QUESTION 129

A company wants to migrate its MySQL database from on premises to AWS. The company recently experienced a database outage that significantly impacted the business. To ensure this does not happen again the company wants a reliable database solution on AWS that minimizes data loss and stores every transaction on at least two nodes. Which solution meets these requirements?

- A. Create an Amazon RDS DB instance with synchronous replication to three nodes in three Availability Zones.
- B. Create an Amazon RDS MySQL DB instance with Multi-AZ functionality enabled to synchronously replicate the data.
- C. Create an Amazon RDS MySQL DB instance and then create a read replica in a separate AWS Region that synchronously replicates the data.
- D. Create an Amazon EC2 instance with a MySQL engine installed that triggers an AWS Lambda function to synchronously replicate the data to an Amazon RDS MySQL DB instance.

Correct Answer: B

QUESTION 130

A company uses an Amazon S3 bucket to store static images for its website. The company configured permissions to allow access to Amazon S3 objects by privileged users only. What should a solutions architect do to protect against data loss? (Select TWO.)

- A. Enable versioning on the S3 bucket.
- B. Enable access togging 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

QUESTION 131

A company has an on-premises data center that is running out of storage capacity. The company wants to migrate its storage infrastructure to AWS while minimizing bandwidth costs. The solution must allow for immediate retrieval of data at no additional cost. How can these requirements be met?

- A. Deploy Amazon S3 Glacier Vault and enable expedited Enable provisioned retrieved capacity for the workload.
- B. Deploy AWS Storage Gateway using cached volumes. Use Storage GATEWAY store data in Amazon retaining copies of frequently accessed data subnets locally.
- C. Deploy AWS Storage gateway using stored volume to store data locally Use Storage gateway asynchronously back up point-in-time snapshots of the data Amazon S3.
- D. Deploy AWS Direct Connects to connect with on-premises data center. Configure AWS Storage gateway to store data locally use storage gateway to asynchronously back up point-in-time snapshot of data Amazon S3.

Correct Answer: B **Explanation**:

https://docs.aws.amazon.com/storagegateway/latest/userguide/WhatIsStorageGateway.html https://docs.aws.amazon.com/amazonglacier/latest/dev/downloading-an-archive-two-steps.html

QUESTION 132

A company has an application that uses an Amazon OynamoDB table lew storage. A solutions architect discovers that many requests to the table are not returning the latest data. The company's users have not reported any other issues with database performance Latency is in an acceptable range. Which design change should the solutions architect recommend?

- A. Add read replicas to the table.
- B. Request strongly consistent reads for the table.
- C. Request eventually consistent reads for the table.
- D. Use a global secondary index (GSI).

Correct Answer: C

QUESTION 133

A company is running a multi-tier web application on AWS. The application runs its database on Amazon Aurora MySQL. The application and database tiers are in the us-easily Region. A database administrator who monitors the Aurora DB cluster finds that an intermittent increase in read traffic is creating high CPU utilization on the read replica. The result is increased read latency for the application. The memory and disk utilization of the DB instance are stable throughout the event of increased latency. What should a solutions architect do to improve the read scalability?

- A. Reboot the DB cluster
- B. Create a cross-Region read replica
- C. Configure Aurora Auto Scaling for the read replica
- D. Increase the provisioned read IOPS for the DB instance

Correct Answer: B

QUESTION 134

A company is migrating a NoSQL database cluster to Amazon EC2. The database automatically replicates data to maintain at least three copies of the data I/O throughput of the servers is the highest priority. Which instance type should a solutions architect recommend for the migration?

- A. Storage optimized instances with instance store
- B. Burstable general purpose instances with an Amazon Elastic Block Store (Amazon EBS) volume
- C. Memory optimized instances with Amazon Elastic Block Store (Amazon EBS) optimization enabled
- D. Compute optimized instances with Amazon Elastic Block Store (Amazon EBS) optimization enabled

Correct Answer: A

QUESTION 135

A company is running a three-tier web application to process credit card payments. The front-end user interface consists of static webpages. The application tier can have long-running processes. The database tier uses MySQL. The application is currently running on a single general purpose large Amazon EC2 instance. A solutions architect needs to decouple the services to make the web application highly available. Which solution would provide the HIGHEST 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 me 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

Correct Answer: D

QUESTION 136

A company has recently updated its internal security standards. The company must now ensure all Amazon S3 buckets and Amazon Elastic Block Store (Amazon EBS) volumes are encrypted with keys created and periodically rotated by internal security specialists. The company is looking for a native, software-based AWS service to accomplish this goal. What should a solutions architect recommend as a solution?

- A. Use AWS Secrets Manager with customer master keys (CMKs) to store master key material and apply a routine to create a new CMK periodically and replace it m AWS Secrets Manager.
- B. Use AWS Key Management Service (AWS KMS) with customer master keys (CMKs) to store master key material and apply a routine to re-create a new key periodically and replace it in AWS KMS.
- C. Use an AWS CloudHSM cluster with customer master keys (CMKs) to store master key material and apply a routine to re-create a new key periodically and replace it in the CloudHSM cluster nodes.
- D. Use AWS Systems Manager Parameter Store with customer master keys (CMKs) to store master key material and apply a routine to re-create a new key periodically and replace it in the Parameter Store.

