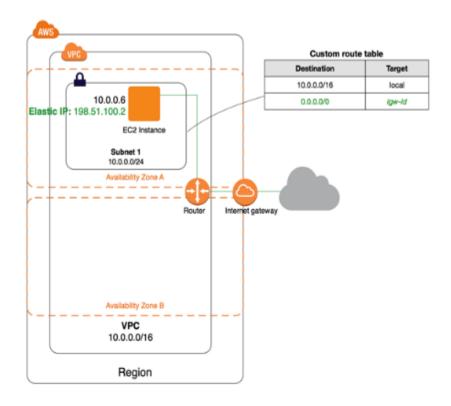
Please select:

- A. Destination:0.0.0.0/0-->Target:your internet gateway
- B. Destination:192.168.1.257/0-->Target:your internet gateway
- C. Destination:0.0.0.0/33-->Target:your virtual private gateway
- D. Destination:0.0.0.0/0--> Target:0.0.0.0/24

Your answer is incorrect.

Answer - A

The below diagram shows a public subnet. The public subnet has a route table that uses the internet gateway.



For more information on public subnets please visit the below URL:

http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Scenario1.html

The correct answer is: Destination:0.0.0.0/0-->Target:your internet gateway

QUESTION 42

NOT ANSWERED

MARK FOR REVIEW

You are deploying an application on Amazon EC2 that must call AWS API's. What is the method for securely passing credentials to the application that you use?

Please select:

- A. Embed the API credetials into your JAR files.
- B. Use the AWS Identity and Access Management (IAM) roles for EC2 instances
- C. Store API credentials as an object in S3.
- D. Pass API credentials to the instance using instance userdata.

Your answer is incorrect.

Answer - B

An IAM role is similar to a user, in that it is an AWS identity with permission policies that determine what the identity can and cannot do in AWS. However, instead of being uniquely associated with one person, a role is intended to be assumable by anyone who needs it. Also, a role does not have any credentials (password or access keys) associated with it. Instead, if a user is assigned to a role, access keys are created dynamically and provided to the user.

For more information on IAM role please visit the below URL:

http://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles.html

The correct answer is: Use the AWS Identity and Access Management (IAM) roles for EC2 instances

Feedback about this question and answer

QUESTION 43

NOT ANSWERED

MARK FOR REVIEW

You are developing a highly available web application using stateless web servers. Which services are suitable for storing session state data?

Choose 3 answers from the options below

- A. Amazon RDS
- B. Amazon Elastic Cache
- C. Amazon Cloudwatch

- D. Elastic Load Balancing (ELB)
- E. Amazon DynamoDB

Your answer is incorrect.

Answer - A,B and E

Amazon RDS

Amazon Relational Database Service (Amazon RDS) 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.

For more information on Amazon RDS please visit the below URL:

https://aws.amazon.com/rds/

Amazon Elastic Cache

Amazon ElastiCache is a web service that makes it easy to deploy, operate, and scale an in-memory data store or cache in the cloud. The service improves the performance of web applications by allowing you to retrieve information from fast, managed, in-memory data stores, instead of relying entirely on slower disk-based databases.

For more information on Amazon Elastic Cache please visit the below URL:

https://aws.amazon.com/elasticache/

Amazon DynamoDB

Amazon DynamoDB is a fast and flexible NoSQL database service for all applications that need consistent, single-digit millisecond latency at any scale. It is a fully managed cloud database and supports both document and key-value store models. Its flexible data model and reliable performance make it a great fit for mobile, web, gaming, ad tech, IoT, and many other applications.

For more information on Amazon DynamoDB please visit the below URL:

https://aws.amazon.com/dynamodb/

The correct answers are: Amazon RDS, Amazon Elastic Cache, Amazon DynamoDB

Feedback about this question and answer

QUESTION 44 NOT ANSWERED MARK FOR REVIEW

What are some of the metrics that are monitored by AWS Lamda? Choose 3 answers from the options given below.

- B. Latency
- C. Error Rates
- D. Database Changes

Your answer is incorrect.

Answer - A,B and C

AWS Lambda automatically monitors functions on your behalf, reporting metrics through Amazon CloudWatch. These metrics include total requests, latency, and error rates.

