Q1) When an EC2 instance that is backed by an S3-based AMI is terminated, what happens to the data on the root volume?

- ⦿ Data is automatically saved as an EBS snapshot.
- ⦿ Data is automatically saved as an EBS volume.
- ⦿ Data is unavailable until the instance is restarted.
- ✅ Data is automatically deleted.

Explanation:-By default, the root volume for an AMI backed by Amazon EBS is deleted when the instance terminates. You can change the default behavior to ensure that the volume persists after the instance terminates. To change the default behavior, set the DeleteOnTermination attribute to false using a block device mapping. Refer: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/RootDeviceStorage.html

Q2) Do the Amazon EBS volumes persist independently from the running life of an Amazon EC2 instance?

- ⦿ Only if instructed to when created
- ✅ Yes
- ⦿ No

Q3) Select the incorrect statement.

- ⦿ In Amazon EC2, the private IP address is associated exclusively with the instance for its lifetime
- ✅ In Amazon VPC, an instance does NOT retain its private IP addresses when the instance is stopped.

Explanation:-The instance retains its private IP addresses when stopped and restarted. If your instance is running in EC2-Classic, it receives a new private IPv4 address, which means that an Elastic IP address (EIP) associated with the private IPv4 address is no longer associated with your instance.

- ⦿ In Amazon VPC, an instance retains its private IP addresses when the instance is stopped
- ⦿ In Amazon EC2, the private IP addresses only returned to Amazon EC2 when the instance is stopped or terminated

Q4) As Per the AWS Acceptable Use Policy, penetration testing of EC2 instances _____.

- ⦿ May be performed by the customer on their own instances, only if performed from EC2 instances
- ✅ May be performed by the customer on their own instances with prior authorization from AWS.
- ⦿ Are expressly prohibited under all circumstances.
- ⦿ May be performed by AWS, and is periodically performed by AWS.
- ⦿ May be performed by AWS, and will be performed by AWS upon customer request.

Q5) When you put objects in Amazon S3, what is the indication that an object was successfully stored?

- ⦿ Each S3 account has a special bucket named _s3_logs. Success codes are written to this bucket with a timestamp and checksum.
- ⦿ A success code is inserted into the S3 object metadata.
- ⦿ Amazon S3 is engineered for 99.999999999% durability. Therefore there is no need to confirm that data was inserted.
- ✅ A HTTP 200 result code and MD5 checksum, taken together, indicate that the operation was successful.

Explanation:-Refer: https://aws.amazon.com/premiumsupport/knowledge-center/data-integrity-s3/

Q6) Can I delete a snapshot of the root device of an EBS volume used by a registered AMI?

- ✅ Yes
- ⦿ Only via Console
- ⦿ Only via API
- ⦿ No

Q7) By default what are ENIs that are automatically created and attached to instances using the EC2 console set to do when the attached instance terminates?

- ✅ Terminate

Explanation:-You can set the termination behavior for a network interface that's attached to an instance. You can specify whether the network interface should be automatically deleted when you terminate the instance to which it's attached. In the Change Termination Behavior dialog box, select the Delete on termination check box if you want the network interface to be deleted when you terminate an instance. Refer: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-eni.html

- ⦿ Remain as is
- ⦿ Hibernate
- ⦿ Pause

Q8) A company is storing data on Amazon Simple Storage Service (S3). The company's security policy mandates that data is encrypted at rest. Which of the following methods can achieve this? Choose 3 answers

- ✅ Encrypt the data on the client-side before ingesting to Amazon S3 using their own master key.
- ⦿ Use Amazon S3 bucket policies to restrict access to the data at rest.
- ✅ Use Amazon S3 server-side encryption with customer-provided keys.
- ⦿ Use Amazon S3 server-side encryption with EC2 key pair.
- ✅ Use Amazon S3 server-side encryption with AWS Key Management Service managed keys.

