Amazon AWS Certified Solutions Architect - Associate SAA-C02 Exam Practice Questions
The questions for AWS Certified Solutions Architect - Associate SAA-C02 were last updated at Aug. 1, 2022.

Question #1Topic 1
A firm is developing a web application on AWS utilizing containers. At any one moment, the organization needs three instances of the web application to be running. The application must be scalable in order to keep up with demand increases. While management is cost-conscious, they agree that the application should be highly accessible.

What recommendations should a solutions architect make?

A. Add an execution role to the function with lambda:InvokeFunction as the action and * as the principal.
B. Add an execution role to the function with lambda:InvokeFunction as the action and Service:amazonaws.com as the principal.
C. Add a resource-based policy to the function with lambda:'* as the action and Service:events.amazonaws.com as the principal.
D. Add a resource-based policy to the function with lambda:InvokeFunction as the action and Service:events.amazonaws.com as the principal. Most Voted

Correct Answer: C ⬙
Community vote distribution
D (100%)

Question #2Topic 1
A business outsources its marketplace analytics management to a third-party partner. The vendor requires restricted programmatic access to the company's account's resources. All necessary policies have been established to ensure acceptable access.

Which new component provides the vendor the MOST SECURE access to the account?

A. Stop the instance outside the application's availability window. Start up the instance again when required.
B. Hibernate the instance outside the application's availability window. Start up the instance again when required. Most Voted
C. Use Auto Scaling to scale down the instance outside the application's availability window. Scale up the instance when required.
D. Terminate the instance outside the application's availability window. Launch the instance by using a preconfigured Amazon Machine Image (AMI) when required.

Correct Answer: B ⬙
Community vote distribution
B (100%)

Question #3Topic 1
A firm seeks to migrate its accounting system from an on-premises data center to an Amazon Web Services (AWS) Region. Data security and an unalterable audit log should be prioritized. All AWS activities must be subjected to compliance audits. Despite the fact that the business has enabled AWS CloudTrail, it want to guarantee that it meets these requirements.

What precautions and security procedures should a solutions architect include to

protect and secure CloudTrail? (Choose two.)

A. Create a second S3 bucket in us-east-1. Enable S3 Cross-Region Replication from the existing S3 bucket to the second S3 bucket. Most Voted
B. Create a cross-origin resource sharing (CORS) configuration of the existing S3 bucket. Specify us-east-1 in the CORS rule's AllowedOrigin element.
C. Create a second S3 bucket in us-east-1 across multiple Availability Zones. Create an S3 Lifecycle management rule to save photos into the second S3 bucket.
D. Create a second S3 bucket in us-east-1 to store the replicated photos. Configure S3 event notifications on object creation and update events that invoke an AWS Lambda function to copy photos from the existing S3 bucket to the second S3 bucket.

Correct Answer: B ✧
Community vote distribution
A (80%)
B (20%)

Question #4Topic 1
A firm maintains a searchable inventory of items on its website. The data is stored in an Amazon RDS for MySQL database in a table with over ten million entries. The database is kept on a two-terabyte (TB) General Purpose Solid State Drive (gp2) array. The company's website gets millions of updates to this data each day. The business discovered that some tasks took 10 seconds or longer and determined that the bottleneck was the database storage performance.

Which of the following options meets the performance requirement?

A. Configure a VPC endpoint for Amazon S3. Add an entry to the private subnet's route table for the S3 endpoint. Most Voted
B. Configure a NAT gateway in a public subnet. Configure the private subnet's route table to use the NAT gateway. Most Voted
C. Configure Amazon S3 as a file system mount point on the EC2 instances. Access Amazon S3 through the mount.
D. Move the EC2 instances into a public subnet. Configure the public subnet route table to point to an internet gateway.

Correct Answer: B ✧
Community vote distribution
A (58%)
B (42%)

Question #5Topic 1
A business that is currently hosting a web application on-premises is prepared to transition to AWS and launch a newer version of the application. The organization must route requests to the AWS or on-premises application based on the URL query string. The on-premises application is rendered unreachable over the internet, and a VPN connection is established between Amazon VPC and the business's data center. The company wishes to deploy this application using a load balancer (ALB).

Which of the following solutions meets these criteria?

A. Use AWS Snowball Edge devices to process and store the images. Most Voted
B. Upload the images to Amazon Simple Queue Service (Amazon SQS) during intermittent connectivity to EC2 instances.
C. Configure Amazon Kinesis Data Firehose to create multiple delivery streams aimed separately at the S3 buckets for storage and the EC2 instances for processing the images.
D. Use AWS Storage Gateway pre-installed on a hardware appliance to cache the images locally for Amazon S3 to process the images when connectivity becomes available.

Correct Answer: A ✧

Community vote distribution
A (94%)
6%

Question #6Topic 1
A meteorological start-up company has created a custom web application for the aim of selling weather data to its members online. The company currently uses Amazon DynamoDB to store its data and wishes to establish a new service that alerts the managers of four internal teams whenever a new weather event is recorded. The business does not want for this new service to impair the operation of the present application.

What steps should a solutions architect take to guarantee that these objectives are satisfied with the MINIMUM feasible operational overhead?

A. Create a DynamoDB table in on-demand capacity mode. Most Voted
B. Create a DynamoDB table with a global secondary Index.
C. Create a DynamoDB table with provisioned capacity and auto scaling.
D. Create a DynamoDB table in provisioned capacity mode, and configure it as a global table.

Correct Answer: A ⊗
Community vote distribution
A (100%)

Question #7Topic 1
A corporation uses an AWS application to offer content to its subscribers worldwide. Numerous Amazon EC2 instances are deployed on a private subnet behind an Application Load Balancer for the application (ALB). The chief information officer (CIO) wishes to limit access to some nations due to a recent change in copyright regulations.

Which course of action will satisfy these criteria?

A. Modify the ALB security group to deny incoming traffic from blocked countries.
B. Modify the security group for EC2 instances to deny incoming traffic from blocked countries.
C. Use Amazon CloudFront to serve the application and deny access to blocked countries.
D. Use ALB listener rules to return access denied responses to incoming traffic from blocked countries.

Correct Answer: C ⊗
"block access for certain countries." You can use geo restriction, also known as geo blocking, to prevent users in specific geographic locations from accessing content that you're distributing through a CloudFront web distribution.
Reference:
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/
georestrictions.html
Community vote distribution
C (100%)

Question #8Topic 1
Using seven Amazon EC2 instances, a business runs its web application on AWS. The organization needs that DNS queries provide the IP addresses of all healthy EC2 instances.

Which policy should be employed to comply with this stipulation?

A. Simple routing policy
B. Latency routing policy
C. Multi-value routing policy Most Voted
D. Geolocation routing policy

Correct Answer: C ♙
Community vote distribution
C (100%)

Question #9Topic 1
Each day, a corporation collects data from millions of consumers totalling
around 1'. The firm delivers use records for the last 12 months to its
customers. To meet with regulatory and auditing standards, all use data must be
retained for at least five years.

Which storage option is the MOST CHEAPEST?

A. Store the data in Amazon S3 Standard. Set a lifecycle rule to transition the
data to S3 Glacier Deep Archive after 1 year. Set a lifecycle rule to delete the
data after 5 years. Most Voted
B. Store the data in Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA). Set
a lifecycle rule to transition the data to S3 Glacier after 1 year. Set the
lifecycle rule to delete the data after 5 years.
C. Store the data in Amazon S3 Standard. Set a lifecycle rule to transition the
data to S3 Standard-Infrequent Access (S3 Standard-IA) after 1 year. Set a
lifecycle rule to delete the data after 5 years.
D. Store the data in Amazon S3 Standard. Set a lifecycle rule to transition the
data to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 1 year. Set a
lifecycle rule to delete the data after 5 years.

Correct Answer: C ♙
Reference:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/lifecycle-configuration-
examples.html

Community vote distribution
A (75%)
B (25%)

Question #10Topic 1
A business uses an Amazon RDS for PostgreSQL database instance to manage a fleet
of web servers. Following a normal compliance review, the corporation
establishes a standard requiring all production databases to have a recovery
point objective (RPO) of less than one second.

Which solution satisfies these criteria?

A. Enable a Multi-AZ deployment for the DB instance. Most Voted
B. Enable auto scaling for the DB instance in one Availability Zone.
C. Configure the DB instance in one Availability Zone, and create multiple read
replicas in a separate Availability Zone.
D. Configure the DB instance in one Availability Zone, and configure AWS
Database Migration Service (AWS DMS) change data capture (CDC) tasks.

Correct Answer: D ♙
Reference:
https://aws.amazon.com/blogs/database/implementing-a-disaster-recovery-strategy-
with-amazon-rds/
Community vote distribution
A (88%)
8%

Question #11Topic 1
On Amazon EC2 instances, a business is developing an application that creates
transitory transactional data. Access to data storage that can deliver
adjustable and consistent IOPS is required by the application.

What recommendations should a solutions architect make?

A. Provision an EC2 instance with a Throughput Optimized HDD (st1) root volume and a Cold HDD (sc1) data volume.
B. Provision an EC2 instance with a Throughput Optimized HDD (st1) volume that will serve as the root and data volume.
C. Provision an EC2 instance with a General Purpose SSD (gp2) root volume and Provisioned IOPS SSD (io1) data volume. Most Voted
D. Provision an EC2 instance with a General Purpose SSD (gp2) root volume. Configure the application to store its data in an Amazon S3 bucket.

Correct Answer: C 🗳
Community vote distribution
C (100%)

Question #12Topic 1
Prior to implementing a new workload, a solutions architect must examine and update the company's current IAM rules. The following policy was written by the solutions architect:

What is the policy's net effect?

A. Users will be allowed all actions except s3:PutObject if multi-factor authentication (MFA) is enabled.
B. Users will be allowed all actions except s3:PutObject if multi-factor authentication (MFA) is not enabled.
C. Users will be denied all actions except s3:PutObject if multi-factor authentication (MFA) is enabled.
D. Users will be denied all actions except s3:PutObject if multi-factor authentication (MFA) is not enabled. Most Voted

Correct Answer: D 🗳
Community vote distribution
D (91%)
9%

Question #13Topic 1
To allow neat-real-time processing, a web application must persist order data to Amazon S3. A solutions architect must design a scalable and fault-tolerant architecture.

Which solutions satisfy these criteria? (Select two.)

A. Write the order event to an Amazon DynamoDB table. Use DynamoDB Streams to trigger an AWS Lambda function that parses the payload and writes the data to Amazon S3. Most Voted
B. Write the order event to an Amazon Simple Queue Service (Amazon SQS) queue. Use the queue to trigger an AWSLambda function that parsers the payload and writes the data to Amazon S3.
C. Write the order event to an Amazon Simple Notification Service (Amazon SNS) topic. Use the SNS topic to trigger an AWS Lambda function that parses the payload and writes the data to Amazon S3. Most Voted
D. Write the order event to an Amazon Simple Queue Service (Amazon SQS) queue. Use an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger an AWS Lambda function that parses the payload and writes the data to Amazon S3.
E. Write the order event to an Amazon Simple Notification Service (Amazon SNS) topic. Use an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger an AWS Lambda function that parses the payload andwrites the data to Amazon S3.

Correct Answer: BE 🗳
Community vote distribution
AC (35%)
AB (32%)
BC (24%)

Question #14Topic 1
A business in the us-east-1 region offers a picture hosting service. Users from many countries may upload and browse images using the program. Some photographs get a high volume of views over months, while others receive a low volume of views for less than a week. The program supports picture uploads of up to 20 MB in size. The service determines which photographs to show to each user based on the photo information.

Which option delivers the most cost-effective access to the suitable users?

A. Store the photos in Amazon DynamoDB. Turn on DynamoDB Accelerator (DAX) to cache frequently viewed items.
B. Store the photos in the Amazon S3 Intelligent-Tiering storage class. Store the photo metadata and its S3 location in DynamoDB. Most Voted
C. Store the photos in the Amazon S3 Standard storage class. Set up an S3 Lifecycle policy to move photos older than 30 days to the S3 Standard-Infrequent Access (S3 Standard-IA) storage class. Use the object tags to keep track of metadata.
D. Store the photos in the Amazon S3 Glacier storage class. Set up an S3 Lifecycle policy to move photos older than 30 days to the S3 Glacier Deep Archive storage class. Store the photo metadata and its S3 location in Amazon Elasticsearch Service (Amazon ES).

Correct Answer: B ⬙
Reference:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/storage-class-intro.html

Community vote distribution
B (100%)

Question #15Topic 1
A business is creating a website that will store static photos in an Amazon S3 bucket. The company's goal is to reduce both latency and cost for all future requests.

How should a solutions architect propose a service configuration?

A. Deploy a NAT server in front of Amazon S3.
B. Deploy Amazon CloudFront in front of Amazon S3. Most Voted
C. Deploy a Network Load Balancer in front of Amazon S3.
D. Configure Auto Scaling to automatically adjust the capacity of the website.

Correct Answer: B ⬙
Reference:
https://aws.amazon.com/getting-started/hands-on/deliver-content-faster/
Community vote distribution
B (100%)

Question #16Topic 1
For the database layer of its ecommerce website, a firm uses Amazon DynamoDB with provided throughput. During flash sales, clients may encounter periods of delay when the database is unable to manage the volume of transactions. As a result, the business loses transactions. The database operates normally during regular times.

Which approach resolves the company's performance issue?

A. Switch DynamoDB to on-demand mode during flash sales. Most Voted
B. Implement DynamoDB Accelerator for fast in memory performance.
C. Use Amazon Kinesis to queue transactions for processing to DynamoDB.
D. Use Amazon Simple Queue Service (Amazon SQS) to queue transactions to DynamoDB.

Correct Answer: A ⬙
Community vote distribution
A (93%)
7%

Question #17Topic 1
A significant media corporation uses AWS to host a web application. The corporation intends to begin caching secret media files in order to provide dependable access to them to consumers worldwide. Amazon S3 buckets are used to store the material. The organization must supply material rapidly, regardless of the origin of the requests.

Which solution will satisfy these criteria?

A. Use AWS DataSync to connect the S3 buckets to the web application.
B. Deploy AWS Global Accelerator to connect the S3 buckets to the web application.
C. Deploy Amazon CloudFront to connect the S3 buckets to CloudFront edge servers. Most Voted
D. Use Amazon Simple Queue Service (Amazon SQS) to connect the S3 buckets to the web application.

Correct Answer: B ⬙
Community vote distribution
C (92%)
8%

Question #18Topic 1
In the AWS Cloud, a web application is deployed. It is a two-tier design comprised of a web and database layer. Cross-site scripting (XSS) attacks are possible on the web server.

What is the best course of action for a solutions architect to take to address the vulnerability?

A. Create a Classic Load Balancer. Put the web layer behind the load balancer and enable AWS WAF.
B. Create a Network Load Balancer. Put the web layer behind the load balancer and enable AWS WAF.
C. Create an Application Load Balancer. Put the web layer behind the load balancer and enable AWS WAF. Most Voted
D. Create an Application Load Balancer. Put the web layer behind the load balancer and use AWS Shield Standard.

Correct Answer: C ⬙
Working with cross-site scripting match conditions
Attackers sometimes insert scripts into web requests in an effort to exploit vulnerabilities in web applications. You can create one or more cross-site scripting match conditions to identify the parts of web requests, such as the URI or the query string, that you want AWS WAF Classic to inspect for possible malicious scripts. Later in the process, when you create a web ACL, you specify whether to allow or block requests that appear to contain malicious scripts.

Web Application Firewall -
You can now use AWS WAF to protect your web applications on your Application Load Balancers. AWS WAF is a web application firewall that helps protect your web applications from common web exploits that could affect application availability, compromise security, or consume excessive resources.
Reference:
https://docs.aws.amazon.com/waf/latest/developerguide/classic-web-acl-xss-conditions.html https://aws.amazon.com/elasticloadbalancing/features/
Community vote distribution
C (89%)

Question #19Topic 1
On its website, a business keeps a searchable store of things. The data is
stored in a table with over ten million rows in an Amazon RDS for MySQL
database. The database is stored on a 2 TB General Purpose SSD (gp2) array.
Every day, the company's website receives millions of changes to this data. The
organization found that certain activities were taking ten seconds or more and
concluded that the bottleneck was the database storage performance.

Which option satisfies the performance requirement?

A. Change the storage type to Provisioned IOPS SSD (io1). Most Voted
B. Change the instance to a memory-optimized instance class.
C. Change the instance to a burstable performance DB instance class.
D. Enable Multi-AZ RDS read replicas with MySQL native asynchronous replication.

Correct Answer: A 🗳️
Community vote distribution
A (100%)

Question #20Topic 1
A business is prepared to use Amazon S3 to store sensitive data. Data must be
encrypted at rest for compliance purposes. Auditing of encryption key use is
required. Each year, keys must be rotated.

Which solution satisfies these parameters and is the MOST OPTIMAL in terms of
operational efficiency?

A. Server-side encryption with customer-provided keys (SSE-C)
B. Server-side encryption with Amazon S3 managed keys (SSE-S3)
C. Server-side encryption with AWS KMS (SSE-KMS) customer master keys (CMKs)
with manual rotation
D. Server-side encryption with AWS KMS (SSE-KMS) customer master keys (CMKs)
with automatic rotation Most Voted

Correct Answer: D 🗳️
Community vote distribution
D (86%)
14%

Question #21Topic 1
Management need a summary of AWS billed items broken down by user as part of
their budget planning process. Budgets for departments will be created using the
data. A solutions architect must ascertain the most effective method of
obtaining this report data.

Which solution satisfies these criteria?

A. Run a query with Amazon Athena to generate the report.
B. Create a report in Cost Explorer and download the report. Most Voted
C. Access the bill details from the billing dashboard and download the bill.
D. Modify a cost budget in AWS Budgets to alert with Amazon Simple Email Service
(Amazon SES).

Correct Answer: B 🗳️
Community vote distribution
B (100%)

Question #22Topic 1
A solutions architect must create a system for archiving client case files. The
files are critical corporate assets. The file count will increase over time.
Multiple application servers running on Amazon EC2 instances must be able to
access the files concurrently. There must be built-in redundancy in the

solution.

Which solution satisfies these criteria?

A. Amazon Elastic File System (Amazon EFS) Most Voted
B. Amazon Elastic Block Store (Amazon EBS)
C. Amazon S3 Glacier Deep Archive
D. AWS Backup

Correct Answer: A ⬙
Reference:
https://aws.amazon.com/efs/faq/

Community vote distribution
A (100%)

Question #23Topic 1
A business must give secure access to secret and sensitive data to its workers.
The firm want to guarantee that only authorized individuals have access to the
data. The data must be safely downloaded to the workers' devices.
The files are kept on a Windows file server on-premises. However, as remote
traffic increases, the file server's capacity is being depleted.

Which solution will satisfy these criteria?

A. Migrate the file server to an Amazon EC2 instance in a public subnet.
Configure the security group to limit inbound traffic to the employees' IP
addresses.
B. Migrate the files to an Amazon FSx for Windows File Server file system.
Integrate the Amazon FSx file system with the on-premises Active Directory.
Configure AWS Client VPN. Most Voted
C. Migrate the files to Amazon S3, and create a private VPC endpoint. Create a
signed URL to allow download.
D. Migrate the files to Amazon S3, and create a public VPC endpoint. Allow
employees to sign on with AWS Single Sign-On.

Correct Answer: C ⬙
Community vote distribution
B (80%)
C (20%)

Question #24Topic 1
A legal company must communicate with the public. Hundreds of files must be
publicly accessible. Anyone is banned from modifying or deleting the files
before to a specified future date.

Which solution satisfies these criteria the SAFEST way possible?

A. Upload all flies to an Amazon S3 bucket that is configured for static website
hosting. Grant read-only IAM permissions to any AWS principals that access the
S3 bucket until the designated date.
B. Create a new Amazon S3 bucket with S3 Versioning enabled. Use S3 Object Lock
with a retention period in accordance with the designated date. Configure the S3
bucket for static website hosting. Set an S3 bucket policy to allow read-only
access to the objects. Most Voted
C. Create a new Amazon S3 bucket with S3 Versioning enabled. Configure an event
trigger to run an AWS Lambda function in case of object modification or
deletion. Configure the Lambda function to replace the objects with the original
versions from a private S3 bucket.
D. Upload all files to an Amazon S3 bucket that is configured for static website
hosting. Select the folder that contains the files. Use S3 Object Lock with a
retention period in accordance with the designated date. Grant read-only IAM
permissions to any AWS principals that access the S3 bucket.

Correct Answer: D 📥
Reference:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/
HostingWebsiteOnS3Setup.html
Community vote distribution
B (95%)
5%

Question #25Topic 1
A corporation connects its on-premises servers to AWS through a 10 Gbps AWS
Direct Connect connection. The connection's workloads are crucial. The
organization needs a catastrophe recovery approach that is as resilient as
possible while minimizing the existing connection bandwidth.

What recommendations should a solutions architect make?

A. Set up a new Direct Connect connection in another AWS Region.
B. Set up a new AWS managed VPN connection in another AWS Region.
C. Set up two new Direct Connect connections: one in the current AWS Region and
one in another Region. Most Voted
D. Set up two new AWS managed VPN connections: one in the current AWS Region and
one in another Region.

Correct Answer: C 📥
Community vote distribution
C (54%)
A (46%)

Question #26Topic 1
A business has two virtual private clouds (VPCs) labeled Management and
Production. The Management VPC connects to a single device in the data center
using VPNs via a customer gateway. The Production VPC is connected to AWS
through two AWS Direct Connect connections via a virtual private gateway. Both
the Management and Production VPCs communicate with one another through a single
VPC peering connection.

What should a solutions architect do to minimize the architecture's single point
of failure?

A. Add a set of VPNs between the Management and Production VPCs.
B. Add a second virtual private gateway and attach it to the Management VPC.
C. Add a second set of VPNs to the Management VPC from a second customer gateway
device. Most Voted
D. Add a second VPC peering connection between the Management VPC and the
Production VPC.

Correct Answer: A 📥
Community vote distribution
C (100%)

Question #27Topic 1
AWS hosts a company's near-real-time streaming application. While the data is
being ingested, a job is being performed on it that takes 30 minutes to finish.
Due to the massive volume of incoming data, the workload regularly faces
significant latency. To optimize performance, a solutions architect must build a
scalable and serverless system.

Which actions should the solutions architect do in combination? (Select two.)

A. Use Amazon Kinesis Data Firehose to ingest the data. Most Voted
B. Use AWS Lambda with AWS Step Functions to process the data.
C. Use AWS Database Migration Service (AWS DMS) to ingest the data.
D. Use Amazon EC2 instances in an Auto Scaling group to process the data.
E. Use AWS Fargate with Amazon Elastic Container Service (Amazon ECS) to process

the data. Most Voted

Correct Answer: AE ⬨
Community vote distribution
AE (75%)
AB (17%)
8%

Question #28Topic 1
Amazon Elastic Block Store (Amazon EBS) volumes are used by a media organization to store video material. A certain video file has gained popularity, and a significant number of individuals from all over the globe are now viewing it. As a consequence, costs have increased.

Which step will result in a cost reduction without jeopardizing user accessibility?

A. Change the EBS volume to Provisioned IOPS (PIOPS).
B. Store the video in an Amazon S3 bucket and create an Amazon CloudFront distribution. Most Voted
C. Split the video into multiple, smaller segments so users are routed to the requested video segments only.
D. Clear an Amazon S3 bucket in each Region and upload the videos so users are routed to the nearest S3 bucket.

Correct Answer: B ⬨
Community vote distribution
B (100%)

Question #29Topic 1
Amazon S3 buckets are used by an image hosting firm to store its objects. The firm wishes to prevent unintentional public disclosure of the items contained in the S3 buckets. All S3 items in the AWS account as a whole must remain private.

Which solution will satisfy these criteria?

A. Use Amazon GuardDuty to monitor S3 bucket policies. Create an automatic remediation action rule that uses an AWS Lambda function to remediate any change that makes the objects public.
B. Use AWS Trusted Advisor to find publicly accessible S3 buckets. Configure email notifications in Trusted Advisor when a change is detected. Manually change the S3 bucket policy if it allows public access.
C. Use AWS Resource Access Manager to find publicly accessible S3 buckets. Use Amazon Simple Notification Service (Amazon SNS) to invoke an AWS Lambda function when a change is detected. Deploy a Lambda function that programmatically remediates the change.
D. Use the S3 Block Public Access feature on the account level. Use AWS Organizations to create a service control policy (SCP) that prevents IAM users from changing the setting. Apply the SCP to the account. Most Voted

Correct Answer: A ⬨
Reference:
https://docs.aws.amazon.com/guardduty/latest/ug/guardduty-ug.pdf
Community vote distribution
D (100%)

Question #30Topic 1
A company's website stores transactional data on an Amazon RDS MySQL Multi-AZ DB instance. Other internal systems query this database instance to get data for batch processing. When internal systems request data from the RDS DB instance, the RDS DB instance drastically slows down. This has an effect on the website's read and write performance, resulting in poor response times for users.

Which approach will result in an increase in website performance?

A. Use an RDS PostgreSQL DB instance instead of a MySQL database.
B. Use Amazon ElastiCache to cache the query responses for the website.
C. Add an additional Availability Zone to the current RDS MySQL Multi-AZ DB instance.
D. Add a read replica to the RDS DB instance and configure the internal systems to query the read replica. Most Voted

Correct Answer: D 🗃
Amazon RDS Read Replicas -

Enhanced performance -
You can reduce the load on your source DB instance by routing read queries from your applications to the read replica. Read replicas allow you to elastically scale out beyond the capacity constraints of a single DB instance for read-heavy database workloads. Because read replicas can be promoted to master status, they are useful as part of a sharding implementation.
To further maximize read performance, Amazon RDS for MySQL allows you to add table indexes directly to Read Replicas, without those indexes being present on the master.
Reference:
https://aws.amazon.com/rds/features/read-replicas
Community vote distribution
D (100%)

Question #31Topic 1
Currently, a company's legacy application relies on an unencrypted Amazon RDS MySQL database with a single instance. All current and new data in this database must be encrypted to comply with new compliance standards.

How is this to be achieved?

A. Create an Amazon S3 bucket with server-side encryption enabled. Move all the data to Amazon S3. Delete the RDS instance.
B. Enable RDS Multi-AZ mode with encryption at rest enabled. Perform a failover to the standby instance to delete the original instance.
C. Take a Snapshot of the RDS instance. Create an encrypted copy of the snapshot. Restore the RDS instance from the encrypted snapshot. Most Voted
D. Create an RDS read replica with encryption at rest enabled. Promote the read replica to master and switch the application over to the new master. Delete the old RDS instance.

Correct Answer: C 🗃
How do I encrypt Amazon RDS snapshots?
The following steps are applicable to Amazon RDS for MySQL, Oracle, SQL Server, PostgreSQL, or MariaDB.
Important: If you use Amazon Aurora, you can restore an unencrypted Aurora DB cluster snapshot to an encrypted Aurora DB cluster if you specify an AWS Key Management Service (AWS KMS) encryption key when you restore from the unencrypted DB cluster snapshot. For more information, see Limitations of Amazon RDS Encrypted DB Instances.
Open the Amazon RDS console, and then choose Snapshots from the navigation pane.
Select the snapshot that you want to encrypt.
Under Snapshot Actions, choose Copy Snapshot.
Choose your Destination Region, and then enter your New DB Snapshot Identifier.
Change Enable Encryption to Yes.
Select your Master Key from the list, and then choose Copy Snapshot.
After the snapshot status is available, the Encrypted field will be True to indicate that the snapshot is encrypted.
You now have an encrypted snapshot of your DB. You can use this encrypted DB snapshot to restore the DB instance from the DB snapshot.
Reference:
https://aws.amazon.com/premiumsupport/knowledge-center/encrypt-rds-snapshots/

Question #32Topic 1
A marketing firm uses an Amazon S3 bucket to store CSV data for statistical research. Permission is required for an application running on an Amazon EC2 instance to properly handle the CSV data stored in the S3 bucket.

Which step will provide the MOST SECURE access to the S3 bucket for the EC2 instance?

A. Attach a resource-based policy to the S3 bucket.
B. Create an IAM user for the application with specific permissions to the S3 bucket.
C. Associate an IAM role with least privilege permissions to the EC2 instance profile. Most Voted
D. Store AWS credentials directly on the EC2 instance for applications on the instance to use for API calls.

Correct Answer: C ✉
Community vote distribution
C (100%)

Question #33Topic 1
On a cluster of Amazon Linux EC2 instances, a business runs an application. The organization is required to store all application log files for seven years for compliance purposes.
The log files will be evaluated by a reporting program, which will need concurrent access to all files.

Which storage system best satisfies these criteria in terms of cost-effectiveness?

A. Amazon Elastic Block Store (Amazon EBS)
B. Amazon Elastic File System (Amazon EFS)
C. Amazon EC2 instance store
D. Amazon S3 Most Voted

Correct Answer: D ✉
Amazon S3 -
Requests to Amazon S3 can be authenticated or anonymous. Authenticated access requires credentials that AWS can use to authenticate your requests. When making REST API calls directly from your code, you create a signature using valid credentials and include the signature in your request. Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance. This means customers of all sizes and industries can use it to store and protect any amount of data for a range of use cases, such as websites, mobile applications, backup and restore, archive, enterprise applications, IoT devices, and big data analytics. Amazon S3 provides easy-to-use management features so you can organize your data and configure finely-tuned access controls to meet your specific business, organizational, and compliance requirements. Amazon S3 is designed for 99.999999999%
(11 9's) of durability, and stores data for millions of applications for companies all around the world.
Reference:
https://aws.amazon.com/s3/
Community vote distribution
D (81%)
B (19%)

Question #34Topic 1
On a fleet of Amazon EC2 instances, a business provides a training site. The business predicts that when its new course, which includes hundreds of training

videos on the web, is available in one week, it will be tremendously popular.

What should a solutions architect do to ensure that the predicted server load is kept to a minimum?

A. Store the videos in Amazon ElastiCache for Redis. Update the web servers to serve the videos using the ElastiCache API.
B. Store the videos in Amazon Elastic File System (Amazon EFS). Create a user data script for the web servers to mount the EFS volume.
C. Store the videos in an Amazon S3 bucket. Create an Amazon CloudFront distribution with an origin access identity (OAI) of that S3 bucket. Restrict Amazon S3 access to the OAI. Most Voted
D. Store the videos in an Amazon S3 bucket. Create an AWS Storage Gateway file gateway to access the S3 bucket. Create a user data script for the web servers to mount the file gateway.

Correct Answer: C ⬙
Community vote distribution
C (100%)

Question #35Topic 1
A business chooses to transition from on-premises to the AWS Cloud its three-tier web application. The new database must be able to scale storage capacity dynamically and conduct table joins.

Which AWS service satisfies these criteria?

A. Amazon Aurora
B. Amazon RDS for SqlServer
C. Amazon DynamoDB Streams
D. Amazon DynamoDB on-demand

Correct Answer: A ⬙
Community vote distribution
A (100%)

Question #36Topic 1
On a fleet of Amazon EC2 instances, a business runs a production application. The program takes data from an Amazon SQS queue and concurrently processes the messages. The message volume is variable, and traffic is often interrupted. This program should handle messages continuously and without interruption.

Which option best fits these criteria in terms of cost-effectiveness?

A. Use Spot Instances exclusively to handle the maximum capacity required.
B. Use Reserved Instances exclusively to handle the maximum capacity required.
C. Use Reserved Instances for the baseline capacity and use Spot Instances to handle additional capacity. Most Voted
D. Use Reserved Instances for the baseline capacity and use On-Demand Instances to handle additional capacity. Most Voted

Correct Answer: C ⬙
Community vote distribution
D (66%)
C (34%)

Question #37Topic 1
A startup has developed an application that gathers data from Internet of Things (IoT) sensors installed on autos. Through Amazon Kinesis Data Firehose, the data is transmitted to and stored in Amazon S3. Each year, data generates billions of S3 objects. Each morning, the business retrains a set of machine learning (ML) models using data from the preceding 30 days.
Four times a year, the corporation analyzes and trains other machine learning models using data from the preceding 12 months. The data must be accessible with

a minimum of delay for a period of up to one year. Data must be preserved for archive reasons after one year.

Which storage system best satisfies these criteria in terms of cost-effectiveness?

A. Use the S3 Intelligent-Tiering storage class. Create an S3 Lifecycle policy to transition objects to S3 Glacier Deep Archive after 1 year.
B. Use the S3 Intelligent-Tiering storage class. Configure S3 Intelligent-Tiering to automativally move objects to S3 Glacier Deep Archive after 1 year.
C. Use the S3 Standard-Infrequent Access (S3 Standard-IA) storage class. Create an S3 Lifecycle policy to transition objects to S3 Glacier Deep Archive after 1 year.
D. Use the S3 Standard storage class. Create an S3 Lifecycle policy to transition objects to S3 Standard-Infrequent Access (S3 Standard-IA) after 30 days, and then to S3 Glacier Deep Archive after 1 year. Most Voted

Correct Answer: B 📦
Reference:
https://aws.amazon.com/blogs/aws/s3-intelligent-tiering-adds-archive-access-tiers/

Community vote distribution
D (88%)
12%

Question #38Topic 1
A business requires data storage on Amazon S3. A compliance requirement stipulates that when objects are modified, their original state must be retained. Additionally, data older than five years should be kept for auditing purposes.

What SHOULD A SOLUTIONS ARCHITECT RECOMMEND AS THE MOST EFFORTABLE?

A. Enable object-level versioning and S3 Object Lock in governance mode
B. Enable object-level versioning and S3 Object Lock in compliance mode
C. Enable object-level versioning. Enable a lifecycle policy to move data older than 5 years to S3 Glacier Deep Archive Most Voted
D. Enable object-level versioning. Enable a lifecycle policy to move data older than 5 years to S3 Standard-Infrequent Access (S3 Standard-IA)

Correct Answer: C 📦
Community vote distribution
C (100%)

Question #39Topic 1
Multiple Amazon EC2 instances are used to host an application. The program reads messages from an Amazon SQS queue, writes them to an Amazon RDS database, and then removes them from the queue. The RDS table sometimes contains duplicate entries. There are no duplicate messages in the SQS queue.

How can a solutions architect guarantee that messages are handled just once?

A. Use the CreateQueue API call to create a new queue.
B. Use the AddPermission API call to add appropriate permissions.
C. Use the ReceiveMessage API call to set an appropriate wait time.
D. Use the ChangeMessageVisibility API call to increase the visibility timeout. Most Voted

Correct Answer: D 📦
Community vote distribution
D (100%)

Question #40Topic 1

A corporation just announced the worldwide launch of their retail website. The website is hosted on numerous Amazon EC2 instances, which are routed via an Elastic Load Balancer. The instances are distributed across several Availability Zones in an Auto Scaling group.
The firm want to give its clients with customized material depending on the device from which they view the website.

Which steps should a solutions architect perform in combination to satisfy these requirements? (Select two.)

A. Configure Amazon CloudFront to cache multiple versions of the content. Most Voted
B. Configure a host header in a Network Load Balancer to forward traffic to different instances.
C. Configure a Lambda@Edge function to send specific objects to users based on the User-Agent header. Most Voted
D. Configure AWS Global Accelerator. Forward requests to a Network Load Balancer (NLB). Configure the NLB to set up host-based routing to different EC2 instances.
E. Configure AWS Global Accelerator. Forward requests to a Network Load Balancer (NLB). Configure the NLB to set up path-based routing to different EC2 instances.

Correct Answer: CE 📑
Community vote distribution
AC (94%)
6%

Question #41Topic 1
A newly formed company developed a three-tiered web application. The front end is comprised entirely of static information. Microservices form the application layer. User data is kept in the form of JSON documents that must be accessible with a minimum of delay. The firm anticipates minimal regular traffic in the first year, with monthly traffic spikes. The startup team's operational overhead expenditures must be kept to a minimum.

What should a solutions architect suggest as a means of achieving this?

A. Use Amazon S3 static website hosting to store and serve the front end. Use AWS Elastic Beanstalk for the application layer. Use Amazon DynamoDB to store user data.
B. Use Amazon S3 static website hosting to store and serve the front end. Use Amazon Elastic KubernetesService (Amazon EKS) for the application layer. Use Amazon DynamoDB to store user data.
C. Use Amazon S3 static website hosting to store and serve the front end. Use Amazon API Gateway and AWS Lambda functions for the application layer. Use Amazon DynamoDB to store user data. Most Voted
D. Use Amazon S3 static website hosting to store and serve the front end. Use Amazon API Gateway and AWS Lambda functions for the application layer. Use Amazon RDS with read replicas to store user data.

Correct Answer: C 📑
Community vote distribution
C (100%)

Question #42Topic 1
To facilitate experimentation and agility, a business enables developers to link current IAM policies to existing IAM roles. The security operations team, on the other hand, is worried that the developers may attach the current administrator policy, allowing them to bypass any other security rules.

What approach should a solutions architect use in dealing with this issue?

