Correct Answer: C

#### **QUESTION 144**

A recent analysis of a company's IT expenses highlights the need to reduce backup costs. The company s chief information officer wants to simplify the on-premises backup infrastructure and reduce costs by eliminating the use of physical backup tapes. The company must preserve the existing investment in the on-premises backup applications and workflows. What should a solutions architect recommend"

- A. Set up AWS Storage Gateway to conned with the backup applications using the NFS interface
- B. Set up an Amazon EFS file system that connects with the backup applications using the NFS interface
- C. Set up an 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

Correct Answer: D

### **QUESTION 145**

A company recently announced the deployment of its retail website to a global audience. The website runs on multiple Amazon EC2 instances behind an Elastic Load Balancer. The instances run in an Auto Scaling group across multiple Availability Zones. The company wants to provide its customers with different versions of content based on the devices that the customers use to access the website. Which combination of actions should a solutions architect take to meet these requirements7 (Select TWO.)

- A. Configure Amazon CloudFront to cache multiple versions of the content.
- 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.
- 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: BD

### **QUESTION 146**

A solutions architect is designing the cloud architecture for a company that needs to host hundreds of machine learning models for its users. Dunng startup, the models need to load up to 10 GB of data from Amazon S3 into memory, out they do not need disk access. Most of the models are used sporadically but the users expect all of them to be highly available and accessible with low latency. Which solution meets the requirements and is MOST cost-effective1?

- A. Deploy models as AWS Lambda functions behind an Amazon API Gateway for each model
- B. Deploy models as Amazon Elastic Container Service (Amazon ECS) services behind an Application Load Balancer for each model
- C. Deploy models as AWS Lambda functions behind a single Amazon API Gateway with path-based routing where one path corresponds to each model
- D. Deploy models as Amazon Elastic Container Service (Amazon ECS) services behind a single

Application Load Balancer with path-based routing where one path corresponds to each model

Correct Answer: D

#### **QUESTION 147**

A company has an automobile sales website that stores its listings in a database on Amazon RDS. When an automobile is sold the listing needs to be removed from the website and the data must be sent to multiple target systems. Which design should a solutions architect recommend?

- A. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS> queue for the targets to consume
- B. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS) FIFO queue for the targets to consume
- C. Subscribe to an RDS event notification and send an Amazon Simple Queue Service (Amazon SQS) queue fanned out to multiple Amazon Simple Notification Service (Amazon SNS) topics Use AWS Lambda functions to update the targets
- D. Subscribe to an RDS event notification and send an Amazon Simple Notification Service (Amazon SNS) topic fanned out to multiple Amazon Simple Queue Service (Amazon SQS) queues Use AWS Lambda functions to update the targets

Correct Answer: D

#### **QUESTION 148**

An application uses an Amazon RDS MySQL DB instance. The RDS database is becoming low on disk space. A solutions architect wants to increase the disk space without downtime. Which solution meets these requirements with the LEAST amount of effort?

- A. Enable storage autoscaling 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: A

## **QUESTION 149**

A company wants to build an online marketplace application on AWS as a set of loosely coupled microservices. For this application, when a customer submits a new order two microservices should handle the event simultaneously. The Email microservice will send a confirmation email and the OrderProcessing microservice will start the order delivery process. If a customer cancels an order, the OrderCancellation and Email microservices should handle the event simultaneously. A solutions architect wants to use Amazon Simple Queue Service (Amazon SQS) and Amazon Simple Notification Service (Amazon SNS) to design the messaging between the microservices. How should the solutions architect design the solution?

- A. Create a single SQS queue and publish order events to it The Email, OrderProcessing and OrderCancellation microservices can then consume messages off the queue
- B. Create three SNS topics for each microservice Publish order events to the three topics Subscribe each of the Email OrderProcessmg, and OrderCancellation microservices to its own topic
- C. Create an SNS topic and publish order events to it Create three SQS queues for the Email OrderProcessing and OrderCancellation microservices Subscribe all SQS queues to the SNS

topic with message filtering

D. Create two SQS queues and publish order events to both queues simultaneously One queue is for the Email and OrderProcessmg microservices The second queue is for the Email and Order Cancellation microservices

**Correct Answer: C** 

### **QUESTION 150**

A company previously migrated its data warehouse solution to AWS. The company also has an AWS Direct Conned connection Corporate office users query the data warehouse using a visualization tool. The average size of a query returned by the data warehouse is 50 MB and each webpage sent by the visualization tool is approximately 500 KB. Result sets returned by the data warehouse are not cached. Which solution provides the LOWEST data transfer egress cost for the company?

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

**Correct Answer:** D

#### **QUESTION 151**

A solutions architect needs to design a nighty available application consisting of web. Application and database tiers HTTPS content delivery should be as close to the edge as possible with the least delivery time. Which solution meets these requirements and is MOST secure?

- A. Configure a public Application Load Balancer (ALB) with multiple redundant Amazon EC2 instances in public subnets Configure Amazon CloudFront to deliver HTTPS content using the public ALB as the origin
- B. Configure a public Application Load Balancer with multiple redundant Amazon EC2 instances in private subnets Configure Amazon CloudFront to deliver HTTPS content using the EC2 instances as the origin
- C. Configure a public Application Load Balancer (ALB) with multiple redundant Amazon EC2 instances in private subnets Configure Amazon CloudFront to deliver HTTPS content using the public ALB as the origin
- D. Configure a public Application Load Balancer with multiple redundant Amazon EC2 instances in public subnets Configure Amazon CloudFront to deliver HTTPS content using the EC2 instances as the origin

Correct Answer: B

## **QUESTION 152**

A company has a large Microsoft SharePoint deployment running on-premises that requires Microsoft Windows shared file storage. The company wants to migrate this workload to the AWS Cloud and is considering various storage options. The storage solution must be highly available and integrated with Active Directory for access control. Which solution will satisfy these requirements?