Explanation:-Reference: http://docs.aws.amazon.com/AmazonS3/latest/dev/UsingKMSEncryption.html

- ⦿ Use SSL to encrypt the data while in transit to Amazon S3.

Q9) In the Amazon RDS which uses the SQL Server engine, what is the maximum size for a Microsoft SQL Server DB Instance with SQL Server Express edition?

- ⦿ 2 TB per DB
- ⦿ 100 GB per DB
- ✅ 10 GB per DB
- ⦿ 1TB per DB

Q10)

Amazon RDS creates an SSL certificate and installs the certificate on the DB Instance when Amazon RDS provisions the instance. These certificates are signed by a certificate authority.

The _____ is stored athttps://rds.amazonaws.com/doc/rds-ssl-ca-cert.pem.

- ⦿ protected key
- ⦿ public key
- ⦿ foreign key
- ✅ private key

Q11)

You have an environment that consists of a public subnet using Amazon VPC and 3 instances that are running in this subnet. These three instances can successfully communicate with other hosts on the Internet. You launch a fourth instance in the same subnet, using the same AMI and security group configuration you used for the others, but find that this instance cannot be accessed from the internet.

What should you do to enable Internet access?

- ⚪ Configure a publically routable IP Address in the host OS of the fourth instance.
- ✅ Assign an Elastic IP address to the fourth instance.
  Explanation:-You first allocate an Elastic IP address for use in a VPC, and then associate it with an instance in your VPC (it can be assigned to only one instance at a time). Refer: https://docs.aws.amazon.com/vpc/latest/userguide/vpc-eips.html
- ⚪ Deploy a NAT instance into the public subnet.
- ⚪ Modify the routing table for the public subnet.

Q12) Which of the following are valid statements about Amazon S3? (Choose 2 answers)

- ⚪ Partially saved objects are immediately readable with a GET after an overwrite PUT.
- ✅ A successful response to a PUT request only occurs when a complete object is saved.
- ⚪ Consistency is not guaranteed for any type of PUT or DELETE.
- ⚪ S3 provides read-after-write consistency for any type of PUT or DELETE.
- ✅ S3 provides eventual consistency for overwrite PUTS and DELETES.

Q13) What is one key difference between an Amazon EBS-backed and an instance-store backed instance?

- ⚪ Instance-store backed instances can be stopped and restarted.
- ⚪ Auto scaling requires using Amazon EBS-backed instances.
- ✅ Amazon EBS-backed instances can be stopped and restarted.
  Explanation:-For data you want to retain longer, or if you want to encrypt the data, use Amazon Elastic Block Store (Amazon EBS) volumes instead. EBS volumes preserve their data through instance stops and terminations, can be easily backed up with EBS snapshots, can be removed from one instance and reattached to another, and support full-volume encryption. Refer: https://aws.amazon.com/premiumsupport/knowledge-center/instance-store-vs-ebs/
- ⚪ Virtual Private Cloud requires EBS backed instances.

Q14) A _____ is the concept of allowing (or disallowing) an entity such as a user, group, or role some type of access to one or more resources.

- ✅ AWS Account
  Explanation:-An AWS account ID is a 12-digit number, such as 123456789012, that you use to construct Amazon Resource Names (ARNs). When you refer to resources, such as an IAM user or an S3 Glacier vault, the account ID distinguishes your resources from resources in other AWS accounts. Refer: https://docs.aws.amazon.com/general/latest/gr/acct-identifiers.html
- ⚪ user
- ⚪ resource
- ⚪ permission

Q15) Can the string value of 'Key' be prefixed with :aws:"?

- ⚪ Only in GovCloud
- ⚪ Only for S3 not EC2
- ⚪ Yes
- ✅ No
  Explanation:-The string value can be from 1 to 256 Unicode characters in length and cannot be prefixed with "aws:". The string can contain only the set of Unicode letters, digits, white-space, '_', '. Refer: https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_Tagging.html#:~:text=The%20string%20value%20can%20be%20from%201%20to%20256%20Unicode,%2Dspace%2C%20'_'%2C%20'.