A. Create an Amazon SNS topic to send an alert every time a developer creates a

new policy.
B. Use service control policies to disable IAM activity across all account in the organizational unit.
C. Prevent the developers from attaching any policies and assign all IAM duties to the security operations team.
D. Set an IAM permissions boundary on the developer IAM role that explicitly denies attaching the administrator policy. Most Voted

Correct Answer: D 📦
Reference:
https://docs.aws.amazon.com/IAM/latest/UserGuide/access_policies_boundaries.html
Community vote distribution
D (100%)

Question #43Topic 1
Amazon Elastic Container Service (Amazon ECS) container instances are used to install an ecommerce website's web application behind an Application Load Balancer (ALB). The website slows down and availability is decreased during moments of heavy usage. A solutions architect utilizes Amazon CloudWatch alarms to be notified when an availability problem occurs, allowing them to scale out resources. The management of the business want a system that automatically reacts to such circumstances.

Which solution satisfies these criteria?

A. Set up AWS Auto Scaling to scale out the ECS service when there are timeouts on the ALB. Set up AWS Auto Scaling to scale out the ECS cluster when the CPU or memory reservation is too high.
B. Set up AWS Auto Scaling to scale out the ECS service when the ALB CPU utilization is too high. Setup AWS Auto Scaling to scale out the ECS cluster when the CPU or memory reservation is too high.
C. Set up AWS Auto Scaling to scale out the ECS service when the service's CPU utilization is too high. Set up AWS Auto Scaling to scale out the ECS cluster when the CPU or memory reservation is too high. Most Voted
D. Set up AWS Auto Scaling to scale out the ECS service when the ALB target group CPU utilization is too high. Set up AWS Auto Scaling to scale out the ECS cluster when the CPU or memory reservation is too high.

Correct Answer: A 📦
Community vote distribution
C (57%)
A (29%)
14%

Question #44Topic 1
A business uses Site-to-Site VPN connections to provide safe access to AWS Cloud services from on-premises. Users are experiencing slower VPN connectivity as a result of increased traffic through the VPN connections to the Amazon EC2 instances.

Which approach will result in an increase in VPN throughput?

A. Implement multiple customer gateways for the same network to scale the throughput.
B. Use a transit gateway with equal cost multipath routing and add additional VPN tunnels. Most Voted
C. Configure a virtual private gateway with equal cost multipath routing and multiple channels.
D. Increase the number of tunnels in the VPN configuration to scale the throughput beyond the default limit.

Correct Answer: A 📦
Community vote distribution
B (100%)

Question #45Topic 1
On Amazon EC2 Linux instances, a business hosts a website. Several of the examples are malfunctioning. The troubleshooting indicates that the unsuccessful instances lack swap space. The operations team's lead need a monitoring solution for this.

What recommendations should a solutions architect make?

A. Configure an Amazon CloudWatch SwapUsage metric dimension. Monitor the SwapUsage dimension in the EC2 metrics in CloudWatch.
B. Use EC2 metadata to collect information, then publish it to Amazon CloudWatch custom metrics. Monitor SwapUsage metrics in CloudWatch.
C. Install an Amazon CloudWatch agent on the instances. Run an appropriate script on a set schedule. Monitor SwapUtilization metrics in CloudWatch. Most Voted
D. Enable detailed monitoring in the EC2 console. Create an Amazon CloudWatch SwapUtilization custom metric. Monitor SwapUtilization metrics in CloudWatch.

Correct Answer: B
Reference:
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/mon-scripts.html
Community vote distribution
C (76%)
12%
12%

Question #46Topic 1
AWS is used by a business to perform an online transaction processing (OLTP) burden. This workload is deployed in a Multi-AZ environment using an unencrypted Amazon RDS database instance. This instance's database is backed up daily.

What should a solutions architect do going forward to guarantee that the database and snapshots are constantly encrypted?

A. Encrypt a copy of the latest DB snapshot. Replace existing DB instance by restoring the encrypted snapshot. Most Voted
B. Create a new encrypted Amazon Elastic Block Store (Amazon EBS) volume and copy the snapshots to it. Enable encryption on the DB instance.
C. Copy the snapshots and enable encryption using AWS Key Management Service (AWS KMS). Restore encrypted snapshot to an existing DB instance.
D. Copy the snapshots to an Amazon S3 bucket that is encrypted using server-side encryption with AWS Key Management Service (AWS KMS) managed keys (SSE-KMS).

Correct Answer: A
Community vote distribution
A (67%)
C (33%)

Question #47Topic 1
A business operates an application that collects data from its consumers through various Amazon EC2 instances. After processing, the data is uploaded to Amazon S3 for long-term storage. A study of the application reveals that the EC2 instances were inactive for extended periods of time. A solutions architect must provide a system that maximizes usage while minimizing expenditures.

Which solution satisfies these criteria?

A. Use Amazon EC2 in an Auto Scaling group with On-Demand instances. Most Voted
B. Build the application to use Amazon Lightsail with On-Demand Instances.
C. Create an Amazon CloudWatch cron job to automatically stop the EC2 instances when there is no activity.
D. Redesign the application to use an event-driven design with Amazon Simple Queue Service (Amazon SQS) and AWS Lambda. Most Voted

Correct Answer: D 📥
Community vote distribution
A (52%)
D (43%)
4%

Question #48Topic 1
A business wishes to migrate from many independent Amazon Web Services accounts to a consolidated, multi-account design. The organization intends to generate a large number of new AWS accounts for its business divisions. The organization must use a single corporate directory service to authenticate access to these AWS accounts.

Which steps should a solutions architect advocate in order to satisfy these requirements? (Select two.)

A. Create a new organization in AWS Organizations with all features turned on. Create the new AWS accounts in the organization. Most Voted
B. Set up an Amazon Cognito identity pool. Configure AWS Single Sign-On to accept Amazon Cognito authentication.
C. Configure a service control policy (SCP) to manage the AWS accounts. Add AWS Single Sign-On to AWS Directory Service.
D. Create a new organization in AWS Organizations. Configure the organization's authentication mechanism to use AWS Directory Service directly.
E. Set up AWS Single Sign-On (AWS SSO) in the organization. Configure AWS SSO, and integrate it with the company's corporate directory service. Most Voted

Correct Answer: BC 📥
Reference:
https://aws.amazon.com/cognito/
https://docs.aws.amazon.com/organizations/latest/userguide/
orgs_manage_policies_scps.html

Community vote distribution
AE (70%)
CD (19%)
7%

Question #49Topic 1
A solutions architect is developing a daily data processing task that will take up to two hours to finish. If the task is stopped, it must be restarted from scratch.

What is the MOST cost-effective way for the solutions architect to solve this issue?

A. Create a script that runs locally on an Amazon EC2 Reserved Instance that is triggered by a cron job.
B. Create an AWS Lambda function triggered by an Amazon EventBridge (Amazon CloudWatch Events) scheduled event.
C. Use an Amazon Elastic Container Service (Amazon ECS) Fargate task triggered by an Amazon EventBridge (Amazon CloudWatch Events) scheduled event. Most Voted
D. Use an Amazon Elastic Container Service (Amazon ECS) task running on Amazon EC2 triggered by an Amazon EventBridge (Amazon CloudWatch Events) scheduled event.

Correct Answer: C 📥
Community vote distribution
C (100%)

Question #50Topic 1
A business intends to use AWS to host a survey website. The firm anticipated a high volume of traffic. As a consequence of this traffic, the database is

updated asynchronously. The organization want to avoid dropping writes to the database housed on AWS.

How should the business's application be written to handle these database requests?

A. Configure the application to publish to an Amazon Simple Notification Service (Amazon SNS) topic. Subscribe the database to the SNS topic.
B. Configure the application to subscribe to an Amazon Simple Notification Service (Amazon SNS) topic. Publish the database updates to the SNS topic.
C. Use Amazon Simple Queue Service (Amazon SQS) FIFO queues to queue the database connection until the database has resources to write the data.
D. Use Amazon Simple Queue Service (Amazon SQS) FIFO queues for capturing the writes and draining the queue as each write is made to the database. Most Voted

Correct Answer: A 🗳
Community vote distribution
D (94%)
6%

Question #51Topic 1
On a huge fleet of Amazon EC2 instances, a business runs an application. The program reads and writes items to a DynamoDB database hosted by Amazon. The DynamoDB database increases in size regularly, yet the application requires just data from the previous 30 days. The organization need a solution that is both cost effective and time efficient to implement.

Which solution satisfies these criteria?

A. Use an AWS CloudFormation template to deploy the complete solution. Redeploy the CloudFormation stack every 30 days, and delete the original stack.
B. Use an EC2 instance that runs a monitoring application from AWS Marketplace. Configure the monitoring application to use Amazon DynamoDB Streams to store the timestamp when a new item is created in the table. Use a script that runs on the EC2 instance to delete items that have a timestamp that is older than 30 days.
C. Configure Amazon DynamoDB Streams to invoke an AWS Lambda function when a new item is created in the table. Configure the Lambda function to delete items in the table that are older than 30 days.
D. Extend the application to add an attribute that has a value of the current timestamp plus 30 days to each new item that is created in the table. Configure DynamoDB to use the attribute as the TTL attribute. Most Voted

Correct Answer: D 🗳
Community vote distribution
D (100%)

Question #52Topic 1
Previously, a corporation moved their data warehousing solution to AWS. Additionally, the firm has an AWS Direct Connect connection. Through the use of a visualization tool, users in the corporate office may query the data warehouse. Each query answered by the data warehouse is on average 50 MB in size, whereas each webpage supplied by the visualization tool is around 500 KB in size. The data warehouse does not cache the result sets it returns.

Which approach results in the LOWEST OUTGOING DATA TRANSFER COSTS FOR THE COMPANY?

A. Host the visualization tool on premises and query the data warehouse directly over the internet.
B. Host the visualization tool in the same AWS Region as the data warehouse. Access it over the internet.
C. Host the visualization tool on premises and query the data warehouse directly over a Direct Connect connection at a location in the same AWS Region.

D. Host the visualization tool in the same AWS Region as the data warehouse and access it over a DirectConnect connection at a location in the same Region. Most Voted

Correct Answer: A 🗳️
Community vote distribution
D (91%)
9%

Question #53Topic 1
A business is developing an application that is composed of many microservices. The organization has chosen to deploy its software on AWS through container technology. The business need a solution that requires little ongoing work for maintenance and growth. Additional infrastructure cannot be managed by the business.

Which steps should a solutions architect perform in combination to satisfy these requirements? (Select two.)

A. Deploy an Amazon Elastic Container Service (Amazon ECS) cluster. Most Voted
B. Deploy the Kubernetes control plane on Amazon EC2 instances that span multiple Availability Zones.
C. Deploy an Amazon Elastic Container Service (Amazon ECS) service with an Amazon EC2 launch type. Specify a desired task number level of greater than or equal to 2.
D. Deploy an Amazon Elastic Container Service (Amazon ECS) service with a Fargate launch type. Specify a desired task number level of greater than or equal to 2. Most Voted
E. Deploy Kubernetes worker nodes on Amazon EC2 instances that span multiple Availability Zones. Create a deployment that specifies two or more replicas for each microservice.

Correct Answer: AB 🗳️
Community vote distribution
AD (89%)
11%

Question #54Topic 1
The following policy was developed by an Amazon EC2 administrator and assigned to an IAM group including numerous users:

What impact does this policy have?

A. Users can terminate an EC2 instance in any AWS Region except us-east-1.
B. Users can terminate an EC2 instance with the IP address 10.100.100.1 in the us-east-1 Region.
C. Users can terminate an EC2 instance in the us-east-1 Region when the user's source IP is 10.100.100.254. Most Voted
D. Users cannot terminate an EC2 instance in the us-east-1 Region when the user's source IP is 10.100.100.254.

Correct Answer: C 🗳️
Community vote distribution
C (100%)

Question #55Topic 1
The web application of a business stores its data on an Amazon RDS PostgreSQL database instance. Accountants conduct massive queries at the start of each month during the financial closure period, which has a negative influence on the database's performance owing to excessive utilization. The business want to reduce the effect of reporting on the online application.

What should a solutions architect do to minimize the database's influence with

the LEAST amount of work possible?

A. Create a read replica and direct reporting traffic to the replica. Most Voted
B. Create a Multi-AZ database and direct reporting traffic to the standby.
C. Create a cross-Region read replica and direct reporting traffic to the replica.
D. Create an Amazon Redshift database and direct reporting traffic to the Amazon Redshift database.

Correct Answer: A ◈
Amazon RDS uses the MariaDB, MySQL, Oracle, PostgreSQL, and Microsoft SQL Server DB engines' built-in replication functionality to create a special type of DB instance called a read replica from a source DB instance. Updates made to the source DB instance are asynchronously copied to the read replica. You can reduce the load on your source DB instance by routing read queries from your applications to the read replica.
When you create a read replica, you first specify an existing DB instance as the source. Then Amazon RDS takes a snapshot of the source instance and creates a read-only instance from the snapshot. Amazon RDS then uses the asynchronous replication method for the DB engine to update the read replica whenever there is a change to the source DB instance. The read replica operates as a DB instance that allows only read-only connections. Applications connect to a read replica the same way they do to any DB instance. Amazon RDS replicates all databases in the source DB instance.
Reference:
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ReadRepl.html
Community vote distribution
A (100%)

Question #56Topic 1
A business has implemented a MySQL database on Amazon RDS. The database support team is reporting delayed reads on the DB instance as a result of the increased transactions and advises installing a read replica.

Which activities should a solutions architect do prior to deploying this change? (Select two.)

A. Enable binlog replication on the RDS primary node.
B. Choose a failover priority for the source DB instance.
C. Allow long-running transactions to complete on the source DB instance. Most Voted
D. Create a global table and specify the AWS Regions where the table will be available.
E. Enable automatic backups on the source instance by setting the backup retention period to a value other than 0. Most Voted

Correct Answer: CD ◈
Reference:
https://hevodata.com/learn/aws-rds-postgres-replication/
https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/GlobalTables.html

Community vote distribution
CE (100%)

Question #57Topic 1
Users may get past performance reports from a company's website. The website requires a solution that can grow to suit the company's worldwide website requirements. The solution should be cost-effective, minimize infrastructure resource provisioning, and deliver the quickest reaction time feasible.

Which mix of technologies might a solutions architect propose in order to satisfy these requirements?

A. Amazon CloudFront and Amazon S3 Most Voted
B. AWS Lambda and Amazon DynamoDB
C. Application Load Balancer with Amazon EC2 Auto Scaling
D. Amazon Route 53 with internal Application Load Balancers

Correct Answer: A 📥
Community vote distribution
A (100%)

Question #58Topic 1
A solutions architect is developing a hybrid application on the Amazon Web
Services (AWS) cloud. AWS Direct Link (DX) will be used to connect the on-
premises data center to AWS. Between AWS and the on-premises data center, the
application connection must be very durable.

Which DX setup should be used to satisfy these criteria?

A. Configure a DX connection with a VPN on top of it.
B. Configure DX connections at multiple DX locations. Most Voted
C. Configure a DX connection using the most reliable DX partner.
D. Configure multiple virtual interfaces on top of a DX connection.

Correct Answer: B 📥
Community vote distribution
B (100%)

Question #59Topic 1
A financial institution uses AWS to host a web application. The program
retrieves current stock prices using an Amazon API Gateway Regional API
endpoint. The security staff at the organization has detected an upsurge in API
queries. The security team is worried that HTTP flood attacks may result in the
application being rendered inoperable.
A solutions architect must create a defense against this form of assault.

Which method satisfies these criteria with the LEAST amount of operational
overhead?

A. Create an Amazon CloudFront distribution in front of the API Gateway Regional
API endpoint with a maximum TTL of 24 hours.
B. Create a Regional AWS WAF web ACL with a rate-based rule. Associate the web
ACL with the API Gateway stage. Most Voted
C. Use Amazon CloudWatch metrics to monitor the Count metric and alert the
security team when the predefined rate is reached.
D. Create an Amazon CloudFront distribution with Lambda@Edge in front of the API
Gateway Regional API endpoint. Create an AWS Lambda function to block requests
from IP addresses that exceed the predefined rate.

Correct Answer: C 📥
Community vote distribution
B (100%)

Question #60Topic 1
A business wishes to automate the evaluation of the security of its Amazon EC2
instances. The organization must verify and show that the development process
adheres to security and compliance requirements.

What actions should a solutions architect take to ensure that these criteria are
met?

A. Use Amazon Macie to automatically discover, classify and protect the EC2
instances.
B. Use Amazon GuardDuty to publish Amazon Simple Notification Service (Amazon
SNS) notifications.
C. Use Amazon Inspector with Amazon CloudWatch to publish Amazon Simple

Notification Service (Amazon SNS) notifications
D. Use Amazon EventBridge (Amazon CloudWatch Events) to detect and react to changes in the status of AWS Trusted Advisor checks.

Correct Answer: C 🗳
Community vote distribution
C (100%)

Question #61Topic 1
On Amazon EC2, a corporation is operating a highly secure application that is backed up by an Amazon RDS database. All personally identifiable information (PII) must be encrypted at rest to comply with compliance standards.

Which solution should a solutions architect propose in order to achieve this need with the MINIMUM number of infrastructure changes?

A. Deploy AWS Certificate Manager to generate certificates. Use the certificates to encrypt the database volume.
B. Deploy AWS CloudHSM, generate encryption keys, and use the customer master key (CMK) to encrypt database volumes.
C. Configure SSL encryption using AWS Key Management Service customer master keys (AWS KMS CMKs) to encrypt database volumes.
D. Configure Amazon Elastic Block Store (Amazon EBS) encryption and Amazon RDS encryption with AWS Key Management Service (AWS KMS) keys to encrypt instance and database volumes. Most Voted

Correct Answer: D 🗳
Community vote distribution
D (100%)

Question #62Topic 1
The following IAM policy has been established by a solutions architect.

Which actions will the policy permit?

A. An AWS Lambda function can be deleted from any network.
B. An AWS Lambda function can be created from any network.
C. An AWS Lambda function can be deleted from the 100.220.0.0/20 network. Most Voted
D. An AWS Lambda function can be deleted from the 220.100.16.0/20 network.

Correct Answer: C 🗳
Community vote distribution
C (100%)

Question #63Topic 1
On Amazon Aurora, a business is operating a database. Every nightfall, the database is inactive. When user traffic surges in the early hours, an application that makes large reads on the database will face performance concerns. When reading from the database during these peak hours, the program encounters timeout issues. Due to the lack of a dedicated operations crew, the organization need an automated solution to solve performance concerns.

Which activities should a solutions architect take to ensure that the database automatically adjusts to the increasing read load? (Select two.)

A. Migrate the database to Aurora Serverless. Most Voted
B. Increase the instance size of the Aurora database.
C. Configure Aurora Auto Scaling with Aurora Replicas. Most Voted
D. Migrate the database to an Aurora multi-master cluster.
E. Migrate the database to an Amazon RDS for MySQL Multi-AZ deployment.

Correct Answer: CD 🗳

Reference:
https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/
Aurora.Managing.Performance.html
https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-multi-
master.html
Community vote distribution
AC (98%)
2%

Question #64Topic 1
An Amazon EC2 instance-based application requires access to an Amazon DynamoDB
database. The EC2 instance and DynamoDB table are both managed by the same AWS
account. Permissions must be configured by a solutions architect.

Which approach will provide the EC2 instance least privilege access to the
DynamoDB table?

A. Create an IAM role with the appropriate policy to allow access to the
DynamoDB table. Create an instance profile to assign this IAM role to the EC2
instance. Most Voted
B. Create an IAM role with the appropriate policy to allow access to the
DynamoDB table. Add the EC2 instance to the trust relationship policy document
to allow it to assume the role.
C. Create an IAM user with the appropriate policy to allow access to the
DynamoDB table. Store the credentials in an Amazon S3 bucket and read them from
within the application code directly.
D. Create an IAM user with the appropriate policy to allow access to the
DynamoDB table. Ensure that the application stores the IAM credentials securely
on local storage and uses them to make the DynamoDB calls.

Correct Answer: A ✣
Community vote distribution
A (100%)

Question #65Topic 1
A business uses Amazon EC2 instances to operate an API-based inventory reporting
application. The program makes use of an Amazon DynamoDB database to store data.
The distribution centers of the corporation use an on-premises shipping
application that communicates with an API to update inventory prior to
generating shipping labels. Each day, the organization has seen application
outages, resulting in missed transactions.

What should a solutions architect propose to increase the resilience of an
application?

A. Modify the shipping application to write to a local database.
B. Modify the application APIs to run serverless using AWS Lambda
C. Configure Amazon API Gateway to call the EC2 inventory application APIs.
D. Modify the application to send inventory updates using Amazon Simple Queue
Service (Amazon SQS). Most Voted

Correct Answer: A ✣
Community vote distribution
D (85%)
Other

Question #66Topic 1
Amazon EC2 instances on private subnets are used to execute an application. The
application requires access to a table in Amazon DynamoDB.

What is the MOST SECURE method of accessing the table without allowing traffic
to exit the AWS network?

A. Use a VPC endpoint for DynamoDB. Most Voted

B. Use a NAT gateway in a public subnet.
C. Use a NAT instance in a private subnet.
D. Use the internet gateway attached to the VPC.

Correct Answer: A 🗳
Community vote distribution
A (100%)

Question #67Topic 1
On a single Amazon EC2 instance, a business runs an ASP.NET MVC application. Due to a recent spike in application usage, users are experiencing poor response times during lunch hours. The firm must address this issue using the least amount of settings possible.

What recommendations should a solutions architect make to satisfy these requirements?

A. Move the application to AWS Elastic Beanstalk. Configure load-based auto scaling and time-based scaling to handle scaling during lunch hours. Most Voted
B. Move the application to Amazon Elastic Container Service (Amazon ECS). Create an AWS Lambda function to handle scaling during lunch hours.
C. Move the application to Amazon Elastic Container Service (Amazon ECS). Configure scheduled scaling for AWS Application Auto Scaling during lunch hours.
D. Move the application to AWS Elastic Beanstalk. Configure load-based auto scaling, and create an AWS Lambda function to handle scaling during lunch hours.

Correct Answer: A 🗳
Reference:
https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/environments-cfg-autoscaling-scheduledactions.html
Community vote distribution
A (100%)

Question #68Topic 1
A business is in the process of migrating its on-premises application to AWS. Program servers and a Microsoft SQL Server database comprise the application. The database cannot be transferred to another engine due to the application's NET code using SQL Server functionality. The company's goal is to maximize availability while decreasing operational and administration costs.

What actions should a solutions architect take to achieve this?

A. Install SQL Server on Amazon EC2 in a Multi-AZ deployment.
B. Migrate the data to Amazon RDS for SQL Server in a Multi-AZ deployment.
C. Deploy the database on Amazon RDS for SQL Server with Multi-AZ Replicas.
D. Migrate the data to Amazon RDS for SQL Server in a cross-Region Multi-AZ deployment.

Correct Answer: B 🗳
Community vote distribution
B (100%)

Question #69Topic 1
Amazon Redshift is being used by a business to do analytics and produce customer reports. The corporation just obtained an extra 50 terabytes of demographic data on its customers. The data is saved in Amazon S3 in.csv files. The organization need a system that efficiently merges data and visualizes the findings.

What recommendations should a solutions architect make to satisfy these requirements?

A. Use Amazon Redshift Spectrum to query the data in Amazon S3 directly and join that data with the existing data in Amazon Redshift. Use Amazon QuickSight to build the visualizations.

B. Use Amazon Athena to query the data in Amazon S3. Use Amazon QuickSight to join the data from Athena with the existing data in Amazon Redshift and to build the visualizations.
C. Increase the size of the Amazon Redshift cluster, and load the data from Amazon S3. Use Amazon EMR Notebooks to query the data and build the visualizations in Amazon Redshift.
D. Export the data from the Amazon Redshift cluster into Apache Parquet files in Amazon S3. Use Amazon Elasticsearch Service (Amazon ES) to query the data. Use Kibana to visualize the results.

Correct Answer: A 🗳️
Community vote distribution
A (100%)

Question #70Topic 1
Each month, a business keeps 200 GB of data on Amazon S3. At the conclusion of each month, the corporation must analyze this data to calculate the number of things sold in each sales area during the preceding month.

Which analytics approach is the MOST cost-effective option for the business?

A. Create an Amazon Elasticsearch Service (Amazon ES) cluster. Query the data in Amazon ES. Visualize the data by using Kibana.
B. Create a table in the AWS Glue Data Catalog. Query the data in Amazon S3 by using Amazon Athena. Visualize the data in Amazon QuickSight. Most Voted
C. Create an Amazon EMR cluster. Query the data by using Amazon EMR, and store the results in Amazon S3. Visualize the data in Amazon QuickSight.
D. Create an Amazon Redshift cluster. Query the data in Amazon Redshift, and upload the results to Amazon S3. Visualize the data in Amazon QuickSight.

Correct Answer: A 🗳️
Community vote distribution
B (86%)
14%

Question #71Topic 1
A business's data layer is powered by Amazon RDS for PostgreSQL databases. The organization must adopt database password rotation.

Which option satisfies this criterion with the LEAST amount of operational overhead?

A. Store the password in AWS Secrets Manager. Enable automatic rotation on the secret. Most Voted
B. Store the password in AWS Systems Manager Parameter Store. Enable automatic rotation on the parameter.
C. Store the password in AWS Systems Manager Parameter Store. Write an AWS Lambda function that rotates the password.
D. Store the password in AWS Key Management Service (AWS KMS). Enable automatic rotation on the customer master key (CMK).

Correct Answer: A 🗳️
Reference -
https://aws.amazon.com/blogs/security/rotate-amazon-rds-database-credentials-automatically-with-aws-secrets-manager/
Community vote distribution
A (100%)

Question #72Topic 1
A business intends to transfer a TCP-based application onto the company's virtual private cloud (VPC). The program is available to the public over an unsupported TCP port via a physical device located in the company's data center. This public endpoint has a latency of less than 3 milliseconds and can handle up to 3 million requests per second. The organization needs the new public endpoint

in AWS to function at the same level of performance.

What solution architecture approach should be recommended to satisfy this requirement?

A. Deploy a Network Load Balancer (NLB). Configure the NLB to be publicly accessible over the TCP port that the application requires. Most Voted
B. Deploy an Application Load Balancer (ALB). Configure the ALB to be publicly accessible over the TCP port that the application requires.
C. Deploy an Amazon CloudFront distribution that listens on the TCP port that the application requires. Use an Application Load Balancer as the origin.
D. Deploy an Amazon API Gateway API that is configured with the TCP port that the application requires. Configure AWS Lambda functions with provisioned concurrency to process the requests.

Correct Answer: C 📦
Community vote distribution
A (100%)

Question #73Topic 1
Within the same AWS account, a firm has two VPCs situated in the us-west-2 Region. The business must permit network communication between these VPCs. Each month, about 500 GB of data will be transferred between the VPCs.

Which approach is the MOST cost-effective for connecting these VPCs?

A. Implement AWS Transit Gateway to connect the VPCs. Update the route tables of each VPC to use the transit gateway for inter-VPC communication.
B. Implement an AWS Site-to-Site VPN tunnel between the VPCs. Update the route tables of each VPC to use the VPN tunnel for inter-VPC communication.
C. Set up a VPC peering connection between the VPCs. Update the route tables of each VPC to use the VPC peering connection for inter-VPC communication. Most Voted
D. Set up a 1 GB AWS Direct Connect connection between the VPCs. Update the route tables of each VPC to use the Direct Connect connection for inter-VPC communication.

Correct Answer: D 📦
Community vote distribution
C (100%)

Question #74Topic 1
A business's production workload is hosted on an Amazon Aurora MySQL DB cluster comprised of six Aurora Replicas. The corporation wishes to automate the distribution of near-real-time reporting requests from one of its departments among three Aurora Replicas. These three copies are configured differently from the rest of the DB cluster in terms of computation and memory.

Which solution satisfies these criteria?

A. Create and use a custom endpoint for the workload. Most Voted
B. Create a three-node cluster clone and use the reader endpoint.
C. Use any of the instance endpoints for the selected three nodes.
D. Use the reader endpoint to automatically distribute the read-only workload.

Correct Answer: B 📦
Community vote distribution
A (100%)

Question #75Topic 1
A business's on-premises data center has reached its storage limit. The organization wishes to shift its storage system to AWS while keeping bandwidth costs as low as possible. The solution must enable rapid and cost-free data retrieval.

How are these stipulations to be met?

A. Deploy Amazon S3 Glacier Vault and enable expedited retrieval. Enable provisioned retrieval capacity for the workload.
B. Deploy AWS Storage Gateway using cached volumes. Use Storage Gateway to store data in Amazon S3 while retaining copies of frequently accessed data subsets locally. Most Voted
C. Deploy AWS Storage Gateway using stored volumes to store data locally. Use Storage Gateway to asynchronously back up point-in-time snapshots of the data to Amazon S3.
D. Deploy AWS Direct Connect to connect with the on-premises data center. Configure AWS Storage Gateway to store data locally. Use Storage Gateway to asynchronously back up point-in-time snapshots of the data to Amazon S3.

Correct Answer: B 🗳
Community vote distribution
B (77%)
D (23%)

Question #76Topic 1
Within a month of being bought, a newly acquired firm is needed to establish its own infrastructure on AWS and transfer various apps to the cloud. Each application requires the transmission of around 50 TB of data. Following the transfer, this firm and its parent company will need secure network connection with constant throughput between its data centers and apps. A solutions architect must guarantee that data transfer occurs just once and that network connection is maintained.

Which solution will satisfy these criteria?

A. AWS Direct Connect for both the initial transfer and ongoing connectivity.
B. AWS Site-to-Site VPN for both the initial transfer and ongoing connectivity.
C. AWS Snowball for the initial transfer and AWS Direct Connect for ongoing connectivity. Most Voted
D. AWS Snowball for the initial transfer and AWS Site-to-Site VPN for ongoing connectivity.

Correct Answer: C 🗳
Reference:
https://docs.aws.amazon.com/dms/latest/userguide/CHAP_LargeDBs.html
https://aws.amazon.com/directconnect/
Community vote distribution
C (83%)
D (17%)

Question #77Topic 1
A solutions architect must create a solution that retrieves data every two minutes from an internet-based third-party web service. Each data retrieval is performed using a Python script in less than 100 milliseconds. The answer is a JSON object of less than 1 KB in size including sensor data. The architect of the solution must keep both the JSON object and the date.

Which approach is the most cost-effective in meeting these requirements?

A. Deploy an Amazon EC2 instance with a Linux operating system. Configure a cron job to run the script every 2 minutes. Extend the script to store the JSON object along with the timestamp in a MySQL database that is hosted on an Amazon RDS DB instance.
B. Deploy an Amazon EC2 instance with a Linux operating system to extend the script to run in an infinite loop every 2 minutes. Store the JSON object along with the timestamp in an Amazon DynamoDB table that uses the timestamp as the primary key. Run the script on the EC2 instance.
C. Deploy an AWS Lambda function to extend the script to store the JSON object

along with the timestamp in an Amazon DynamoDB table that uses the timestamp as the primary key. Use an Amazon EventBridge (Amazon CloudWatch Events) scheduled event that is initiated every 2 minutes to invoke the Lambda function. Most Voted
D. Deploy an AWS Lambda function to extend the script to run in an infinite loop every 2 minutes. Store the JSON object along with the timestamp in an Amazon DynamoDB table that uses the timestamp as the primary key. Ensure that the script is called by the handler function that is configured for the Lambda function.

Correct Answer: C 📦
Reference:
https://docs.aws.amazon.com/connect/latest/adminguide/connect-ag.pdf
Community vote distribution
C (78%)
D (22%)

Question #78Topic 1
A business does not currently have any file sharing services. A new project needs file storage that can be mounted as a disk for on-premises desktop computers. Before users can access the storage, the file server must authenticate them against an Active Directory domain.

Which service enables Active Directory users to deploy storage on their workstations as a drive?

A. Amazon S3 Glacier
B. AWS DataSync
C. AWS Snowball Edge
D. AWS Storage Gateway Most Voted

Correct Answer: D 📦
Community vote distribution
D (100%)

Question #79Topic 1
A corporation with an on-premises application is transitioning to AWS to boost the flexibility and availability of the application. The present design makes considerable use of a Microsoft SQL Server database. The firm want to investigate other database solutions and, if necessary, migrate database engines.
The development team does a complete copy of the production database every four hours in order to create a test database. Users will encounter delay during this time period.

What database should a solution architect propose as a replacement?

A. Use Amazon Aurora with Multi-AZ Aurora Replicas and restore from mysqldump for the test database.
B. Use Amazon Aurora with Multi-AZ Aurora Replicas and restore snapshots from Amazon RDS for the test database.
C. Use Amazon RDS for MySQL with a Multi-AZ deployment and read replicas, and use the standby instance for the test database.
D. Use Amazon RDS for SQL Server with a Multi-AZ deployment and read replicas, and restore snapshots from RDS for the test database. Most Voted

Correct Answer: D 📦
Community vote distribution
D (85%)
B (15%)

Question #80Topic 1
On Amazon EC2 instances, a business runs an application. The volume of traffic to the webpage grows significantly during business hours and then falls.

The CPU usage of an Amazon EC2 instance is a good measure of the application's end-user demand. The organization has specified a minimum group size of two EC2 instances and a maximum group size of ten EC2 instances for an Auto Scaling group.
The firm is worried that the Auto Scaling group's existing scaling policy may be incorrect. The organization must prevent excessive EC2 instance provisioning and paying unneeded fees.

What recommendations should a solutions architect make to satisfy these requirements?

A. Configure Amazon EC2 Auto Scaling to use a scheduled scaling plan and launch an additional 8 EC2 instances during business hours.
B. Configure AWS Auto Scaling to use a scaling plan that enables predictive scaling. Configure predictive scaling with a scaling mode of forecast and scale, and to enforce the maximum capacity setting during scaling. Most Voted
C. Configure a step scaling policy to add 4 EC2 instances at 50% CPU utilization and add another 4 EC2 instances at 90% CPU utilization. Configure scale-in policies to perform the reverse and remove EC2 instances based on the two values. Most Voted
D. Configure AWS Auto Scaling to have a desired capacity of 5 EC2 instances, and disable any existing scaling policies. Monitor the CPU utilization metric for 1 week. Then create dynamic scaling policies that are based on the observed values.

Correct Answer: D 📦
Reference:
https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-scaling-simple-step.html
Community vote distribution
B (50%)
C (40%)
10%

Question #81Topic 1
A business has launched a mobile multiplayer game. The game demands real-time monitoring of participants' latitude and longitude positions. The game's data storage must be capable of quick updates and location retrieval.
The game stores location data on an Amazon RDS for PostgreSQL DB instance with read replicas. The database is unable to sustain the speed required for reading and writing changes during high use times. The game's user base is rapidly growing.

What should a solutions architect do to optimize the data tier's performance?

A. Take a snapshot of the existing DB instance. Restore the snapshot with Multi-AZ enabled.
B. Migrate from Amazon RDS to Amazon Elasticsearch Service (Amazon ES) with Kibana.
C. Deploy Amazon DynamoDB Accelerator (DAX) in front of the existing DB instance. Modify the game to use DAX.
D. Deploy an Amazon ElastiCache for Redis cluster in front of the existing DB instance. Modify the game to use Redis. Most Voted

Correct Answer: C 📦
Community vote distribution
D (100%)

Question #82Topic 1
A company's on-premises infrastructure and AWS need a secure connection. This connection does not need a large quantity of bandwidth and is capable of handling a limited amount of traffic. The link should be established immediately.

Which way is the MOST CHEAPEST for establishing this sort of connection?

A. Implement a client VPN.
B. Implement AWS Direct Connect.
C. Implement a bastion host on Amazon EC2.
D. Implement an AWS Site-to-Site VPN connection. Most Voted

Correct Answer: D 📦
Community vote distribution
D (100%)

Question #83Topic 1
A business is developing a web-based application that will operate on Amazon EC2 instances distributed across several Availability Zones. The online application will enable access to a collection of over 900 TB of text content. The corporation expects times of heavy demand for the online application. A solutions architect must guarantee that the text document storage component can scale to meet the application's demand at all times. The corporation is concerned about the solution's total cost.

Which storage system best satisfies these criteria in terms of cost-effectiveness?

A. Amazon Elastic Block Store (Amazon EBS)
B. Amazon Elastic File System (Amazon EFS)
C. Amazon Elasticsearch Service (Amazon ES)
D. Amazon S3 Most Voted

Correct Answer: C 📦
Reference:
https://www.missioncloud.com/blog/resource-amazon-ebs-vs-efs-vs-s3-picking-the-best-aws-storage-option-for-your-business
Community vote distribution
D (100%)

Question #84Topic 1
A business is using a tape backup system to offshore store critical application data. Daily data volume is in the neighborhood of 50 TB. For regulatory requirements, the firm must maintain backups for seven years. Backups are infrequently viewed, and a week's notice is normally required before restoring a backup.
The organization is now investigating a cloud-based solution in order to cut storage expenses and the operational load associated with tape management. Additionally, the organization wants to ensure that the move from tape backups to the cloud is as seamless as possible.