For more information on Lamda metrics please visit the below URL:

 http://docs.aws.amazon.com/lambda/latest/dg/monitoring-functionsaccess-metrics.html

The correct answers are: Total Requests, Latency, Error Rates

Feedback about this question and answer

QUESTION 45

NOT ANSWERED



There is a new facility from AWS which allows for fast, easy, and secure transfers of files over long distances between your client and your Amazon S3 bucket. What is this service called?

Please select:

- A. File Transfer
- B. HTTP Transfer
- C. Transfer Acceleration
- D. S3 Acceleration

Your answer is incorrect.

Answer - C

Q. What is Transfer Acceleration?

Amazon S3 Transfer Acceleration enables fast, easy, and secure transfers of files over long distances between your client and your Amazon S3 bucket. Transfer Acceleration leverages Amazon CloudFront's globally distributed AWS Edge Locations. As data arrives at an AWS Edge Location, data is routed to your Amazon S3 bucket over an optimized network path.

To know more about S3 transfer acceleration, please visit the below URL:

 http://docs.aws.amazon.com/AmazonS3/latest/dev/transferacceleration.html

The correct answer is: Transfer Acceleration

Feedback about this question and answer

What are the languages currently supported by AWS Lambda? Choose 3 answers from the options given below.

Please select:

- A. Node.js
- B. Angular.js
- C. Java
- D. C#

Your answer is incorrect.

Answer - A,C and D

AWS Lambda runs your code on a high-availability compute infrastructure and performs all of the administration of the compute resources, including server and operating system maintenance, capacity provisioning and automatic scaling, code monitoring and logging. All you need to do is supply your code in one of the languages that AWS Lambda supports (currently Node.js, Java, C# and Python).

Q: What languages does AWS Lambda support?

AWS Lambda supports code written in Node.js (JavaScript), Python, Java (Java 8 compatible), and C# (.NET Core). Your code can include existing libraries, even native ones. Please read our documentation on using Node.js, Python, Java, and C#.

For more information on Lamda please visit the below URL:

http://docs.aws.amazon.com/lambda/latest/dg/welcome.html

The correct answers are: Node.js, Java, C#

Feedback about this question and answer

QUESTION 47	NOT ANSWERED	V MARK FOR REVIEW
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Your company has an application hosted in AWS which makes use of DynamoDB. There is a requirement from the IT security department to ensure that all source IP addresses which make calls to the DynamoDB tables are recorded. Which of the following services can be used to ensure this requirement is fulfilled.

- A. AWS Code Commit
- B. AWS Code Pipeline

- C. AWS CloudTrail
- D. AWS Cloudwatch

Your answer is incorrect.

Answer - C

The AWS Documentation mentions the following

DynamoDB is integrated with CloudTrail, a service that captures low-level API requests made by or on behalf of DynamoDB in your AWS account and delivers the log files to an Amazon S3 bucket that you specify. CloudTrail captures calls made from the DynamoDB console or from the DynamoDB low-level API. Using the information collected by CloudTrail, you can determine what request was made to DynamoDB, the source IP address from which the request was made, who made the request, when it was made, and so on.

For more information on DynamoDB and Cloudtrail, please refer to the below link:

 http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/loggingusing-cloudtrail.html

The correct answer is: AWS CloudTrail

Feedback about this question and answer

QUESTION 48 NOT ANSWERED W MARK FOR REVIEW

Which of the following statements are false about Amazon Glacier. Choose one answer from the options given below.

Please select:

- A. It supports archive operations of Upload, Download and Delete
- B. The archives are mutable
- C. Uploading an archive is a synchronous operation
- D. Archives can be as large at 40TB

Your answer is incorrect.

Answer - B

This is clearly given in the AWS documentation.

A single archive can be as large as 40 terabytes. You can store an unlimited number of archives and an unlimited amount of data in Amazon Glacier. Each archive is assigned a unique archive ID at the time of creation, and the content of the archive is immutable, meaning that after

an archive is created it cannot be updated.

Archive operations in Amazon Glacier

Amazon Glacier supports the following archive operations: Upload, Download, and Delete. Archives are immutable and cannot be modified.