Q16) Which of the following is a storage device that moves data in sequences of bytes or bits (blocks)?
Hint: These devices support random access and generally use buffered I/O.

- ✅ Block device
  Explanation:-A block device is a storage device that moves data in sequences of bytes or bits (blocks). These devices support random access and generally use buffered I/O. Refer: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/block-device-mapping-concepts.html
- ⚪ Mapping device
- ⚪ Storage block
- ⚪ Block map

Q17)

A customer needs to capture all client connection information from their load balancer every five minutes. The company wants to use this data for analyzing traffic patterns and troubleshooting their applications.

Which of the following options meets the customer requirements?

- ⚪ Enable Amazon CloudWatch metrics on the load balancer.
- ⚪ Install the Amazon CloudWatch Logs agent on the load balancer.
- ⚪ Enable access logs on the load balancer.
- ✅ Enable AWS CloudTrail for the load balancer.

Q18) Does AWS Direct Connect allow you access to all Availabilities Zones within a Region?

- ⚪ No
- ⚪ Yes
- ⚪ Only when there's just one availability zone in a region. If there are more than one, only one availability zone can be accessed directly.
- ✅ Depends on the type of connection

Q19) Is creating a Read Replica of another Read Replica supported?

- ⚪ Only in certain regions
- ⚪ Yes
- ⚪ Only in VPC
- ✅ No

Q20)

You are building a solution for a customer to extend their on-premises data center to AWS. The customer requires a 50-Mbps dedicated and private connection to their VPC.

Which AWS product or feature satisfies this requirement?

- ✅ AWS Direct Connect
  Explanation:-Refer: https://aws.amazon.com/directconnect/faqs/
- ⚪ Elastic IP Addresses
- ⚪ Amazon VPC peering
- ⚪ Amazon VPC virtual private gateway

Q21) Is the encryption of connections between my application and my DB Instance using SSL for the MySQL server engines available?

- ⚪ Only in certain regions
- ⚪ Only in VPC
- ✅ Yes
- ⚪ No

Q22) Amazon EC2 has no Amazon Resource Names (ARNs) because you can't specify a particular Amazon EC2 resource in an IAM policy

- INCORRECT
- ✅ CORRECT

Q23) What does Amazon SES stand for?

- Software Email Solution
- ✅ Simple Email Service

Explanation:-Amazon Simple Email Service (SES) is a cost-effective, flexible, and scalable email service that enables developers to send mail from within any application. With Amazon SES, you can send email securely, globally, and at scale. Refer: https://aws.amazon.com/ses/#:~:text=Amazon%20Simple%20Email%20Service%20(SES,mail%20from%20within%20any%20application.&text=With%20Amazon%20SES%2C%20you%20can,%2C%20globally

- Simple Elastic Server
- Software Enabled Server

Q24) When you resize the Amazon RDS DB instance, Amazon RDS will perform the upgrade during the next maintenance window. If you want the upgrade to be performed now, rather than waiting for the maintenance window, specify the _____ option.

- ✅ ApplyImmediately

Explanation:-Deferred DB instance modifications that you have chosen not to apply immediately are applied during the maintenance window. For example, you may choose to change the DB instance class or parameter group during the maintenance window. To apply the changes to the maintenance window immediately, select Apply immediately. Refer: https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_UpgradeDBInstance.Maintenance.html

- ApplyThis
- ApplySoon
- ApplyNow

Q25) If an Amazon EBS volume is the root device of an instance, can I detach it without stopping the instance?

- Yes but only if a Linux instance
- Yes
- ✅ No
- Yes but only if Windows instance

Q26) A _____ is a document that provides a formal statement of one or more permissions.

- ✅ policy

Explanation:-IAM Policy is a document that formally states one or more permissions. Refer:

- permission
- Role
- resource

Q27)

After launching an instance that you intend to serve as a NAT (Network Address Translation) device in a public subnet you modify your route tables to have the NAT device be the target of internet bound traffic of your private subnet. When you try and make an outbound connection to the internet from an instance in the private subnet, you are not successful.