Which storage option is the CHEAPEST?

A. Use Amazon Storage Gateway to back up to Amazon Glacier Deep Archive. Most Voted
B. Use AWS Snowball Edge to directly integrate the backups with Amazon S3 Glacier.
C. Copy the backup data to Amazon S3 and create a lifecycle policy to move the data to Amazon S3 Glacier.
D. Use Amazon Storage Gateway to back up to Amazon S3 and create a lifecycle policy to move the backup to Amazon S3 Glacier.

Correct Answer: A 📦
Community vote distribution
A (58%)
D (42%)

Question #85Topic 1
A development team must have a website that is accessible to other development

teams. HTML, CSS, client-side JavaScript, and graphics comprise the website's content.

Which form of website hosting is the MOST cost-effective?

A. Containerize the website and host it in AWS Fargate.
B. Create an Amazon S3 bucket and host the website there. Most Voted
C. Deploy a web server on an Amazon EC2 instance to host the website.
D. Configure an Application Load Balancer with an AWS Lambda target that uses the Express.js framework.

Correct Answer: B ⊗
Community vote distribution
B (100%)

Question #86Topic 1
A business's data warehouse is powered by Amazon Redshift. The firm want to assure the long-term viability of its data in the event of component failure.

What recommendations should a solutions architect make?

A. Enable concurrency scaling.
B. Enable cross-Region snapshots.
C. Increase the data retention period.
D. Deploy Amazon Redshift in Multi-AZ.

Correct Answer: B ⊗
Community vote distribution
B (100%)

Question #87Topic 1
A business offers its customers with an API that automates tax calculations based on item pricing. During the Christmas season, the firm receives an increased volume of queries, resulting in delayed response times. A solutions architect must create a scalable and elastic system.

What is the solution architect's role in achieving this?

A. Provide an API hosted on an Amazon EC2 instance. The EC2 instance performs the required computations when the API request is made.
B. Design a REST API using Amazon API Gateway that accepts the item names. API Gateway passes item names to AWS Lambda for tax computations. Most Voted
C. Create an Application Load Balancer that has two Amazon EC2 instances behind it. The EC2 instances will compute the tax on the received item names.
D. Design a REST API using Amazon API Gateway that connects with an API hosted on an Amazon EC2 instance. API Gateway accepts and passes the item names to the EC2 instance for tax computations.

Correct Answer: B ⊗
Community vote distribution
B (100%)

Question #88Topic 1
A business is operating a worldwide application. Users upload various videos, which are subsequently combined into a single video file. The program receives uploads from users through a single Amazon S3 bucket in the us-east-1 Region. The same S3 bucket also serves as the download point for the generated video file. The finished video file is around 250 GB in size.
The organization requires a solution that enables quicker uploads and downloads of video files stored in Amazon S2. The corporation will charge consumers who choose to pay for the faster speed a monthly fee.

What actions should a solutions architect take to ensure that these criteria are met?

A. Enable AWS Global Accelerator for the S3 endpoint. Adjust the application's upload and download links to use the Global Accelerator S3 endpoint for users who have a subscription.
B. Enable S3 Cross-Region Replication to S3 buckets in all other AWS Regions. Use an Amazon Route 53 geolocation routing policy to route S3 requests based on the location of users who have a subscription.
C. Create an Amazon CloudFront distribution and use the S3 bucket in us-east-1 as an origin. Adjust the application to use the CloudFront URL as the upload and download links for users who have a subscription.
D. Enable S3 Transfer Acceleration for the S3 bucket in us-east-1. Configure the application to use the bucket's S3-accelerate endpoint domain name for the upload and download links for users who have a subscription. Most Voted

Correct Answer: C 🗳
Community vote distribution
D (100%)

Question #89Topic 1
A solutions architect is designing a VPC architecture with various subnets. Six subnets will be used in two Availability Zones. Subnets are classified as public, private, and database-specific. Access to a database should be restricted to Amazon EC2 instances operating on private subnets.

Which solution satisfies these criteria?

A. Create a now route table that excludes the route to the public subnets' CIDR blocks. Associate the route table to the database subnets.
B. Create a security group that denies ingress from the security group used by instances in the public subnets. Attach the security group to an Amazon RDS DB instance.
C. Create a security group that allows ingress from the security group used by instances in the private subnets. Attach the security group to an Amazon RDS DB instance. Most Voted
D. Create a new peering connection between the public subnets and the private subnets. Create a different peering connection between the private subnets and the database subnets.

Correct Answer: B 🗳
Community vote distribution
C (89%)
11%

Question #90Topic 1
A business is implementing a web gateway. The firm want to limit public access to the program to the online part. The VPC was created with two public subnets and two private subnets to achieve this. The application will be hosted on many Amazon EC2 instances that will be managed through an Auto Scaling group. SSL termination must be delegated to a separate instance on Amazon EC2.

What actions should a solutions architect take to guarantee compliance with these requirements?

A. Configure the Network Load Balancer in the public subnets. Configure the Auto Scaling group in the private subnets and associate it with the Application Load Balancer.
B. Configure the Network Load Balancer in the public subnets. Configure the Auto Scaling group in the public subnets and associate it with the Application Load Balancer.
C. Configure the Application Load Balancer in the public subnets. Configure the Auto Scaling group in the private subnets and associate it with the Application Load Balancer. Most Voted
D. Configure the Application Load Balancer in the private subnets. Configure the Auto Scaling group in the private subnets and associate it with the Application

Load Balancer.

Correct Answer: C ⬙
Community vote distribution
C (76%)
A (24%

Question #91Topic 1
A business intends to operate a collection of Amazon EC2 instances connected to
an Amazon Aurora database. To deploy the EC2 instances and Aurora DB cluster,
the business used an AWS Cloud Formation template. The organization wishes to
provide safe authentication of instances to the database. The business does not
want to keep track of static database credentials.

Which method satisfies these criteria with the LEAST amount of operational
effort?

A. Create a database user with a user name and password. Add parameters for the
database user name and password to the CloudFormation template. Pass the
parameters to the EC2 instances when the instances are launched.
B. Create a database user with a user name and password. Store the user name and
password in AWS Systems Manager Parameter Store Configure the EC2 instances to
retrieve the database credentials from Parameter Store.
C. Configure the DB cluster to use IAM database authentication. Create a
database user to use with IAM authentication. Associate a role with the EC2
instances to allow applications on the instances to access the database. Most
Voted
D. Configure the DB cluster to use IAM database authentication with an IAM user.
Create a database user that has a name that matches the IAM user. Associate the
IAM user with the EC2 instances to allow applications on the instances to access
the database.

Correct Answer: A ⬙
Reference:
https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/
deploying.applications.html

Community vote distribution
C (76%)
14%
10%

Question #92Topic 1
A business uses the SMB protocol to back up on-premises databases to local file
server shares. To accomplish recovery goals, the organization needs instant
access to one week's worth of backup data. After a week, recovery is less
possible, and the business may live with a delay in retrieving those earlier
backup data.

What actions should a solutions architect take to ensure that these criteria are
met with the LEAST amount of operational work possible?

A. Deploy Amazon FSx for Windows File Server to create a file system with
exposed file shares with sufficient storage to hold all the desired backups.
B. Deploy an AWS Storage Gateway file gateway with sufficient storage to hold 1
week of backups. Point the backups to SMB shares from the file gateway. Most
Voted
C. Deploy Amazon Elastic File System (Amazon EFS) to create a file system with
exposed NFS shares with sufficient storage to hold all the desired backups.
D. Continue to back up to the existing file shares. Deploy AWS Database
Migration Service (AWS DMS) and define a copy task to copy backup files older
than 1 week to Amazon S3, and delete the backup files from the local file store.

Correct Answer: A ⬙

Community vote distribution
B (64%)
A (27%)
9%

Question #93Topic 1
A daily scheduled task must be executed by an ecommerce business to collect and filter sales statistics for analytics purposes. The sales records are stored in an Amazon S3 bucket. Each object has a maximum file size of 10 GB. The work might take up to an hour to complete depending on the amount of sales events. The job's CPU and memory requirements are consistent and known in advance. A solutions architect's goal is to reduce the amount of operational work required to complete the task.

Which solution satisfies these criteria?

A. Create an AWS Lambda function that has an Amazon EventBridge (Amazon CloudWatch Events) notification. Schedule the EventBridge (CloudWatch Events) event to run once a day.
B. Create an AWS Lambda function. Create an Amazon API Gateway HTTP API. and integrate the API with the function. Create an Amazon EventBridge (Amazon CloudWatch Events) scheduled event that calls the API and invokes the function.
C. Create an Amazon Elastic Container Service (Amazon ECS) cluster with an AWS Fargate launch type. Create an Amazon EventBridge (Amazon CloudWatch Events) scheduled event that launches an ECS task on the cluster to run the job. Most Voted
D. Create an Amazon Elastic Container Service (Amazon ECS) cluster with an Amazon EC2 launch type and an Auto Scaling group with at least one EC2 instance. Create an Amazon EventBridge (Amazon CloudWatch Events) scheduled event that launches an ECS task on the cluster to run the job.

Correct Answer: B 📦
Reference:
https://docs.aws.amazon.com/eventbridge/latest/userguide/eb-run-lambda-schedule.html
Community vote distribution
C (100%)

Question #94Topic 1
A shopping cart application connects to an Amazon RDS Multi-AZ database instance. The database performance is causing the application to slow down. There was no significant performance improvement after upgrading to the next-generation instance type.
According to the analysis, around 700 IOPS are maintained, typical queries execute for extended periods of time, and memory use is significant.

Which application modification might a solutions architect propose to address these concerns?

A. Migrate the RDS instance to an Amazon Redshift cluster and enable weekly garbage collection.
B. Separate the long-running queries into a new Multi-AZ RDS database and modify the application to query whichever database is needed.
C. Deploy a two-node Amazon ElastiCache cluster and modify the application to query the cluster first and query the database only if needed. Most Voted
D. Create an Amazon Simple Queue Service (Amazon SQS) FIFO queue for common queries and query it first and query the database only if needed.

Correct Answer: C 📦
Community vote distribution
C (100%)

Question #95Topic 1
A startup is developing a shared storage solution for an AWS Cloud-hosted gaming

application. The organization need the capacity to access data through SMB
clients. The solution must be controlled completely.

Which AWS solution satisfies these criteria?

A. Create an AWS DataSync task that shares the data as a mountable file system.
Mount the file system to the application server.
B. Create an Amazon EC2 Windows instance. Install and configure a Windows file
share role on the instance. Connect the application server to the file share.
C. Create an Amazon FSx for Windows File Server file system. Attach the file
system to the origin server. Connect the application server to the file system.
Most Voted
D. Create an Amazon S3 bucket. Assign an IAM role to the application to grant
access to the S3 bucket. Mount the S3 bucket to the application server.

Correct Answer: C ⬨
Reference:
https://aws.amazon.com/fsx/windows/
Community vote distribution
C (100%)

Question #96Topic 1
A business relies on Amazon S3 for object storage. The organization stores data
in hundreds of S3 buckets. Certain S3 buckets contain less frequently accessed
data than others. According to a solutions architect, lifecycle rules are either
not followed consistently or are enforced in part, resulting in data being held
in high-cost storage.

Which option will reduce expenses without jeopardizing object availability?

A. Use S3 ACLs.
B. Use Amazon Elastic Block Store (Amazon EBS) automated snapshots.
C. Use S3 Intelligent-Tiering storage.
D. Use S3 One Zone-Infrequent Access (S3 One Zone-IA).

Correct Answer: C ⬨
Community vote distribution
C (100%)

Question #97Topic 1
A business is re-architecting a tightly connected application in order to make
it loosely coupled. Previously, the program communicated across layers through a
request/response pattern. The organization intends to do this via the usage of
Amazon Simple Queue Service (Amazon SQS). The first architecture includes a
request queue and a response queue. However, when the program grows, this
strategy will not handle all messages.

What is the best course of action for a solutions architect to take in order to
tackle this issue?

A. Configure a dead-letter queue on the ReceiveMessage API action of the SQS
queue.
B. Configure a FIFO queue, and use the message deduplication ID and message
group ID.
C. Create a temporary queue, with the Temporary Queue Client to receive each
response message. Most Voted
D. Create a queue for each request and response on startup for each producer,
and use a correlation ID message attribute.

Correct Answer: A ⬨
Community vote distribution
C (100%)

Question #98Topic 1

Amazon S3 is used by a business to store private audit records. According to the concept of least privilege, the S3 bucket implements bucket restrictions to limit access to audit team IAM user credentials. Company executives are concerned about inadvertent document destruction in the S3 bucket and need a more secure solution.

What steps should a solutions architect take to ensure the security of audit documents?

A. Enable the versioning and MFA Delete features on the S3 bucket.
B. Enable multi-factor authentication (MFA) on the IAM user credentials for each audit team IAM user account.
C. Add an S3 Lifecycle policy to the audit team's IAM user accounts to deny the s3:DeleteObject action during audit dates.
D. Use AWS Key Management Service (AWS KMS) to encrypt the S3 bucket and restrict audit team IAM user accounts from accessing the KMS key.

Correct Answer: A ◈
Reference:
https://docs.aws.amazon.com/AmazonS3/latest/dev/security-best-practices.html
Community vote distribution
A (80%)
B (20%)

Question #99Topic 1
Each day, a company's hundreds of edge devices create 1 TB of status alerts. Each alert has a file size of roughly 2 KB. A solutions architect must provide a system for ingesting and storing warnings for further investigation.
The business need a solution that is extremely accessible. However, the business must have a low cost structure and does not want to handle extra infrastructure. Additionally, the corporation intends to retain 14 days of data for instant examination and archive any older data.

What is the MOST OPTIMAL option that satisfies these requirements?

A. Create an Amazon Kinesis Data Firehose delivery stream to ingest the alerts. Configure the Kinesis Data Firehose stream to deliver the alerts to an Amazon S3 bucket. Set up an S3 Lifecycle configuration to transition data to Amazon S3 Glacier after 14 days.
B. Launch Amazon EC2 instances across two Availability Zones and place them behind an Elastic Load Balancer to ingest the alerts. Create a script on the EC2 instances that will store the alerts in an Amazon S3 bucket. Set up an S3 Lifecycle configuration to transition data to Amazon S3 Glacier after 14 days.
C. Create an Amazon Kinesis Data Firehose delivery stream to ingest the alerts. Configure the Kinesis Data Firehose stream to deliver the alerts to an Amazon Elasticsearch Service (Amazon ES) cluster. Set up the Amazon ES cluster to take manual snapshots every day and delete data from the cluster that is older than 14 days.
D. Create an Amazon Simple Queue Service (Amazon SQS) standard queue to ingest the alerts, and set the message retention period to 14 days. Configure consumers to poll the SQS queue, check the age of the message, and analyze the message data as needed. If the message is 14 days old, the consumer should copy the message to an Amazon S3 bucket and delete the message from the SQS queue.

Correct Answer: A ◈
Community vote distribution
A (100%)

Question #100Topic 1
A firm runs a two-tier image processing program. The application is divided into two Availability Zones, each with its own public and private subnets.
The web tier's Application Load Balancer (ALB) makes use of public subnets. Private subnets are used by Amazon EC2 instances at the application layer.
The program is functioning more slowly than planned, according to users.

According to a security audit of the web server log files, the application
receives millions of unauthorized requests from a tiny number of IP addresses.
While the organization finds a more permanent solution, a solutions architect
must tackle the urgent performance issue.

What solution architecture approach should be recommended to satisfy this
requirement?

A. Modify the inbound security group for the web tier. Add a deny rule for the
IP addresses that are consuming resources.
B. Modify the network ACL for the web tier subnets. Add an inbound deny rule for
the IP addresses that are consuming resources. Most Voted
C. Modify the inbound security group for the application tier. Add a deny rule
for the IP addresses that are consuming resources.
D. Modify the network ACL for the application tier subnets. Add an inbound deny
rule for the IP addresses that are consuming resources.

Correct Answer: B 🗳️
Community vote distribution
B (100%)

Question #101Topic 1
A business uses Amazon Elastic Container Service (Amazon ECS) to perform an
image processing workload on two private subnets. Each private subnet connects
to the internet through a NAT instance. Amazon S3 buckets are used to store all
photos. The business is worried about the expenses associated with data
transfers between Amazon ECS and Amazon S3.

What actions should a solutions architect do to save money?

A. Configure a NAT gateway to replace the NAT instances.
B. Configure a gateway endpoint for traffic destined to Amazon S3. Most Voted
C. Configure an interface endpoint for traffic destined to Amazon S3.
D. Configure Amazon CloudFront for the S3 bucket storing the images.

Correct Answer: C 🗳️
Community vote distribution
B (100%)

Question #102Topic 1
An online picture program enables users to upload photographs and modify them.
The application provides two distinct service levels: free and paid. Paid users'
photos are processed ahead of those submitted by free users. Amazon S3 is used
to store the photos, while Amazon SQS is used to store the job information.

How should a solutions architect propose a configuration?

A. Use one SQS FIFO queue. Assign a higher priority to the paid photos so they
are processed first.
B. Use two SQS FIFO queues: one for paid and one for free. Set the free queue to
use short polling and the paid queue to use long polling.
C. Use two SQS standard queues: one for paid and one for free. Configure Amazon
EC2 instances to prioritize polling for the paid queue over the free queue. Most
Voted
D. Use one SQS standard queue. Set the visibility timeout of the paid photos to
zero. Configure Amazon EC2 instances to prioritize visibility settings so paid
photos are processed first.

Correct Answer: A 🗳️
Community vote distribution
C (100%)

Question #103Topic 1
Application developers have found that when business reporting users run big

production reports to the Amazon RDS instance that powers the application, the application becomes very sluggish. While the reporting queries are executing, the RDS instance's CPU and memory usage metrics do not surpass 60%.
Business reporting users must be able to produce reports without impairing the functionality of the application.

Which action is necessary to achieve this?

A. Increase the size of the RDS instance.
B. Create a read replica and connect the application to it.
C. Enable multiple Availability Zones on the RDS instance.
D. Create a read replica and connect the business reports to it. Most Voted

Correct Answer: D ⬙
Community vote distribution
D (93%)
7%

Question #104Topic 1
A new employee has been hired as a deployment engineer by a corporation. The deployment engineer will construct several AWS resources using AWS CloudFormation templates. A solutions architect desires that the deployment engineer execute job functions with the least amount of privilege possible.

Which steps should the solutions architect do in conjunction to reach this goal? (Select two.)

A. Have the deployment engineer use AWS account roof user credentials for performing AWS CloudFormation stack operations.
B. Create a new IAM user for the deployment engineer and add the IAM user to a group that has the PowerUsers IAM policy attached.
C. Create a new IAM user for the deployment engineer and add the IAM user to a group that has the Administrate/Access IAM policy attached.
D. Create a new IAM User for the deployment engineer and add the IAM user to a group that has an IAM policy that allows AWS CloudFormation actions only.
E. Create an IAM role for the deployment engineer to explicitly define the permissions specific to the AWS CloudFormation stack and launch stacks using Dial IAM role.

Correct Answer: DE ⬙
Community vote distribution
DE (80%)
BD (20%)

Question #105Topic 1
A corporation is using AWS to construct a new machine learning model solution. The models are constructed as self-contained microservices that get around 1 GB of model data from Amazon S3 and put it into memory during startup. The models are accessed by users through an asynchronous API. Users may submit a single request or a batch of requests and designate the destination for the results. Hundreds of people benefit from the company's models. The models' use habits are erratic. Certain models may go days or weeks without being used. Other models may get hundreds of queries concurrently.

Which solution satisfies these criteria?

A. The requests from the API are sent to an Application Load Balancer (ALB). Models are deployed as AWS Lambda functions invoked by the ALB.
B. The requests from the API are sent to the models Amazon Simple Queue Service (Amazon SQS) queue. Models are deployed as AWS Lambda functions triggered by SQS events AWS Auto Scaling is enabled on Lambda to increase the number of vCPUs based on the SQS queue size.
C. The requests from the API are sent to the model's Amazon Simple Queue Service (Amazon SQS) queue. Models are deployed as Amazon Elastic Container Service

(Amazon ECS) services reading from the queue AWS App Mesh scales the instances of the ECS cluster based on the SQS queue size.
D. The requests from the API are sent to the models Amazon Simple Queue Service (Amazon SQS) queue. Models are deployed as Amazon Elastic Container Service (Amazon ECS) services reading from the queue AWS Auto Scaling is enabled on Amazon ECS for both the cluster and copies of the service based on the queue size.

Correct Answer: D 🗳
Community vote distribution
B (100%)

Question #106Topic 1
A business developed a meal ordering application that collects and maintains user data for future research. On an Amazon EC2 instance, the application's static front end is installed. The front-end application communicates with the back-end application, which is hosted on a different EC2 instance. The data is subsequently stored in Amazon RDS by the backend application.

What should a solutions architect do to decouple and scalability the architecture?

A. Use Amazon S3 to serve the front-end application, which sends requests to Amazon EC2 to execute the backend application. The backend application will process and store the data in Amazon RDS.
B. Use Amazon S3 to serve the front-end application and write requests to an Amazon Simple Notification Service (Amazon SNS) topic. Subscribe Amazon EC2 instances to the HTTP/HTTPS endpoint of the topic, and process and store the data in Amazon RDS.
C. Use an EC2 instance to serve the front end and write requests to an Amazon SQS queue. Place the backend instance in an Auto Scaling group, and scale based on the queue depth to process and store the data in Amazon RDS. Most Voted
D. Use Amazon S3 to serve the static front-end application and send requests to Amazon API Gateway, which writes the requests to an Amazon SQS queue. Place the backend instances in an Auto Scaling group, and scale based on the queue depth to process and store the data in Amazon RDS.

Correct Answer: D 🗳
Community vote distribution
C (62%)
D (38%)

Question #107Topic 1
Each month, a leasing firm prepares and delivers PDF statements to all of its clients. Each statement is around 400 KB in length. Customers may obtain their statements from the website for a period of up to 30 days after they are created. Customers are sent a ZIP file containing all of their statements at the conclusion of their three-year lease.

Which storage method is the MOST cost-effective in this situation?

A. Store the statements using the Amazon S3 Standard storage class. Create a lifecycle policy to move the statements to Amazon S3 Glacier storage after 1 day.
B. Store the statements using the Amazon S3 Glacier storage class. Create a lifecycle policy to move the statements to Amazon S3 Glacier Deep Archive storage after 30 days.
C. Store the statements using the Amazon S3 Standard storage class. Create a lifecycle policy to move the statements to Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA) storage after 30 days.
D. Store the statements using the Amazon S3 Standard-Infrequent Access (S3 Standard-IA) storage class. Create a lifecycle policy to move the statements to Amazon S3 Glacier storage after 30 days. Most Voted

Correct Answer: B 🗳️
Community vote distribution
D (93%)
7%

Question #108Topic 1
A company's ecommerce site is seeing a rise in visitor visits. The company's
shop is implemented as a two-tier two application on Amazon EC2 instances, with
a web layer and a separate database tier. As traffic rises, the organization
detects severe delays in delivering timely marketing and purchase confirmation
emails to consumers due to the design. The organization wishes to decrease the
amount of time spent addressing difficult email delivery problems and to cut
operating costs.

What actions should a solutions architect take to ensure that these criteria are
met?

A. Create a separate application tier using EC2 instances dedicated to email
processing.
B. Configure the web instance to send email through Amazon Simple Email Service
(Amazon SES). Most Voted
C. Configure the web instance to send email through Amazon Simple Notification
Service (Amazon SNS).
D. Create a separate application tier using EC2 instances dedicated to email
processing. Place the instances in an Auto Scaling group.

Correct Answer: B 🗳️
Community vote distribution
B (71%)
C (29%)

Question #109Topic 1
A business's application makes use of AWS Lambda functions. A code examination
reveals that database credentials are being kept in the source code of a Lambda
function, which violates the company's security policy. To comply with security
policy requirements, credentials must be safely maintained and automatically
cycled on a regular basis.

What should a solutions architect propose as the MOST SECURE method of meeting
these requirements?

A. Store the password in AWS CloudHSM. Associate the Lambda function with a role
that can use the key ID to retrieve the password from CloudHSM. Use CloudHSM to
automatically rotate the password.
B. Store the password in AWS Secrets Manager. Associate the Lambda function with
a role that can use the secret ID to retrieve the password from Secrets Manager.
Use Secrets Manager to automatically rotate the password.
C. Store the password in AWS Key Management Service (AWS KMS). Associate the
Lambda function with a role that can use the key ID to retrieve the password
from AWS KMS. Use AWS KMS to automatically rotate the uploaded password.
D. Move the database password to an environment variable that is associated with
the Lambda function. Retrieve the password from the environment variable by
invoking the function. Create a deployment script to automatically rotate the
password.

Correct Answer: B 🗳️
Reference:
https://aws.amazon.com/blogs/security/how-to-use-aws-secrets-manager-rotate-
credentials-amazon-rds-database-types-oracle/
Community vote distribution
B (100%)

Question #110Topic 1
A firm just launched a two-tier application in the us-east-1 Region's two

Availability Zones. Databases are located on a private subnet, whereas web servers are located on a public subnet. The VPC is connected to the internet through an internet gateway. Amazon EC2 instances are used to host the application and database. The database servers are unable to connect to the internet in order to get fixes. A solutions architect must create a system that ensures database security while incurring the fewest operating costs.

Which solution satisfies these criteria?

A. Deploy a NAT gateway inside the public subnet for each Availability Zone and associate it with an Elastic IP address. Update the routing table of the private subnet to use it as the default route. Most Voted
B. Deploy a NAT gateway inside the private subnet for each Availability Zone and associate it with an Elastic IP address. Update the routing table of the private subnet to use it as the default route.
C. Deploy two NAT instances inside the public subnet for each Availability Zone and associate them with Elastic IP addresses. Update the routing table of the private subnet to use it as the default route.
D. Deploy two NAT instances inside the private subnet for each Availability Zone and associate them with Elastic IP addresses. Update the routing table of the private subnet to use it as the default route.

Correct Answer: A 🗳
Community vote distribution
A (87%)
13%

Question #111Topic 1
For each of its developer accounts, a corporation has configured AWS CloudTrail logs to transport log files to an Amazon S3 bucket. The organization has established a centralized AWS account for the purpose of facilitating administration and auditing. Internal auditors need access to CloudTrail logs, however access to all developer account users must be limited. The solution should be both secure and efficient.

How should a solutions architect address these considerations?

A. Configure an AWS Lambda function in each developer account to copy the log files to the central account. Create an IAM role in the central account for the auditor. Attach an IAM policy providing read-only permissions to the bucket.
B. Configure CloudTrail from each developer account to deliver the log files to an S3 bucket in the central account. Create an IAM user in the central account for the auditor. Attach an IAM policy providing full permissions to the bucket.
C. Configure CloudTrail from each developer account to deliver the log files to an S3 bucket in the central account. Create an IAM role in the central account for the auditor. Attach an IAM policy providing read-only permissions to the bucket. Most Voted
D. Configure an AWS Lambda function in the central account to copy the log files from the S3 bucket in each developer account. Create an IAM user in the central account for the auditor. Attach an IAM policy providing full permissions to the bucket.

Correct Answer: C 🗳
Community vote distribution
C (100%)

Question #112Topic 1
A solutions architect is improving a website in preparation for a forthcoming musical performance. Real-time streaming of the performances will be accessible, as well as on-demand viewing. The event is anticipated to draw a large internet audience from across the world.

Which service will optimize both real-time and on-demand steaming performance?

A. Amazon CloudFront Most Voted
B. AWS Global Accelerator
C. Amazon Route S3
D. Amazon S3 Transfer Acceleration

Correct Answer: A ⬨
Reference:
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/on-demand-streaming-video.html
Community vote distribution
A (100%)

Question #113Topic 1
A database is hosted on an Amazon RDS MySQL 5.6 Multi-AZ DB instance that is subjected to high-volume reads. When evaluating read performance from a secondary AWS Region, application developers detect a considerable lag. The developers need a solution that has a read replication latency of less than one second.

What recommendations should the solutions architect make?

A. Install MySQL on Amazon EC2 in the secondary Region.
B. Migrate the database to Amazon Aurora with cross-Region replicas. Most Voted
C. Create another RDS for MySQL read replica in the secondary Region.
D. Implement Amazon ElastiCache to improve database query performance.

Correct Answer: B ⬨
Reference:
https://aws.amazon.com/rds/aurora/global-database/
Community vote distribution
B (78%)
C (22%)

Question #114Topic 1
Currently, a business runs a web application that is backed up by an Amazon RDS MySQL database. It features daily automatic backups that are not encrypted. A security audit entails the encryption of future backups and the destruction of unencrypted backups. Before deleting the previous backups, the firm will create at least one encrypted backup.

What should be done to allow encrypted backups in the future?

A. Enable default encryption for the Amazon S3 bucket where backups are stored.
B. Modify the backup section of the database configuration to toggle the Enable encryption check box.
C. Create a snapshot of the database. Copy it to an encrypted snapshot. Restore the database from the encrypted snapshot. Most Voted
D. Enable an encrypted read replica on RDS for MySQL. Promote the encrypted read replica to primary. Remove the original database instance.

Correct Answer: C ⬨
However, because you can encrypt a copy of an unencrypted DB snapshot, you can effectively add encryption to an unencrypted DB instance. That is, you can create a snapshot of your DB instance, and then create an encrypted copy of that snapshot. You can then restore a DB instance from the encrypted snapshot, and thus you have an encrypted copy of your original DB instance.
DB instances that are encrypted can't be modified to disable encryption.
You can't have an encrypted read replica of an unencrypted DB instance or an unencrypted read replica of an encrypted DB instance.
Encrypted read replicas must be encrypted with the same key as the source DB instance when both are in the same AWS Region.
You can't restore an unencrypted backup or snapshot to an encrypted DB instance.
To copy an encrypted snapshot from one AWS Region to another, you must specify the KMS key identifier of the destination AWS Region. This is because KMS

encryption keys are specific to the AWS Region that they are created in.
Reference:
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Overview.Encryption.html
Community vote distribution
C (89%)
11%

Question #115Topic 1
Each entry to a company's facility is equipped with badge readers. When badges
are scanned, the readers transmit an HTTPS message indicating who tried to enter
that specific entry.
A solutions architect must develop a system that will handle these sensor
signals. The solution must be highly accessible, with the findings made
available for analysis by the company's security staff.

Which system design should be recommended by the solutions architect?

A. Launch an Amazon EC2 instance to serve as the HTTPS endpoint and to process
the messages. Configure the EC2 instance to save the results to an Amazon S3
bucket.
B. Create an HTTPS endpoint in Amazon API Gateway. Configure the API Gateway
endpoint to invoke an AWS Lambda function to process the messages and save the
results to an Amazon DynamoDB table. Most Voted
C. Use Amazon Route 53 to direct incoming sensor messages to an AWS Lambda
function. Configure the Lambda function to process the messages and save the
results to an Amazon DynamoDB table.
D. Create a gateway VPC endpoint for Amazon S3. Configure a Site-to-Site VPN
connection from the facility network to the VPC so that sensor data can be
written directly to an S3 bucket by way of the VPC endpoint.

Correct Answer: B ⬙
Community vote distribution
B (100%)

Question #116Topic 1
On AWS, a business is developing a document storage solution. The application is
deployed across different Amazon EC2 Availability Zones. The firm demands a
highly accessible document storage. When requested, documentation must be
returned quickly. The lead engineer has setup the application to store documents
in Amazon Elastic Block Store (Amazon EBS), but is open to examine additional
solutions to fulfill the availability requirement.

What recommendations should a solutions architect make?

A. Snapshot the EBS volumes regularly and build new volumes using those
snapshots in additional Availability Zones.
B. Use Amazon Elastic Block Store (Amazon EBS) for the EC2 instance root
volumes. Configure the application to build the document store on Amazon S3.
C. Use Amazon Elastic Block Store (Amazon EBS) for the EC2 instance root
volumes. Configure the application to build the document store on Amazon S3
Glacier.
D. Use at least three Provisioned IOPS EBS volumes for EC2 instances. Mount the
volumes to the EC2 instances in a RAID 5 configuration.

Correct Answer: B ⬙
Community vote distribution
B (75%)
D (25%)

Question #117Topic 1
A business maintains on-premises servers that operate a relational database. The
existing database handles a large volume of read requests from users in various
places. The organization want to transition to AWS with little effort. The
database solution should facilitate catastrophe recovery while not interfering

with the existing traffic flow of the business.

Which solution satisfies these criteria?

A. Use a database in Amazon RDS with Multi-AZ and at least one read replica.
Most Voted
B. Use a database in Amazon RDS with Multi-AZ and at least one standby replica.
C. Use databases hosted on multiple Amazon EC2 instances in different AWS
Regions.
D. Use databases hosted on Amazon EC2 instances behind an Application Load
Balancer in different Availability Zones.

Correct Answer: A ✧
Reference:
https://aws.amazon.com/blogs/database/implementing-a-disaster-recovery-strategy-
with-amazon-rds/
Community vote distribution
A (61%)
B (29%)
11%

Question #118Topic 1
A business wishes to keep track of its AWS charges for financial reporting
purposes. The cloud operations team is developing an architecture for querying
AWS Cost and Usage Reports for all member accounts in the AWS Organizations
management account. Once a month, the team must execute this query and give a
full analysis of the bill.

Which solution meets these needs in the MOST scalable and cost-effective manner?

A. Enable Cost and Usage Reports in the management account. Deliver reports to
Amazon Kinesis. Use Amazon EMR for analysis.
B. Enable Cost and Usage Reports in the management account. Deliver the reports
to Amazon S3. Use Amazon Athena for analysis. Most Voted
C. Enable Cost and Usage Reports for member accounts. Deliver the reports to
Amazon S3. Use Amazon Redshift for analysis.
D. Enable Cost and Usage Reports for member accounts. Deliver the reports to
Amazon Kinesis. Use Amazon QuickSight for analysis.

Correct Answer: C ✧
Reference:
https://docs.aws.amazon.com/cur/latest/userguide/what-is-cur.html

Community vote distribution
B (100%)

Question #119Topic 1
A solutions architect desires that all new users meet particular difficulty
standards and are required to rotate their IAM user passwords on a regular
basis.

What is the solution architect's role in achieving this?

A. Set an overall password policy for the entire AWS account
B. Set a password policy for each IAM user in the AWS account.
C. Use third-party vendor software to set password requirements.
D. Attach an Amazon CloudWatch rule to the Create_newuser event to set the
password with the appropriate requirements.

Correct Answer: A ✧
Community vote distribution
A (100%)

Question #120Topic 1

A business uses AWS to host its website. The organization has utilized Amazon EC2 Auto Scaling to accommodate the extremely fluctuating demand. Management is worried that the firm is overprovisioning its infrastructure, particularly at the three-tier application's front end. A solutions architect's primary responsibility is to guarantee that costs are minimized without sacrificing performance.

What is the solution architect's role in achieving this?

A. Use Auto Scaling with Reserved Instances.
B. Use Auto Scaling with a scheduled scaling policy.
C. Use Auto Scaling with the suspend-resume feature.
D. Use Auto Scaling with a target tracking scaling policy. Most Voted

Correct Answer: C ⛊
Community vote distribution
D (100%)

Question #121Topic 1
A business is in the process of transferring its apps to AWS. At the moment, on-premises apps create hundreds of terabytes of data, which is kept on a shared file system. The organization is using a cloud-based analytics solution to derive insights from this data on an hourly basis.
The business requires a solution to manage continuous data transfer between its on-premises shared file system and Amazon S3. Additionally, the solution must be capable of coping with brief gaps in internet access.

Which data transmission options should the business utilize to achieve these requirements?

A. AWS DataSync
B. AWS Migration Hub
C. AWS Snowball Edge Storage Optimized
D. AWS Transfer for SFTP

Correct Answer: A ⛊
Reference:
https://aws.amazon.com/cloud-data-migration/
Community vote distribution
A (75%)
C (25%)

Question #122Topic 1
A business wishes to manage a fleet of Amazon EC2 instances using AWS Systems Manager. No EC2 instances are permitted to have internet access, per the company's security needs. A solutions architect is responsible for designing network connection between EC2 instances and Systems Manager while adhering to this security requirement.

Which solution will satisfy these criteria?

A. Deploy the EC2 instances into a private subnet with no route to the internet.
B. Configure an interface VPC endpoint for Systems Manager. Update routes to use the endpoint. Most Voted
C. Deploy a NAT gateway into a public subnet. Configure private subnets with a default route to the NAT gateway.
D. Deploy an internet gateway. Configure a network ACL to deny traffic to all destinations except Systems Manager.