Uploading an archive to Amazon Glacier

Uploading an archive is a synchronous operation. You can upload an archive in a single operation or upload larger archives in parts with the MultipartUpload API to improve throughput and fault tolerance. You can upload archives as small as 1 byte and as large as 40 TB. You will receive a unique archive ID once the archive has been durably stored. For more information, see Uploading an Archive in Amazon Glacier for recommendations on when to use MultipartUpload to improve throughput.

For more information on AWS Glacier please visit the below URL:

https://aws.amazon.com/glacier/details/

The correct answer is: The archives are mutable

Feedback about this question and answer

Your company currently has a web application hosted on a single EC2 Instance. The load on the application has increased over time and now the users are complaining of slow response time. Which of the following implementations can help alleviate this issue.

Please select:

- A. Attach an additional EBS Volume to the EC2 Instance and direct the application to make the reads from this new volume.
- B. Attach an additional network interface with an Elastic IP so that requests can be made onto multiple IP's.
- C. Launch additional EC2 Instances in a web server farm type configuration and place them behind an Elastic Load Balancer.
- D. Launch additional EC2 Instances in a web server farm type configuration and place them behind Route53.

Your answer is incorrect.

Answer - C

The AWS mentions the following about the Elastic Load balancer that can be used to help in this issue

A load balancer distributes incoming application traffic across multiple EC2 instances in multiple Availability Zones. This increases the fault

tolerance of your applications. Elastic Load Balancing detects unhealthy instances and routes traffic only to healthy instances.

Your load balancer serves as a single point of contact for clients. This increases the availability of your application. You can add and remove instances from your load balancer as your needs change, without disrupting the overall flow of requests to your application. Elastic Load Balancing scales your load balancer as traffic to your application changes over time. Elastic Load Balancing can scale to the vast majority of workloads automatically.

For more information on the Elastic Load Balancer, please refer to the below link:

http://docs.aws.amazon.com/elasticloadbalancing/latest/classic/introduction.html

The correct answer is: Launch additional EC2 Instances in a web server farm type configuration and place them behind an Elastic Load Balancer.

Feedback about this question and answer

QUESTION 50 NOT ANSWERED W MARK FOR REVIEW

Which of the following are used to get data records from Amazon Kinesis? Choose an answer from the options below

Please select:

- A. Consumer
- B. Stream
- C. Producer
- D. None of the above

Your answer is incorrect.

Answer - A

A consumer gets data records from Amazon Kinesis streams. A consumer, known as an *Amazon Kinesis Streams application*, processes the data records from a stream.

For more information on AWS Kinesis consumers please visit the below URL:

 http://docs.aws.amazon.com/streams/latest/dev/amazon-kinesisconsumers.html

The correct answer is: Consumer

Feedback about this question and answer

What is the maximum possible retention period for data in Kinesis Streams? Choose an answer from the options below.

Please select:

- A. 5 days
- B. 7 days
- C. 10 days
- D. 24 hours

Your answer is incorrect.

Answer - B

For more information on AWS Kinesis consumers please visit the below URL:

 http://docs.aws.amazon.com/streams/latest/dev/amazon-kinesisconsumers.html

Data records are accessible for a default of 24 hours from the time they are added to a stream. This time frame is called the retention period and is configurable in hourly increments from 24 to 168 hours (1 to 7 days).

The correct answer is: 7 days

Feedback about this question and answer

QUESTION 52 NOT ANSWERED



Which of the following is false when it comes to EBS Encryption

Please select:

- A. Data is encrypted at rest inside the volume
- B. Data is encrypted when it is moved from one instance to another in the same subnet.
- C. Data is encrypted when data is moved between the volume and the instance
- D. All snapshots created from the volume are encrypted

Your answer is incorrect.

Answer - B

The AWS mentions the following about EBS Encryption

Amazon EBS encryption offers you a simple encryption solution for your EBS volumes without the need for you to build, maintain, and secure your own key management infrastructure. When you create an encrypted EBS volume and attach it to a supported instance type, the following types of data are encrypted:

- Data at rest inside the volume
- · All data moving between the volume and the instance
- · All snapshots created from the volume

For more information on EBS Encryption, please refer to the below link:

http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html

The correct answer is: Data is encrypted when it is moved from one instance to another in the same subnet.