Which of the following steps could resolve the issue?

- Attaching a second Elastic Network Interface (ENI) to the instance in the private subnet, and placing it in the public subnet
- Attaching a second Elastic Network Interface (ENI) to the NAT instance, and placing it in the private subnet
- Attaching an Elastic IP address to the instance in the private subnet
- ✅ Disabling the Source/Destination Check attribute on the NAT instance

Explanation:-Refer: https://docs.aws.amazon.com/vpc/latest/userguide/VPC_NAT_Instance.html

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Q28) An Auto-Scaling group spans 3 AZs and currently has 4 running EC2 instances. When Auto Scaling needs to terminate an EC2 instance by default, AutoScaling will _____. (Choose 2 answers)

- Terminate an instance in the AZ which currently has 2 running EC2 instances.
- ✅ Send an SNS notification, if configured to do so.

Explanation:-Refer: https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-instance-termination.html

- Terminate the instance with the least active network connections. If multiple instances meet this criterion, one will be randomly selected.
- Allow at least five minutes for Windows/Linux shutdown scripts to complete, before terminating the instance.
- ✅ Randomly select one of the 3 AZs, and then terminate an instance in that AZ.

Q29) Which of the following requires a custom CloudWatch metric to monitor?

- CPU Utilization of an EC2 instance
- Disk usage activity of an EC2 instance
- ✅ Memory Utilization of an EC2 instance

Explanation:-Amazon CloudWatch is a web service that enables you to monitor, manage, and publish various metrics, as well as configure alarm actions based on data from metrics. You can define custom metrics for your own use, and Elastic Beanstalk will push those metrics to Amazon CloudWatch. Refer: https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/customize-containers-cw.html

- Data transfer of an EC2 instance

Q30) Which of the following items are required to allow an application deployed on an EC2 instance to write data to a DynamoDB table? Assume that no security keys are allowed to be stored on the EC2 instance. (Choose 2 answers)

- ✅ Launch an EC2 Instance with the IAM Role included in the launch configuration.
- Add an IAM User to a running EC2 instance.
- Create an IAM User that allows write access to the DynamoDB table.
- Add an IAM Role to a running EC2 instance.
- ✅ Create an IAM Role that allows write access to the DynamoDB table.

Q31) Which of the following features ensures even distribution of traffic to Amazon EC2 instances in multiple Availability Zones registered with a load balancer?

- An Amazon Route 53 weighted routing policy
- Elastic Load Balancing cross-zone load balancing
- ✅ Elastic Load Balancing request routing

Explanation:-Elastic Load Balancing automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, IP addresses, and Lambda functions. It can handle the varying load of your application traffic in a single Availability Zone or across multiple Availability Zones. Elastic Load Balancing offers three types of load balancers that all feature the high availability, automatic scaling, and robust security necessary to make your applications fault tolerant. Refer: https://aws.amazon.com/elasticloadbalancing/

- An Amazon Route 53 latency routing policy

Q32) Can I use Provisioned IOPS with VPC?

- Only with MSSQL based RDS
- No

- Only Oracle based RDS
- ✅ Yes for all RDS instances

Q33) What is the difference between Stream-based and AWS Services when enabling Lambda?

- Streams maintains event source mapping in API
- Streams maintains event source mapping in notification
- Streams maintains event source mapping in EC2 instance
- Streams maintains event source mapping in event source
- ✅ Streams maintains event source mapping in Lambda

Q34) Select two custom origin servers from the following options?

- ✅ Elastic Load Balancer
- ✅ EC2 instance
- S3 object
- S3 bucket
- API gateway

Q35) What three features are characteristic of Classic Load Balancer?