Correct Answer: B ⛊
Reference:
https://docs.aws.amazon.com/systems-manager/latest/userguide/setup-create-vpc.html

Community vote distribution
B (100%)

Question #123Topic 1
On Amazon EC2 instances, a business runs an application. The application is deployed on private subnets inside the us-east-1 Region's three Availability Zones. The instances must have internet access in order to download files. The organization is looking for a design that is readily accessible across the Region.

Which solution should be done to guarantee that internet access is not disrupted?

A. Deploy a NAT instance in a private subnet of each Availability Zone.
B. Deploy a NAT gateway in a public subnet of each Availability Zone.
C. Deploy a transit gateway in a private subnet of each Availability Zone.
D. Deploy an internet gateway in a public subnet of each Availability Zone.

Correct Answer: B ✿
Community vote distribution
B (100%)

Question #124Topic 1
A business operates a distant plant with unstable connection. The factory must collect and interpret machine and sensor data in order to detect items on its conveyor belts and begin robotic movement to route them to the appropriate spot. For on-premises control systems, predictable low-latency computing processing is critical.

Which data processing solution should the manufacturer use?

A. Amazon CloudFront Lambda@Edge functions
B. An Amazon EC2 instance that has enhanced networking enabled
C. An Amazon EC2 instance that uses an AWS Global Accelerator
D. An Amazon Elastic Block Store (Amazon EBS) volume on an AWS Snowball Edge cluster Most Voted

Correct Answer: A ✿
Community vote distribution
D (55%)
A (45%)

Question #125Topic 1
An application is deployed across various Availability Zones using Amazon EC2 instances. The instances are deployed behind an Application Load Balancer in an Amazon EC2 Auto Scaling group. The program operates optimally when the CPU usage of the Amazon EC2 instances is close to or equal to 40%.

What should a solutions architect do to ensure that the required performance is maintained throughout all group instances?

A. Use a simple scaling policy to dynamically scale the Auto Scaling group.
B. Use a target tracking policy to dynamically scale the Auto Scaling group.
C. Use an AWS Lambda function to update the desired Auto Scaling group capacity.
D. Use scheduled scaling actions to scale up and scale down the Auto Scaling group.

Correct Answer: B ✿
λ€With target tracking scaling policies, you select a scaling metric and set a target value. Amazon EC2 AutoScaling creates and manages the CloudWatch alarms that trigger the scaling policy and calculates the scaling djustment based on the metric and the target value. The scaling policy adds or removes capacity as required to keep the metric at, or close to, the specified target value. In addition to keeping the metric close to the targetvalue, a target tracking

scaling policy also adjusts to changes in the metric due to a changing load
pattern. For example, you can use target tracking scaling to: Configure a target
tracking scaling policy to keep the average aggregate CPU utilization of your
Auto Scaling group at 40 percent. Configure a target tracking scaling policy to
keep the request count per target of your Application Load Balancer target group
at 1000 for your AutoScaling group.ג€
Reference:
https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-scaling-target-
tracking.html
Community vote distribution
B (100%)

Question #126Topic 1
The web application of a business is hosted on Amazon EC2 instances and is
protected by an Application Load Balancer. The corporation recently altered its
policy, requiring that the application be accessible exclusively from a single
nation.

Which setup will satisfy this criterion?

A. Configure the security group for the EC2 instances.
B. Configure the security group on the Application Load Balancer.
C. Configure AWS WAF on the Application Load Balancer in a VPC.
D. Configure the network ACL for the subnet that contains the EC2 instances.

Correct Answer: C 🗳
Reference:
https://aws.amazon.com/es/blogs/security/how-to-use-aws-waf-to-filter-incoming-
traffic-from-embargoed-countries/
Community vote distribution
C (67%)
A (33%)

Question #127Topic 1
AWS Lambda functions are being developed and deployed by an engineering team.
The team must build roles and administer policies in AWS IAM in order to set the
Lambda functions' rights.

How should the team's permissions be adjusted to correspond to the principle of
least privilege?

A. Create an IAM role with a managed policy attached. Allow the engineering team
and the Lambda functions to assume this role.
B. Create an IAM group for the engineering team with an IAMFullAccess policy
attached. Add all the users from the team to this IAM group.
C. Create an execution role for the Lambda functions. Attach a managed policy
that has permission boundaries specific to these Lambda functions. Most Voted
D. Create an IAM role with a managed policy attached that has permission
boundaries specific to the Lambda functions. Allow the engineering team to
assume this role. Most Voted

Correct Answer: A 🗳
Community vote distribution
D (57%)
C (43%)

Question #128Topic 1
A business is migrating from on-premises Oracle to Amazon Aurora PostgreSQL.
Numerous apps write to the same tables in the database. The apps must be
transferred sequentially, with a month between migrations. Management has raised
worry about the database's heavy read and write activity. Throughout the entire
migration process, the data must be maintained in sync across both databases.

What recommendations should a solutions architect make?

A. Use AWS DataSync for the initial migration. Use AWS Database Migration Service (AWS DMS) to create a change data capture (CDC) replication task and a table mapping to select all cables.
B. Use AWS DataSync for the initial migration. Use AWS Database Migration Service (AWS DMS) to create a full load plus change data capture (CDC) replication task and a table mapping to select all tables.
C. Use the AWS Schema Conversion Tool with AWS DataBase Migration Service (AWS DMS) using a memory optimized replication instance. Create a full load plus change data capture (CDC) replication task and a table mapping to select all tables. Most Voted
D. Use the AWS Schema Conversion Tool with AWS Database Migration Service (AWS DMS) using a compute optimized replication instance. Create a full load plus change data capture (CDC) replication task and a table mapping to select the largest tables.

Correct Answer: B 🏮
Community vote distribution
C (100%)

Question #129Topic 1
A solutions architect is migrating static content from an Amazon EC2 instance-hosted public website to an Amazon S3 bucket. The static assets will be distributed using an Amazon CloudFront distribution. The EC2 instances' security group limits access to a subset of IP ranges. Access to static material should be regulated in a similar manner.

Which combination of actions will satisfy these criteria? (Select two.)

A. Create an origin access identity (OAI) and associate it with the distribution. Change the permissions in the bucket policy so that only the OAI can read the objects.
B. Create an AWS WAF web ACL that includes the same IP restrictions that exist in the EC2 security group. Associate this new web ACL with the CloudFront distribution.
C. Create a new security group that includes the same IP restrictions that exist in the current EC2 security group. Associate this new security group with the CloudFront distribution.
D. Create a new security group that includes the same IP restrictions that exist in the current EC2 security group. Associate this new security group with the S3 bucket hosting the static content.
E. Create a new IAM role and associate the role with the distribution. Change the permissions either on the S3 bucket or on the files within the S3 bucket so that only the newly created IAM role has read and download permissions.

Correct Answer: AB 🏮

Question #130Topic 1
AWS is used by an ecommerce firm to operate a multi-tier application. Amazon EC2 hosts both the front-end and back-end layers, while Amazon RDS for MySQL hosts the database. The backend tier is responsible for communication with the RDS instance. There are many requests to the database to get identical datasets, which results in performance slowdowns.

Which actions should be performed to optimize the backend's performance?

A. Implement Amazon SNS to store the database calls.
B. Implement Amazon ElastiCache to cache the large datasets.
C. Implement an RDS for MySQL read replica to cache database calls.
D. Implement Amazon Kinesis Data Firehose to stream the calls to the database.

Correct Answer: B 🏮
Community vote distribution
B (100%)

Question #131Topic 1
A user owns a MySQL database, which is used by a variety of customers that anticipate a maximum delay of 100 milliseconds on queries. Once an entry is recorded in the database, it is almost never modified. Clients get access to a maximum of one record at a time.
Due to rising customer demand, database access has expanded tremendously. As a consequence, the resulting load will quickly surpass the capability of even the most costly hardware available. The user want to move to AWS and is open to experimenting with new database systems.

Which solution would resolve the database load problem and provide nearly limitless future scalability?

A. Amazon RDS Most Voted
B. Amazon DynamoDB Most Voted
C. Amazon Redshift
D. AWS Data Pipeline

Correct Answer: B ⬙
Reference:
https://aws.amazon.com/blogs/big-data/near-zero-downtime-migration-from-mysql-to-dynamodb/
Community vote distribution
B (67%)
A (33%)

Question #132Topic 1
Amazon DynamoDB is being used by an entertainment firm to store media metadata. The application requires extensive reading and often encounters delays. The organization lacks the people necessary to manage extra operational expenses and requires an increase in DynamoDB's performance efficiency without changing the application.

What solution architecture approach should be recommended to satisfy this requirement?

A. Use Amazon ElastiCache for Redis.
B. Use Amazon DynamoDB Accelerator (DAX). Most Voted
C. Replicate data by using DynamoDB global tables.
D. Use Amazon ElastiCache for Memcached with Auto Discovery enabled.

Correct Answer: D ⬙
Community vote distribution
B (100%)

Question #133Topic 1
In a branch office, a firm runs an application in a tiny data closet with no virtualized computing resources. The application's data is saved on a network file system (NFS) volume. Daily offsite backups of the NFS volume are required by compliance requirements.

Which solution satisfies these criteria?

A. Install an AWS Storage Gateway file gateway on premises to replicate the data to Amazon S3.
B. Install an AWS Storage Gateway file gateway hardware appliance on premises to replicate the data to Amazon S3.
C. Install an AWS Storage Gateway volume gateway with stored volumes on premises to replicate the data to Amazon S3.
D. Install an AWS Storage Gateway volume gateway with cached volumes on premises to replicate the data to Amazon S3.

Correct Answer: B ⬙

AWS Storage Gateway Hardware Appliance

Hardware Appliance -
Storage Gateway is available as a hardware appliance, adding to the existing
support for VMware ESXi, Microsoft Hyper-V, and Amazon EC2. This means that you
can now make use of Storage Gateway in situations where you do not have a
virtualized environment, server-class hardware or IT staff with the specialized
skills that are needed to manage them. You can order appliances from Amazon.com
for delivery to branch offices, warehouses, and ג€outpostג€ offices that lack
dedicated IT resources. Setup (as you will see in a minute) is quick and easy,
and gives you access to three storage solutions:
File Gateway ג€" A file interface to Amazon S3, accessible via NFS or SMB. The
files are stored as S3 objects, allowing you to make use of specialized S3
features such as lifecycle management and cross-region replication. You can
trigger AWS Lambda functions, run Amazon Athena queries, and use Amazon Macie to
discover and classify sensitive data.
Reference:
https://aws.amazon.com/blogs/aws/new-aws-storage-gateway-hardware-appliance/
https://aws.amazon.com/storagegateway/file/
Community vote distribution
B (100%)

Question #134Topic 1
A business is using AWS to host an election reporting website for consumers
worldwide. The website makes use of Amazon EC2 instances in an Auto Scaling
group with Application Load Balancers for the web and application layers. The
database layer is powered by Amazon RDS for MySQL. The website is updated once
an hour with election results and has previously seen hundreds of individuals
check the data.
The firm anticipates a big boost in demand in the coming months as a result of
impending elections in many nations. A solutions architect's objective is to
increase the website's capacity to manage increased demand while limiting the
requirement for more EC2 instances.

Which solution will satisfy these criteria?

A. Launch an Amazon ElastiCache cluster to cache common database queries.
B. Launch an Amazon CloudFront web distribution to cache commonly requested
website content. Most Voted
C. Enable disk-based caching on the EC2 instances to cache commonly requested
website content.
D. Deploy a reverse proxy into the design using an EC2 instance with caching
enabled for commonly requested website content.

Correct Answer: B ⬙
Community vote distribution
B (89%)
11%

Question #135Topic 1
Amazon S3 is used by a corporation to store historical weather recordings. The
records are accessed through a URL that refers to a domain name on the company's
website. Subscriptions enable users from all around the globe to access this
material. Although the organization's core domain name is hosted by a third-
party operator, the company recently transferred some of its services to Amazon
Route 53. The corporation want to consolidate contracts, minimize user latency,
and lower the cost of offering the application to subscribers.

Which solution satisfies these criteria?

A. Create a web distribution on Amazon CloudFront to serve the S3 content for
the application. Create a CNAME record in a Route 53 hosted zone that points to
the CloudFront distribution, resolving to the application's URL domain name.
B. Create a web distribution on Amazon CloudFront to serve the S3 content for

the application. Create an ALIAS record in the Amazon Route 53 hosted zone that points to the CloudFront distribution, resolving to the application's URL domain name.
C. Create an A record in a Route 53 hosted zone for the application. Create a Route 53 traffic policy for the web application, and configure a geolocation rule. Configure health checks to check the health of the endpoint and route DNS queries to other endpoints if an endpoint is unhealthy.
D. Create an A record in a Route 53 hosted zone for the application. Create a Route 53 traffic policy for the web application, and configure a geoproximity rule. Configure health checks to check the health of the endpoint and route DNS queries to other endpoints if an endpoint is unhealthy.

Correct Answer: B 🗳
Community vote distribution
B (100%)

Question #136Topic 1
A business is developing a web application that will be accessible over the internet. The application is hosted on Amazon EC2 for Linux instances that leverage Amazon RDS MySQL Multi-AZ DB instances to store sensitive user data. Public subnets are used for EC2 instances, whereas private subnets are used for RDS DB instances. The security team has required that web-based attacks on database instances be prevented.

What recommendations should a solutions architect make?

A. Ensure the EC2 instances are part of an Auto Scaling group and are behind an Application Load Balancer. Configure the EC2 instance iptables rules to drop suspicious web traffic. Create a security group for the DB instances. Configure the RDS security group to only allow port 3306 inbound from the individual EC2 instances.
B. Ensure the EC2 instances are part of an Auto Scaling group and are behind an Application Load Balancer. Move DB instances to the same subnets that EC2 instances are located in. Create a security group for the DB instances. Configure the RDS security group to only allow port 3306 inbound from the individual EC2 instances.
C. Ensure the EC2 instances are part of an Auto Scaling group and are behind an Application Load Balancer. Use AWS WAF to monitor inbound web traffic for threats. Create a security group for the web application servers and a security group for the DB instances. Configure the RDS security group to only allow port 3306 inbound from the web application server security group. Most Voted
D. Ensure the EC2 instances are part of an Auto Scaling group and are behind an Application Load Balancer. Use AWS WAF to monitor inbound web traffic for threats. Configure the Auto Scaling group to automatically create new DB instances under heavy traffic. Create a security group for the RDS DB instances. Configure the RDS security group to only allow port 3306 inbound.

Correct Answer: C 🗳
Community vote distribution
C (100%)

Question #137Topic 1
A solutions architect is responsible for designing a solution for migrating a persistent database from on-premises to AWS. According to the database administrator, the database needs 64,000 IOPS. If feasible, the database administrator wishes to host the database instance on a single Amazon Elastic Block Store (Amazon EBS) volume.

Which option satisfies the database administrator's requirements the most effectively?

A. Use an instance from the I3 I/O optimized family and leverage local ephemeral storage to achieve the IOPS requirement.
B. Create a Nitro-based Amazon EC2 instance with an Amazon Elastic Block Store

(Amazon EBS) Provisioned IOPS SSD (io1) volume attached. Configure the volume to have 64,000 IOPS.
C. Create and map an Amazon Elastic File System (Amazon EFS) volume to the database instance and use the volume to achieve the required IOPS for the database.
D. Provision two volumes and assign 32,000 IOPS to each. Create a logical volume at the operating system level that aggregates both volumes to achieve the IOPS requirements.

Correct Answer: B ⬨
Community vote distribution
B (100%)

Question #138Topic 1
A solutions architect is tasked with the responsibility of creating the architecture for a new application that will be deployed to the AWS Cloud. Amazon EC2 On-Demand Instances will be used to execute the application, which will automatically scale across different Availability Zones. Throughout the day, the EC2 instances will scale up and down periodically. The load distribution will be handled by an Application Load Balancer (ALB). The architecture must be capable of managing dispersed session data. The firm is ready to make necessary adjustments to the code.

What is the solution architect's responsibility in ensuring that the design enables distributed session data management?

A. Use Amazon ElastiCache to manage and store session data. Most Voted
B. Use session affinity (sticky sessions) of the ALB to manage session data.
C. Use Session Manager from AWS Systems Manager to manage the session.
D. Use the GetSessionToken API operation in AWS Security Token Service (AWS STS) to manage the session.

Correct Answer: A ⬨
Community vote distribution
A (100%)

Question #139Topic 1
Multiple Amazon EC2 Linux instances are used by a business in a VPC to execute applications that need a hierarchical directory structure. The apps must be able to access and write to shared storage fast and simultaneously.

How is this accomplished?

A. Create an Amazon Elastic File System (Amazon EFS) file system and mount it from each EC2 instance.
B. Create an Amazon S3 bucket and permit access from all the EC2 instances in the VPC.
C. Create a file system on an Amazon Elastic Block Store (Amazon EBS) Provisioned IOPS SSD (io1) volume. Attach the volume to all the EC2 instances.
D. Create file systems on Amazon Elastic Block Store (Amazon EBS) volumes attached to each EC2 instance. Synchronize the Amazon Elastic Block Store (Amazon EBS) volumes across the different EC2 instances.

Correct Answer: A ⬨
Community vote distribution
A (100%)

Question #140Topic 1
A solutions architect is in the process of transferring a document management task to Amazon Web Services. The workload stores and tracks 7 terabytes of contract documents on a shared storage file system and an external database. The majority of records are archived and ultimately recovered for future reference. During the migration, the application cannot be updated, and the storage solution must be highly available.

Web servers that are part of an Auto Scaling group on Amazon EC2 collect and store documents. There may be up to 12 instances in the Auto Scaling group.

Which option best fits these criteria in terms of cost-effectiveness?

A. Provision an enhanced networking optimized EC2 instance to serve as a shared NFS storage system.
B. Create an Amazon S3 bucket that uses the S3 Standard-Infrequent Access (S3 Standard-IA) storage class. Mount the S3 bucket to the EC2 instances in the Auto Scaling group.
C. Create an SFTP server endpoint by using AWS Transfer for SFTP and an Amazon S3 bucket. Configure the EC2 instances in the Auto Scaling group to connect to the SFTP server.
D. Create an Amazon Elastic File System (Amazon EFS) file system that uses the EFS Standard-Infrequent Access (EFS Standard-IA) storage class. Mount the file system to the EC2 instances in the Auto Scaling group. Most Voted

Correct Answer: C 📦
Reference:
https://docs.aws.amazon.com/prescriptive-guidance/latest/patterns/migrate-an-on-premises-sftp-server-to-aws-using-aws-transfer-for-sftp.html

Community vote distribution
D (100%)

Question #141Topic 1
A business maintains monthly phone records. Statistically, recorded data may be referred to randomly within a year but is seldom retrieved beyond that time period.
Files less than a year old must be queried and retrieved immediately. It is okay for there to be a delay in obtaining older files. A solutions architect must ensure that the captured data is stored at the lowest possible cost.

Which option is the MOST CHEAPEST?

A. Store individual files in Amazon S3 Glacier and store search metadata in object tags created in S3 Glacier Query S3 Glacier tags and retrieve the files from S3 Glacier.
B. Store individual files in Amazon S3. Use lifecycle policies to move the files to Amazon S3 Glacier after1 year. Query and retrieve the files from Amazon S3 or S3 Glacier. Most Voted
C. Archive individual files and store search metadata for each archive in Amazon S3. Use lifecycle policies to move the files to Amazon S3 Glacier after 1 year. Query and retrieve the files by searching for metadata from Amazon S3.
D. Archive individual files in Amazon S3. Use lifecycle policies to move the files to Amazon S3 Glacier after 1 year. Store search metadata in Amazon DynamoDB. Query the files from DynamoDB and retrieve them from Amazon S3 or S3 Glacier.

Correct Answer: B 📦
Community vote distribution
B (60%)
C (40%)

Question #142Topic 1
A business want to move a workload to AWS. The chief information security officer demands that any data stored in the cloud be encrypted at rest. The organization desires total control over the encryption key lifecycle management process.
Independent of AWS CloudTrail, the organization must be able to promptly delete key material and audit key use. The selected services should interface with other AWS storage services.

Which services adhere to these security standards?

A. AWS CloudHSM with the CloudHSM client
B. AWS Key Management Service (AWS KMS) with AWS CloudHSM Most Voted
C. AWS Key Management Service (AWS KMS) with an external key material origin
D. AWS Key Management Service (AWS KMS) with AWS managed customer master keys (CMKs) Most Voted

Correct Answer: A ⬙
Community vote distribution
D (50%)
B (44%)
6%

Question #143Topic 1
A business hosts an application on Amazon Web Services (AWS) and utilizes Amazon DynamoDB as the database. To handle data from the database, the organization adds Amazon EC2 instances to a private network. The organization connects to DynamoDB using two NAT instances.
The corporation want to decommission its NAT instances. A solutions architect must develop a solution that connects to DynamoDB and is self-managing.

Which approach is the MOST cost-effective in terms of meeting these requirements?

A. Create a gateway VPC endpoint to provide connectivity to DynamoDB. Most Voted
B. Configure a managed NAT gateway to provide connectivity to DynamoDB.
C. Establish an AWS Direct Connect connection between the private network and DynamoDB.
D. Deploy an AWS PrivateLink endpoint service between the private network and DynamoDB.

Correct Answer: B ⬙
Community vote distribution
A (81%)
Other

Question #144Topic 1
A business hosts a three-tier web application on a virtual private cloud (VPC) that spans various Availability Zones. For the application layer, Amazon EC2 instances are deployed in an Auto Scaling group.
The organization must develop an automated scaling strategy that analyzes the daily and weekly workload patterns for each resource. The setup must correctly scale resources in response to both forecasted and actual changes in consumption.

Which scaling approach, if any, should a solutions architect propose in order to satisfy these requirements?

A. Implement dynamic scaling with step scaling based on average CPU utilization from the EC2 instances.
B. Enable predictive scaling to forecast and scale. Configure dynamic scaling with target tracking.
C. Create an automated scheduled scaling action based on the traffic patterns of the web application.
D. Set up a simple scaling policy. Increase the cooldown period based on the EC2 instance startup time.

Correct Answer: B ⬙
Reference:
https://aws.amazon.com/blogs/aws/new-predictive-scaling-for-ec2-powered-by-machine-learning/

Community vote distribution
B (100%)

Question #145Topic 1
A business administers its own Amazon EC2 instances, which are configured to operate MySQL databases. The firm manages replication and scaling manually as demand grows or falls. The organization need a new solution that makes it easier to add or remove computing resources from its database layer as required. Additionally, the solution must increase speed, scalability, and durability with little work on the part of operations.

Which solution satisfies these criteria?

A. Migrate the databases to Amazon Aurora Serverless for Aurora MySQL. Most Voted
B. Migrate the databases to Amazon Aurora Serverless for Aurora PostgreSQL.
C. Combine the databases into one larger MySQL database. Run the larger database on larger EC2 instances.
D. Create an EC2 Auto Scaling group for the database tier. Migrate the existing databases to the new environment.

Correct Answer: D ⬡
Reference:
https://aws-quickstart.s3.amazonaws.com/quickstart-drupal/doc/drupal-on-the-aws-cloud.pdf
(p.6)
Community vote distribution
A (86%)
14%

Question #146Topic 1
A business want to transfer two apps to AWS. Both apps handle a huge number of files concurrently by accessing the same files. Both programs must read files with a minimum of delay.

Which architecture would a solutions architect suggest in this case?

A. Configure two AWS Lambda functions to run the applications. Create an Amazon EC2 instance with an instance store volume to store the data.
B. Configure two AWS Lambda functions to run the applications. Create an Amazon EC2 instance with an Amazon Elastic Block Store (Amazon EBS) volume to store the data.
C. Configure one memory optimized Amazon EC2 instance to run both applications simultaneously. Create an Amazon Elastic Block Store (Amazon EBS) volume with Provisioned IOPS to store the data.
D. Configure two Amazon EC2 instances to run both applications. Configure Amazon Elastic File System (Amazon EFS) with General Purpose performance mode and Bursting Throughput mode to store the data. Most Voted

Correct Answer: D ⬡
Community vote distribution
D (75%)
C (25%)

Question #147Topic 1
A corporation operates a containerized application in an on-premises data center using a Kubernetes cluster. The organization stores data in a MongoDB database. The organization want to transition some of these environments to AWS, but no modifications to the code or deployment methods are currently feasible. The business need a solution that lowers operating costs.

Which solution satisfies these criteria?

A. Use Amazon Elastic Container Service (Amazon ECS) with Amazon EC2 worker nodes for compute and MongoDB on EC2 for data storage.
B. Use Amazon Elastic Container Service (Amazon ECS) with AWS Fargate for

compute and Amazon DynamoDB for data storage.
C. Use Amazon Elastic Kubernetes Service (Amazon EKS) with Amazon EC2 worker nodes for compute and Amazon DynamoDB for data storage.
D. Use Amazon Elastic Kubernetes Service (Amazon EKS) with AWS Fargate for compute and Amazon DocumentDB (with MongoDB compatibility) for data storage. Most Voted

Correct Answer: C ⬚
Community vote distribution
D (89%)
11%

Question #148Topic 1
A business has a mobile chat application that utilizes an Amazon DynamoDB data storage. Users want as low delay as possible while reading fresh messages. A solutions architect's objective is to provide the optimum solution with the fewest possible application modifications.

Which technique should be chosen by the solutions architect?

A. Configure Amazon DynamoDB Accelerator (DAX) for the new messages table. Update the code to use the DAX endpoint.
B. Add DynamoDB read replicas to handle the increased read load. Update the application to point to the read endpoint for the read replicas.
C. Double the number of read capacity units for the new messages table in DynamoDB. Continue to use the existing DynamoDB endpoint.
D. Add an Amazon ElastiCache for Redis cache to the application stack. Update the application to point to the Redis cache endpoint instead of DynamoDB.

Correct Answer: A ⬚
Reference:
https://aws.amazon.com/blogs/aws/amazon-dynamodb-accelerator-dax-in-memory-caching-for-read-intensive-workloads/
Community vote distribution
A (67%)
C (33%)

Question #149Topic 1
A business utilizes Amazon Web Services to host all components of its three-tier application. The organization want to identify any possible security vulnerabilities inside the environment automatically. The organization want to keep track of any discoveries and to warn administrators in the event of a suspected breach.

Which solution satisfies these criteria?

A. Set up AWS WAF to evaluate suspicious web traffic. Create AWS Lambda functions to log any findings in Amazon CloudWatch and send email notifications to administrators.
B. Set up AWS Shield to evaluate suspicious web traffic. Create AWS Lambda functions to log any findings in Amazon CloudWatch and send email notifications to administrators.
C. Deploy Amazon Inspector to monitor the environment and generate findings in Amazon CloudWatch. Configure an Amazon EventBridge (Amazon CloudWatch Events) rule to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic to notify administrators by email.
D. Deploy Amazon GuardDuty to monitor the environment and generate findings in Amazon CloudWatch. Configure an Amazon EventBridge (Amazon CloudWatch Events) rule to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic to notify administrators by email. Most Voted

Correct Answer: C ⬚
Reference:
https://docs.aws.amazon.com/sns/latest/dg/sns-event-sources.html

Community vote distribution
D (65%)
C (35%)

Question #150Topic 1
On an Amazon RDS MySQL DB instance, a company's production application processes online transaction processing (OLTP) transactions. The firm is also offering a new reporting tool with the same data access. The reporting tool must be highly accessible and have no adverse effect on the production application's performance.

How is this accomplished?

A. Create hourly snapshots of the production RDS DB instance.
B. Create a Multi-AZ RDS Read Replica of the production RDS DB instance.
C. Create multiple RDS Read Replicas of the production RDS DB instance. Place the Read Replicas in an Auto Scaling group.
D. Create a Single-AZ RDS Read Replica of the production RDS DB instance. Create a second Single-AZ RDS Read Replica from the replica.

Correct Answer: B ⬨
Amazon RDS Read Replicas Now Support Multi-AZ Deployments
Amazon RDS Read Replicas enable you to create one or more read-only copies of your database instance within the same AWS Region or in a different AWS Region. Updates made to the source database are then asynchronously copied to your Read Replicas. In addition to providing scalability for read-heavy workloads, Read Replicas can be promoted to become a standalone database instance when needed.
Amazon RDS Multi-AZ deployments provide enhanced availability for database instances within a single AWS Region. With Multi-AZ, your data is synchronously replicated to a standby in a different Availability Zone (AZ). In the event of an infrastructure failure, Amazon RDS performs an automatic failover to the standby, minimizing disruption to your applications.
You can now use Read Replicas with Multi-AZ as part of a disaster recovery (DR) strategy for your production databases. A well-designed and tested DR plan is critical for maintaining business continuity after a disaster. A Read Replica in a different region than the source database can be used as a standby database and promoted to become the new production database in case of a regional disruption.
Reference:
https://aws.amazon.com/about-aws/whats-new/2018/01/amazon-rds-read-replicas-now-support-multi-az-deployments/#:~
Community vote distribution
B (67%)
C (33%)

Question #151Topic 1
A solutions architect must offer a fully managed alternative to an on-premises system that enables file interchange between workers and partners. Workers connecting from on-premises systems, remote employees, and external partners must have easy access to the solution.

Which solution satisfies these criteria?

A. Use AWS Transfer for SFTP to transfer files into and out of Amazon S3.
B. Use AWS Snowball Edge for local storage and large-scale data transfers.
C. Use Amazon FSx to store and transfer files to make them available remotely.
D. Use AWS Storage Gateway to create a volume gateway to store and transfer files to Amazon S3.

Correct Answer: A ⬨
Reference:
https://aws.amazon.com/aws-transfer-family/?whats-new-cards.sort-

by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc
Community vote distribution
A (67%)
D (33%)

Question #152Topic 1
A business is operating an application on Amazon EC2 instances on a private subnet. The program must be capable of storing and retrieving data from Amazon S3. To save expenses, the corporation wishes to optimize the configuration of its AWS resources.

How should the business go about doing this?

A. Deploy a NAT gateway to access the S3 buckets.
B. Deploy AWS Storage Gateway to access the S3 buckets.
C. Deploy an S3 gateway endpoint to access the S3 buckets. Most Voted
D. Deploy an S3 interface endpoint to access the S3 buckets.

Correct Answer: B ⬨
Community vote distribution
C (100%)

Question #153Topic 1
AWS is used by a business to store user data. The data is continually accessed, with peak consumption occurring during work hours. Access patterns vary, with some data going months without being accessed. A solutions architect must pick a solution that is both cost efficient and durable, while also maintaining a high degree of availability.

Which storage option satisfies these criteria?

A. Amazon S3 Standard
B. Amazon S3 Intelligent-Tiering
C. Amazon S3 Glacier Deep Archive
D. Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA)

Correct Answer: B ⬨
Community vote distribution
B (100%)

Question #154Topic 1
A business uses Amazon EC2 instances to operate a legacy data processing application. Although data is processed sequentially, the order of the findings is irrelevant.
The application is designed in a monolithic fashion. The only method for the business to expand the application in response to rising demand is to raise the instance size.
The engineers at the organization have chosen to redesign the program using a microservices architecture using Amazon Elastic Container Service (Amazon ECS).

What should a solutions architect propose for inter-microservice communication?

A. Create an Amazon Simple Queue Service (Amazon SQS) queue. Add code to the data producers, and send data to the queue. Add code to the data consumers to process data from the queue. Most Voted
B. Create an Amazon Simple Notification Service (Amazon SNS) topic. Add code to the data producers, and publish notifications to the topic. Add code to the data consumers to subscribe to the topic.
C. Create an AWS Lambda function to pass messages. Add code to the data producers to call the Lambda function with a data object. Add code to the data consumers to receive a data object that is passed from the Lambda function.
D. Create an Amazon DynamoDB table. Enable DynamoDB Streams. Add code to the data producers to insert data into the table. Add code to the data consumers to use the DynamoDB Streams API to detect new table entries and retrieve the data.

Correct Answer: D ⬨
Reference:
https://aws.amazon.com/blogs/database/dynamodb-streams-use-cases-and-design-
patterns/

Community vote distribution
A (91%)
9%

Question #155Topic 1
A business is considering migrating a classic application to AWS. Currently, the
application communicates with an on-premises storage system through NFS. The
program cannot be changed to perform this function using any other communication
protocol than NFS.

Which storage solution, if any, should a solutions architect propose for post-
migration use?

A. AWS DataSync
B. Amazon Elastic Block Store (Amazon EBS)
C. Amazon Elastic File System (Amazon EFS)
D. Amazon EMR File System (Amazon EMRFS)

Correct Answer: C ⬨
Community vote distribution
C (100%)

Question #156Topic 1
A business wishes to run its mission-critical apps in containers in order to
fulfill scalability and availability requirements. The corporation would rather
concentrate on key application maintenance. The firm does not want to be
responsible for provisioning and maintaining the containerized workload's
underlying infrastructure.

What actions should a solutions architect take to ensure that these criteria are
met?

A. Use Amazon EC2 instances, and install Docker on the instances.
B. Use Amazon Elastic Container Service (Amazon ECS) on Amazon EC2 worker nodes.
C. Use Amazon Elastic Container Service (Amazon ECS) on AWS Fargate.
D. Use Amazon EC2 instances from an Amazon Elastic Container Service (Amazon
ECS)-optimized Amazon Machine Image (AMI).

Correct Answer: C ⬨
Reference:
https://aws.amazon.com/fargate/?whats-new-cards.sort-
by=item.additionalFields.postDateTime&whats-new-cards.sort-order=desc&fargate-
blogs.sort- by=item.additionalFields.createdDate&fargate-blogs.sort-order=desc

Question #157Topic 1
A business operates a service that generates event data. The firm wishes to use
AWS for the purpose of processing event data as it is received. The data is
structured in a certain sequence that must be preserved during processing. The
firm wishes to deploy a solution with the lowest possible operating costs.

How is this to be accomplished by a solution architect?

A. Create an Amazon Simple Queue Service (Amazon SQS) FIFO queue to hold
messages. Set up an AWS Lambda function to process messages from the queue.
B. Create an Amazon Simple Notification Service (Amazon SNS) topic to deliver
notifications containing payloads to process. Configure an AWS Lambda function
as a subscriber.
C. Create an Amazon Simple Queue Service (Amazon SQS) standard queue to hold

messages. Set up an AWS Lambda function to process messages from the queue independently.
D. Create an Amazon Simple Notification Service (Amazon SNS) topic to deliver notifications containing payloads to process. Configure an Amazon Simple Queue Service (Amazon SQS) queue as a subscriber.

Correct Answer: A 📦
Community vote distribution
A (100%)

Question #158Topic 1
The database of a business is hosted in the us-east-1 Region on an Amazon Aurora MySQL DB cluster. The database is around 4 terabytes in size. The company's disaster recovery plan should be expanded to include the us-west-2 region. The firm must be able to fail over to us-west-2 within a 15-minute recovery time goal (RTO).

What recommendations should a solutions architect make to satisfy these requirements?

A. Create a Multi-Region Aurora MySQL DB cluster in us-east-1 and use-west-2. Use an Amazon Route 53 health check to monitor us-east-1 and fail over to us-west-2 upon failure. Most Voted
B. Take a snapshot of the DB cluster in us-east-1. Configure an Amazon EventBridge (Amazon CloudWatch Events) rule that invokes an AWS Lambda function upon receipt of resource events. Configure the Lambda function to copy the snapshot to us-west-2 and restore the snapshot in us-west-2 when failure is detected.
C. Create an AWS CloudFormation script to create another Aurora MySQL DB cluster in us-west-2 in case of failure. Configure an Amazon EventBridge (Amazon CloudWatch Events) rule that invokes an AWS Lambda function upon receipt of resource events. Configure the Lambda function to deploy the AWS CloudFormation stack in us-west-2 when failure is detected.
D. Recreate the database as an Aurora global database with the primary DB cluster in us-east-1 and a secondary DB cluster in us-west-2. Configure an Amazon EventBridge (Amazon CloudWatch Events) rule that invokes an AWS Lambda function upon receipt of resource events. Configure the Lambda function to promote the DB cluster in us-west-2 when failure is detected. Most Voted

Correct Answer: B 📦
Reference:
https://docs.aws.amazon.com/aws-backup/latest/devguide/eventbridge.html
Community vote distribution
D (55%)
A (45%)

Question #159Topic 1
A business is installing an application that handles near-real-time streaming data. The workload will be run on Amazon EC2 instances. The network architecture must be configured in such a way that the latency between nodes is as minimal as feasible.

Which network solution combination will suit these requirements? (Select two.)

A. Enable and configure enhanced networking on each EC2 instance. Most Voted
B. Group the EC2 instances in separate accounts.
C. Run the EC2 instances in a cluster placement group. Most Voted
D. Attach multiple elastic network interfaces to each EC2 instance.
E. Use Amazon Elastic Block Store (Amazon EBS) optimized instance types.

Correct Answer: CD 📦
Community vote distribution
AC (100%)

Question #160Topic 1
A business outsources its marketplace analytics management to a third-party partner. The vendor requires restricted programmatic access to the company's account's resources. All necessary policies have been established to ensure acceptable access.

