**QUESTION 463**
A pharmaceutical company is developing a new drug. The volume of data that the company generates has grown exponentially over the past few months. The company's researchers regularly require a subset of the entire dataset to be immediately available with minimal lag. However, the entire dataset does not need to be accessed on a daily basis. All the data currently resides in on-premises storage arrays, and the company wants to reduce ongoing capital expenses. Which storage solution should a solutions architect recommend to meet these requirements?

A. Run AWS DataSync as a scheduled cron job to migrate the data to an Amazon S3 bucket on an ongoing basis.
B. Deploy an AWS Storage Gateway file gateway with an Amazon S3 bucket as the target storage. Migrate the data to the Storage Gateway appliance.
C. Deploy an AWS Storage Gateway volume gateway with cached volumes with an Amazon S3 bucket as the target storage. Migrate the data to the Storage Gateway appliance.
D. Configure an AWS Site-to-Site VPN connection from the on-premises environment to AWS. Migrate data to an Amazon Elastic File System (Amazon EFS) file system.

**Correct Answer:** C

**QUESTION 464**
A company observes an increase in Amazon EC2 costs in its most recent bill. The billing team notices unwanted vertical scaling of instance types for a couple of EC2 instances. A solutions architect needs to create a graph comparing the last 2 months of EC2 costs and perform an in-depth analysis to identify the root cause of the vertical scaling. How should the solutions architect generate the information with the LEAST operational overhead?

A. Use AWS Budgets to create a budget report and compare EC2 costs based on instance types.
B. Use Cost Explorer's granular filtering feature to perform an in-depth analysis of EC2 costs based on instance types.
C. Use graphs from the AWS Billing and Cost Management dashboard to compare EC2 costs based on instance types for the last 2 months.
D. Use AWS Cost and Usage Reports to create a report and send it to an Amazon S3 bucket. Use Amazon QuickSight with Amazon S3 as a source to generate an interactive graph based on instance types.

**Correct Answer:** C

**QUESTION 465**
A company is using AWS Organizations with two AWS accounts Logistics and Sales. The Logistics account operates an Amazon Redshift cluster. The Sates account includes Amazon EC2 instances. The Sales account needs to access the Logistics account's Amazon Redshift cluster. What should a solutions architect recommend to meet this requirement MOST cost-effectively'?

A. Set up VPC sharing with the Logistics account as the owner and the Sates 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 m the Sales account.
C. Create a snapshot of the Amazon Redshift duster 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.
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:** A

**QUESTION 466**
A company uses AWS to run all components of its three-tier web application. The company wants to automatically detect any potential security breaches within the environment. The company wants to track any findings and notify administrators if a potential breach occurs. Which solution meets these requirements?

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.

**Correct Answer:** D

**QUESTION 467**
A company is using a content management system that runs on a single Amazon EC2 instance. The EC2 instance contains both the web server and the database software. The company must make its website platform highly available and must enable the website to scale to meet user demand. What should a solutions architect recommend to meet these requirements?

A. Move the database to Amazon RDS, and enable automatic backups. Manually launch another EC2 instance in the same Availability Zone. Configure an Application Load Balancer in the Availability Zone and set the two instances as targets.
B. Migrate the database to an Amazon Aurora instance with a read replica in the same Availability Zone as the existing EC2 instance. Manually launch another EC2 instance in the same Availability Zone. Configure an Application Load Balancer and set the two EC2 instances as targets.
C. Move the database to Amazon Aurora with a read replica in another Availability Zone. Create an Amazon Machine Image (AMI) from the EC2 instance. Configure an Application Load Balancer in two Availability Zones. Attach an Auto Scaling group that uses the AMI across two Availability Zones.
D. Move the database to a separate EC2 instance and schedule backups to Amazon S3. Create an Amazon Machine Image (AMI) from the original EC2 instance. Configure an Application Load Balancer in two Availability Zones. Attach an Auto Scaling group that uses the AMI across two Availability Zones.

**Correct Answer:** C

**QUESTION 468**

A company has no existing file share services. A new project requires access to file storage that is mountable as a drive for on-premises desktops. The file server must authenticate users to an Active Directory domain before they are able to access the storage. Which service will allow Active Directory users to mount storage as a drive on their desktops?

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

**Correct Answer:** D


**QUESTION 469**

A solutions architect is migrating a document management workload to AWS. The workload keeps 7 TiB of contract documents on a snared storage file system and tracks them on an external database. Most of the documents are stored and retrieved eventually for reference in the future. The application cannot be modified during the migration, and the storage solution must be highly available. Documents are retrieved and stored by web servers that run on Amazon EC2 instances. In an Auto Scaling group, the Auto Scaling group can have up to 12 instances. Which solution meets these requirements MOST cost-effectively?