Correct Answer: A

QUESTION 137

A company hosts a training site on a fleet of Amazon EC2 instances. The company anticipates that its new course which consists of dozens of training videos on the site, will be extremely popular when it is released in 1 week. What should a solutions architect do to minimize the anticipated server load?

- 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 m Amazon Elastic File System (Amazon EFS) Create a user data script for the web servers to mount the EPS volume.
- C. Store the videos m 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.
- 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

QUESTION 138

A company has a web application hosted over 10 Amazon EC2 instances with traffic directed by

Amazon Route 53. The company occasionally experiences a timeout error when attempting to browse the application. The networking team finds that some DNS queries return IP addresses of unhealthy instances resulting in the timeout error. What should a solutions architect implement to overcome these timeout errors?

- A. Create a Route 53 simple routing policy record for each EC2 instance Associate a health check with each record
- B. Create a Route 53 failover routing policy record for each EC2 instance Associate a hearth check with each record
- C. Create an Amazon CloudFront distribution with EC2 instances as its origin Associate a health check with the EC2 instances
- D. Create an Application Load Balancer (ALB) with a health check in front of the EC2 instances Route to the ALB from Route 53

Correct Answer: D

QUESTION 139

A company recently launched Linux-based application instances on Amazon EC2 in a private subnet and launched a Linux-based bastion host on an Amazon EC2 instance in a public subnet of a VPC. A solutions architect needs to connect from the on-premises network, through the company's internet connection to the bastion host and to the application servers. The solutions architect must make sure that the security groups of all the EC2 instances will allow that access. Which combination of steps should the solutions architect take to meet these requirements? (Select TWO)

- A. Replace the current security group of the bastion host with one that only allows inbound access from the application instances
- B. Replace the current security group of the bastion host with one that only allows inbound access from the internal IP range for the company
- C. Replace the current security group of the bastion host with one that only allows inbound access from the external IP range for the company
- D. Replace the current security group of the application instances with one that allows inbound SSH access from only the private IP address of the bastion host
- E. Replace the current security group of the application instances with one that allows inbound SSH access from only the public IP address of the bastion host

Correct Answer: BE

QUESTION 140

A company provides machine learning solutions .The company's users need to download large data sets from the company's Amazon S3 bucket. These downloads often take a long lime, especially when the users are running many simulations on a subset of those datasets. Users download the datasets to Amazon EC2 instances in the same AWS Region as the S3 bucket. Multiple users typically use the same datasets at the same time. Which solution will reduce the lime that is required to access the datasets?

- A. Configure the S3 bucket lo use the S3 Standard storage class with S3 Transfer Acceleration activated.
- B. Configure the S3 bucket to use the S3 Intelligent-Tiering storage class with S3 Transfer Acceleration activated.
- C. Create an Amazon Elastic File System (Amazon EFS) network Tile system. Migrate the datasets by using AWS DataSync.
- D. Move the datasets onto a General Purpose SSD (gp3) Amazon Elastic Block Store (Amazon EBS)

volume. Attach the volume to all the EC2 instances.

Correct Answer: D

QUESTION 141

A company build an application that gives users the ability to check in to places they visit, rank the places, and add reviews about their experiences. The application is successful and is experiencing a rapid increase in the number of users every month. The company uses a single Amazon RDS for MySQL DB instance for its database. The company fears that the database might not be able to handle the load for the upcoming month because the DB instance has activated alarms that are related to resource exhaustion. A solutions architect must design a solution that prevents service interruptions at the database layer. The solutions architect also must minimize any changes to code. Which solution meets these requirements?

- A. Create RDS read replicas. Redirect read-only traffic to the read replica endpoints.
- B. Create an Amazon EMR cluster. Migrate the data to a Hadoop Distributed File System (HDFS) with a replication factor of 3.
- C. Create an Amazon ElastiCache cluster. Redirect all read-only traffic to the cluster. Set up the cluster to be deployed in three Availability Zones.
- D. Turn on the Multi-AZ feature for the DB instance. Redirect read-only traffic to the standby replica endpoint.

Correct Answer: A

QUESTION 142

Application developers have noticed that a production application is very slow when business reporting users run large production reports against the Amazon RDS instance backing the application. The CPU and memory utilization metrics for the RDS instance do not exceed 60% while the reporting queries are running. The business reporting users must be able to generate reports without affecting the application's performance. Which action will accomplish 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

Correct Answer: D

QUESTION 143

A company runs an AWS Lambda function in private subnets in a VPC. The subnets have a default route to the internet through an Amazon EC2 NAT instance. The Lambda function processes input data and saves its output as an object to Amazon S3 intermittently the Lambda function times out while trying to upload the object because of saturated traffic on the NAT instance's network. The company wants to access Amazon S3 without traversing the internet. Which solution will meet these requirements'

- A. Replace the fcC2 NAT instance with an AWS managed NAT gateway
- B. Increase the size of the EC2 NAT instance in the VPC to a network optimized instance type
- C. Provision a gateway endpoint for Amazon S3 in the VPC Update the route tables of the subnets accordingly
- D. Provision a transit gateway Place transit gateway attachments in the private subnets where the Lambda function is running