Which new component provides the vendor the MOST SECURE access to the account?

A. Create an IAM user.
B. Implement a service control policy (SCP)
C. Use a cross-account role with an external ID.
D. Configure a single sign-on (SSO) identity provider.

Correct Answer: B ⬙
Reference:
https://docs.aws.amazon.com/organizations/latest/userguide/
orgs_manage_policies_scps.html#data-from-iam
Community vote distribution
C (100%)

Question #161Topic 1
A business uses two Amazon EC2 instances to run a dynamic web application. The organization has its own SSL certificate, which is used to complete SSL termination on each instance.
Recently, there has been an increase in traffic, and the operations team concluded that SSL encryption and decryption is causing the web servers' compute capacity to surpass its limit.

What should a solutions architect do to optimize the performance of an application?

A. Create a new SSL certificate using AWS Certificate Manager (ACM). Install the ACM certificate on each instance.
B. Create an Amazon S3 bucket. Migrate the SSL certificate to the S3 bucket. Configure the EC2 instances to reference the bucket for SSL termination.
C. Create another EC2 instance as a proxy server. Migrate the SSL certificate to the new instance and configure it to direct connections to the existing EC2 instances.
D. Import the SSL certificate into AWS Certificate Manager (ACM). Create an Application Load Balancer with an HTTPS listener that uses the SSL certificate from ACM.

Correct Answer: D ⬙
Community vote distribution
D (100%)

Question #162Topic 1
A corporation is doing an evaluation of an existing workload placed on AWS using the AWS Well-Architected Framework. The evaluation discovered a public-facing website operating on the same Amazon EC2 instance as a freshly installed Microsoft Active Directory domain controller to support other AWS services. A solutions architect must offer a new design that increases the architecture's security and reduces the administrative burden on IT workers.

What recommendations should the solutions architect make?

A. Use AWS Directory Service to create a managed Active Directory. Uninstall Active Directory on the current EC2 instance.
B. Create another EC2 instance in the same subnet and reinstall Active Directory on it. Uninstall Active Directory.
C. Use AWS Directory Service to create an Active Directory connector. Proxy Active Directory requests to the Active domain controller running on the current EC2 instance.
D. Enable AWS Single Sign-On (AWS SSO) with Security Assertion Markup Language

(SAML) 2.0 federation with the current Active Directory controller. Modify the
EC2 instance's security group to deny public access to Active Directory.

Correct Answer: A ⬡
AWS Managed Microsoft AD -
AWS Directory Service lets you run Microsoft Active Directory (AD) as a managed
service. AWS Directory Service for Microsoft Active Directory, also referred to
as AWS Managed Microsoft AD, is powered by Windows Server 2012 R2. When you
select and launch this directory type, it is created as a highly available pair
of domain controllers connected to your virtual private cloud (VPC). The domain
controllers run in different Availability Zones in a region of your choice. Host
monitoring and recovery, data replication, snapshots, and software updates are
automatically configured and managed for you.
Reference:
https://docs.aws.amazon.com/directoryservice/latest/admin-guide/
directory_microsoft_ad.html
Community vote distribution
A (100%)

Question #163Topic 1
Amazon Aurora was recently selected as the data repository for a company's
worldwide ecommerce platform. When developers run extensive reports, they
discover that the ecommerce application is performing badly. When monthly
reports are performed, a solutions architect notices that the ReadIOPS and
CPUUtilization metrics spike.

Which approach is the MOST cost-effective?

A. Migrate the monthly reporting to Amazon Redshift.
B. Migrate the monthly reporting to an Aurora Replica. Most Voted
C. Migrate the Aurora database to a larger instance class.
D. Increase the Provisioned IOPS on the Aurora instance.

Correct Answer: D ⬡
Community vote distribution
B (100%)

Question #164Topic 1
A business's backup data totals 700 terabytes (TB) and is kept in network
attached storage (NAS) at its data center. This backup data must be available in
the event of occasional regulatory inquiries and preserved for a period of seven
years. The organization has chosen to relocate its backup data from its on-
premises data center to Amazon Web Services (AWS). Within one month, the
migration must be completed. The company's public internet connection provides
500 Mbps of dedicated capacity for data transport.

What should a solutions architect do to ensure that data is migrated and stored
at the LOWEST possible cost?

A. Order AWS Snowball devices to transfer the data. Use a lifecycle policy to
transition the files to Amazon S3 Glacier Deep Archive.
B. Deploy a VPN connection between the data center and Amazon VPC. Use the AWS
CLI to copy the data from on premises to Amazon S3 Glacier.
C. Provision a 500 Mbps AWS Direct Connect connection and transfer the data to
Amazon S3. Use a lifecycle policy to transition the files to Amazon S3 Glacier
Deep Archive.
D. Use AWS DataSync to transfer the data and deploy a DataSync agent on
premises. Use the DataSync task to copy files from the on-premises NAS storage
to Amazon S3 Glacier.

Correct Answer: A ⬡
Community vote distribution
A (80%)
D (20%)

Question #165Topic 1
The main and secondary data centers of a business are located 500 miles (804.7 kilometers) apart and are linked through high-speed fiber-optic cable. For a mission-critical workload, the organization requires a highly available and secure network link between its data centers and an AWS VPC. A solutions architect must choose a connectivity solution that is as resilient as possible.

Which solution satisfies these criteria?

A. Two AWS Direct Connect connections from the primary data center terminating at two Direct Connect locations on two separate devices
B. A single AWS Direct Connect connection from each of the primary and secondary data centers terminating at one Direct Connect location on the same device
C. Two AWS Direct Connect connections from each of the primary and secondary data centers terminating at two Direct Connect locations on two separate devices
D. A single AWS Direct Connect connection from each of the primary and secondary data centers terminating at one Direct Connect location on two separate devices

Correct Answer: D ⬡
Community vote distribution
C (100%)

Question #166Topic 1
The dynamic website of a business is hosted on-premises in the United States. The firm is expanding throughout Europe and want to reduce site loading speeds for new European visitors. The backbone of the website must stay in the United States. A few days from now, the product will be introduced, and an instant answer is required.

What recommendations should the solutions architect make?

A. Launch an Amazon EC2 instance in us-east-1 and migrate the site to it.
B. Move the website to Amazon S3. Use cross-Region replication between Regions.
C. Use Amazon CloudFront with a custom origin pointing to the on-premises servers.
D. Use an Amazon Route 53 geo-proximity routing policy pointing to on-premises servers.

Correct Answer: C ⬡
Community vote distribution
C (100%)

Question #167Topic 1
A corporation used an AWS Direct Connect connection to copy 1 PB of data from a colocation facility to an Amazon S3 bucket in the us-east-1 Region. The business now wishes to replicate the data in another S3 bucket located in the us-west-2 Region. AWS Snowball is not permitted at the colocation facility.

What should a solutions architect suggest as a means of achieving this?

A. Order a Snowball Edge device to copy the data from one Region to another Region.
B. Transfer contents from the source S3 bucket to a target S3 bucket using the S3 console.
C. Use the aws S3 sync command to copy data from the source bucket to the destination bucket.
D. Add a cross-Region replication configuration to copy objects across S3 buckets in different Regions.

Correct Answer: D ⬡
Community vote distribution
C (57%)
D (43%)

Question #168Topic 1
A solutions architect must verify that API requests to Amazon DynamoDB are not
routed across the internet from Amazon EC2 instances inside a VPC.

What is the solution architect's role in achieving this? (Select two.)

A. Create a route table entry for the endpoint.
B. Create a gateway endpoint for DynamoDB.
C. Create a new DynamoDB table that uses the endpoint.
D. Create an ENI for the endpoint in each of the subnets of the VPC.
E. Create a security group entry in the default security group to provide
access.

Correct Answer: AB ⬡
A VPC endpoint enables you to privately connect your VPC to supported AWS
services and VPC endpoint services powered by AWS PrivateLink without requiring
an internet gateway, NAT device, VPN connection, or AWS Direct Connect
connection. Instances in your VPC do not require public IP addresses to
communicate with resources in the service. Traffic between your VPC and the
other service does not leave the Amazon network.

Gateway endpoints -
A gateway endpoint is a gateway that you specify as a target for a route in your
route table for traffic destined to a supported AWS service. The following AWS
services are supported:

Amazon S3 -

DynamoDB -
Reference:
https://docs.aws.amazon.com/vpc/latest/userguide/vpc-endpoints.html
Community vote distribution
AB (50%)
B (50%)

Question #169Topic 1
The application of a business is hosted on Amazon EC2 instances that are part of
an Auto Scaling group behind an Elastic Load Balancer. Each year, the firm
predicts a rise in traffic over a holiday, based on the application's history. A
solutions architect must develop a plan to guarantee that the Auto Scaling group
raises capacity proactively in order to minimize any effect on application
users' performance.

Which solution will satisfy these criteria?

A. Create an Amazon CloudWatch alarm to scale up the EC2 instances when CPU
utilization exceeds 90%.
B. Create a recurring scheduled action to scale up the Auto Scaling group before
the expected period of peak demand.
C. Increase the minimum and maximum number of EC2 instances in the Auto Scaling
group during the peak demand period.
D. Configure an Amazon Simple Notification Service (Amazon SNS) notification to
send alerts when there are autoscaling EC2_INSTANCE_LAUNCH events.

Correct Answer: B ⬡
Community vote distribution
B (100%)

Question #170Topic 1
A business wishes to migrate live datasets online from an on-premises NFS server
to an Amazon S3 bucket called DOC-EXAMPLE-BUCKET. Verification of data integrity
is essential both during and after the transmission. Additionally, the data must
be encrypted.

A solutions architect is migrating the data using an AWS solution.

Which solution satisfies these criteria?

A. AWS Storage Gateway file gateway
B. S3 Transfer Acceleration
C. AWS DataSync Most Voted
D. AWS Snowball Edge Storage Optimized

Correct Answer: C ☁
Reference:
https://aws.amazon.com/blogs/storage/transferring-data-between-aws-accounts-using-aws-datasync/
Community vote distribution
C (89%)
11%

Question #171Topic 1
A business utilizes Application Load Balancers (ALBs) across many AWS Regions.
The ALBs experience fluctuating traffic throughout the year.
The company's networking personnel must enable connection by allowing the ALBs'
IP addresses over the on-premises firewall.

Which solution is the MOST scalable and requires the least amount of setup changes?

A. Write an AWS Lambda script to get the IP addresses of the ALBs in different
Regions. Update the on-premises firewall's rule to allow the IP addresses of the
ALBs.
B. Migrate all ALBs in different Regions to the Network Load Balancer (NLBs).
Update the on-premises firewall's rule to allow the Elastic IP addresses of all
the NLBs.
C. Launch AWS Global Accelerator. Register the ALBs in different Regions to the
accelerator. Update the on-premises firewall's rule to allow static IP addresses
associated with the accelerator.
D. Launch a Network Load Balancer (NLB) in one Region. Register the private IP
addresses of the ALBs in different Regions with the NLB. Update the on- premises
firewall's rule to allow the Elastic IP address attached to the NLB.

Correct Answer: C ☁

Question #172Topic 1
Each month, a business must create sales reports. On the first day of each
month, the reporting procedure starts 20 Amazon EC2 instances. The procedure
lasts seven days and cannot be paused. The corporation wishes to keep expenses
low.

Which pricing strategy should the business pursue?

A. Reserved Instances
B. Spot Block Instances
C. On-Demand Instances
D. Scheduled Reserved Instances

Correct Answer: D ☁
Explanation -

Scheduled Reserved Instances -
Scheduled Reserved Instances (Scheduled Instances) enable you to purchase
capacity reservations that recur on a daily, weekly, or monthly basis, with a
specified start time and duration, for a one-year term. You reserve the capacity
in advance, so that you know it is available when you need it. You pay for the
time that the instances are scheduled, even if you do not use them.
Scheduled Instances are a good choice for workloads that do not run

continuously, but do run on a regular schedule. For example, you can use Scheduled
Instances for an application that runs during business hours or for batch processing that runs at the end of the week.
If you require a capacity reservation on a continuous basis, Reserved Instances might meet your needs and decrease costs.

How Scheduled Instances Work -
Amazon EC2 sets aside pools of EC2 instances in each Availability Zone for use as Scheduled Instances. Each pool supports a specific combination of instance type, operating system, and network.
To get started, you must search for an available schedule. You can search across multiple pools or a single pool. After you locate a suitable schedule, purchase it.
You must launch your Scheduled Instances during their scheduled time periods, using a launch configuration that matches the following attributes of the schedule that you purchased: instance type, Availability Zone, network, and platform. When you do so, Amazon EC2 launches EC2 instances on your behalf, based on the specified launch specification. Amazon EC2 must ensure that the EC2 instances have terminated by the end of the current scheduled time period so that the capacity is available for any other Scheduled Instances it is reserved for. Therefore, Amazon EC2 terminates the EC2 instances three minutes before the end of the current scheduled time period.
You can't stop or reboot Scheduled Instances, but you can terminate them manually as needed. If you terminate a Scheduled Instance before its current scheduled time period ends, you can launch it again after a few minutes. Otherwise, you must wait until the next scheduled time period.
The following diagram illustrates the lifecycle of a Scheduled Instance.

Reference:
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-scheduled-instances.html
Community vote distribution
C (67%)
A (33%)

Question #173Topic 1
A business offers an online service for uploading and transcoding video material for usage on any mobile device. The application design makes use of Amazon Elastic File System (Amazon EFS) Standard to gather and store the films so that they may be processed by numerous Amazon EC2 Linux instances. As the service's popularity has increased, the storage charges have become prohibitively costly.

Which storage option is the MOST CHEAPEST?

A. Use AWS Storage Gateway for files to store and process the video content.
B. Use AWS Storage Gateway for volumes to store and process the video content.
C. Use Amazon Elastic File System (Amazon EFS) for storing the video content. Once processing is complete, transfer the files to Amazon Elastic Block Store (Amazon EBS).
D. Use Amazon S3 for storing the video content. Move the files temporarily over to an Amazon ElasticBlock Store (Amazon EBS) volume attached to the server for processing. Most Voted

Correct Answer: A ⬙
Community vote distribution
D (56%)
A (33%)
11%

Question #174Topic 1
Each day, a corporation gets ten terabytes of instrumentation data from many machines situated in a single plant. The data is saved in JSON files on a storage area network (SAN) inside the factory's on-premises data center. The organization want to upload this data to Amazon S3 so that it may be accessible

by a number of other systems that do crucial near-real-time analytics. Because the data is deemed sensitive, a secure transmission is critical.

Which option provides the MOST SECURE method of data transfer?

A. AWS DataSync over public internet
B. AWS DataSync over AWS Direct Connect Most Voted
C. AWS Database Migration Service (AWS DMS) over public internet
D. AWS Database Migration Service (AWS DMS) over AWS Direct Connect

Correct Answer: D ⬨
Community vote distribution
B (100%)

Question #175Topic 1
A data science team needs storage to analyze logs on a nightly basis. The amount and quantity of logs are unclear, however they will be retained for 24 hours.

Which approach is the MOST cost-effective?

A. Amazon S3 Glacier
B. Amazon S3 Standard
C. Amazon S3 Intelligent-Tiering Most Voted
D. Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA)

Correct Answer: B ⬨
Reference:
https://aws.amazon.com/s3/storage-classes/#Unknown_or_changing_access
Community vote distribution
C (64%)
B (36%)

Question #176Topic 1
A development team is releasing a new product on AWS, and as part of the rollout, they are use AWS Lambda. For one of the Lambda functions, the team allocates 512 MB of RAM. The function is finished in two minutes with this memory allocation. Monthly, the function is executed millions of times, and the development team is worried about the cost. The team does experiments to determine the effect of various Lambda memory allocations on the function's cost.

Which measures will result in a decrease in the product's Lambda costs? (Select two.)

A. Increase the memory allocation for this Lambda function to 1,024 MB if this change causes the execution time of each function to be less than 1 minute.
B. Increase the memory allocation for this Lambda function to 1,024 MB if this change causes the execution time of each function to be less than 90 seconds.
C. Reduce the memory allocation for this Lambda function to 256 MB if this change causes the execution time of each function to be less than 4 minutes.
D. Increase the memory allocation for this Lambda function to 2,048 MB if this change causes the execution time of each function to be less than 1 minute.
E. Reduce the memory allocation for this Lambda function to 256 MB if this change causes the execution time of each function to be less than 5 minutes.

Correct Answer: AE ⬨
Community vote distribution
AC (100%)

Question #177Topic 1
A business is using a centralized Amazon Web Services account to store log data in many Amazon S3 buckets. Prior to uploading data to S3 buckets, a solutions architect must guarantee that the data is encrypted at rest. Additionally, data must be encrypted during transit.

Which solution satisfies these criteria?

A. Use client-side encryption to encrypt the data that is being uploaded to the S3 buckets. Most Voted
B. Use server-side encryption to encrypt the data that is being uploaded to the S3 buckets.
C. Create bucket policies that require the use of server-side encryption with S3 managed encryption keys (SSE-S3) for S3 uploads.
D. Enable the security option to encrypt the S3 buckets through the use of a default AWS Key Management Service (AWS KMS) key.

Correct Answer: B 📎
Reference:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/UsingEncryption.html
Community vote distribution
A (100%)

Question #178Topic 1
A business requires the migration of a Microsoft Windows-based application to AWS. This program utilizes a shared Windows file system that is tied to numerous Amazon EC2 Windows machines.

What actions should a solutions architect take to achieve this?

A. Configure a volume using Amazon Elastic File System (Amazon EFS). Mount the EFS volume to each Windows instance.
B. Configure AWS Storage Gateway in Volume Gateway mode. Mount the volume to each Windows instance.
C. Configure Amazon FSx for Windows File Server. Mount the Amazon FSx volume to each Windows instance.
D. Configure an Amazon Elastic Block Store (Amazon EBS) volume with the required size. Attach each EC2 instance to the volume. Mount the file system within the volume to each Windows instance.

Correct Answer: C 📎

Question #179Topic 1
An IAM group is associated with the following IAM policy. This is the group's sole policy.

What are the policy's effective IAM permissions for group members?

A. Group members are permitted any Amazon EC2 action within the us-east-1 Region. Statements after the Allow permission are not applied.
B. Group members are denied any Amazon EC2 permissions in the us-east-1 Region unless they are logged in with multi-factor authentication (MFA).
C. Group members are allowed the ec2:StopInstances and ec2:TerminateInstances permissions for all Regions when logged in with multi-factor authentication (MFA). Group members are permitted any other Amazon EC2 action.
D. Group members are allowed the ec2:StopInstances and ec2:TerminateInstances permissions for the us-east-1 Region only when logged in with multi-factor authentication (MFA). Group members are permitted any other Amazon EC2 action within the us-east-1 Region.

Correct Answer: D 📎
Community vote distribution
D (100%)

Question #180Topic 1
A business is searching for a solution that would enable them to store video archives created from archived news footage on AWS. The business must keep expenses down and will seldom need to recover these data. When files are

required, they must be provided within a five-minute window.

Which approach is the MOST cost-effective?

A. Store the video archives in Amazon S3 Glacier and use Expedited retrievals.
B. Store the video archives in Amazon S3 Glacier and use Standard retrievals.
C. Store the video archives in Amazon S3 Standard-Infrequent Access (S3 Standard-IA).
D. Store the video archives in Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA).

Correct Answer: A ◈
Community vote distribution
D (57%)
A (43%)

Question #181Topic 1
A firm that now hosts a web application on-premises is ready to migrate to AWS and launch a newer version of the program. The organization must route requests depending on the URL query string to either the AWS- or on-premises-hosted application. The on-premises application is inaccessible over the internet, and a VPN connection between Amazon VPC and the company's data center is formed. The firm intends to deploy this application using an Application Load Balancer (ALB).

Which solution satisfies these criteria?

A. Use two ALBs: one for on-premises and one for the AWS resource. Add hosts to each target group of each ALB. Route with Amazon Route 53 based on the URL query string.
B. Use two ALBs: one for on-premises and one for the AWS resource. Add hosts to the target group of each ALB. Create a software router on an EC2 instance based on the URL query string.
C. Use one ALB with two target groups: one for the AWS resource and one for on premises. Add hosts to each target group of the ALB. Configure listener rules based on the URL query string. Most Voted
D. Use one ALB with two AWS Auto Scaling groups: one for the AWS resource and one for on premises. Add hosts to each Auto Scaling group. Route with Amazon Route 53 based on the URL query string.

Correct Answer: A ◈
Community vote distribution
C (100%)

Question #182Topic 1
Under its registered parent domain, a firm hosts many websites for various lines of business. According to the subdomain, anyone visiting these websites will be directed to the proper backend Amazon EC2 instance. Static webpages, pictures, and server-side programming such as PHP and JavaScript are all hosted on the websites.
Certain websites see a spike in traffic during the first two hours of business, followed by consistent use throughout the remainder of the day. A solutions architect must build a system that adapts capacity automatically to certain traffic patterns while being cost effective.

Which AWS service or feature combination will suit these requirements? (Select two.)

A. AWS Batch
B. Network Load Balancer
C. Application Load Balancer Most Voted
D. Amazon EC2 Auto Scaling Most Voted
E. Amazon S3 website hosting

Correct Answer: DE 🗳
Community vote distribution
CD (93%)
7%

Question #183Topic 1
As a web application, a corporation has built a new video game. The application
is deployed in a three-tier design using Amazon RDS for MySQL in a VPC. Multiple
players will compete simultaneously online through the database layer. The
makers of the game want to show a top-10 scoreboard in near-real time and to
enable players to pause and resume the game while retaining their existing
scores.

What actions should a solutions architect take to ensure that these criteria are
met?

A. Set up an Amazon ElastiCache for Memcached cluster to cache the scores for
the web application to display.
B. Set up an Amazon ElastiCache for Redis cluster to compute and cache the
scores for the web application to display. Most Voted
C. Place an Amazon CloudFront distribution in front of the web application to
cache the scoreboard in a section of the application.
D. Create a read replica on Amazon RDS for MySQL to run queries to compute the
scoreboard and serve the read traffic to the web application.

Correct Answer: D 🗳
Community vote distribution
B (100%)

Question #184Topic 1
A business wishes to migrate its on-premises network attached storage (NAS) to
Amazon Web Services (AWS). The corporation wishes to make the data accessible to
any Linux instance inside its VPC and to guarantee that changes to the data
store are immediately synced across all instances that use it. The bulk of data
is viewed infrequently, whereas certain files are read concurrently by numerous
people.

Which option satisfies these criteria and is the MOST cost-effective?

A. Create an Amazon Elastic Block Store (Amazon EBS) snapshot containing the
data. Share it with users within the VPC.
B. Create an Amazon S3 bucket that has a lifecycle policy set to transition the
data to S3 Standard-Infrequent Access (S3 Standard-IA) after the appropriate
number of days.
C. Create an Amazon Elastic File System (Amazon EFS) file system within the VPC.
Set the throughput mode to Provisioned and to the required amount of IOPS to
support concurrent usage.
D. Create an Amazon Elastic File System (Amazon EFS) file system within the VPC.
Set the lifecycle policy to transition the data to EFS Infrequent Access (EFS
IA) after the appropriate number of days.

Correct Answer: D 🗳

Question #185Topic 1
For many years, a business has stored analytics data on an Amazon RDS instance.
The firm hired a solutions architect to develop an API that would enable
consumers to access this data. The program is expected to have periods of
idleness but may get surges of traffic within seconds.

Which option should the architect recommend?

A. Set up an Amazon API Gateway and use Amazon ECS.
B. Set up an Amazon API Gateway and use AWS Elastic Beanstalk.
C. Set up an Amazon API Gateway and use AWS Lambda functions.

D. Set up an Amazon API Gateway and use Amazon EC2 with Auto Scaling.

Correct Answer: C 📦
AWS Lambda -
With Lambda, you can run code for virtually any type of application or backend service ג€" all with zero administration. Just upload your code and Lambda takes care of everything required to run and scale your code with high availability. You can set up your code to automatically trigger from other AWS services or call it directly from any web or mobile app.

How it works -

Amazon API Gateway -
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. APIs act as the "front door" for applications to access data, business logic, or functionality from your backend services. Using API Gateway, you can create RESTful APIs and
WebSocket APIs that enable real-time two-way communication applications. API Gateway supports containerized and serverless workloads, as well as web applications.
API Gateway handles all the tasks involved in accepting and processing up to hundreds of thousands of concurrent API calls, including traffic management, CORS support, authorization and access control, throttling, monitoring, and API version management. API Gateway has no minimum fees or startup costs. You pay for the API calls you receive and the amount of data transferred out and, with the API Gateway tiered pricing model, you can reduce your cost as your API usage scales.
Reference:
https://aws.amazon.com/lambda/
https://aws.amazon.com/api-gateway/

Question #186Topic 1
A mobile gaming startup uses Amazon EC2 instances to host application servers. Every 15 minutes, the servers get updates from players. The mobile game generates a JSON object containing the game's progress since the last update and delivers it to an Application Load Balancer. As the mobile game is played, it loses game updates. The business intends to develop a long-lasting method for older devices to get updates.

What should a solution architect propose for system decoupling?

A. Use Amazon Kinesis Data Streams to capture the data and store the JSON object in Amazon S3.
B. Use Amazon Kinesis Data Firehose to capture the data and store the JSON object in Amazon S3.
C. Use Amazon Simple Queue Service (Amazon SQS) FIFO queues to capture the data and EC2 instances to process the messages in the queue.
D. Use Amazon Simple Notification Service (Amazon SNS) to capture the data and EC2 instances to process the messages sent to the Application Load Balancer.

Correct Answer: C 📦
Community vote distribution
A (50%)
C (50%)

Question #187Topic 1
A recent review of a company's IT spending demonstrates the critical necessity of lowering backup costs. The chief information officer of the organization want to simplify the on-premises backup architecture and cut expenses by phasing out physical backup tapes. The company's current investment in on-premises backup systems and procedures must be protected.

What recommendations should a solutions architect make?

A. Set up AWS Storage Gateway to connect with the backup applications using the NFS interface.
B. Set up an Amazon Elastic File System (Amazon EFS) file system that connects with the backup applications using the NFS interface.
C. Set up an Amazon Elastic File System (Amazon EFS) file system that connects with the backup applications using the iSCSI interface.
D. Set up AWS Storage Gateway to connect with the backup applications using the iSCSI-virtual tape library (VTL) interface. Most Voted

Correct Answer: D 🗳
Community vote distribution
D (100%)

Question #188Topic 1
A business maintains an internal web-based application. The application is deployed on Amazon EC2 instances that are routed via an Application Load Balancer. The instances are distributed across several Availability Zones through an Amazon EC2 Auto Scaling group. During business hours, the Auto Scaling group grows up to 20 instances, then scales down to two instances overnight. Staff are saying that the program is very sluggish to start the day, but performs fine by mid-morning.

How might the scale be altered to accommodate employee concerns while keeping expenses low?

A. Implement a scheduled action that sets the desired capacity to 20 shortly before the office opens.
B. Implement a step scaling action triggered at a lower CPU threshold, and decrease the cooldown period.
C. Implement a target tracking action triggered at a lower CPU threshold, and decrease the cooldown period.
D. Implement a scheduled action that sets the minimum and maximum capacity to 20 shortly before the office opens.

Correct Answer: A 🗳
Reference:
https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-scaling-simple-step.html
Community vote distribution
A (50%)
C (33%)
B (17%)

Question #189Topic 1
A business must adhere to a regulatory obligation that all emails be saved and preserved outside for a period of seven years. An administrator has prepared compressed email files on-premises and wishes to have the data transferred to AWS storage through a managed service.

Which managed service should be recommended by a solutions architect?

A. Amazon Elastic File System (Amazon EFS)
B. Amazon S3 Glacier
C. AWS Backup
D. AWS Storage Gateway

Correct Answer: D 🗳
Reference:
https://aws.amazon.com/storagegateway/faqs/
Community vote distribution
D (67%)
C (33%)

Question #190Topic 1
A business hosts its website on Amazon EC2 instances that are distributed across
several Availability Zones through an Elastic Load Balancer. The instances are
managed as part of an EC2 Auto Scaling group. The website stores product manuals
for download through Amazon Elastic Block Store (Amazon EBS) volumes. The
organization often changes the product information, which means that new
instances created by the Auto Scaling group frequently have out-of-date data. It
may take up to 30 minutes for all changes to be received by fresh instances.
Additionally, the changes involve resizing the EBS volumes during business
hours.
The corporation want to guarantee that product manuals are constantly current
and that the architecture adapts fast to rising customer demand.
A solutions architect must satisfy these objectives without requiring the
business to upgrade its application code or website.

What actions should the solutions architect take to achieve this objective?

A. Store the product manuals in an EBS volume. Mount that volume to the EC2
instances.
B. Store the product manuals in an Amazon S3 bucket. Redirect the downloads to
this bucket.
C. Store the product manuals in an Amazon Elastic File System (Amazon EFS)
volume. Mount that volume to the EC2 instances. Most Voted
D. Store the product manuals in an Amazon S3 Standard-Infrequent Access (S3
Standard-IA) bucket. Redirect the downloads to this bucket.

Correct Answer: B 🎁
Community vote distribution
C (100%)

Question #191Topic 1
On Amazon EC2, a business hosts an ecommerce application. The application is
composed of a stateless web layer that needs a minimum of 10 instances and a
maximum of 250 instances to run. 80% of the time, the program needs 50
instances.

Which solution should be adopted in order to keep expenses down?

A. Purchase Reserved Instances to cover 250 instances.
B. Purchase Reserved Instances to cover 80 instances. Use Spot Instances to
cover the remaining instances.
C. Purchase On-Demand Instances to cover 40 instances. Use Spot Instances to
cover the remaining instances.
D. Purchase Reserved Instances to cover 50 instances. Use On-Demand and Spot
Instances to cover the remaining instances.

Correct Answer: D 🎁
Reserved Instances -
Having 50 EC2 RIs provide a discounted hourly rate and an optional capacity
reservation for EC2 instances. AWS Billing automatically applies your RI's
discounted rate when attributes of EC2 instance usage match attributes of an
active RI.
If an Availability Zone is specified, EC2 reserves capacity matching the
attributes of the RI. The capacity reservation of an RI is automatically
utilized by running instances matching these attributes.
You can also choose to forego the capacity reservation and purchase an RI that
is scoped to a region. RIs that are scoped to a region automatically apply the
RI's discount to instance usage across AZs and instance sizes in a region,
making it easier for you to take advantage of the RI's discounted rate.

On-Demand Instance -
On-Demand instances let you pay for compute capacity by the hour or second
(minimum of 60 seconds) with no long-term commitments. This frees you from the

costs and complexities of planning, purchasing, and maintaining hardware and transforms what are commonly large fixed costs into much smaller variable costs. The pricing below includes the cost to run private and public AMIs on the specified operating system (ג€Windows Usageג€ prices apply to Windows Server 2003 R2,
2008, 2008 R2, 2012, 2012 R2, 2016, and 2019). Amazon also provides you with additional instances for Amazon EC2 running Microsoft Windows with SQL Server, Amazon EC2 running SUSE Linux Enterprise Server, Amazon EC2 running Red Hat Enterprise Linux and Amazon EC2 running IBM that are priced differently.

Spot Instances -
A Spot Instance is an unused EC2 instance that is available for less than the On-Demand price. Because Spot Instances enable you to request unused EC2 instances at steep discounts, you can lower your Amazon EC2 costs significantly. The hourly price for a Spot Instance is called a Spot price. The Spot price of each instance type in each Availability Zone is set by Amazon EC2, and adjusted gradually based on the long-term supply of and demand for Spot Instances. Your Spot Instance runs whenever capacity is available and the maximum price per hour for your request exceeds the Spot price.
Reference:
https://aws.amazon.com/ec2/pricing/reserved-instances/
https://aws.amazon.com/ec2/pricing/on-demand/
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-spot-instances.html
Community vote distribution
D (100%)

Question #192Topic 1
A business intends to install an Amazon RDS database instance powered by Amazon Aurora. The organization has a 90-day backup retention policy.

Which solution, if any, should a solutions architect suggest?

A. Set the backup retention period to 90 days when creating the RDS DB instance.
B. Configure RDS to copy automated snapshots to a user-managed Amazon S3 bucket with a lifecycle policy set to delete after 90 days.
C. Create an AWS Backup plan to perform a daily snapshot of the RDS database with the retention set to 90 days. Create an AWS Backup job to schedule the execution of the backup plan daily.
D. Use a daily scheduled event with Amazon CloudWatch Events to execute a custom AWS Lambda function that makes a copy of the RDS automated snapshot. Purge snapshots older than 90 days.

Correct Answer: B 🗳
Reference:
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/
USER_WorkingWithAutomatedBackups.html
Community vote distribution
C (50%)
B (50%)

Question #193Topic 1
A solutions architect is configuring a virtual private cloud (VPC) with public and private subnets. The VPC and subnets are configured using IPv4 CIDR blocks. Each of the three Availability Zones (AZs) has one public and one private subnet. An internet gateway is used to connect public subnets to the internet. Private subnets must have internet connectivity in order for Amazon EC2 instances to obtain software upgrades.

What should the solutions architect do to allow private subnets to connect to the internet?

A. Create three NAT gateways, one for each public subnet in each AZ. Create a private route table for each AZ that forwards non-VPC traffic to the NAT gateway in its AZ. Most Voted

B. Create three NAT instances, one for each private subnet in each AZ. Create a private route table for each AZ that forwards non-VPC traffic to the NAT instance in its AZ.
C. Create a second internet gateway on one of the private subnets. Update the route table for the private subnets that forward non-VPC traffic to the private internet gateway.
D. Create an egress-only internet gateway on one of the public subnets. Update the route table for the private subnets that forward non-VPC traffic to the egress- only internet gateway.

Correct Answer: A ⬙
Community vote distribution
A (71%)
B (29%)

Question #194Topic 1
Currently, a corporation has 250 TB of backup data saved in Amazon S3 using a vendor-specific format. The firm wishes to extract files from Amazon S3, convert them to an industry-standard format, and then re-upload them to Amazon S3. The firm want to reduce the costs connected with data transmission for this session.

What actions should a solutions architect take to achieve this?

A. Install the conversion software as an Amazon S3 batch operation so the data is transformed without leaving Amazon S3.
B. Install the conversion software onto an on-premises virtual machine. Perform the transformation and re-upload the files to Amazon S3 from the virtual machine.
C. Use AWS Snowball Edge devices to export the data and install the conversion software onto the devices. Perform the data transformation and re-upload the files to Amazon S3 from the Snowball Edge devices.
D. Launch an Amazon EC2 instance in the same Region as Amazon S3 and install the conversion software onto the instance. Perform the transformation and re- upload the files to Amazon S3 from the EC2 instance.

Correct Answer: D ⬙
Community vote distribution
D (100%)

Question #195Topic 1
A business's applications are hosted on on-premises servers. The corporation is rapidly depleting its storage capacity. The programs make use of both block and network file storage. The business need a high-performance solution that enables local caching without requiring it to re-architect its current applications.

Which steps should a solutions architect perform in combination to satisfy these requirements? (Select two.)

A. Mount Amazon S3 as a file system to the on-premises servers.
B. Deploy an AWS Storage Gateway file gateway to replace NFS storage.
C. Deploy AWS Snowball Edge to provision NFS mounts to on-premises servers.
D. Deploy an AWS Storage Gateway volume gateway to replace the block storage.
E. Deploy Amazon Elastic Fife System (Amazon EFS) volumes and mount them to on-premises servers.

Correct Answer: DE ⬙
Community vote distribution
BD (100%)

Question #196Topic 1
A business hosts a web service on Amazon EC2 instances that are routed via an Application Load Balancer. The instances are distributed across two Availability Zones through an Amazon EC2 Auto Scaling group. At all times, the corporation requires a minimum of four instances to achieve the needed service level

agreement (SLA) requirements while keeping expenses low.

How can the organization maintain compliance with the SLA if an Availability Zone fails?

A. Add a target tracking scaling policy with a short cooldown period.
B. Change the Auto Scaling group launch configuration to use a larger instance type.
C. Change the Auto Scaling group to use six servers across three Availability Zones. Most Voted
D. Change the Auto Scaling group to use eight servers across two Availability Zones.

Correct Answer: A ⬙
Community vote distribution
C (54%)
A (38%)
8%

Question #197Topic 1
A firm is using the AWS Cloud to run a three-tier ecommerce application. The firm hosts the website on Amazon S3 and combines it with a sales API. The API is hosted by the firm on three Amazon EC2 instances that are connected through an Application Load Balancer (ALB). The API is composed of static and dynamic front-end content, as well as back-end workers that asynchronously execute sales requests.
The corporation anticipates a big and abrupt surge in sales requests during events celebrating the introduction of new items.

What should a solutions architect prescribe to assure the effective processing of all requests?