- A. Configure Amazon EFS storage and set the Active Directory domain for authentication
- B. Create an SMB Me share on an AWS Storage Gateway tile gateway in two Availability Zones
- C. Create an Amazon S3 bucket and configure Microsoft Windows Server to mount it as a volume
- D. Create an Amazon FSx for Windows File Server file system on AWS and set the Active Directory domain for authentication

Correct Answer: D

## **QUESTION 153**

A solutions architect is designing a multi-Region disaster recovery solution or an application that will provide public API access. The application will use Amazon EC2 instances with a userdata script to load application code and an Amazon RDS for MySQL database. The Recovery Time Objective (RTO) is 3 hours and the Recovery Point Objective (RPO) is 24 hours. Which architecture would meet these requirements at the LOWEST cost?

- A. Use an Application Load Balancer for Region failover Deploy new EC2 instances with the userdata script Deploy separate RDS instances in each Region
- B. Use Amazon Route 53 for Region failover Deploy new EC2 instances with the userdata script Create a read replica of the RDS instance in a backup Region
- C. Use Amazon API Gateway for the public APIs and Region failover Deploy new EC2 instances with the userdata script Create a MySQL read replica of the RDS instance in a backup Region
- D. Use Amazon Route 53 for Region failover Deploy new EC2 instances with the userdata script for APIs, and create a snapshot of the RDS instance daily for a backup Replicate the snapshot to a backup Region

Correct Answer: C

## **QUESTION 154**

A company has a production web application in which users upload documents through a web interlace or a mobile app. According to a new regulatory requirement, new documents cannot be modified or deleted after they are stored. What should a solutions architect do to meet this requirement?

- A. Store the uploaded documents in an Amazon S3 bucket with S3 Versioning and S3 Object Lock enabled.
- B. Store the uploaded documents in an Amazon S3 bucket. Configure an S3 Lifecycle policy to archive the documents periodically.
- C. Store the uploaded documents in an Amazon S3 bucket with S3 Versioning enabled Configure an ACL to restrict all access to read-only.
- D. Store the uploaded documents on an Amazon Elastic File System (Amazon EFS) volume. Access the data by mounting the volume in read-only mode.

**Correct Answer:** A

## **QUESTION 155**

An ecommerce company is running a multi-tier application on AWS. The front-end and backend tiers run on Amazon EC2, and the database runs on Amazon RDS for MYSQL. The backend tier communities with the RDS instance. There are frequent calls to return identical database from the database that are causing performance slowdowns. Which action should be taken to improve the performance of the backend?

A. Implement Amazon SNS to store the database calls.

- B. Implement Amazon ElasticCache to cache the large database.
- 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

#### **QUESTION 156**

A company hosts an application on multiple Amazon EC2 instances. The application processes messages from an Amazon SQS queue writes to an Amazon RDS table and deletes the message from the queue Occasional duplicate records are found in the RDS table. The SQS queue does not contain any duplicate messages. What should a solutions architect do to ensure messages are being processed once only?

- A. Use the CreateQueue API call to create a new queue
- B. Use the Add Permission API call to add appropriate permissions
- C. Use the ReceiveMessage API call to set an appropriate wail time
- D. Use the ChangeMessageVisibility APi call to increase the visibility timeout

Correct Answer: D

## **QUESTION 157**

A company is building a media sharing application and decides to use Amazon S3 for storage. When a media file is uploaded, the company starts a multi-step process to create thumbnails identity objects in the images transcode videos into standard formats and resolutions and extract and store the metadata to an Amazon DynamoDB table. The metadata is used for searching and navigation. The amount of traffic is variable. The solution must be able to scale to handle spikes in load without unnecessary expenses. What should a solutions architect recommend to support this workload?

- A. Build the processing into the website or mobile app used to upload the content to Amazon S3 Save the required data to the DynamoDB table when the objects are uploaded
- B. Trigger AWS Step Functions when an object is stored in the S3 bucket Have the Step Functions perform the steps needed to process the object and then write the metadata to the DynamoDB table
- C. Trigger an AWS Lambda function when an object is stored in the S3 bucket Have the Lambda function start AWS Batch to perform the steps to process the object Place the object data m the DvnamoDB table when complete
- D. Trigger an AWS Lambda function to store an initial entry in the DynamoDB table when an object is uploaded to Amazon S3 Use a program running on an Amazon EC2 instance in an Auto Scaling group to poll the index for unprocessed items, and use the program to perform the processing

Correct Answer: C

### **QUESTION 158**

A company recently launched its website to servo content to its global user base. The company wants to store and accelerate the delivery of static content to its users by leveraging Amazon CloudFront with an Amazon EC2 instance attached as its origin. How should a solutions architect optimize high availability tor the application?

- A. Use lambda@Edge for CloudFront
- B. Use Amazon S3 Transfer Acceleration for CloudFront
- C. Configure another EC2 instance m a different Availability Zone as part of the origin group
- D. Configure another EC2 instance as part of the origin server cluster in the same Availability Zone