- ✅ Backend server authentication
- ✅ SSLlistener
- **Explanation:-**Refer: https://docs.aws.amazon.com/elasticloadbalancing/latest/classic/introduction.html
- Path-based routing
- Dynamic port mapping
- ECS
- ✅ Layer 4 based load balancer

Q36) What security feature is only available with Classic Load Balancer?

- ✅ Back-end server authentication
- **Explanation:-**Refer: https://aws.amazon.com/elasticloadbalancing/features/
- SAML
- IAM role
- security groups
- LDAP

Q37) What is a primary difference between Classic and Network Load Balancer?

- Cross-zone load balancing
- Protocol target
- Auto-Scaling
- ✅ IP address target
- **Explanation:-**You can load balance any application hosted in AWS or on-premises using IP addresses of the application backends as targets. This allows load balancing to an application backend hosted on any IP address and any interface on an instance. Each application hosted on the same instance can have an associated security group and use the same port. You can also use IP addresses as targets to load balance applications hosted in on-premises locations (over a Direct Connect or VPN connection), peered VPCs and EC2-Classic (using ClassicLink). The ability to load balance across AWS and on-prem resources helps you migrate-to-cloud, burst-to-cloud or failover-to-cloud.

For Network Load Balancer - Network Load Balancer preserves the client side source IP allowing the back-end to see the IP address of the client. This can then be used by applications for further processing.

For Classic Load Balancer - When using Amazon Virtual Private Cloud (Amazon VPC), you can create and manage security groups associated with Classic Load Balancer to provide additional networking and security options. You can also create a Classic Load Balancer without public IP addresses to serve as an internal (non-internet-facing) load balancer. Refer: https://aws.amazon.com/elasticloadbalancing/features/
- listener

Q38) What are the first two conditions used by Amazon AWS default termination policy for Multi-AZ architecture?

- Unprotected instance closest to the next billing hour
- ✅ At least one instance that is not protected from scale in
- ✅ Availability Zone (AZ) with the most instances
- Unprotected instance with oldest launch configuration
- Random selection of any unprotected instance

Q39) What feature is used for horizontal scaling of consumers to process data records from a Kinesis data stream?

- Lambda
- ✅ Auto-Scaling
- **Explanation:-**Recently, AWS launched a new feature of AWS Application Auto Scaling that let you define scaling policies that automatically add and remove shards to an Amazon Kinesis Data Stream. Refer: https://aws.amazon.com/blogs/big-data/scaling-amazon-kinesis-data-streams-with-aws-application-auto-scaling/
- Vertical scaling shards
- Elastic Load Balancer

Q40) What two attributes are only associated with CloudFront private content?

- Web distribution
- ✅ Signed URL
- **Explanation:-**A signed URL includes additional information, for example, an expiration date and time, that gives you more control over access to your content. Refer: https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-signed-urls.html
- ✅ Signed cookies
- **Explanation:-**CloudFront signed cookies allow you to control who can access your content when you don't want to change your current URLs or when you want to provide access to multiple restricted files, for example, all of the files in the subscribers' area of a website. This topic explains the considerations when using signed cookies and describes how to set signed cookies using canned and custom policies. Refer: https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-signed-cookies.html
- Amazon S3 URL
- Object

Q41) How are origin servers located within CloudFront? (Select two)

- Source mapping
- RTMP protocol
- ✅ Web distribution
- Distribution list
- ✅ DNS request

Q42)

An instance is launched into a VPC subnet with the network ACL configured to allow all inbound traffic and deny all outbound traffic. The instance's security group is configured to allow SSH from any IP address and deny all outbound traffic.

What changes need to be made to allow SSH access to the instance?

○ Nothing, it can be accessed from any IP address using SSH.
○ Both the outbound security group and outbound network ACL need to be modified to
✅ The outbound network ACL needs to be modified to allow outbound traffic.
Explanation:-Network ACLs are stateless, which means that responses to allowed inbound traffic are subject to the rules for outbound traffic (and vice versa). You can create a custom network ACL for your VPC. By default, a network ACL that you create blocks all inbound and outbound traffic until you add rules, and is not associated with a subnet until you explicitly associate it with one. Refer: https://docs.aws.amazon.com/vpc/latest/userguide/vpc-network-acls.html
○ The outbound security group needs to be modified to allow outbound traffic.