A. Add an Amazon CloudFront distribution for the dynamic content. Increase the number of EC2 instances to handle the increase in traffic.
B. Add an Amazon CloudFront distribution for the static content. Place the EC2 instances in an Auto Scaling group to launch new instances based on network traffic.
C. Add an Amazon CloudFront distribution for the dynamic content. Add an Amazon ElastiCache instance in front of the ALB to reduce traffic for the API to handle.
D. Add an Amazon CloudFront distribution for the static content. Add an Amazon Simple Queue Service (Amazon SQS) queue to receive requests from the website for later processing by the EC2 instances. Most Voted

Correct Answer: D ⬙
Reference:
https://aws.amazon.com/sqs/
Community vote distribution
D (65%)
B (35%)

Question #198Topic 1
Amazon EC2 instances are used to execute an application. The application's sensitive data is housed in an Amazon S3 bucket. The bucket must be shielded from internet access while yet allowing access to it for services inside the VPC.

Which activities should solutions archived take in order to do this? (Select two.)

A. Create a VPC endpoint for Amazon S3.
B. Enable server access logging on the bucket.
C. Apply a bucket policy to restrict access to the S3 endpoint.
D. Add an S3 ACL to the bucket that has sensitive information.

E. Restrict users using the IAM policy to use the specific bucket.

Correct Answer: AC 📨
Community vote distribution
AC (100%)

Question #199Topic 1
A business's program creates a vast number of files, each around 5 MB in size.
Amazon S3 is used to store the files. According to company policy, files must be
retained for a period of four years before they may be erased. Immediate access
is always essential due to the fact that the files contain vital business data
that is difficult to replicate. The files are commonly viewed within the first
30 days after the establishment of the item, but are seldom accessed beyond that
time period.

Which storage option is the MOST CHEAPEST?

A. Create an S3 bucket lifecycle policy to move files from S3 Standard to S3
Glacier 30 days from object creation. Delete the files 4 years after object
creation.
B. Create an S3 bucket lifecycle policy to move files from S3 Standard to S3 One
Zone-Infrequent Access (S3 One Zone-IA) 30 days from object creation. Delete the
files 4 years after object creation.
C. Create an S3 bucket lifecycle policy to move files from S3 Standard to S3
Standard-Infrequent Access (S3 Standard-IA) 30 days from object creation. Delete
the files 4 years after object creation. Most Voted
D. Create an S3 bucket lifecycle policy to move files from S3 Standard to S3
Standard-Infrequent Access (S3 Standard-IA) 30 days from object creation. Move
the files to S3 Glacier 4 years after object creation.

Correct Answer: C 📨
Community vote distribution
C (58%)
B (42%)

Question #200Topic 1
A business has a bucket on Amazon S3 that includes mission-critical data. The
firm wishes to safeguard this data against inadvertent deletion. The data should
remain available, and the user should be able to erase it on purpose.

Which actions should a solutions architect use in conjunction to achieve this?
(Select two.)

A. Enable versioning on the S3 bucket.
B. Enable MFA Delete on the S3 bucket.
C. Create a bucket policy on the S3 bucket.
D. Enable default encryption on the S3 bucket.
E. Create a lifecycle policy for the objects in the S3 bucket.

Correct Answer: AB 📨
Reference:
https://acloud.guru/forums/aws-certified-solutions-architect-associate/
discussion/-LNMknp7BP01IYVSlee8/Final%20practice%20exam

Question #201Topic 1
A business maintains an application that processes incoming communications.
These messages are then digested in a matter of seconds by dozens of other apps
and microservices.
The quantity of communications fluctuates significantly and sometimes peaks
above 100,000 per second. The firm wishes to divorce the solution from its
underlying infrastructure and thereby boost its scalability.

Which solution satisfies these criteria?

A. Persist the messages to Amazon Kinesis Data Analytics. All the applications will read and process the messages.
B. Deploy the application on Amazon EC2 instances in an Auto Scaling group, which scales the number of EC2 instances based on CPU metrics.
C. Write the messages to Amazon Kinesis Data Streams with a single shard. All applications will read from the stream and process the messages.
D. Publish the messages to an Amazon Simple Notification Service (Amazon SNS) topic with one or more Amazon Simple Queue Service (Amazon SQS) subscriptions. All applications then process the messages from the queues. Most Voted

Correct Answer: A 🗳
Reference:
https://aws.amazon.com/kinesis/data-streams/faqs/
Community vote distribution
D (100%)

Question #202Topic 1
A business is transferring its infrastructure from on-premises to the AWS Cloud. One of the company's apps stores data on a Windows file server farm that utilizes Distributed File System Replication (DFSR) to maintain data consistency. The file server farm must be replaced by a solutions architect.

Which solution architect service should be used?

A. Amazon Elastic File System (Amazon EFS)
B. Amazon FSx Most Voted
C. Amazon S3
D. AWS Storage Gateway

Correct Answer: B 🗳
Migrating Existing Files to Amazon FSx for Windows File Server Using AWS DataSync
We recommend using AWS DataSync to transfer data between Amazon FSx for Windows File Server file systems. DataSync is a data transfer service that simplifies, automates, and accelerates moving and replicating data between on-premises storage systems and other AWS storage services over the internet or
AWS Direct Connect. DataSync can transfer your file system data and metadata, such as ownership, time stamps, and access permissions.
Reference:
https://docs.aws.amazon.com/fsx/latest/WindowsGuide/migrate-files-to-fsx-datasync.html
Community vote distribution
B (100%)

Question #203Topic 1
On AWS, a business operates a high-performance computing (HPC) workload. The demand necessitated low network latency and high network throughput through closely linked node-to-node communication. Amazon EC2 instances are started with default configurations and are appropriately scaled for computation and storage capabilities.

What should a solutions architect advise to optimize the workload's performance?

A. Choose a cluster placement group while launching Amazon EC2 instances.
B. Choose dedicated instance tenancy while launching Amazon EC2 instances.
C. Choose an Elastic Inference accelerator while launching Amazon EC2 instances.
D. Choose the required capacity reservation while launching Amazon EC2 instances.

Correct Answer: A 🗳
Community vote distribution
A (100%)

Question #204Topic 1

A business hosts its corporate content management platform on AWS in a single region but requires the platform to function across several regions. The organization operates its microservices on an Amazon Elastic Kubernetes Service (Amazon EKS) cluster. The EKS cluster is responsible for storing and retrieving items from Amazon S3. Additionally, the EKS cluster utilizes Amazon DynamoDB to store and retrieve information.

Which actions should a solutions architect do in combination to deploy the platform across several regions? (Select two.)

A. Replicate the EKS cluster with cross-Region replication.
B. Use Amazon API Gateway to create a global endpoint to the EKS cluster.
C. Use AWS Global Accelerator endpoints to distribute the traffic to multiple Regions. Most Voted
D. Use Amazon S3 access points to give access to the objects across multiple Regions. Configure DynamoDB Accelerator (DAX). Connect DAX to the relevant tables.
E. Deploy an EKS cluster and an S3 bucket in another Region. Configure cross-Region replication on both S3 buckets. Turn on global tables for DynamoDB. Most Voted

Correct Answer: BE ✉
Community vote distribution
CE (100%)

Question #205Topic 1
A business has two applications: one that sends messages with payloads to be processed and another that receives messages with payloads. The organization wishes to create an Amazon Web Services (AWS) solution to manage communications between the two apps. The sender program is capable of sending around 1,000 messages every hour. Processing of communications may take up to two days. If the messages do not process, they must be kept to avoid interfering with the processing of subsequent messages.

Which solution satisfies these parameters and is the MOST OPTIMAL in terms of operational efficiency?

A. Set up an Amazon EC2 instance running a Redis database. Configure both applications to use the instance. Store, process, and delete the messages, respectively.
B. Use an Amazon Kinesis data stream to receive the messages from the sender application. Integrate the processing application with the Kinesis Client Library (KCL).
C. Integrate the sender and processor applications with an Amazon Simple Queue Service (Amazon SQS) queue. Configure a dead-letter queue to collect the messages that failed to process.
D. Subscribe the processing application to an Amazon Simple Notification Service (Amazon SNS) topic to receive notifications to process. Integrate the sender application to write to the SNS topic.

Correct Answer: C ✉
Community vote distribution
C (100%)

Question #206Topic 1
A business use a VPC that is provisioned with a CIDR block of 10.10.1.0/24. Due to continuing expansion, this block's IP address space may soon be consumed. A solutions architect must expand the VPC's IP address capacity.

Which method satisfies these criteria with the LEAST amount of operational overhead?

A. Create a new VPC. Associate a larger CIDR block.
B. Add a secondary CIDR block of 10.10.2.0/24 to the VPC. Most Voted

C. Resize the existing VPC CIDR block from 10.10.1.0/24 to 10.10.1.0/16.
D. Establish VPC peering with a new VPC that has a CIDR block of 10.10.1.0/16.

Correct Answer: A ⬦
Community vote distribution
B (100%)

Question #207Topic 1
A business hosts its website on Amazon EC2 instances that are routed via an ELB
Application Load Balancer. The DNS is handled via Amazon Route 53. The firm want
to establish a backup website with a message, phone number, and email address
for users to contact in the event that the original website becomes unavailable.

How should this solution be implemented?

A. Use Amazon S3 website hosting for the backup website and Route 53 failover
routing policy.
B. Use Amazon S3 website hosting for the backup website and Route 53 latency
routing policy.
C. Deploy the application in another AWS Region and use ELB health checks for
failover routing.
D. Deploy the application in another AWS Region and use server-side redirection
on the primary website.

Correct Answer: A ⬦
Community vote distribution
A (100%)

Question #208Topic 1
A firm's on-premises business program creates hundreds of files daily. These
files are kept on an SMB file share and need a connection to the application
servers with a low latency. A new business policy requires that all files
created by applications be moved to AWS. A VPN connection to AWS is already
established.
The application development team lacks the time required to modify the
application's code in order to migrate it to AWS.

Which service should a solutions architect propose to enable an application to
transfer files to Amazon Web Services (AWS)?

A. Amazon Elastic File System (Amazon EFS)
B. Amazon FSx for Windows File Server
C. AWS Snowball
D. AWS Storage Gateway

Correct Answer: B ⬦
Reference:
https://aws.amazon.com/blogs/storage/accessing-smb-file-shares-remotely-with-
amazon-fsx-for-windows-file-server/
Community vote distribution
D (100%)

Question #209Topic 1
A business uses WebSockets to host a live chat application on its on-premises
servers. The firm want to transfer the application to Amazon Web Services (AWS).
Traffic to the application is uneven, and the firm anticipates more traffic with
sudden spikes in the future.
The business need a highly scalable solution that requires minimal server
maintenance or sophisticated capacity planning.

Which solution satisfies these criteria?

A. Use Amazon API Gateway and AWS Lambda with an Amazon DynamoDB table as the
data store. Configure the DynamoDB table for provisioned capacity.

B. Use Amazon API Gateway and AWS Lambda with an Amazon DynamoDB table as the data store. Configure the DynamoDB table for on-demand capacity.
C. Run Amazon EC2 instances behind an Application Load Balancer in an Auto Scaling group with an Amazon DynamoDB table as the data store. Configure the DynamoDB table for on-demand capacity.
D. Run Amazon EC2 instances behind a Network Load Balancer in an Auto Scaling group with an Amazon DynamoDB table as the data store. Configure the DynamoDB table for provisioned capacity.

Correct Answer: B ⬨
Community vote distribution
B (75%)
C (25%)

Question #210Topic 1
A business intends to migrate many gigabytes of data to AWS. Offline data is obtained from ships. Before transmitting the data, the organization want to do complicated transformations.

Which Amazon Web Services (AWS) service should a solutions architect suggest for this migration?

A. AWS Snowball
B. AWS Snowmobile
C. AWS Snowball Edge Storage Optimize
D. AWS Snowball Edge Compute Optimize

Correct Answer: D ⬨
Community vote distribution
D (100%)

Question #211Topic 1
Two video conversion programs are being used by a media organization on Amazon EC2 instances. One utility is Windows-based, while the other is Linux-based. Each video file is rather huge and both programs must process it.
The organization requires a storage solution that enables the creation of a centralized file system that can be mounted on all of the EC2 instances utilized in this operation.

Which solution satisfies these criteria?

A. Use Amazon FSx for Windows File Server for the Windows instances. Use Amazon Elastic File System (Amazon EFS) with Max I/O performance mode for the Linux instances.
B. Use Amazon FSx for Windows File Server for the Windows instances. Use Amazon FSx for Lustre for the Linux instances. Link both Amazon FSx file systems to the same Amazon S3 bucket.
C. Use Amazon Elastic File System (Amazon EFS) with General Purpose performance mode for the Windows instances and the Linux instances
D. Use Amazon FSx for Windows File Server for the Windows instances and the Linux instances. Most Voted

Correct Answer: C ⬨
Community vote distribution
D (100%)

Question #212Topic 1
A business uses Amazon RDS to power a web application. A fresh database administrator mistakenly deleted data from a database table. To aid in recovery from such an occurrence, the organization desires the capacity to restore the database to the condition it was in five minutes prior to any alteration during the past 30 days.

Which capability should the solutions architect include into the design to

satisfy this requirement?

A. Read replicas
B. Manual snapshots
C. Automated backups
D. Multi-AZ deployments

Correct Answer: C 🗳
Reference:
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_PIT.html
Community vote distribution
C (100%)

Question #213Topic 1
A business is building a video converter application that will be hosted on AWS.
The program will be offered in two flavors: a free version and a premium
version. People on the premium tier will get their videos converted first,
followed by users on the tree tier.

Which option satisfies these criteria and is the MOST cost-effective?

A. One FIFO queue for the paid tier and one standard queue for the free tier.
B. A single FIFO Amazon Simple Queue Service (Amazon SQS) queue for all file
types.
C. A single standard Amazon Simple Queue Service (Amazon SQS) queue for all file
types.
D. Two standard Amazon Simple Queue Service (Amazon SQS) queues with one for the
paid tier and one for the free tier.

Correct Answer: D 🗳
Community vote distribution
D (100%)

Question #214Topic 1
A business has an application that sends messages to Amazon Simple Queue
Service. Another program polls the queue and performs I/O-intensive operations
on the messages. The organization has a service level agreement (SLA) that
stipulates the maximum time allowed between message receipt and response to
users. Due to the rise in message volume, the organization is having trouble
fulfilling its SLA on a constant basis.

What should a solutions architect do to assist in increasing the application's
processing speed and ensuring that it can manage any level of load?

A. Create an Amazon Machine Image (AMI) from the instance used for processing.
Terminate the instance and replace it with a larger size.
B. Create an Amazon Machine Image (AMI) from the instance used for processing.
Terminate the instance and replace it with an Amazon EC2 Dedicated Instance.
C. Create an Amazon Machine image (AMI) from the instance used for processing.
Create an Auto Scaling group using this image in its launch configuration.
Configure the group with a target tracking policy to keep its aggregate CPU
utilization below 70%.
D. Create an Amazon Machine Image (AMI) from the instance used for processing.
Create an Auto Scaling group using this image in its launch configuration.
Configure the group with a target tracking policy based on the age of the oldest
message in the SQS queue.

Correct Answer: D 🗳
Community vote distribution
D (100%)

Question #215Topic 1
In the AWS Cloud, a business is operating a multi-tier ecommerce web
application. The application is hosted on Amazon EC2 instances that are

connected to an Amazon RDS MySQL Multi-AZ database. Amazon RDS is setup with the latest generation instance and 2,000 GB of storage in a General Purpose SSD (gp2) volume from Amazon Elastic Block Store (Amazon EBS). During moments of heavy demand, the database performance has an effect on the application. After studying the logs in Amazon CloudWatch Logs, a database administrator discovers that when the number of read and write IOPS exceeds 6.000, the application's performance constantly drops.

What should a solutions architect do to optimize the performance of an application?

A. Replace the volume with a Magnetic volume.
B. Increase the number of IOPS on the gp2 volume.
C. Replace the volume with a Provisioned IOPS (PIOPS) volume.
D. Replace the 2,000 GB gp2 volume with two 1,000 GBgp2 volumes.

Correct Answer: C 📦
Community vote distribution
C (100%)

Question #216Topic 1
For its ecommerce website, a business developed a multi-tier application. The website makes use of a public subnet-based Application Load Balancer, a public subnet-based web tier, and a private subnet-based MySQL cluster hosted on Amazon EC2 instances. The MySQL database must obtain product catalog and price information from a third-party provider's website. A solutions architect's objective is to develop a plan that optimizes security without raising operating costs.

What actions should the solutions architect take to ensure that these criteria are met?

A. Deploy a NAT instance in the VPC. Route all the internet-based traffic through the NAT instance.
B. Deploy a NAT gateway in the public subnets. Modify the private subnet route table to direct all internet-bound traffic to the NAT gateway.
C. Configure an internet gateway and attach it to the VPC. Modify the private subnet route table to direct internet-bound traffic to the internet gateway.
D. Configure a virtual private gateway and attach it to the VPC. Modify the private subnet route table to direct internet-bound traffic to the virtual private gateway.

Correct Answer: C 📦
Community vote distribution
B (75%)
A (25%)

Question #217Topic 1
Recently, a business introduced a new form of internet-connected sensor. The business anticipates selling thousands of sensors that are intended to feed large amounts of data to a central location every second. A solutions architect must develop a system that ingests and stores data in near-real time with millisecond responsiveness for engineering teams to examine.

Which solution should the architect of solutions recommend?

A. Use an Amazon SQS queue to ingest the data. Consume the data with an AWS Lambda function, which then stores the data in Amazon Redshift.
B. Use an Amazon SQS queue to ingest the data. Consume the data with an AWS Lambda function, which then stores the data in Amazon DynamoDB.
C. Use Amazon Kinesis Data Streams to ingest the data. Consume the data with an AWS Lambda function, which then stores the data in Amazon Redshift.
D. Use Amazon Kinesis Data Streams to ingest the data. Consume the data with an AWS Lambda function, which then stores the data in Amazon DynamoDB.

Correct Answer: D 🗳
Community vote distribution
D (67%)
C (33%)

Question #218 Topic 1
A business must share an Amazon S3 bucket with a third-party provider. All items must be accessible to the bucket owner.

Which procedure should be followed in order to share the S3 bucket?

A. Update the bucket to be a Requester Pays bucket.
B. Update the bucket to enable cross-origin resource sharing (CORS).
C. Create a bucket policy to require users to grant bucket-owner-full-control when uploading objects.
D. Create an IAM policy to require users to grant bucket-owner-full-control when uploading objects.

Correct Answer: C 🗳
By default, an S3 object is owned by the AWS account that uploaded it. This is true even when the bucket is owned by another account. To get access to the object, the object owner must explicitly grant you (the bucket owner) access. The object owner can grant the bucket owner full control of the object by updating the access control list (ACL) of the object. The object owner can update the ACL either during a put or copy operation, or after the object is added to the bucket.
Similar:
https://aws.amazon.com/it/premiumsupport/knowledge-center/s3-require-object-ownership/
Resolution Add a bucket policy that grants users access to put objects in your bucket only when they grant you (the bucket owner) full control of the object.
Reference:
https://aws.amazon.com/it/premiumsupport/knowledge-center/s3-bucket-owner-access/

Question #219 Topic 1
A corporation want to move a 143 TB MySQL database to AWS. The objective is to continue using Amazon Aurora MySQL as the platform. The organization connects to Amazon VPC using a 100 Mbps AWS Direct Connect connection.

Which option best satisfies the requirements of the business and requires the LEAST amount of time?

A. Use a gateway endpoint for Amazon S3. Migrate the data to Amazon S3. Import the data into Aurora.
B. Upgrade the Direct Connect link to 500 Mbps. Copy the data to Amazon S3. Import the data into Aurora.
C. Order an AWS Snowmobile and copy the database backup to it. Have AWS import the data into Amazon S3. Import the backup into Aurora.
D. Order four 50-TB AWS Snowball devices and copy the database backup onto them. Have AWS import the data into Amazon S3. Import the data into Aurora.

Correct Answer: D 🗳
Community vote distribution
D (100%)

Question #220 Topic 1
A business stores static photos for its website in an Amazon S3 bucket. Permissions were specified to restrict access to Amazon S3 items to privileged users only.

What steps should a solutions architect take to prevent data loss? (Select two.)

A. Enable versioning on the S3 bucket.
B. Enable access logging on the S3 bucket.
C. Enable server-side encryption on the S3 bucket.
D. Configure an S3 lifecycle rule to transition objects to Amazon S3 Glacier.
E. Use MFA Delete to require multi-factor authentication to delete an object.

Correct Answer: AE ⬡
Community vote distribution
AE (100%)

Question #221Topic 1
A solutions architect is developing a document review application that will be stored in an Amazon S3 bucket. The solution must prevent unintentional document deletion and guarantee that all document versions are accessible. The ability for users to download, change, and upload documents is required.

Which measures should be conducted in combination to achieve these requirements? (Select two.)

A. Enable a read-only bucket ACL.
B. Enable versioning on the bucket.
C. Attach an IAM policy to the bucket.
D. Enable MFA Delete on the bucket.
E. Encrypt the bucket using AWS KMS.

Correct Answer: BD ⬡
Object Versioning -
[1]
(version 222222) in a single bucket. S3 Versioning protects you from the consequences of unintended overwrites and deletions. You can also use it to archive objects so that you have access to previous versions.
To customize your data retention approach and control storage costs, use object versioning with Object lifecycle management. For information about creating S3 Lifecycle policies using the AWS Management Console, see How Do I Create a Lifecycle Policy for an S3 Bucket? in the Amazon Simple Storage Service Console User Guide.
If you have an object expiration lifecycle policy in your non-versioned bucket and you want to maintain the same permanent delete behavior when you enable versioning, you must add a noncurrent expiration policy. The noncurrent expiration lifecycle policy will manage the deletes of the noncurrent object versions in the version-enabled bucket. (A version-enabled bucket maintains one current and zero or more noncurrent object versions.)
You must explicitly enable S3 Versioning on your bucket. By default, S3 Versioning is disabled. Regardless of whether you have enabled Versioning, each object in your bucket has a version ID. If you have not enabled Versioning, Amazon S3 sets the value of the version ID to null. If S3 Versioning is enabled, Amazon S3 assigns a version ID value for the object. This value distinguishes it from other versions of the same key.
Enabling and suspending versioning is done at the bucket level. When you enable versioning on an existing bucket, objects that are already stored in the bucket are unchanged. The version IDs (null), contents, and permissions remain the same. After you enable S3 Versioning for a bucket, each object that is added to the bucket gets a version ID, which distinguishes it from other versions of the same key.
Only Amazon S3 generates version IDs, and they can't be edited. Version IDs are Unicode, UTF-8 encoded, URL-ready, opaque strings that are no more than 1,024 bytes long. The following is an example:
3/L4kqtJlcpXroDTDmJ+rmSpXd3dIbrHY+MTRCxf3vjVBH40Nr8X8gdRQBpUMLUo.

Using MFA delete -
If a bucket's versioning configuration is MFA Deleteא€"enabled, the bucket owner must include the x-amz-mfa request header in requests to permanently delete an object version or change the versioning state of the bucket. Requests that include x-amz-mfa must use HTTPS. The header's value is the concatenation of

your authentication device's serial number, a space, and the authentication code
displayed on it. If you do not include this request header, the request fails.
Reference:
https://aws.amazon.com/s3/features/
https://docs.aws.amazon.com/AmazonS3/latest/dev/ObjectVersioning.html
https://docs.aws.amazon.com/AmazonS3/latest/dev/UsingMFADelete.html

Question #222Topic 1
A corporation hosts more than 300 websites and apps on a worldwide scale. Each
day, the organization wants a platform capable of analyzing more than 30 TB of
clickstream data.

What should a solutions architect do with the clickstream data during
transmission and processing?

A. Design an AWS Data Pipeline to archive the data to an Amazon S3 bucket and
run an Amazon EMR cluster with the data to generate analytics.
B. Create an Auto Scaling group of Amazon EC2 instances to process the data and
send it to an Amazon S3 data lake for Amazon Redshift to use for analysis.
C. Cache the data to Amazon CloudFront. Store the data in an Amazon S3 bucket.
When an object is added to the S3 bucket, run an AWS Lambda function to process
the data for analysis.
D. Collect the data from Amazon Kinesis Data Streams. Use Amazon Kinesis Data
Firehose to transmit the data to an Amazon S3 data lake. Load the data in Amazon
Redshift for analysis.

Correct Answer: C ⬢
Community vote distribution
D (100%)

Question #223Topic 1
A business is developing a three-tier online application that will include a web
server, an application server, and a database server. While packages are being
delivered, the program will monitor their GPS locations. The database will be
updated every 0-5 seconds by the program.
Tracking information must be read as quickly as possible to allow users to
verify the status of their deliveries. On certain days, just a few parcels may
be monitored, while on others, millions of packages may be tracked. The tracking
system must be searchable using the tracking ID, the customer ID, and the order
ID. Orders placed after one month will no longer be monitored.

What should a solution architect propose in order to do this with the lowest
possible total cost of ownership?

A. Use Amazon DynamoDB Enable Auto Scaling on the DynamoDB table. Schedule an
automatic deletion script for items older than 1 month.
B. Use Amazon DynamoDB with global secondary indexes. Enable Auto Scaling on the
DynamoDB table and the global secondary indexes. Enable TTL on the DynamoDB
table. Most Voted
C. Use an Amazon RDS On-Demand instance with Provisioned IOPS (PIOPS). Enable
Amazon CloudWatch alarms to send notifications when PIOPS are exceeded. Increase
and decrease PIOPS as needed.
D. Use an Amazon RDS Reserved Instance with Provisioned IOPS (PIOPS). Enable
Amazon CloudWatch alarms to send notification when PIOPS are exceeded. Increase
and decrease PIOPS as needed.

Correct Answer: B ⬢
Community vote distribution
B (100%)

Question #224Topic 1
A news organization with correspondents located around the globe uses AWS to
host its broadcast system. The reporters provide the broadcast system with live
feeds. The reporters transmit live broadcasts through the Real Time Messaging

Protocol using software installed on their phones (RTMP).
A solutions architect must provide a system that enables reporters to deliver the highest-quality streams possible. The solution must ensure that TCP connections to the broadcast system are expedited.

What approach should the solutions architect use in order to satisfy these requirements?

A. Amazon CloudFront
B. AWS Global Accelerator Most Voted
C. AWS Client VPN
D. Amazon EC2 instances and AWS Elastic IP addresses

Correct Answer: A 📦
Reference:
https://aws.amazon.com/solutions/implementations/live-streaming-on-aws/
Community vote distribution
B (98%)
2%

Question #225Topic 1
A business is transferring a set of Linux-based web servers to AWS. For certain content, the web servers must access files stored in a shared file storage. To fulfill the migration deadline, only minor adjustments are necessary.

What actions should a solutions architect take to ensure that these criteria are met?

A. Create an Amazon S3 Standard bucket with access to the web server.
B. Configure an Amazon CloudFront distribution with an Amazon S3 bucket as the origin.
C. Create an Amazon Elastic File System (Amazon EFS) volume and mount it on all web servers.
D. Configure Amazon Elastic Block Store (Amazon EBS) Provisioned IOPS SSD (io1) volumes and mount them on all web servers.

Correct Answer: C 📦
Community vote distribution
C (100%)

Question #226Topic 1
Every day, a business gets structured and semi-structured data from a variety of sources. A solutions architect must create a solution that makes use of frameworks for big data processing. SQL queries and business intelligence tools should be able to access the data.

What should the solutions architect advocate in order to provide the MOST performant solution possible?

A. Use AWS Glue to process data and Amazon S3 to store data.
B. Use Amazon EMR to process data and Amazon Redshift to store data. Most Voted
C. Use Amazon EC2 to process data and Amazon Elastic Block Store (Amazon EBS) to store data.
D. Use Amazon Kinesis Data Analytics to process data and Amazon Elastic File System (Amazon EFS) to store data.

Correct Answer: B 📦
Reference:
https://aws.amazon.com/redshift/features/
Community vote distribution
B (78%)
A (22%)

Question #227Topic 1

A MySQL database instance on Amazon RDS is used by an application. The RDS database is rapidly depleting its storage capacity. A solutions architect wants to expand disk capacity without causing downtime.

Which method satisfies these criteria with the MINIMUM amount of effort?

A. Enable storage auto scaling in RDS.
B. Increase the RDS database instance size.
C. Change the RDS database instance storage type to Provisioned IOPS.
D. Back up the RDS database, increase the storage capacity, restore the database and stop the previous instance.

Correct Answer: C
Community vote distribution
A (100%)

Question #228Topic 1
A business runs an ecommerce application in a single VPC. A single web server and an Amazon RDS Multi-AZ database instance comprise the application stack. Twice a month, the firm introduces new items. This results in a 400% increase in website traffic for a minimum of 72 hours. Users' browsers encounter poor response times and numerous timeout issues during product launches.

What should a solutions architect do to minimize response times and timeout failures while maintaining a minimal operational overhead?

A. Increase the instance size of the web server.
B. Add an Application Load Balancer and an additional web server.
C. Add Amazon EC2 Auto Scaling and an Application Load Balancer. Most Voted
D. Deploy an Amazon ElastiCache cluster to store frequently accessed data.

Correct Answer: A
Community vote distribution
C (63%)
A (25%)
13%

Question #229Topic 1
A solutions architect is developing a two-step order process application. The first step is synchronous and must return with minimal delay to the user. Because the second stage is more time consuming, it will be done as a distinct component. Orders must be processed precisely once and in their original sequence of receipt.

How are these components to be integrated by the solutions architect?

A. Use Amazon SQS FIFO queues. Most Voted
B. Use an AWS Lambda function along with Amazon SQS standard queues.
C. Create an SNS topic and subscribe an Amazon SQS FIFO queue to that topic.
D. Create an SNS topic and subscribe an Amazon SQS Standard queue to that topic.

Correct Answer: C
Reference:
https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/FIFO-queues.html
Community vote distribution
A (64%)
C (36%)

Question #230Topic 1
A business is using AWS to operate an application that processes weather sensor data stored in an Amazon S3 bucket. Three batch tasks are scheduled to run hourly to process data in the S3 bucket for various reasons. The organization wishes to minimize total processing time by employing an event-based strategy to

run the three programs in parallel.

What actions should a solutions architect take to ensure that these criteria are met?

A. Enable S3 Event Notifications for new objects to an Amazon Simple Queue Service (Amazon SQS) FIFO queue. Subscribe all applications to the queue for processing.
B. Enable S3 Event Notifications for new objects to an Amazon Simple Queue Service (Amazon SQS) standard queue. Create an additional SQS queue for all applications, and subscribe all applications to the initial queue for processing.
C. Enable S3 Event Notifications for new objects to separate Amazon Simple Queue Service (Amazon SQS) FIFO queues. Create an additional SQS queue for each application, and subscribe each queue to the initial topic for processing.
D. Enable S3 Event Notifications for new objects to an Amazon Simple Notification Service (Amazon SNS) topic. Create an Amazon Simple Queue Service (Amazon SQS) queue for each application, and subscribe each queue to the topic for processing. Most Voted

Correct Answer: A ⬙
Reference:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/ways-to-add-notification-config-to-bucket.html
Community vote distribution
D (100%)

Question #231Topic 1
Multiple Amazon EC2 instances in a single Availability Zone are used by a gaming firm to host a multiplayer game that connects with players using Layer 4 communication. The chief technology officer (CTO) desires a highly accessible and cost-effective architecture.

What actions should a solutions architect take to ensure that these criteria are met? (Select two.)?

A. Increase the number of EC2 instances.
B. Decrease the number of EC2 instances.
C. Configure a Network Load Balancer in front of the EC2 instances.
D. Configure an Application Load Balancer in front of the EC2 instances.
E. Configure an Auto Scaling group to add or remove instances in multiple Availability Zones automatically.

Correct Answer: CE ⬙
Network Load Balancer overview -
A Network Load Balancer functions at the fourth layer of the Open Systems Interconnection (OSI) model. It can handle millions of requests per second. After the load balancer receives a connection request, it selects a target from the target group for the default rule. It attempts to open a TCP connection to the selected target on the port specified in the listener configuration.
When you enable an Availability Zone for the load balancer, Elastic Load Balancing creates a load balancer node in the Availability Zone. By default, each load balancer node distributes traffic across the registered targets in its Availability Zone only. If you enable cross-zone load balancing, each load balancer node distributes traffic across the registered targets in all enabled Availability Zones. For more information, see Availability Zones.
If you enable multiple Availability Zones for your load balancer and ensure that each target group has at least one target in each enabled Availability Zone, this increases the fault tolerance of your applications. For example, if one or more target groups does not have a healthy target in an Availability Zone, we remove the
IP address for the corresponding subnet from DNS, but the load balancer nodes in the other Availability Zones are still available to route traffic. If a client doesn't honor the time-to-live (TTL) and sends requests to the IP address after

it is removed from DNS, the requests fail.
For TCP traffic, the load balancer selects a target using a flow hash algorithm based on the protocol, source IP address, source port, destination IP address, destination port, and TCP sequence number. The TCP connections from a client have different source ports and sequence numbers, and can be routed to different targets. Each individual TCP connection is routed to a single target for the life of the connection.
For UDP traffic, the load balancer selects a target using a flow hash algorithm based on the protocol, source IP address, source port, destination IP address, and destination port. A UDP flow has the same source and destination, so it is consistently routed to a single target throughout its lifetime. Different UDP flows have different source IP addresses and ports, so they can be routed to different targets.
An Auto Scaling group contains a collection of Amazon EC2 instances that are treated as a logical grouping for the purposes of automatic scaling and management. An Auto Scaling group also enables you to use Amazon EC2 Auto Scaling features such as health check replacements and scaling policies. Both maintaining the number of instances in an Auto Scaling group and automatic scaling are the core functionality of the Amazon EC2 Auto Scaling service.
The size of an Auto Scaling group depends on the number of instances that you set as the desired capacity. You can adjust its size to meet demand, either manually or by using automatic scaling.
An Auto Scaling group starts by launching enough instances to meet its desired capacity. It maintains this number of instances by performing periodic health checks on the instances in the group. The Auto Scaling group continues to maintain a fixed number of instances even if an instance becomes unhealthy. If an instance becomes unhealthy, the group terminates the unhealthy instance and launches another instance to replace it.
Reference:
https://docs.aws.amazon.com/elasticloadbalancing/latest/network/introduction.html
https://docs.aws.amazon.com/autoscaling/ec2/userguide/AutoScalingGroup.html
Community vote distribution
CE (100%)

Question #232Topic 1
A business runs a static website on Amazon S3. A solutions architect must guarantee that data is recoverable in the event of an accidently deleted file.

Which action is necessary to achieve this?

A. Enable Amazon S3 versioning.
B. Enable Amazon S3 Intelligent-Tiering.
C. Enable an Amazon S3 lifecycle policy.
D. Enable Amazon S3 cross-Region replication.

Correct Answer: A ⬙
Data can be recover if versioning enable, also it provide a extra protection like file delete,MFA delete. MFA. Delete only works for CLI or API interaction, not in the
AWS Management Console. Also, you cannot make version DELETE actions with MFA using IAM user credentials. You must use your root AWS account.

Object Versioning -
[1]
(version 222222) in a single bucket. S3 Versioning protects you from the consequences of unintended overwrites and deletions. You can also use it to archive objects so that you have access to previous versions.
You must explicitly enable S3 Versioning on your bucket. By default, S3 Versioning is disabled. Regardless of whether you have enabled Versioning, each object in your bucket has a version ID. If you have not enabled Versioning, Amazon S3 sets the value of the version ID to null. If S3 Versioning is enabled, Amazon S3 assigns a version ID value for the object. This value distinguishes it from other versions of the same key.

Reference:
https://books.google.com.sg/books?
id=wv45DQAAQBAJ&pg=PA39&lpg=PA39&dq=hosts+a+static+website+within+an+Amazon+S3+b
ucket.+A
+solutions+architect+needs+to+ensure+that+data+can+be+recovered+in+case+of+accid
ental
+deletion&source=bl&ots=0NolP5igY5&sig=ACfU3U3opL9Jha6jM2EI8x7EcjK4rigQHQ&hl=en&
sa=X&ved=2ahUKEwiS9e3yy7vpAhVx73MBHZNoDnQQ6AEwAH oECBQQAQ#v=onepage&q=hosts%20a
%20static%20website%20within%20an%20Amazon%20S3%20bucket.%20A%20solutions
%20architect%20needs%20to
%20ensure%20that%20data%20can%20be%20recovered%20in%20case%20of%20accidental
%20deletion&f=false https://aws.amazon.com/blogs/security/securing-access-to-
aws-using-mfa-part-3/
https://docs.aws.amazon.com/AmazonS3/latest/dev/ObjectVersioning.html
Community vote distribution
A (100%)

Question #233Topic 1
A solutions architect must develop a managed storage solution with high-
performance machine learning capability for a company's application. This
application is hosted on AWS Fargate, and the storage attached to it must
support concurrent file access and give good performance.

Which storage choice should the architect of solutions recommend?