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.

**Correct Answer:** A


**QUESTION 470**

A company runs a highly available image-processing application on Amazon EC2 instances in a single VPC. The EC2 instances run inside several subnets across multiple Availability Zones. The EC2 instances do not communicate with each other. However, the EC2 instances download images from Amazon S3 and upload images to Amazon S3 through a single NAT gateway. The company is concerned about data transfer charges. What is the MOST cost-effective way for the company to avoid Regional data transfer charges?

A. Launch the NAT gateway in each Availability Zone
B. Replace the NAT gateway with a NAT instance
C. Deploy a gateway VPC endpoint for Amazon S3
D. Provision an EC2 Dedicated Host to run the EC2 instances

**Correct Answer:** A


**QUESTION 471**

A company manages a data lake in an Amazon S3 bucket that numerous applications share. The S3 bucket contains unique folders with a prefix for each application. The company wants to restrict each application to its specific folder and have granular control of the objects in each folder. Which solution meets these requirements with the LEAST amount of operational overhead?

A. Create dedicated S3 access points and access point policies for each application.
B. Create an S3 Batch Operations job to set the ACL permissions for each object in the S3 bucket.
C. Replicate the objects in the S3 bucket to new S3 buckets for each application. Create replication rules by prefix.
D. Replicate the objects in the S3 bucket to new S3 buckets for each application. Create dedicated S3 access points for each application.

**Correct Answer:** C

**QUESTION 472**
A company needs to send large amounts of data from its data center to an Amazon S3 bucket on a regular basis. The data must be encrypted and must be transferred over a network that provides consistent bandwidth and low latency. What should a solutions architect do to meet these requirements?

A. Use an AWS Direct Connect connection
B. Use an AWS VPN CloudHub connection
C. Use HTTPS TLS tor encryption of data in transit
D. Use a gateway VPC endpoint to access Amazon S3

**Correct Answer:** B

**QUESTION 473**
The financial application at a company stores monthly reports in an Amazon S3 bucket. The vice president of finance has mandated that ail access to these reports be logged and that any modifications to the tog files be detected. Which actions can a solutions architect take to meet these requirements?

A. Use S3 server access togging 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.
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
**Explanation:**
https://docs.aws.amazon.com/awscloudtrail/latest/userguide/logging-data-events-with-cloudtrail.html

**QUESTION 474**
A company has deployed a database in Amazon RDS for MySQL. Due to increased transactions,

the database support team is reporting slow reads against the DB instance and recommends adding a read replica. Which combination of actions should a solutions architect take before implementing 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.
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.

**Correct Answer:** BE

**QUESTION 475**
A company runs an online ticketing application with backend services that run on Amazon EC2 instances. The EC2 instances belong to an Auto Scaling group and run behind an Application Load Balancer. The application experiences periods of high user traffic when a popular event is posted online. The company wants a solution that will be able to handle increases in user traffic without affecting the user experience. What should a solutions architect do to meet these requirements?

A. Configure a scheduled scaling policy for peak hours with a recurrence schedule set to every day.
B. Configure a target tracking scaling policy that uses the average aggregate CPU utilization target metric.
C. Configure a step scaling policy that is based on an Amazon CloudWatch alarm that monitors CPU utilization.
D. Configure an Application Load Balancer health check that increases the Auto Scaling group capacity whenever the application returns HTTP 503 error codes.

**Correct Answer:** B

**QUESTION 476**
A company with multiple accounts and teams wants to set up a new multi-account AWS environment. Which AWS service supports this requirement?

A. AWS CloudFormation
B. AWS Control Tower
C. AWS Config
D. Amazon Virtual Private Cloud (Amazon VPC)

**Correct Answer:** B

**QUESTION 477**
A company recently migrated its entire IT environment to the AWS Cloud. The company discovers that users are provisioning oversized Amazon EC2 instances and modifying security group rules without using the appropriate change control process. A solutions architect must devise a strategy to track and audit these inventory and configuration changes. Which actions should the solutions architect take to meet these requirements? (Select TWO )

A. Enable AWS CloudTrail and use it for auditing
B. Use data lifecycie policies for the Amazon EC2 instances
C. Enable AWS Trusted Advisor and reference the security dashboard
D. Enable AWS Config and create rules for auditing and compliance purposes