Feedback about this question and answer

QUESTION 53	NOT ANSWERED	₩ MARK FOR REVIEW	
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In AWS what constitutes temporary security credentials? Choose 3 answers from the options given below

Please select:

- A. AWS Access Key ID
- B. Secret Access Key
- C. Security Token
- D. SSL Keys

Your answer is incorrect.

Answer -A,B and C

This is given in the AWS documentation:

Temporary Security Credentials

Q: What are temporary security credentials?

Temporary security credentials consist of the AWS access key ID, secret access key, and security token. Temporary security credentials are valid for a specified duration and for a specific set of permissions. Temporary security credentials are sometimes simply referred to as *tokens*. Tokens can be requested for IAM users or for federated users you manage in your own corporate directory. For more information, see Common Scenarios for Temporary Credentials.

For more information on IAM please visit the below URL:

https://aws.amazon.com/iam/faqs/

The correct answers are: AWS Access Key ID, Secret Access Key, Security Token

Feedback about this question and answer

Your company has a set of resources hosted in AWS. Your IT Supervisor is concerned with the costs being incurred with the current set of AWS resources and wants to monitor the cost usage. Which of the following mechanisms can be used to monitor the costs of the AWS resources and also look at the possibility of cost optimization. Choose 3 answers from the options given below

Please select:

- A. Use the Cost Explorer to see the costs of AWS resources
- B. Create budgets in billing section so that budgets are set beforehand
- C. Send all logs to Cloudwatch logs and inspect the logs for billing details
- D. Consider using the Trusted Advisor

Your answer is incorrect.

Answer - A,B and D

The AWS Documentation mentions the following

- 1) For a quick, high-level analysis use Cost Explorer, which is a free tool that you can use to view graphs of your AWS spend data. It includes a variety of filters and preconfigured views, as well as forecasting capabilities. Cost Explorer displays data from the last 13 months, the current month, and the forecasted costs for the next three months, and it updates this data daily.
- 2) Consider using budgets if you have a defined spending plan for a project or service and you want to track how close your usage and costs are to exceeding your budgeted amount. Budgets use data from Cost Explorer to provide you with a quick way to see your usage-to-date and current estimated charges from AWS. You can also set up notifications that warn you if you exceed or are about to exceed your budgeted amount.
- 3) Visit the AWS Trusted Advisor console regularly. Trusted Advisor works like a customized cloud expert, analyzing your AWS environment and providing best practice recommendations to help you save money, improve system performance and reliability, and close security gaps.

For more information on cost optimization, please visit the below URL:

 https://aws.amazon.com/answers/account-management/costoptimization-monitor/

The correct answers are: Use the Cost Explorer to see the costs of AWS resources, Create budgets in billing section so that budgets are set beforehand, Consider using the Trusted Advisor

Feedback about this question and answer

QUESTION 55	NOT ANSWERED	MARK FOR REVIEW
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Who are federated users when it comes to AWS? Choose an answer from the options given below

Please select:

- A. These are IAM users in aws
- B. These are IAM groups in aws
- C. These are Federated users (external identities) are users you manage outside of AWS in your corporate directory
- D. None of the above

Your answer is incorrect.

Answer - C

This is given in the AWS documentation:

Q: What are federated users?

Federated users (external identities) are users you manage outside of AWS in your corporate directory, but to whom you grant access to your AWS account using temporary security credentials. They differ from IAM users, which are created and maintained in your AWS account.

For more information on IAM please visit the below URL:

https://aws.amazon.com/iam/faqs/

The correct answer is: These are Federated users (external identities) are users you manage outside of AWS in your corporate directory

Feedback about this question and answer

QUESTION 56	NOT ANSWERED	MARK FOR REVIEW	
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As a solution architect, you have been asked to decide on whether to use Amazon EBS-backed or instance-store backed instance. What is

one key difference between an Amazon EBS-backed and an instancestore backed instance that you need to keep in mind.

Please select:

- A. Amazon EBS-backed instances can be stopped and restarted.
- B. Instance-store backed instances can be stopped and restarted.
- C. Auto scaling requires using Amazon EBS-backed instances.
- D. Virtual Private Cloud (VPC) requires EBS backed instances.

Your answer is incorrect.

Answer A - Amazon EBS-backed instances can be stopped and restarted.