A. Create an Amazon S3 bucket for the application and establish an IAM role for
Fargate to communicate with Amazon S3.
B. Create an Amazon FSx for Lustre file share and establish an IAM role that
allows Fargate to communicate with FSx for Lustre.
C. Create an Amazon Elastic File System (Amazon EFS) file share and establish an
IAM role that allows Fargate to communicate with Amazon Elastic File System
(Amazon EFS). Most Voted
D. Create an Amazon Elastic Block Store (Amazon EBS) volume for the application
and establish an IAM role that allows Fargate to communicate with Amazon Elastic
Block Store (Amazon EBS).

Correct Answer: B ⬙
Community vote distribution
C (95%)
5%

Question #234Topic 1
A firm gathers data on temperature, humidity, and air pressure in cities across
the world. Each day, an average of 500 GB of data is gathered each station. Each
location is equipped with a high-speed internet connection. The company's
weather forecasting tools are regionally focused and do daily data analysis.

What is the SPEEDIEST method for collecting data from all of these worldwide
sites?

A. Enable Amazon S3 Transfer Acceleration on the destination bucket. Use
multipart uploads to directly upload site data to the destination bucket.
B. Upload site data to an Amazon S3 bucket in the closest AWS Region. Use S3
cross-Region replication to copy objects to the destination bucket.
C. Schedule AWS Snowball jobs daily to transfer data to the closest AWS Region.
Use S3 cross-Region replication to copy objects to the destination bucket.
D. Upload the data to an Amazon EC2 instance in the closest Region. Store the
data in an Amazon Elastic Block Store (Amazon EBS) volume. Once a day take an
EBS snapshot and copy it to the centralized Region. Restore the EBS volume in
the centralized Region and run an analysis on the data daily.

Correct Answer: A ⬙
Step-1: To transfer to S3 from global sites: Amazon S3 Transfer Acceleration
enables fast, easy, and secure transfers of files over long distances between

your client and your Amazon S3 bucket. S3 Transfer Acceleration leverages Amazon CloudFront's globally distributed AWS Edge Locations. Used to accelerate object uploads to S3 over long distances (latency). Transfer acceleration is as secure as a direct upload to S3.
Step-2: When the application analyze/aggregate the data from S3 and then again upload the results - Multipart upload
Reference:
http://lavnish.blogspot.com/2017/06/aws-s3-cross-region-replication.html
https://aws.amazon.com/s3/transfer-acceleration/
Community vote distribution
A (75%)
B (25%)

Question #235Topic 1
A business uses an Amazon EC2 instance to host a web server on a public subnet with an Elastic IP address. The EC2 instance is assigned to the default security group. The default network access control list (ACL) has been updated to deny all traffic. A solutions architect must ensure that the web server is accessible from any location through port 443.

Which sequence of procedures will achieve this objective? (Select two.)

A. Create a security group with a rule to allow TCP port 443 from source 0.0.0.0/0. Most Voted
B. Create a security group with a rule to allow TCP port 443 to destination 0.0.0.0/0.
C. Update the network ACL to allow TCP port 443 from source 0.0.0.0/0.
D. Update the network ACL to allow inbound/outbound TCP port 443 from source 0.0.0.0/0 and to destination 0.0.0.0/0.
E. Update the network ACL to allow inbound TCP port 443 from source 0.0.0.0/0 and outbound TCP port 32768-65535 to destination 0.0.0.0/0. Most Voted

Correct Answer: AE 🗳
Community vote distribution
AE (100%)

Question #236Topic 1
A business has developed a three-tiered picture sharing platform. It runs the front-end layer on one Amazon EC2 instance, the backend layer on another, and the MySQL database on a third. A solutions architect has been entrusted with the responsibility of developing a solution that is highly available and needs the fewest modifications to the application as possible.

Which solution satisfies these criteria?

A. Use Amazon S3 to host the front-end layer and AWS Lambda functions for the backend layer. Move the database to an Amazon DynamoDB table and use Amazon S3 to store and serve users' images.
B. Use load-balanced Multi-AZ AWS Elastic Beanstalk environments for the front-end and backend layers. Move the database to an Amazon RDS instance with multiple read replicas to store and serve users' images.
C. Use Amazon S3 to host the front-end layer and a fleet of Amazon EC2 instances in an Auto Scaling group for the backend layer. Move the database to a memory optimized instance type to store and serve users' images.
D. Use load-balanced Multi-AZ AWS Elastic Beanstalk environments for the front-end and backend layers. Move the database to an Amazon RDS instance with a Multi-AZ deployment. Use Amazon S3 to store and serve users' images.

Correct Answer: D 🗳
Community vote distribution
D (100%)

Question #237Topic 1
A business has developed a virtual private cloud (VPC) with various private

subnets distributed across different Availability Zones (AZs) and one public
subnet located in one of the AZs. A NAT gateway is launched on the public
subnet. Within private subnets, there are circumstances when a NAT gateway is
used to connect to the internet. In the event of an AZ failure, the organization
wants to verify that not all instances have internet connection difficulties and
that a backup plan is prepared.

Which solution, according to a solutions architect, is the MOST highly
available?

A. Create a new public subnet with a NAT gateway in the same AZ. Distribute the
traffic between the two NAT gateways.
B. Create an Amazon EC2 NAT instance in a new public subnet. Distribute the
traffic between the NAT gateway and the NAT instance.
C. Create public subnets in each AZ and launch a NAT gateway in each subnet.
Configure the traffic from the private subnets in each AZ to the respective NAT
gateway.
D. Create an Amazon EC2 NAT instance in the same public subnet. Replace the NAT
gateway with the NAT instance and associate the instance with an Auto Scaling
group with an appropriate scaling policy.

Correct Answer: C 📦
Community vote distribution
C (100%)

Question #238Topic 1
A business maintains numerous AWS accounts and deploys apps in the us-west-2
Region. Each account's application logs are kept in Amazon S3 buckets. The
organization wishes to create a centralized log analysis system based on a
single Amazon S3 bucket. Logs cannot depart us-west-2, and the corporation want
to incur the fewest possible operating costs.

Which option satisfies these criteria and is the MOST cost-effective?

A. Create an S3 Lifecycle policy that copies the objects from one of the
application S3 buckets to the centralized S3 bucket.
B. Use S3 Same-Region Replication to replicate logs from the S3 buckets to
another S3 bucket in us-west-2. Use this S3 bucket for log analysis. Most Voted
C. Write a script that uses the PutObject API operation every day to copy the
entire contents of the buckets to another S3 bucket in us-west-2. Use this S3
bucket for log analysis.
D. Write AWS Lambda functions in these accounts that are triggered every time
logs are delivered to the S3 buckets (s3:ObjectCreated:* event). Copy the logs
to another S3 bucket in us-west-2. Use this S3 bucket for log analysis.

Correct Answer: A 📦
Reference:
https://www.varonis.com/blog/how-to-use-aws-s3/
Community vote distribution
B (77%)
D (23%)

Question #239Topic 1
A business is migrating its on-premises apps to Amazon Elastic Compute Cloud
instances. However, due to variable compute needs, EC2 instances must always be
available for usage between the hours of 8 a.m. and 5 p.m. in designated
Availability Zones.

Which Amazon Elastic Compute Cloud instances should the business use to execute
the applications?

A. Scheduled Reserved Instances
B. On-Demand Instances Most Voted
C. Spot Instances as part of a Spot Fleet

D. EC2 instances in an Auto Scaling group

Correct Answer: A ⬡
Community vote distribution
B (67%)
A (33%)

Question #240Topic 1
A solutions architect is developing a solution that entails coordinating a
number of Amazon Elastic Container Service (Amazon ECS) task types that are
operating on Amazon EC2 instances that are members of an ECS cluster. All tasks'
output and status data must be saved. Each job outputs around 10 MB of data, and
hundreds of tasks may be operating concurrently. The system should be tuned for
reading and writing at a fast rate of speed. As ancient
Because outputs are preserved and removed, the total storage space should not
exceed 1 TB.

Which storage option should be recommended by the solutions architect?

A. An Amazon DynamoDB table accessible by all ECS cluster instances.
B. An Amazon Elastic File System (Amazon EFS) with Provisioned Throughput mode.
C. An Amazon Elastic File System (Amazon EFS) file system with Bursting
Throughput mode.
D. An Amazon Elastic Block Store (Amazon EBS) volume mounted to the ECS cluster
instances.

Correct Answer: C ⬡
Community vote distribution
B (100%)

Question #241Topic 1
A solutions architect must design a bastion host architecture that is highly
available. The solution must be robust inside a single AWS Region and need
little maintenance effort.

What actions should the solutions architect take to ensure that these criteria
are met?

A. Create a Network Load Balancer backed by an Auto Scaling group with a UDP
listener.
B. Create a Network Load Balancer backed by a Spot Fleet with instances in a
partition placement group.
C. Create a Network Load Balancer backed by the existing servers in different
Availability Zones as the target.
D. Create a Network Load Balancer backed by an Auto Scaling group with instances
in multiple Availability Zones as the target.

Correct Answer: D ⬡
Community vote distribution
D (100%)

Question #242Topic 1
Amazon Route 53 latency-based routing is being used by a firm to route requests
to their UDP-based application for customers worldwide. The program is hosted on
redundant servers inside the company's own data centers in the United States,
Asia, and Europe. The application must be hosted on-premises in accordance with
the company's compliance standards. The organization want to enhance the
application's performance and availability.

What actions should a solutions architect take to ensure that these criteria are
met?

A. Configure three Network Load Balancers (NLBs) in the three AWS Regions to
address the on-premises endpoints. Create an accelerator by using AWS Global

Accelerator, and register the NLBs as its endpoints. Provide access to the application by using a CNAME that points to the accelerator DNS. Most Voted
B. Configure three Application Load Balancers (ALBs) in the three AWS Regions to address the on-premises endpoints. Create an accelerator by using AWS Global Accelerator, and register the ALBs as its endpoints. Provide access to the application by using a CNAME that points to the accelerator DNS.
C. Configure three Network Load Balancers (NLBs) in the three AWS Regions to address the on-premises endpoints. In Route 53, create a latency-based record that points to the three NLBs, and use it as an origin for an Amazon CloudFront distribution. Provide access to the application by using a CNAME that points to the CloudFront DNS.
D. Configure three Application Load Balancers (ALBs) in the three AWS Regions to address the on-premises endpoints. In Route 53, create a latency-based record that points to the three ALBs, and use it as an origin for an Amazon CloudFront distribution. Provide access to the application by using a CNAME that points to the CloudFront DNS.

Correct Answer: C 🗳️
Community vote distribution
A (100%)

Question #243Topic 1
A business's customer relationship management (CRM) application stores data on an Amazon RDS database instance running Microsoft SQL Server. The database is administered by the company's information technology personnel. The database includes confidential information. The organization want to guarantee that data is inaccessible to IT professionals and is only seen by authorized people.

What steps should a solutions architect take to safeguard data?

A. Use client-side encryption with an Amazon RDS managed key.
B. Use client-side encryption with an AWS Key Management Service (AWS KMS) customer managed key.
C. Use Amazon RDS encryption with an AWS Key Management Service (AWS KMS) default encryption key.
D. Use Amazon RDS encryption with an AWS Key Management Service (AWS KMS) customer managed key. Most Voted

Correct Answer: C 🗳️
Community vote distribution
D (78%)
B (22%)

Question #244Topic 1
A business is developing a massively multiplayer online game. The game communicates through UDP, thus it is critical that the client and backend have a low latency. The backend is hosted on Amazon EC2 instances that may be scaled across various AWS Regions. The firm requires a high level of availability for the game in order for consumers worldwide to have access to it at all times.

What actions should a solutions architect take to ensure that these criteria are met?

A. Deploy Amazon CloudFront to support the global traffic. Configure CloudFront with an origin group to allow access to EC2 instances in multiple Regions.
B. Deploy an Application Load Balancer in one Region to distribute traffic to EC2 instances in each Region that hosts the game's backend instances.
C. Deploy Amazon CloudFront to support an origin access identity (OAI). Associate the OAI with EC2 instances in each Region to support global traffic.
D. Deploy a Network Load Balancer in each Region to distribute the traffic. Use AWS Global Accelerator to route traffic to the correct Regional endpoint. Most Voted

Correct Answer: C 🗳️

Reference:
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-restricting-access-to-s3.html
Community vote distribution
D (100%)

Question #245Topic 1
A business wishes to relocate its accounting system from an on-premises data center to an AWS Region. Priority one should be given to data security and an unalterable audit log. The organization must conduct compliance audits on all AWS operations. Although the organization has activated AWS CloudTrail, it want to ensure that it complies with these criteria.

Which safeguards and security measures should a solutions architect use to safeguard and secure CloudTrail? (Select two.)

A. Enable CloudTrail log file validation. Most Voted
B. Install the CloudTrail Processing Library.
C. Enable logging of Insights events in CloudTrail.
D. Enable custom logging from the on-premises resources.
E. Create an AWS Config rule to monitor whether CloudTrail is configured to use server-side encryption with AWS KMS managed encryption keys (SSE-KMS). Most Voted

Correct Answer: AC ⊘
Community vote distribution
AE (88%)
13%

Question #246Topic 1
A solutions architect is developing a new service to be used in conjunction with Amazon API Gateway. The service's request patterns will be erratic, ranging from zero to over 500 per second. The entire quantity of data that must be persisted in a backend database is now less than 1 GB, with unpredictability about future expansion. Simple key-value queries may be used to query data.

Which AWS service combination would best suit these requirements? (Select two.)

A. AWS Fargate
B. AWS Lambda Most Voted
C. Amazon DynamoDB Most Voted
D. Amazon EC2 Auto Scaling
E. MySQL-compatible Amazon Aurora

Correct Answer: BC ⊘
Reference:
https://aws.amazon.com/about-aws/whats-new/2017/11/amazon-api-gateway-supports-endpoint-integrations-with-private-vpcs
Community vote distribution
BC (100%)

Question #247Topic 1
Management has chosen to allow IPv6 on all AWS VPCs. After a period of time, a solutions architect attempts to create a new instance and gets an error indicating that the subnet does not have enough accessible IP address space.

What is the solution architect's role in resolving this?

A. Check to make sure that only IPv6 was used during the VPC creation.
B. Create a new IPv4 subnet with a larger range, and then launch the instance. Most Voted
C. Create a new IPv6-only subnet with a large range, and then launch the instance.
D. Disable the IPv4 subnet and migrate all instances to IPv6 only. Once that is

complete, launch the instance.

Correct Answer: C ⬡
Community vote distribution
B (88%)
13%

Question #248Topic 1
A business uses AWS Organizations in conjunction with two AWS accounts:
Logistics and Sales. The Logistics account is responsible for the operation of
an Amazon Redshift cluster. Amazon EC2 instances are included in the Sales
account. The Sales account requires access to the Amazon Redshift cluster owned
by the Logistics account.

What should a solutions architect propose as the MOST cost-effective way to
accomplish this requirement?

A. Set up VPC sharing with the Logistics account as the owner and the Sales
account as the participant to transfer the data.
B. Create an AWS Lambda function in the Logistics account to transfer data to
the Amazon EC2 instances in the Sales account.
C. Create a snapshot of the Amazon Redshift cluster, and share the snapshot with
the Sales account. In the Sales account, restore the cluster by using the
snapshot ID that is shared by the Logistics account. Most Voted
D. Run COPY commands to load data from Amazon Redshift into Amazon S3 buckets in
the Logistics account. Grant permissions to the Sales account to access the S3
buckets of the Logistics account.

Correct Answer: C ⬡
Reference:
https://www.sqlshack.com/share-aws-redshift-data-across-accounts/
Community vote distribution
C (64%)
A (36%)

Question #249Topic 1
A business is presenting their application to the internet using an Application
Load Balancer (ALB). The organization identifies out-of-the-ordinary traffic
access patterns across the application. A solutions architect must increase
visibility into the infrastructure in order to assist the business in
comprehending these anomalies.

What is the MOST OPTIMAL option that satisfies these requirements?

A. Create a table in Amazon Athena for AWS CloudTrail logs. Create a query for
the relevant information.
B. Enable ALB access logging to Amazon S3. Create a table in Amazon Athena, and
query the logs.
C. Enable ALB access logging to Amazon S3. Open each file in a text editor, and
search each line for the relevant information.
D. Use Amazon EMR on a dedicated Amazon EC2 instance to directly query the ALB
to acquire traffic access log information.

Correct Answer: B ⬡
Reference:
https://aws.amazon.com/blogs/big-data/catalog-and-analyze-application-load-
balancer-logs-more-efficiently-with-aws-glue-custom-classifiers-and- amazon-
athena/

Community vote distribution
B (100%)

Question #250Topic 1
The operations team of a business already has an Amazon S3 bucket set to send

notifications to an Amazon SQS queue when new items are generated in the bucket. Additionally, the development team want to get notifications when new objects are generated. The present workflow of the operations team must be maintained.

Which solution would meet these criteria?

A. Create another SQS queue. Update the S3 events in the bucket to also update the new queue when a new object is created.
B. Create a new SQS queue that only allows Amazon S3 to access the queue. Update Amazon S3 to update this queue when a new object is created.
C. Create an Amazon SNS topic and SQS queue for the bucket updates. Update the bucket to send events to the new topic. Updates both queues to poll Amazon SNS.
D. Create an Amazon SNS topic and SQS queue for the bucket updates. Update the bucket to send events to the new topic. Add subscriptions for both queues in the topic.

Correct Answer: D ✑
Community vote distribution
D (100%)

Question #251Topic 1
A solutions architect is creating storage for an Amazon Linux-based high performance computing (HPC) environment. The workload saves and analyzes a huge number of engineering drawings, which necessitates the use of shared storage and high-performance computation.

Which storage choice is the best?

A. Amazon Elastic File System (Amazon EFS)
B. Amazon FSx for Lustre
C. Amazon EC2 instance store
D. Amazon Elastic Block Store (Amazon EBS) Provisioned IOPS SSD (io1)

Correct Answer: B ✑
Explanation -

Amazon FSx for Lustre -
Amazon FSx for Lustre is a new, fully managed service provided by AWS based on the Lustre file system. Amazon FSx for Lustre provides a high-performance file system optimized for fast processing of workloads such as machine learning, high performance computing (HPC), video processing, financial modeling, and electronic design automation (EDA).
FSx for Lustre allows customers to create a Lustre filesystem on demand and associate it to an Amazon S3 bucket. As part of the filesystem creation, Lustre reads the objects in the buckets and adds that to the file system metadata. Any Lustre client in your VPC is then able to access the data, which gets cached on the high- speed Lustre filesystem. This is ideal for HPC workloads, because you can get the speed of an optimized Lustre file system without having to manage the complexity of deploying, optimizing, and managing the Lustre cluster.
Additionally, having the filesystem work natively with Amazon S3 means you can shut down the Lustre filesystem when you don't need it but still access objects in
Amazon S3 via other AWS Services. FSx for Lustre also allows you to also write the output of your HPC job back to Amazon S3.
Reference:
https://d1.awsstatic.com/whitepapers/AWS%20Partner%20Network_HPC%20Storage%20Options_2019_FINAL.pdf
(p.8)
Community vote distribution
B (100%)

Question #252Topic 1
A business is planning to build a public-facing web application on Amazon Web Services (AWS). The architecture comprises of Amazon EC2 instances contained

inside a Virtual Private Cloud (VPC) and protected by an Elastic Load Balancer
(ELB). The DNS is managed by a third-party provider. The solutions architect of
the business must offer a solution for detecting and defending against large-
scale DDoS assaults.

Which solution satisfies these criteria?

A. Enable Amazon GuardDuty on the account.
B. Enable Amazon Inspector on the EC2 instances.
C. Enable AWS Shield and assign Amazon Route 53 to it.
D. Enable AWS Shield Advanced and assign the ELB to it. Most Voted

Correct Answer: C ⊗
Community vote distribution
D (100%)

Question #253Topic 1
A business is shifting to the Amazon Web Services (AWS) Cloud. The initial
workload to move is a file server. The file share must be accessible through the
Server Message Block (SMB) protocol.

Which AWS managed service satisfies these criteria?

A. Amazon Elastic Block Store (Amazon EBS)
B. Amazon EC2
C. Amazon FSx
D. Amazon S3

Correct Answer: C ⊗
Community vote distribution
C (100%)

Question #254Topic 1
A business is deploying a new application on an Amazon Elastic Container Service
(Amazon ECS) cluster, using the Fargate ECS task launch type. The firm is
monitoring CPU and memory use in anticipation of the program receiving a
significant volume of traffic upon launch. However, the corporation desires cost
savings as usage declines.

What recommendations should a solutions architect make?

A. Use Amazon EC2 Auto Scaling to scale at certain periods based on previous
traffic patterns.
B. Use an AWS Lambda function to scale Amazon ECS based on metric breaches that
trigger an Amazon CloudWatch alarm.
C. Use Amazon EC2 Auto Scaling with simple scaling policies to scale when ECS
metric breaches trigger an Amazon CloudWatch alarm.
D. Use AWS Application Auto Scaling with target tracking policies to scale when
ECS metric breaches trigger an Amazon CloudWatch alarm.

Correct Answer: D ⊗
Community vote distribution
D (100%)

Question #255Topic 1
A business has an AWS-hosted website. The database backend is hosted on Amazon
RDS for MySQL and consists of a main instance and five read replicas to
accommodate scalability requirements. To provide a consistent user experience,
read replicas should be no more than one second behind the original instance.
As the website's traffic continues to grow, the copies lag farther behind at
peak moments, resulting in user complaints when searches return inconsistent
results. A solutions architect's goal should be to minimize replication latency
with little modifications to the application's code or operational requirements.

Which solution satisfies these criteria?

A. Migrate the database to Amazon Aurora MySQL. Replace the MySQL read replicas with Aurora Replicas and enable Aurora Auto Scaling Most Voted
B. Deploy an Amazon ElastiCache for Redis cluster in front of the database. Modify the website to check the cache before querying the database read endpoints.
C. Migrate the database from Amazon RDS to MySQL running on Amazon EC2 compute instances. Choose very large compute optimized instances for all replica nodes.
D. Migrate the database to Amazon DynamoDB. Initially provision a large number of read capacity units (RCUs) to support the required throughput with on- demand capacity scaling enabled.

Correct Answer: B ⬙
Community vote distribution
A (83%)
B (17%)

Question #256Topic 1
A business has users from all over the world using an application that is installed in many AWS Regions, exposing public static IP addresses. When users use the program through the internet, they encounter performance issues.

What should a solutions architect propose as a means of lowering internet latency?

A. Set up AWS Global Accelerator and add endpoints.
B. Set up AWS Direct Connect locations in multiple Regions.
C. Set up an Amazon CloudFront distribution to access an application.
D. Set up an Amazon Route 53 geoproximity routing policy to route traffic.

Correct Answer: A ⬙
Community vote distribution
A (100%)

Question #257Topic 1
A business requires the development of a reporting solution on AWS. SQL queries must be supported by the solution for data analysts to execute on the data. Each day, the data analysts will do less than ten queries. Each day, the corporation adds 3 GB of fresh data to its on-premises relational database. This data must be sent to AWS in order for reporting chores to be performed.

What should a solutions architect propose as the CHEAPEST way to achieve these requirements?

A. Use AWS Database Migration Service (AWS DMS) to replicate the data from the on-premises database into Amazon S3. Use Amazon Athena to query the data. Most Voted
B. Use an Amazon Kinesis Data Firehose delivery stream to deliver the data into an Amazon Elasticsearch Service (Amazon ES) cluster. Run the queries in Amazon ES.
C. Export a daily copy of the data from the on-premises database. Use an AWS Storage Gateway file gateway to store and copy the export into Amazon S3. Use an Amazon EMR cluster to query the data.
D. Use AWS Database Migration Service (AWS DMS) to replicate the data from the on-premises database and load it into an Amazon Redshift cluster. Use the Amazon Redshift cluster to query the data.

Correct Answer: D ⬙
Reference:
https://docs.aws.amazon.com/dms/latest/userguide/CHAP_Target.Redshift.html

Community vote distribution
A (93%)

Question #258Topic 1
A business is using an Amazon S3 bucket to store data that has been submitted by several departments from various locations. The finance manager finds that 10 TB of S3 Standard storage data has been charged each month during an AWS Well-Architected assessment. However, executing the command to select all files and folders in the AWS Management Console for Amazon S3 results in a total size of 5 TB.

What may be the potential reasons for this discrepancy? (Select two.)

A. Some files are stored with deduplication.
B. The S3 bucket has versioning enabled.
C. There are incomplete S3 multipart uploads.
D. The S3 bucker has AWS Key Management Service (AWS KMS) enabled.
E. The S3 bucket has Intelligent-Tiering enabled.

Correct Answer: AB 🗳
Community vote distribution
BC (100%)

Question #259Topic 1
On AWS, a business is creating an ecommerce website. This website is constructed on a three-tier design that contains a MySQL database in an Amazon Aurora MySQL Multi-AZ deployment. The internet application must be highly available, and will be deployed in an AWS Region with three Availability Zones initially. The program generates a statistic that indicates the amount of load it is experiencing.

Which solution satisfies these criteria?

A. Configure an Application Load Balancer (ALB) with Amazon EC2 Auto Scaling behind the ALB with scheduled scaling
B. Configure an Application Load Balancer (ALB) and Amazon EC2 Auto Scaling behind the ALB with a simple scaling policy.
C. Configure a Network Load Balancer (NLB) and launch a Spot Fleet with Amazon EC2 Auto Scaling behind the NLB.
D. Configure an Application Load Balancer (ALB) and Amazon EC2 Auto Scaling behind the ALB with a target tracking scaling policy. Most Voted

Correct Answer: B 🗳
Community vote distribution
D (82%)
B (18%)

Question #260Topic 1
A gaming firm uses AWS to host a browser-based application. The application's users consume a high volume of movies and photographs stored on Amazon S3. This material is consistent across all users.
The program has grown in popularity, with millions of users accessing these media files on a daily basis. The firm want to provide files to consumers while minimizing strain on the origin.

Which option best fits these criteria in terms of cost-effectiveness?

A. Deploy an AWS Global Accelerator accelerator in front of the web servers.
B. Deploy an Amazon CloudFront web distribution in front of the S3 bucket.
C. Deploy an Amazon ElastiCache for Redis instance in front of the web servers.
D. Deploy an Amazon ElastiCache for Memcached instance in front of the web servers.

Correct Answer: B 🗳
Reference:

Community vote distribution
B (100%)

Question #261Topic 1
Every day, a business processes data. The processes' output is kept in an Amazon S3 bucket, examined daily for one week, and then must remain readily available for ad hoc examination.

Which storage option is the MOST cost-effective alternative to the existing configuration?

A. Configure a lifecycle policy to delete the objects after 30 days.
B. Configure a lifecycle policy to transition the objects to Amazon S3 Glacier after 30 days.
C. Configure a lifecycle policy to transition the objects to Amazon S3 Standard-Infrequent Access (S3 Standard-IA) after 30 days. Most Voted
D. Configure a lifecycle policy to transition the objects to Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA) after 30 days. Most Voted

Correct Answer: D ⊗
Community vote distribution
C (44%)
D (44%)
13%

Question #262Topic 1
A business is developing an application. The program receives data through Amazon API Gateway and stores it in an Amazon Aurora PostgreSQL database using an AWS Lambda function.
During the proof-of-concept stage, the firm must drastically raise the Lambda quotas to manage the large amounts of data that must be loaded into the database. A solutions architect must provide a recommendation for a new design that maximizes scalability and reduces setup effort.

Which solution will satisfy these criteria?

A. Refactor the Lambda function code to Apache Tomcat code that runs on Amazon EC2 instances. Connect the database by using native Java Database Connectivity (JDBC) drivers.
B. Change the platform from Aurora to Amazon DynamoDB. Provision a DynamoDB Accelerator (DAX) cluster. Use the DAX client SDK to point the existing DynamoDB API calls at the DAX cluster.
C. Set up two Lambda functions. Configure one function to receive the information. Configure the other function to load the information into the database. Integrate the Lambda functions by using Amazon Simple Notification Service (Amazon SNS).
D. Set up two Lambda functions. Configure one function to receive the information. Configure the other function to load the information into the database. Integrate the Lambda functions by using an Amazon Simple Queue Service (Amazon SQS) queue. Most Voted

Correct Answer: B ⊗
Reference:
https://aws.amazon.com/dynamodb/dax/
Community vote distribution
D (100%)

Question #263Topic 1
A business wishes to migrate its on-premises MySQL database to Amazon Web Services (AWS). Regular imports from a client-facing application result in a huge amount of write operations in the database. The organization is worried that the volume of traffic may be affecting the application's performance.

How should a solutions architect approach the design of an AWS architecture?

A. Provision an Amazon RDS for MySQL DB instance with Provisioned IOPS SSD storage. Monitor write operation metrics by using Amazon CloudWatch. Adjust the provisioned IOPS if necessary. Most Voted
B. Provision an Amazon RDS for MySQL DB instance with General Purpose SSD storage. Place an Amazon ElastiCache cluster in front of the DB instance. Configure the application to query ElastiCache instead.
C. Provision an Amazon DocumentDB (with MongoDB compatibility) instance with a memory optimized instance type. Monitor Amazon CloudWatch for performance-related issues. Change the instance class if necessary.
D. Provision an Amazon Elastic File System (Amazon EFS) file system in General Purpose performance mode. Monitor Amazon CloudWatch for IOPS bottlenecks. Change to Provisioned Throughput performance mode if necessary.

Correct Answer: C ⬨
Reference:
https://docs.aws.amazon.com/documentdb/latest/developerguide/db-instance-classes.html

Community vote distribution
A (83%)
B (17%)

Question #264Topic 1
A firm is using AWS to create a multi-instance application that needs low latency between the instances.

What recommendations should a solutions architect make?

A. Use an Auto Scaling group with a cluster placement group.
B. Use an Auto Scaling group with single Availability Zone in the same AWS Region.
C. Use an Auto Scaling group with multiple Availability Zones in the same AWS Region.
D. Use a Network Load Balancer with multiple Amazon EC2 Dedicated Hosts as the targets.

Correct Answer: A ⬨
Community vote distribution
A (100%)

Question #265Topic 1
For the last 15 years, a corporation has been operating a web application using an Oracle relational database in an on-premises data center. The company's database must be migrated to AWS. The business wants to cut operating costs without modifying the application's code.

Which solution satisfies these criteria?

A. Use AWS Database Migration Service (AWS DMS) to migrate the database servers to Amazon RDS.
B. Use Amazon EC2 instances to migrate and operate the database servers.
C. Use AWS Database Migration Service (AWS DMS) to migrate the database servers to Amazon DynamoDB.
D. Use an AWS Snowball Edge Storage Optimized device to migrate the data from Oracle to Amazon Aurora.

Correct Answer: A ⬨
Reference:
https://docs.aws.amazon.com/prescriptive-guidance/latest/patterns/migrate-an-on-premises-oracle-database-to-amazon-rds-for-oracle.html
Community vote distribution
A (100%)

Question #266Topic 1
A development team keeps the user name and password for its Amazon RDS MySQL DB instance in a configuration file. The configuration file is saved in plaintext on the team's Amazon EC2 instance's root device disk. When the team's application needs to connect to the database, the file is read and the credentials are loaded into the code. The team adjusted the configuration file's permissions so that only the program may access its contents. A solution architect's primary responsibility is to build a better secure system.

What actions should the solutions architect do in order to satisfy this requirement?

A. Store the configuration file in Amazon S3. Grant the application access to read the configuration file.
B. Create an IAM role with permission to access the database. Attach this IAM role to the EC2 instance. Most Voted
C. Enable SSL connections on the database instance. Alter the database user to require SSL when logging in.
D. Move the configuration file to an EC2 instance store, and create an Amazon Machine Image (AMI) of the instance. Launch new instances from this AMI.

Correct Answer: D ⬙
Community vote distribution
B (100%)

Question #267Topic 1
A business's application is operating on Amazon EC2 instances contained inside a VPC. One of the apps must make a request to the Amazon S3 API in order to store and retrieve items. The company's security regulations prohibit programs from sending any internet-bound traffic.

Which course of action will satisfy these needs while still maintaining security?

A. Configure an S3 interface endpoint.
B. Configure an S3 gateway endpoint.
C. Create an S3 bucket in a private subnet.
D. Create an S3 bucket in the same Region as the EC2 instance.

Correct Answer: B ⬙
Community vote distribution
B (100%)

Question #268Topic 1
A MySQL database is used by a business's order fulfillment service. The database must be able to handle a high volume of concurrent requests and transactions.
The database is patched and tuned by developers. This results in delays in the introduction of new product features.
The organization wishes to use cloud-based services in order to assist it in addressing this new difficulty. The solution must enable developers to move the database with little or no modifications to the code and must maximize performance.

Which solution architect service should be used to achieve these requirements?

A. Amazon Aurora
B. Amazon DynamoDB
C. Amazon ElastiCache
D. MySQL on Amazon EC2

Correct Answer: A ⬙
Community vote distribution
A (100%)

Question #269Topic 1
A corporation needs to create a relational database with a 1 second Recovery
Point Objective (RPO) and a 1 minute Recovery Time Objective (RTO) for multi-
region disaster recovery.

Which AWS solution is capable of doing this?

A. Amazon Aurora Global Database
B. Amazon DynamoDB global tables
C. Amazon RDS for MySQL with Multi-AZ enabled
D. Amazon RDS for MySQL with a cross-Region snapshot copy

Correct Answer: A ◈
Community vote distribution
A (100%)

Question #270Topic 1
A solutions architect is tasked with the responsibility of designing the
implementation of a new static website. The solution must be cost effective and
maintain a minimum of 99 percent availability.

Which solution satisfies these criteria?

A. Deploy the application to an Amazon S3 bucket in one AWS Region that has
versioning disabled.
B. Deploy the application to Amazon EC2 instances that run in two AWS Regions
and two Availability Zones.
C. Deploy the application to an Amazon S3 bucket that has versioning and cross-
Region replication enabled.
D. Deploy the application to an Amazon EC2 instance that runs in one AWS Region
and one Availability Zone.

Correct Answer: A ◈
Community vote distribution
A (67%)
C (33%)

Question #271Topic 1
A business operates a three-tier web application for the purpose of processing
credit card payments. Static websites comprise the front-end user interface. The
application layer may include lengthy procedures. MySQL is used in the database
layer.
Currently, the application is running on a single huge general-purpose Amazon
EC2 machine. A solutions architect must decouple the services in order to
maximize the availability of the web application.

Which of the following solutions would give the HIGHEST level of availability?

A. Move static assets to Amazon CloudFront. Leave the application in EC2 in an
Auto Scaling group. Move the database to Amazon RDS to deploy Multi-AZ.
B. Move static assets and the application into a medium EC2 instance. Leave the
database on the large instance. Place both instances in an Auto Scaling group.
C. Move static assets to Amazon S3. Move the application to AWS Lambda with the
concurrency limit set. Move the database to Amazon DynamoDB with on- demand
enabled.
D. Move static assets to Amazon S3. Move the application to Amazon Elastic
Container Service (Amazon ECS) containers with Auto Scaling enabled. Move the
database to Amazon RDS to deploy Multi-AZ. Most Voted

Correct Answer: A ◈
Community vote distribution
D (100%)

Question #272Topic 1
The security team of a corporation wants that network traffic be logged in VPC Flow Logs. The logs will be viewed often for 90 days and then deleted. occasionally.

What should a solutions architect do when customizing the logs to satisfy these requirements?

A. Use Amazon CloudWatch as the target. Set the CloudWatch log group with an expiration of 90 days. Most Voted
B. Use Amazon Kinesis as the target. Configure the Kinesis stream to always retain the logs for 90 days.
C. Use AWS CloudTrail as the target. Configure CloudTrail to save to an Amazon S3 bucket, and enable S3 Intelligent-Tiering.
D. Use Amazon S3 as the target. Enable an S3 Lifecycle policy to transition the logs to S3 Standard-Infrequent Access (S3 Standard-IA) after 90 days.

Correct Answer: D ⬙
Community vote distribution
A (88%)
12%

Question #273Topic 1
Amazon S3 is being used by a solutions architect to develop the storage architecture for a new digital media application. The media files must be robust in the event of an Availability Zone failure. Certain files are routinely visited, while others are viewed infrequently and in an unexpected fashion. The architect of the solution must keep the expenses of storing and retrieving media files to a minimum.

Which storage choice satisfies these criteria?

A. S3 Standard
B. S3 Intelligent-Tiering
C. S3 Standard-Infrequent Access (S3 Standard-IA)
D. S3 One Zone-Infrequent Access (S3 One Zone-IA)

Correct Answer: B ⬙
Community vote distribution
B (100%)

Question #274Topic 1
Monthly reports are stored in an Amazon S3 bucket by a company's financial application. The vice president of finance has directed that all access to these reports be documented, as well as any adjustments to the log files.

What activities can a solutions architect take to ensure compliance with these requirements?