Q43) What are three primary reasons for deploying ElastiCache?

✅ Replication with Redis
✅ Managed service
Explanation:-Amazon ElastiCache for Redis is a web service that makes it easy to deploy and run Redis protocol-compliant server nodes in the cloud. The service enables the management, monitoring and operation of a Redis node; creation, deletion and modification of the node can be carried out through the ElastiCache console, the command line interface or the web service APIs. Amazon ElastiCache for Redis supports Redis Master / Slave replication. Refer: https://aws.amazon.com/elasticache/redis/faqs/
○ Data security
○ Durability
✅ Low latency

Q44) What service does not support session data persistence store to enable web-based stateful applications?

○ DynamoDB
✅ Memcached
Explanation:-Amazon ElastiCache for Memcached is a Memcached-compatible in-memory key-value store service that can be used as a cache or a data store. It delivers the performance, ease-of-use, and simplicity of Memcached. ElastiCache for Memcached is fully managed, scalable, and secure - making it an ideal candidate for use cases where frequently accessed data must be in-memory. It is a popular choice for use cases such as Web, Mobile Apps, Gaming, Ad-Tech, and E-Commerce. Refer: https://aws.amazon.com/elasticache/memcached/
○ RDS
○ Redis
○ RedShift

Q45) How does Memcached implement horizontal scaling?

○ Database store
✅ Partitioning
Explanation:-The Memcached engine supports partitioning your data across multiple nodes. Because of this, Memcached clusters scale horizontally easily. A Memcached cluster can have from 1 to 20 nodes. To horizontally scale your Memcached cluster, merely add or remove nodes. Refer: https://docs.aws.amazon.com/AmazonElastiCache/latest/mem-ug/Scaling.html#:~:text=Scaling%20Memcached%20Vertically-,Scaling%20Memcached%20Horizontally,merely%20add%20or%20remove%20nodes.
○ Auto-Scaling
○ EC2 instances
○ S3 bucket

Q46) Can I encrypt connections between my application and my DB Instance using SSL?

○ Only in VPC
✅ Yes
○ No
○ Only in certain regions

Q47)

Your customer is willing to consolidate their log streams (access logs application logs security logs etc.) in one single system. Once consolidated, the customer wants to analyze these logs in real time based on heuristics. From time to time, the customer needs to validate heuristics, which requires going back to data samples extracted from the last 12 hours?

What is the best approach to meet your customer's requirements?

○ Setup an Auto Scaling group of EC2 syslogd servers, store the logs on S3 use EMR to apply heuristics on the logs
✅ Configure Amazon Cloud Trail to receive custom logs, use EMR to apply heuristics the logs
○ Send all the log events to Amazon Kinesis develop a client process to apply heuristics on the logs
○ Send all the log events to Amazon SQS. Setup an Auto Scaling group of EC2 servers to consume the logs and apply the heuristics.

Q48)

Your startup wants to implement an order fulfillment process for selling a personalized gadget that needs an average of 3-4 days to produce with some orders taking up to 6 months you expect 10 orders per day on your first day. 1000 orders per day after 6 months and 10,000 orders after 12 months. Orders coming in are checked for consistency men dispatched to your manufacturing plant for production quality control packaging shipment and payment processing If the product does not meet the quality standards at any stage of the process employees may force the process to repeat a step Customers are notified via email about order status and any critical issues with their orders such as payment failure. Your case architecture includes AWS Elastic Beanstalk for your website with an RDS MySQL instance for customer data and orders.

How can you implement the order fulfillment process while making sure that the emails are delivered reliably?