Stopped State

You can stop an Amazon EBS-backed instance, but not an Amazon EC2 instance store-backed instance. Stopping causes the instance to stop running (its status goes from running to stopping to stopped). A stopped instance persists in Amazon EBS, which allows it to be restarted. Stopping is different from terminating; you can't restart a terminated instance. Because Amazon EC2 instance store-backed AMIs can't be stopped, they're either running or terminated. For more information about what happens and what you can do while an instance is stopped, see Stop and Start Your Instance.

Please visit the below URL for the key differences between EBS and instance store volumes:

- http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ComponentsAMIs.html
- Amazon EBS-backed AMI can be placed in stopped state where instance is not running, but the root volume is persisted in Amazon EBS.
- Amazon Instance store -backed AMI cannot be in stopped state; instances are running or terminated

The correct answer is: Amazon EBS-backed instances can be stopped and restarted.

Feedback about this question and answer

QUESTION 57 NOT ANSWERED	MARK FOR REVIEW
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Which of the following are not supported in the classic load balancer service provided by AWS? Choose an answer from the options given below.

- A. Health Checks
- B. Cloudwatch Metrics
- C. Host Based Routing
- D. Access Logs

Your answer is incorrect.

Answer - C

This is clearly given in the AWS documentation:

Connection Draining	Yes	Yes
Cross-zone Load Balancing*	Yes	Always Enabled
Health Checks	Yes	Enhanced
Cloudwatch Metrics	Yes	Enhanced
Access Logs	Yes	Enhanced
Path-based Routing	No	Yes
Dynamic Ports	No	Yes
Deletion Protection	No	Yes
Request Tracing	No	Yes
IPv6 in VPC	No	Yes
AWS WAF	No	Yes

For more information on ELB please visit the below URL:

https://aws.amazon.com/elasticloadbalancing/classicloadbalancer/faqs/

The correct answer is: Host Based Routing

Feedback about this question and answer

QUESTION 58	NOT ANSWERED	MARK FOR REVIEW
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Your company has an on-premise Active Directory setup in place. The company has extended their footprint on AWS, but still want to have the ability to use their on-premise Active Directory for authentication. Which of the following AWS services can be used to ensure that AWS

resources such as AWS Workspaces can continue to use the existing credentials stored in the on-premise Active Directory.

Please select:

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

Your answer is incorrect.

Answer - C

The AWS Documentation mentions the following

AD Connector is a directory gateway with which you can redirect directory requests to your on-premises Microsoft Active Directory without caching any information in the cloud. AD Connector comes in two sizes, small and large. A small AD Connector is designed for smaller organizations of up to 500 users. A large AD Connector can support larger organizations of up to 5,000 users.

For more information on the AD connector, please refer to the below URL:

 http://docs.aws.amazon.com/directoryservice/latest/adminguide/directory ad connector.html

The correct answer is: Use the Active Directory connector service on AWS

Feedback about this question and answer

QUESTION 59	NOT ANSWERED	MARK FOR REVIEW
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Which DNS record types does Amazon Route 53 support? Select 3 options.

Please select:

- A. A(address record)
- B. AAAA(IPv6 address record)
- C. TXT (txt record)
- D. Host Information records (HINFO)

Your answer is incorrect.

Answer - A, B and C.

Amazon Route 53 currently supports the following DNS record types:

- A (address record)
- AAAA (IPv6 address record)
- · CNAME (canonical name record)
- · MX (mail exchange record)
- · NAPTR (name authority pointer record)
- · NS (name server record)
- · PTR (pointer record)
- · SOA (start of authority record)
- · SPF (sender policy framework)
- · SRV (service locator)
- · TXT (text record)

For more information on Route53, please visit the below URL:

https://aws.amazon.com/route53/faqs/

The correct answers are: A(address record), AAAA(IPv6 address record), TXT (txt record)

Feedback about this question and answer

QUESTION 60	NOT ANSWERED	MARK FOR REVIEW
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A user has been created in IAM but the user is still not able to make API calls. After creating a new IAM user which of the following must be done before they can successfully make API calls?

Please select:

- A. Add a password to the user.
- B. Enable Multi-Factor Authentication for the user.
- C. Assign a Password Policy to the user.
- D. Create a set of Access Keys for the user.

Your answer is incorrect.

Answer - D

Feedback about this question and answer

Finish review