A. Use S3 server access logging on the bucket that houses the reports with the read and write data events and log file validation options enabled.
B. Use S3 server access logging on the bucket that houses the reports with the read and write management events and log file validation options enabled.
C. Use AWS CloudTrail to create a new trail. Configure the trail to log read and write data events on the S3 bucket that houses the reports. Log these events to a new bucket, and enable log file validation. Most Voted
D. Use AWS CloudTrail to create a new trail. Configure the trail to log read and write management events on the S3 bucket that houses the reports. Log these events to a new bucket, and enable log file validation.

Correct Answer: C ⬙
Reference:
https://docs.aws.amazon.com/AmazonS3/latest/user-guide/enable-cloudtrail-events.html

Community vote distribution
C (100%)

Question #275Topic 1
A business that specializes in online gaming is developing a game that is predicted to be very popular around the globe. A solutions architect must create an AWS Cloud architecture capable of capturing and presenting near-real-time game data for each participant, as well as the names of the world's top 25 players at any one moment.

Which AWS database solution and configuration should be used to satisfy these requirements?

A. Use Amazon RDS for MySQL as the data store for player activity. Configure the RDS DB instance for Multi-AZ support.
B. Use Amazon DynamoDB as the data store for player activity. Configure DynamoDB Accelerator (DAX) for the player data.
C. Use Amazon DynamoDB as the data store for player activity. Configure global tables in each required AWS Region for the player data.
D. Use Amazon RDS for MySQL as the data store for player activity. Configure cross-Region read replicas in each required AWS Region based on player proximity.

Correct Answer: D ⬙
Community vote distribution
C (100%)

Question #276Topic 1
A business is building a serverless web application that will allow users to engage with real-time game stats. The data generated by the games must be transmitted live. The business need a robust, low-latency database solution for user data. The corporation is unsure about the application's anticipated user base. Any design considerations must ensure single-digit millisecond response rates as the application grows.

Which AWS service combination will suit these requirements? (Select two.)

A. Amazon CloudFront
B. Amazon DynamoDB Most Voted
C. Amazon Kinesis Most Voted
D. Amazon RDS
E. AWS Global Accelerator

Correct Answer: AB ⬙
Reference:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/optimizing-performance.html https://aws.amazon.com/products/databases/real-time-apps-elasticache-for-redis/

Community vote distribution
BC (82%)
BE (18%)

Question #277Topic 1
A solutions architect is developing a solution that will allow users to browse a collection of photos and make requests for customized images. Parameters for image customisation will be included in each request made to an AWS API Gateway API. The personalized picture will be created on demand, and consumers will get a link to see or download it. The solution must be very user-friendly in terms of viewing and modifying photos.

Which approach is the MOST cost-effective in meeting these requirements?

A. Use Amazon EC2 instances to manipulate the original image into the requested

customizations. Store the original and manipulated images in Amazon S3.
Configure an Elastic Load Balancer in front of the EC2 instances.
B. Use AWS Lambda to manipulate the original image to the requested
customizations. Store the original and manipulated images in Amazon S3.
Configure an Amazon CloudFront distribution with the S3 bucket as the origin.
C. Use AWS Lambda to manipulate the original image to the requested
customizations. Store the original images in Amazon S3 and the manipulated
images in Amazon DynamoDB. Configure an Elastic Load Balancer in front of the
Amazon EC2 instances.
D. Use Amazon EC2 instances to manipulate the original image into the requested
customizations. Store the original images in Amazon S3 and the manipulated
images in Amazon DynamoDB. Configure an Amazon CloudFront distribution with the
S3 bucket as the origin.

Correct Answer: B ⬡
AWS Lambda is a compute service that lets you run code without provisioning or
managing servers. AWS Lambda executes your code only when needed and scales
automatically, from a few requests per day to thousands per second. You pay only
for the compute time you consume λ€" there is no charge when your code is not
running. With AWS Lambda, you can run code for virtually any type of application
or backend service λ€" all with zero administration. 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.
Storing your static content with S3 provides a lot of advantages. But to help
optimize your application's performance and security while effectively managing
cost, we recommend that you also set up Amazon CloudFront to work with your S3
bucket to serve and protect the content. CloudFront is a content delivery
network
(CDN) service that delivers static and dynamic web content, video streams, and
APIs around the world, securely and at scale. By design, delivering data out of
CloudFront can be more cost effective than delivering it from S3 directly to
your users.
CloudFront serves content through a worldwide network of data centers called
Edge Locations. Using edge servers to cache and serve content improves
performance by providing content closer to where viewers are located. CloudFront
has edge servers in locations all around the world.
Reference:
https://docs.aws.amazon.com/lambda/latest/dg/welcome.html
https://aws.amazon.com/blogs/networking-and-content-delivery/amazon-s3-amazon-
cloudfront-a-match-made-in-the-cloud/
Community vote distribution
B (100%)

Question #278Topic 1
A business runs an Amazon EC2 instance on a private subnet and requires access
to a public website in order to get patches and upgrades. The organization does
not want other websites to be able to see or start connections to the EC2
instance's IP address.

How can a solutions architect accomplish this goal?

A. Create a site-to-site VPN connection between the private subnet and the
network in which the public site is deployed.
B. Create a NAT gateway in a public subnet. Route outbound traffic from the
private subnet through the NAT gateway.
C. Create a network ACL for the private subnet where the EC2 instance deployed
only allows access from the IP address range of the public website.
D. Create a security group that only allows connections from the IP address
range of the public website. Attach the security group to the EC2 instance.

Correct Answer: B ⬡

Question #279Topic 1
A business uses AWS to host its website. The website is protected by an Application Load Balancer (ALB) configured to manage HTTP and HTTPS traffic independently.
The firm wishes to route all queries to the website through HTTPS.

What solution should a solutions architect implement to satisfy this criterion?

A. Update the ALB's network ACL to accept only HTTPS traffic.
B. Create a rule that replaces the HTTP in the URL with HTTPS.
C. Create a listener rule on the ALB to redirect HTTP traffic to HTTPS.
D. Replace the ALB with a Network Load Balancer configured to use Server Name Indication (SNI).

Correct Answer: C ☁
Reference:
https://aws.amazon.com/premiumsupport/knowledge-center/elb-redirect-http-to-https-using-alb/

Question #280Topic 1
A business hosts a multilingual website using a fleet of Amazon EC2 instances protected by an Application Load Balancer (ALB). While this design is presently operational in the us-west-1 Region, it exhibits significant request delay for customers in other regions of the globe.
The website must respond fast and effectively to user queries regardless of their location. The organization, however, does not want to duplicate the present infrastructure across numerous Regions.

How is this to be accomplished by a solutions architect?

A. Replace the existing architecture with a website served from an Amazon S3 bucket. Configure an Amazon CloudFront distribution with the S3 bucket as the origin.
B. Configure an Amazon CloudFront distribution with the ALB as the origin. Set the cache behavior settings to only cache based on the Accept-Language request header.
C. Set up Amazon API Gateway with the ALB as an integration. Configure API Gateway to use an HTTP integration type. Set up an API Gateway stage to enable the API cache.
D. Launch an EC2 instance in each additional Region and configure NGINX to act as a cache server for that Region. Put all the instances plus the ALB behind an Amazon Route 53 record set with a geolocation routing policy.

Correct Answer: B ☁

More Quetions->
AWS Solutions Architect Associate SAA-C02 Practice Questions Part 1

1. A university is running an internal web application on AWS that students can access from the university network to check their exam results. The web application runs on Amazon EC2 instances and pulls results from an Amazon DynamoDB table. Auto Scaling is currently configured to add a new web server when CPU greater than 80% for 5 minutes. DynamoDB is configured to increase both read and write capacity units by five when utilization is greater than 80%. Exam are released at 9:00 a.m, each Monday, and 80% of students attempt to access their unique results within the first 30 minutes. Despite Auto Scaling enabled, students are complaining of slow response times and errors when they view the site. There are no performance complaints after 9:30 am. Which recommendation should a Solutions Architect make to improve performance in a cost-effective manner?

Scale out the EC2 instances to ensure that the environment scales up and down based on the highest load
Implement Amazon DynamoDB Accelerator to improve database performance and remove the need to scale the read/write units.
Use a scheduled job to scale out EC2 before 9:00 am on Monday and to scale down after 9:30 am [Answer]
Use Amazon cloudfront to cache web request and reduce the load on EC2 and DynamoDB

2. A company wants to organize the contents of multiple websites in managed file storage. The company must be able to scale the storage based on demand without needing to provision storage. Multiple servers should be able to access this storage concurrently . Which services should the Solutions Architect recommend?

Amazon S3
Amazon EBS [Answer]
Amazon EFS
AWS Storage Gateway-volume gateway

3. A company has an Amazon RDS database backing its production website. The sales team needs to run queries against the database to track training program effectiveness. Queries against the production database cannot impact performance, and the solution must be easy to maintain. How can these requirements be met?

Use an Amazon Redshift database. Copy the production database into Redshift and allow the team to query it.
Use an Amazon RDS read replica of the production database and allow the team to query against it. [Answer]
Use multiple Amazon EC2 instances running replicas of the production database, placed behind a load balancer.
Use an Amazon DynamoDB table to store a copy of the data.

4. A media company has deployed a multi-tier architecture on AWS. Web servers are deployed in two Availability Zones using an Auto Scaling group with AutoScaling termination policy. The web servers Auto Scaling group currently has 15 instances running. Which instance will be terminated first during a scale-in operation?

The instance with the oldest launch configuration
The instance in the availability zone that has most instances [Answer]
The instance closest to the next billing hour
The oldest instance in the group

5. A company has a legal requirement to store point-in-time copies of its Amazon RDS PostGreSQL database instance in facilities that are at least 200 miles apart. Use of which of the following provides the easiest way to comply with this requirement?

Cross-region read replica
Multiple Availability Zone snapshot copy   [Answer]
Multiple Availability Zone read replica
Cross-region snapshot copy

6. A company has asked a Solutions Architect to ensure that data is protected during data transfer to and from Amazon S3 Use of which service will protect the data in transit?

AWS KMS
HTTPS   [Answer]
SFTP
FTPS

7. A Solutions Architect must design a storage solution for incoming billing

reports in CSV format. The data does not need to be scanned frequently and Is discarded after 30 days. Which service will be MOST cost-effective in meeting these requirements?

Import the logs into an RDS MySQL instance
Use AWS Data pipeline to import the logs into a DynamoDB table
Write the files to an S3 bucket and use Amazon Athena to query the data [Answer]
Import the logs to an Amazon Redshift cluster

8. A data-processing application runs on an i3.large EC2 instance with a single 100-GB EBS gp2 volume. The application stores temporary data in a small database(less than 30GB) located on the EBS root volume. The application is struggling to process the data fast enough and a Solutions Architect has determined that the I/O speed of the temporary database is the bottleneck. What is the MOST cost-efficient way to improve the database response times?

Enable EBS optimization on the instance and keep the temporary files on the temporary files on the existing volume.
Put the temporary database on a new 50GB EBS gp2 volume
Move the temporary database onto instance storage
Put the temporary database on a new 50-GB EBS io1 volume with a 3-K IOPS provision   [Answer]

9. A large media site has multiple applications in Amazon ECS. A Solutions Architect needs to use content metadata and route traffic to specific services. What is the MOST efficient method to perform this task?

Use and AWS Classic Load Balancer with a host-based routing option to route traffic to the correct service
Use the AWS CLI to update Amazon Route 53 hosted zone to route traffic as services get updated.
Use an AWS Application Load Balancer with host-based routing option to route traffic to the correct service.   [Answer]
Use Amazon Cloudfront to manage and route traffic to the correct service.

10. A workload in an Amazon VPC consists of a single web server launched from a custom AMI. Session state is stored in a database. How should the Solutions Architect modify this workload to be both highly available and scalable?

Create a launch configuration with a desired capacity of two web servers across multiple Availability Zones. Create an Auto Scaling group with the AMI ID of the web server image. Use Amazon Route 53 latency-based routing to balance traffic across the Auto Scaling group
Create a launch configuration with the AMI ID of the web server image. Create an Auto Scaling group using the newly-created launch configuration , and a desired capacity of two web servers across multiple regions. Use an Application Load Balancer (ALB) to balance traffic across the Auto Scaling group.
 [Answer] Create a launch configuration with the AMI ID of the web server image. Create an Auto Scaling group using the newly-created launch configuration, and a desired capacity of two web servers across multiple Availability Zones. Use an ALB to balance traffic across the Auto Scaling group
Create a launch configuration with the AMI ID of the web server image. Create an Auto Scaling group using the newly-created launch configuration and a desired capacity of two web servers across multiple AZ. Use Route 53 weighted routing to balance traffic across the Auto Scaling group.

11. An application runs in a VPC on Amazon EC2 instances behind an Application Load Balancer. Traffic to the EC2 instances must be limited from the Application Load Balancer. Based on these requirements, the security group configuration should only allow traffic from

The public IPs of the ALB nodes
The Ip range of the ALB subnets

The security group attached to the ALB [Answer]
The VPC CIDR

12. A solutions architect is defining a shared Amazon S3 bucket where corporate applications will save objects. How can the Architect ensure that when an application uploads an object to the Amazon S3 bucket, the object is encrypted?

Set a CORS configuration
Set a bucket policy to encrypt all Amazon S3 objects
Enable default encryption on the bucket [Answer]
Set permissions for users

13. A company has an application that uses Amazon Cloudfront for content that is hosted on an Amazon S3 bucket. After an unexpected refresh , the users seeing old content. Which steps should the Solution Architect take to ensure that new content is displayed?

Perform a cache refresh on the Cloudfront distribution that is serving the content
Perform an invalidation on the Cloudfront distribution that is serving the content   [Answer]
Create a new cache behavior path with the updated content
Change the TTL value for removing the old objects.

14. An application that runs on an Amazon EC2 instance must make secure calls to Amazon S3 buckets. Which steps can a Solutions Architect take to ensure that the calls are made without exposing credentials?

Generate an access key ID and a secret key, and assign an IAM role with least privilege
Create an IAM policy granting access to all services and assign it to the Amazon EC2 instance profile
Create an IAM role granting least privilege and assign it to the Amazon EC2 instance profile   [Answer]
Generate temporary access keys to grant users temporary access to the Amazon EC2 instance

15. A workload in an Amazon VPC consists of an Elastic Load Balancer that distributes incoming requests across a fleet of six Amazon EC2 instances. Each instances stores and retrieves data from an Amazon DynamoDB table. Which of the following provisions will ensure that this workload is highly available?

Provision DynamoDB tables across a minimum of two Availability Zones
Provision the EC2 instances evenly across a minimum of two AZ in two regions
Provision the EC2 instances evenly across a minimum of two AZ in a single region [Answer]
Provision the ELB to distribute connections across multiple AZ

16. A Solution Architect is designing a three-tier web application that will allow customers to upload pictures from a mobile application. The application will then generate a thumbnail of the picture and return a message to the user confirming that the image was successfully uploaded. Generation of the thumbnail may take up to 5 seconds. To provide a sub second response time to the customers uploading the images, the solutions architect wants to separate the web tier from the application tier. Which service would allow the presentation tier to asynchronously dispatch the request to the application tier?

AWS Steps Functions
AWS Lambda
Amazon SNS
Amazon SQS   [Answer]

17. A Solutions Architect is designing a ride-sharing application. The application need consistent and single-digit millisecond latency. In addition,

the application must integrate with a highly scalable and fully managed database service to track GPS coordinate and user data for all rides. Which database service should the Solutions Architect use to meet these performance requirements?

Amazon RDS
Amazon Redshift
Amazon DynamoDB   [Answer]
Amazon Aurora

18. A company has a Node.js application running on Amazon EC2 that currently retrieves data for customers from a DynamoDB table. The company is seeing many repeat queries for the same items, and the number of queries is continuing to increase as the application gains popularity. What solution will reduce the number of read capacity units (RCUs) required while minimizing the amount of refactoring that must be done to the application?

Use Amazon ElasticCache to provide a caching layer   [Answer]
Use a Lambda function to make concurrent request for caching
Use Amazon DynamoDB Accelerator (DAX) to provide a caching layer   [Answer]
Obtain reserved Capacity for Amazon DynamoDB to manage the increased number of queries

19. An application is used to process customer orders using an Amazon EC2 instance which saves the orders to an Amazon Aurora database. Occasionally when traffic is high the workload does not process orders fast enough. What will ensure that the orders are written to the database as quickly as possible?

  [Answer] Use an ALB and an auto scaling group to distribute the load across multiple instances. Write orders to an Amazon SQS queue. Use EC2 instances in an AutoScaling group to read from the SQS queue and process orders into the database.
Increase the instance size of the web server when traffic is high. Write orders as messages to Amazon SNS, ensuring the database is subscribed to the SNS topic.
Use an ALB and an Auto Scaling group to distribute the load across multiple instances. Write orders to an SQS queue. When instances save spare CPU available, read from the SQS and process orders into the database.
Use an ALB and an Auto Scaling group to distribute the load across multiple instances. Write orders as messages to SNS, ensuring that the database is subscribed to the SNS topic.

20. A retail company has sensors placed in its physical retail stores. The sensors send messages over HTTP when customers interact with in-store product. A Solutions Architect needs to implement a system for processing those sensor messages, the results must be available for the Data Analysis team. Which architecture should be used to meet these requirements?

  [Answer] Implement an Amazon API Gateway to serve as the HTTP endpoint , Have the API Gateway trigger an AWS Lambda function to process the messages, and save the results to an Amazon DynamoDB table.
Create an Amazon EC2 instance to serve as the HTTP endpoint and to process the messages. Save the results to Amazon S3 for the Data Analysis team to download.
Use Amazon Route 53 to direct incoming sensor messages to a Lambda function to process the message and save the results to a Amazon DynamoDB table.
Use AWS Direct Connect to connect sensors to DynamoDB so that data can be written directly to a DynamoDB table where it can be accessed by the Data Analysis team.

21. A company has an Amazon RDS-managed online transaction processing system that has very heavy read and write. The solutions architect notices throughput issues with the system. How can the responsiveness of the primary database be improved?

Use asynchronous replication for standby to maximize throughput during peak

demand
Offload SELECT queries that can tolerate stale data to READ replica   [Answer]
Offload SELECT and UPDATE queries to READ replica
Offload SELECT query that needs the most current data to READ replica

22. A company is using Amazon S3 as its local repository for weekly analysis
reports. One of the company-wide requirements is to secure data at rest using
encryption. The company chose Amazon S3 server-side encryption. The company
wants to know how the object is decrypted when a GET request is issued. Which of
the following answers this question?

The user needs to place a PUT request to decrypt the object
The user needs to decrypt the object using a private key
Amazon S3 manage encryption and decryption automatically
Amazon S3 provides a server-side key for decrypting the object   [Answer]

23. A company has an application that stores sensitive data. The company is
required by government regulations to store multiple copies of its data. What
would be the MOST resilient and cost-effective option to meet this requirement?

Amazon EFS
Amazon RDS
AWS Storage Gateway
Amazon S3   [Answer]

24. A Solutions Architect is building an application that will run for eight
hours, Monday through Friday. This application will also run a weekly batch
process every Saturday night that consistently takes four hours to complete.
Which the MOST cost-effective compute solution?

Spot instances
Standard Reserved instances
On-Demand Instances
Scheduled Reserved Instances   [Answer]

25. An organization has a 3-tier architecture. It uses an Apache web server and
an application is running on the Docker platform with Amazon RDS on the backend.
The organization wants to migrate the application to AWS and does not want to be
responsible for deployment, scalability or capacity provisioning of its
resources. Which service should be used to meet these requirements?

AWS OpWorks
Amazon EC2 Elastic Container Service
AWS Elastic Beanstalk   [Answer]
AWS CloudFormation

26. An application is used by thousands of concurrent users. Eighty percent of
users access the same content inside the Amazon RDS multi-AZ database. How can
the overall performance of the database queries be improved?

Use an Amazon Redshift cluster
Use Amazon Cloudfront in front of RDS
Use Amazon ElastiCache in front of RDS   [Answer]
Use Amazon DynamoDB to store the most queried information

27. A Solutions Architect must create a solution where by user access to
multiple Amazon Aurora MySQL databases is securely managed with short-lived
connect credentials. How can the Solutions Architect meet these requirements?

Create a database user to run the GRANT statement with a short-lived token
Create the user account to use the AWS-provided AWS AuthenticationPlugin with
IAM   [Answer]
Use AWS System Manager to securely save the connection secrets, and use the
secrets while connecting

Use AWS KMS to securely save the connection secrets and use the secrets while connecting

28. A customer has service based out of Oregon US and Paris, France. The application is storing data in an S3 bucket located in Oregon and that database updated frequently. The Paris office is experiencing slow response times when retrieving objects. What should a Solutions Architect do to resolve the slow response times for the Paris office?

Set up an S3 bucket based in Paris and enable cross-region replication from the Oregon bucket to the Paris bucket   [Answer]
Create an Application Load Balancer that load balances data retrieval between the Oregon S3 bucket and a new Paris S3 bucket
Create an Amazon Cloudfront distribution with the bucket located in Oregon as the origin and set the Maximum Time to Live (TTL) for cache behavior to 0
Set up an S3 bucket based in Paris and enable a lifecycle management rule to transition data from the Oregon bucket to the Paris bucket.

29. An online company wants to conduct real-time sentiment analysis about its products from its social media channels using SQL. Which of the following solutions has the LOWEST cost and operational burden?

Set up a streaming data ingestion application on Amazon EC2 and connect it to a Hadoop cluster for data processing. Send the output to Amazon S3 and use Amazon Athena to analyze the data
Configure the input stream using Amazon Kinesis Data streams. Use Amazon Kinesis Data Analytics to write SQL queries against the stream.
Configure the input stream using Amazon Kinesis Data Streams. Use Amazon Kinesis Data Firehose to send data to an Amazon Redshift cluster and then query directly against Amazon Redshift.
   [Answer] Set up a streaming data ingestion application on Amazon EC2 and send the output to Amazon S3 using Kinesis Data Firehose. Use Athena to analyze the data.

30. A customer has a legacy application with a large amount of data. The files accessed by the application are approximately 10GB each, but are rarely accessed. However,When files are accessed, they are retrieved sequentially. The customer is migrating the application to AWS and would like to use Amazon EC2 and Amazon EBS. What is the LEAST expensive EBS volume type for this use case?

Cold HDD (sc1)   [Answer]
Provisioned IOPS SSD (io1)
General Purpose SSD (gp2)
Throughput Optimized HDD (st1)

31. A Solutions Architect create an Amazon VPC with two public subnets and two private subnets. A corporate security mandate requires all Amazon EC2 instances be launched in a private subnet. However, when an EC2 instance running Apache on ports 80 and 443 is launched in the private subnet, no external internet traffic can connect with the server. What actions should be taken address this situation?

Ensure the security group attached to the EC2 instance allows HTTP traffic on port 80 and HTTPS traffic on port 443. Ensure external DNS resolution directs to the IP address of the EC2 instance.
Launch a NAT Gateway in the private subnet, change the default route to the NAT Gateway and attach a public EIP to the NAT Gateway Ensure external DNS resolution directs to the EIP address
Launch an internet-facing ALB with the EC2 instance as its endpoint. Ensure external DNS resolution directs to the ALB
Attach the EC2 instance to an Auto Scaling group in the private subnet. Ensure external DNS resolution directs to the Auto Scaling group.
32. A company has a web application with an Apache front end, a Memcached cache and a PostgreSQL database. The company also has a data warehouse that is

accessed with standard SQL tools. The company would like to migrate the architecture to AWS with as little work as possible. Which of the following AWS services should a Solutions Architect recommend?

Amazon ElastiCache and Amazon Redshift
AWS Identity and Access Management (IAM) with AWS Lambda
Amazon ElastiCache with Redis
Amazon DynamoDB and Amazon ElastiCache

33. A credit card processing application, hosted on an on-premises server needs to communicate directly with a database hosted on an Amazon EC2 instance running in a private subnet of a VPC. Compliance requirements state that end-to-end communication should be encrypted. Which solution will ensure that this requirement is met?

Use HTTPS for traffic over VPC peering between the VPC and the on-premise data center
Use HTTPS for traffic over the internet between the on-premises server and the Amazon EC2 instance
Use HTTPS for traffic over a VPN connection between the VPC and the on-premises datacenter
Use HTTPS for traffic over gateway VPC endpoints that have been configured for the Amazon EC2 instance.

34. A company wants to migrate a three-tier web application to AWS. The company wants to control the placement of the instances and have visibility into underlying sockets and cores for licensing purposes. Which compute model should a Solutions Architect choose to accomplish this task?

EC2 Reserved instances
EC2 Spot instances
EC2 Dedicated hosts
EC2 Placement Groups

35. A company has a long-running image processing application that runs on Spot instances that will be terminated when interrupted. A highly available workload must be designed to respond to Spot instance interruption notices. The solution must include atwo-minute warning when there is not enough capacity. How can these requirements be met?

Use Amazon Cloudwatch Events to invoke an AWS Lambda function that can launch On-Demand Instances.
Regularly store data from the application on Amazon DynamoDB. Increase the maximum number of instances in the AWS Auto Scaling group.
Manually place a bid for additional Spot Instances at a higher price in the same AWS Region and AZ
Ensure that the Amazon Machine image associated with the application has the latest configurations for the launch configuration.

36. A Solutions Architect designed a system based on Amazon Kinesis Data Streams. After the workflow was put into production, the company noticed it performed slowly and identified Kinesis Data Streams as the problem. One of the streams has a total of 10 Mb/s throughput. What should the Solutions Architect recommend to improve performance?

Use AWS Lambda to preprocess the data and transform the records into a simpler format, such as CSV
Run the MergeShard command to reduce the number of shards that the consumer can more easily process
Change the workflow to use Amazon Kinesis Data Firehose to gain a higher throughput
Run the UpdateShardCount command to increase the number of shards in the stream

37. An application uses an Amazon SQS queue as a transport mechanism to deliver data to a group of EC2 instances for processing. The application owner wants to add a mechanism to archive the incoming data without modifying application code on the EC2 instances. How can this application be re-architecture to archive the data without modifying the processing instances?

Trigger a Lambda function by using Amazon Cloudwatch Events to retrieve messages from the SQS queue and archive to Amazon S3
Use an Amazon SNS topic to fan out the data to the SQS queue in addition to a Lambda function that records the data to an S3 bucket
Set up an Amazon Kinesis Data Stream so that multiple instances can receive data. Add a separate EC2 instance that it configured to archive all data it receives
Write the data to an S3 bucket and use an SQS queue for S3 event notifications to tell the instances where to retrieve the data
38. A solutions architect is designing a web application for document sharing .The users will upload documents that are then made available to other users. There will be tens of thousands of these documents. What is the MOST cost-effective storage solution?

Amazon EFS
Amazon S3
Amazon Glacier
Amazon EBS
39. A company is looking for a fully-managed solution to store its players state information for a rapidly growing game. The application runs on multiple Amazon EC2 nodes. Which can scale according to the incoming traffic. The request can be routed to any of the nodes, therefore the state information must be stored in a centralized database. The players state information needs to be read with strong consistency and needs conditional updates for any changes. Which service would be MOST cost-effective and scale seamlessly?

Amazon S3
Amazon DynamoDB
Amazon RDS
Amazon Redshift
40. An application stores data in an Amazon RDS PostgreSQL Multi-AZ database instance. The ratio of read requests to write requests is about 2 to 1. Recent increases in traffic are causing very high latency. How can this problem be corrected?

 Create a similar RDS PostgreSQL instance and direct all traffic to it
Use the secondary instance of the Multiple Availability Zone for read traffic only
Create a read replica and send half of all traffic to it
Create a read replica and send all read traffic to it
41. A Solutions Architect needs to design a centralized logging solution for a group of web applications running on Amazon EC2 instances. The solution requires minimal development effort due to budget constraints. Which of the following should the Architect recommend?

Create a crontab job script in each instance to push the logs regularly to Amazon S3
Install and configure Amazon Cloudwatch Logs agent in the Amazon EC2
Enable Amazon Cloudwatch Events in the AWS Management Console.
Enable AWS Cloudtrail to map all API calls invoked by the application
42. A company has two different types of reporting needs on their 200-GB data warehouse;

–   Data scientists run a small number of concurrent ad-hoc SQL queries that can take several minutes each to run.
–   Display screens throughout the company run many fast SQL queries to populate dashboards,

Which design would meet these requirements with the LEAST cost?

A. Replicate relevant data between Amazon Redshift and Amazon DynamoDB. Data scientists use Redshift. Dashboards use DynamoDB
B. Configure auto-replication between Amazon Redshift and Amazon RDS, Data scientists use Redshift. Dashboards use RDS

C. Use Amazon Redshift for both requirements, with separate query queues configured in workload management.
D. Use Amazon Redshift for Data Scientists, Run automated dashboard queries against Redshift and store the results in Amazon ElastiCache, Dashboards query Elastic Cache.

43. A Solutions Architect needs to deploy an HTTP/HTTPS service on Amazon EC2 instances with support for WebSockets using load balancers. How can the Architect meet these requirements?

A. Configure a Network Load balancer.
B. Configure an Application Load Balancer.
C. Configure a Classic Load Balancer.
D. Configure a Layer-4 Load Balancer.

44. A Solutions Architect is planning a new web application in an Amazon VPC. The customer has specified that the architecture for the new web application must include the Capability of sharing session state among a highly available group of web servers. To fulfill this requirement, the Solutions Architect should.

A. Deliver session state as messages in the Amazon SQS queue.
B. Enable session state on Amazon CloudFront.
C. Store session state in Amazon ElastiCache
D. Provide session state through ElastiC Load Balancing sticky sessions

45. A web application runs on 10 EC2 instances launched from single customer Amazon Machine Image (AMI). The EC2 instances are behind an internet Application Load Balancer. Amazon Route 53 provides DNS for the application. How should a Solutions Architect automate recovery Men a web server instance stops replying to requests?

A. Launch the instances in an Auto Scaling group with an Elastic Load Balancing health check.
B. Launch instances in multiple Availability Zones and set the load balancer to Multi-AZ
C. Add CloudWatch alarm actions for each instance to restart if the Status Check (Any) fails
D. Add Route 53 records for each instances With vary instance health check

46. A Solutions Architect is concerned that the current security group rules for a database tier are too permissive and may permit requests that should be restricted. Below are the current Security group permissions for the database tier:

– Protocol: TCP
– Port Range: 1433 (MS SQL)
– Source: ALL

Currently, the only identified resource that needs to connect to the databases the application tier consisting of an Auto Scaling group of EC2 instances. What changes can be made to this security group that would offer the users LEAST privilege?

A. Change the source to -1 to remove source lP addresses Previously unseen
B. Change the source to the VPC CIDR block
C. Change the source to the application instances IDs.
D. Change the source to the security group ID attached to the application instances.

47. Which requirements must be met in order for a Solutions Architect to specify that an Amazon EC2 instance should stop rather than terminate its Spot Instance is interrupted? (Select TWO.)

A. The Spot Instance request type must be one-time.
B. The Spot Instance request type must be persistent.
C. The root volume must be an Amazon EBS volume
D. The root volume must be an instance store volume.
E. The launch configuration is changed.

48. A Solutions Architect needs to deploy a node.js-based web application that is highly available and scales automatically. The Marketing team needs to roll back on application releases quickly, and they need to have an operational dashboard. The Marketing team does not want to manage deployment of OS patches to the Linux servers. Use Of which service will satisfied these requirements?

A. Amazon EC2
B. Amazon API Gateway
C. AWS Elastic Beanstalk
D. Amazon EC2 Container Service

49. A company is creating an application that allows users to share uploaded files with other users. They have configured an S3 bucket, Vtere the files are uploaded and stored to grant access to only an Amazon CloudFront distribution. The company is now asking the Solutions Architect to determine a strategy to secure the static files so that they are shared only with the users that the file owner has allowed. What should the Solutions Architect recommend to secure the static files and prevent unauthorized access?

A. Use the application to create temporary access and secret keys by using AWS STS Assume Role with the policy parameter,
B. Use the application instances to create a CloudFront signed URL,
C. Use the application instances to create an S3 pre-signed URL
D. Create a CloudFront origin access identity (OAI) for each user, and set the bucket policy for each OAI based on user request

50. A Solutions Architect has been asked to deliver video content stored on Amazon S3 to specific users from Amazon CloudFront while restricting access by unauthorized users. How can the Architect implement a solution to meet these requirements?

A. Configure CloudFront to use signed-URLs to access Amazon S3
B. Store the videos as private objects in Amazon S3 and let CloudFront serve the objects by using only Origin Access Identity (OAI)
C. Use Amazon S3 static website as the origin of CloudFront, and configure CloudFront to deliver the videos by generating a signed URL for users
D. Use OAI for CloudFront to access private S3 objects and select the Restrict Viewer Access option in CloudFront cache behavior to use signed URLs.

51. What conditions could cause a Multi-AZ Amazon RDS failover to occur? (Select TWO)

A. The RDS instance is stopped manually.
B. A replica of the RDS instance is created in a different region.
C. An Availability Zone becomes unavailable.
D. Another master user is created.
E. A failure of the primary database instance.

52. A company has an application that accesses a MySQL database installed on a single EC2 instance. The instance recently experienced a fault and brought down the entire application for several hours. The company wants to address the issue but is concerned about spending too much time modifying application code or managing the legacy application. What should the Solutions Architect recommend to remove this single point of failure with the FEWEST changes to the application code and the LEAST amount of administrative effort?

A. Implement a caching layer by using Amazon ElastiCache to store query results of frequently accessed information.
B. Deploy a second EC2 instance with kilsea installed, and configure replication between this instance and the existing MySQL instance.
C. Migrate the database to an RDS MySQL Multi-AZ DB instance, and point the application servers to the new RDS instance.
D. Create a DynamoDB table to use as a cache layer, and update the application to query data from Amazon DynamoDB before querying MySQL.

53. A Solutions Architect needs to design an Amazon RDS for MySQL solution whereby users must be authenticated using only SSL connections. How should the Solutions Architect design the solution?

A. Only allow SSL connections through a VPC security group.
B. Use GRANT and ALTER commands with the REQUIRE SSL option for the user.
C. Connect with a MySQL client that references the public key.
D. Ensure that the SSL parameters are set in the parameter group at launch.

54. A company's policy requires that all date stored in Amazon S3 is encrypted. The company wants to use the option with the least overhead and does not want to manage any encryption keys. Which of the following options will meet the company's requirements?

A. AWS CloudHSM
B. AWS Trusted Advisor
C. Server Side Encryption (SSE-S3)
D. Server Side Encryption (SSE-KMS)

55. A team is launching a marketing campaign and the peak database read activity in Amazon Aurora for MySQL is expected to increase. A Solutions Architect decides to add two Read Replicas to the cluster. How should the Solutions Architect ensure that the connections for read activities are load balanced?

A. Reader endpoint for Amazon Aurora
B. Cluster endpoint for Amazon Aurora
C. Primary DB instance endpoint for Amazon Aurora
D. Replica DB instances endpoint for Aurora.

56. A team is building an application that must persist and index JSON files in a highly-available data store. Latency of data access must remain consistent despite very high application traffic. Which service should the team choose?

Amazon EFS
Amazon Redshift
DynamoDB
AWS Cloudformation

57. A company is migrating an on-premise 10TB MySQL database to AWS. The company expects the database to quadruple in size and the business requirement is that replica lag must be kept under 100 milliseconds. Which Amazon RDS engine meet these requirements?

MySQL
Microsoft SQL server
Oracle
Amazon Aurora

58. A Solutions Architect is designing a highly-scalable system to track records. Record must remain available for immediate download for three months and then the records must be deleted. What is the most appropriate decision for this use case?

Store the files on Amazon EBS, and create a life cycle policy to remove the files after three months
Store the files in Amazon S3 and create a lifecycle policy to remove the files after three months.
Store the files in Amazon Glacier and create a lifecycle policy to remove the files after three months.
Store the files on Amazon EFS and create a lifecycle policy to remove the files after three months.

59. A company is implementing a data lake solution on Amazon S3. Its security policy mandates that the data stored in Amazon S3 should be encrypted at rest. Which options can achieve this? (Select TWO.)

Use S3 server-side encryption with an Amazon EC2 key pair.
Use S3 server-side encryption with customer-provided keys (SSE-C).
Use S3 bucket policies to restrict access to the data at rest.
Use client-side encryption before ingesting the data to Amazon S3 using encryption keys.
Use SSL to encrypt the data while in transit to Amazon S3.

60. A photo-sharing website running on AWS allows users to generate thumbnail images of photos stored in Amazon S3. An Amazon DynamoDB table maintains the

locations of photos, and thumbnails are easily recreated from the originals if they are accidentally deleted. How should the thumbnail images be stored to ensure the LOWEST cost?

Amazon S3 Standard-Infrequent Access (S3 Standard-IA) with cross-region replication
Amazon S3
Amazon Glacier
Amazon S3 with cross-region replication