○ Use an SQS queue to manage all process tasks Use an Auto Scaling group of EC2 Instances that poll the tasks and execute them. Use SES to send emails to customers.
✅ Use SWF with an Auto Scaling group of activity workers and a decider instance in another Auto Scaling group with min/max=1 use SES to send emails to customers.
○ Use SWF with an Auto Scaling group of activity workers and a decider instance in another Auto Scaling group with min/max=1 Use the decider instance to send emails to customers.
○ Add a business process management application to your Elastic Beanstalk app servers and re-use the ROS database for tracking order status use one of the Elastic Beanstalk instances to send emails to customers.

Q49)

You are designing the network infrastructure for an application server in Amazon VPC Users will access all the application instances from the Internet as well as from an onpremises network The on-premises network is connected to your VPC over an AWS Direct Connect link.

How would you design routing to meet the above requirements?

○ Configure two routing tables one that has a default route via the Internet gateway and another that has a default route via the VPN gateway Associate both routing tables with each VPC subnet.
○ Configure a single routing table with two default routes: one to the internet via an Internet gateway the other to the on-premises network via the VPN gateway use this routing table across all subnets in your VPC.
○ Configure a single routing table with a default route via the internet gateway Propagate specific routes for the on-premises networks via BGP on the AWS Direct Connect customer router Associate the routing table with all VPC subnets.
✅ Configure a single routing Table with a default route via the Internet gateway Propagate a default route via BGP on the AWS Direct Connect customer router Associate the routing table with all VPC subnets.

Q50)

A company is running a batch analysis every hour on their main transactional DB. running on an RDS MySQL instance to populate their central Data Warehouse running on Redshift During the execution of the batch their transactional applications are very slow When the batch completes they need to update the top management dashboard with the new data The dashboard is produced by another system running on-premises that is currently started when a manually-sent email notifies that an update is required The on-premises system cannot be modified because is managed by another team.

How would you optimize this scenario to solve performance issues and automate the process as much as possible?

- ✅ Create an RDS Read Replica for the batch analysis and SQS to send a message to the on-premises system to update the dashboard.
- ⚪ Create an RDS Read Replica for the batch analysis and SNS to notify me on-premises system to update the dashboard
- ⚪ Replace ROS with Redsnift for the oaten analysis and SQS to send a message to the on-premises system to update the dashboard
- ⚪ Replace RDS with Redshift for the batch analysis and SNS to notify the on-premises system to update the dashboard

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Q51) What new feature was recently added to SQS that defines how messages are ordered?

- ⚪ TLS
- ✅ FIFO

Explanation:-SQS FIFO queues are designed to guarantee that messages are processed exactly once, in the exact order that they are sent.

- ⚪ SNS
- ⚪ streams
- ⚪ decoupling

Q52) You have 1 TB of data and want to archive the data that won't be accessed that often. Which is the most suitable Amazon AWS storage solution recommended in this case?

- ⚪ ephemeral
- ⚪ EBS
- ✅ Glacier

Explanation:-Amazon S3 Glacier and S3 Glacier Deep Archive are a secure, durable, and extremely low-cost Amazon S3 cloud storage classes for data archiving and long-term backup. Refer: https://aws.amazon.com/glacier/

- ⚪ CloudFront

Q53) What enables load balancing between multiple applications per load balancer?

- ⚪ Backend server authentication
- ✅ Path-based routing

Explanation:-You can create a listener with rules to forward requests based on the URL path. This is known as path-based routing. If you are running microservices, you can route traffic to multiple back-end services using path-based routing. For example, you can route general requests to one target group and requests to render images to another target group. Refer: https://docs.aws.amazon.com/elasticloadbalancing/latest/application/tutorial-load-balancer-routing.html

- ⚪ Sticky sessions
- ⚪ Listeners

Q54) What features are required to prevent users from bypassing AWS CloudFront security? (Select three)

- ✅ Origin access identity (OAI)
- ⚪ Signed cookies
- ✅ IP whitelist
- ⚪ Signed URL
- ✅ Bastion host