

QUESTION 263

A solutions architect is designing a multi-Region disaster recovery solution for 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

Answer: C

QUESTION 264

A solutions architect is designing a new API using Amazon API Gateway that will receive requests from users.

The volume of requests is highly variable, several hours can pass without receiving a single request.

The data processing will take place asynchronously but should be completed within a few seconds after a request is made

Which compute service should the solutions architect have the API invoke to deliver the requirements at the lowest cost?

A. An AWS Glue job

B. An AWS Lambda function

C. A containerized service hosted in Amazon Elastic Kubernetes Service (Amazon EKS)

D. A containerized service hosted in Amazon ECS with Amazon EC2

Answer: C

QUESTION 265

A development team needs to host a website that will be accessed by other teams.

The website contents consist of HTML, CSS, client side JavaScript, and images.

Which method is the MOST cost-effective for hosting the website?

A. Containerize the website and host it in AWS Fargate

B. Create an Amazon S3 bucket and host the website there.

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

Answer: B

QUESTION 266

A company has media and application files that need to be shared internally.

Users currently are authenticated using Active Directory and access files from a Microsoft Windows platform.

The chief executive officer wants to keep the same user permissions, but wants the company to improve the process as

the company is reaching its storage capacity limit.

What should a solutions architect recommend?

- A. Set up a corporate Amazon S3 bucket and move all media and application files.
- B. Configure Amazon FSx for Windows File Server and move all the media and application files.
- C. Configure Amazon Elastic File System (Amazon EFS) and move all media and application files.
- D. Set up Amazon EC2 on Windows, attach multiple Amazon Elastic Block Store (Amazon EBS) volumes and, and move all media and application files.

Answer: A

QUESTION 267

A company is moving its legacy workload to the AWS Cloud.

The workload files will be shared, appended, and frequently accessed through Amazon EC2 instances when they are first created.

The files will be accessed occasionally as they age

What should a solutions architect recommend?

- A. Store the data using Amazon EC2 instances with attached Amazon Elastic Block Store (Amazon EBS) data volumes
- B. Store the data using AWS Storage Gateway volume gateway and export rarely accessed data to Amazon S3 storage
- C. Store the data using Amazon Elastic File System (Amazon EFS) with lifecycle management enabled for rarely accessed data
- D. Store the data using Amazon S3 with an S3 lifecycle policy enabled to move data to S3 Standard-Infrequent Access(S3 Standard-IA)

Answer: D

QUESTION 268

A company is deploying a multi-instance application within AWS that requires minimal latency between the instances.

What should a solutions architect recommend?

- 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

Answer: B

QUESTION 269

A company receives structured and semi-structured data from various sources once every day.

A solutions architect needs to design a solution that leverages big data processing frameworks.

The data should be accessible using SQL queries and business intelligence tools.

What should the solutions architect recommend to build the MOST high-performing solution?

- 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
- 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

Answer: A

QUESTION 270

Company is designing a website that uses an Amazon S3 bucket to store static images.

The company wants all future requests have faster response times while reducing both latency and cost.

Which service configuration should a solutions architect recommend?

- A. Deploy a NAT server in front of Amazon S3.
- B. Deploy Amazon CloudFront in front of Amazon S3.

- C. Deploy a Network Load Balancer in front of Amazon S3.
- D. Configure Auto Scaling to automatically adjust the capacity of the website.

Answer: D

QUESTION 271

What should a solutions architect do to ensure that all objects uploaded to an Amazon S3 bucket are encrypted?

- A. Update the bucket policy to deny if the PutObject does not have an s3 x-amz- acl header set
- B. Update the bucket policy to deny if the PutObject does not have an s3 x-amz- acl header set to private
- C. Update the bucket policy to deny if the PutObject does not have an aws SecureTransport header set to true
- D. Update the bucket policy to deny if the PutObject does not have an x-amz-server-side-encryption header set

Answer: D

QUESTION 272

A company runs a high performance computing (HPC) workload on AWS.

The workload required low- latency network performance and high network throughput with tightly coupled node to-node communication.

The Amazon EC2 instances are properly sized for compute and storage capacity, and are launched using default options.

What should a solutions architect propose to improve the performance of the workload'?

- 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.

Answer: A

QUESTION 273

A company's dynamic website is hosted using on-premises servers in the United States.

The company is launching its product in Europe and it wants to optimize site loading times for new European users. The site's backend must remain in the United States. The product is being launched in a few days, and an immediate solution is needed

What should the solutions architect recommend?

- 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 geoproximity routing policy pointing to on-premises servers

Answer: A

QUESTION 274

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, identify 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 in the DynamoDB 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 use the program to perform the processing

Answer: D

QUESTION 275

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 in 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.

Answer: B

QUESTION 276

A solution architect must design a solution that uses Amazon CloudFront with an Amazon S3 to store a static website.

The company security policy requires that all website traffic be inspected by AWS WAF.

How should the solution architect company with these requirements?

A. Configure an S3 bucket policy to accept requests coming from the AWS WAF Amazon Resource Name (ARN) only

B. Configure Amazon CloudFront to forward all incoming requests to AWS WAF before requesting content from the S3 origin,

C. Configure a security group that allows Amazon CloudFront IP addresses to access Amazon S3 only Associate AWS WAF to CloudFront.

D. Configure Amazon CloudFront and Amazon S3 to use an origin access identity (OAI) to restrict access to the S3 bucket. Enable AWS WAF on the distribution.

Answer: B

QUESTION 277

A company has copied 1 PB of data from a colocation facility to an Amazon S3 bucket in the us-east-1 Region using an AWS Direct Connect link.

The company now wants to copy the data to another S3 bucket in the us-west-2 Region.

The colocation facility does not allow the use AWS Snowball.

What should a solutions architect recommend to accomplish 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.

Answer: A

QUESTION 278

A company has hired a new cloud engineer who should not have access to an Amazon S3 bucket named Company Confidential.

The cloud engineer must be able to read from and write to an S3 bucket called AdminTools.

Which IAM policy will meet these requirements?

A.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "s3:ListBucket",
      "Resource": "arn:aws:s3:::AdminTools"
    },
    {
      "Effect": "Allow",
      "Action": [ "s3:GetObject", "s3:PutObject" ],
      "Resource": "arn:aws:s3:::AdminTools/*"
    },
    {
      "Effect": "Deny",
      "Action": "s3:*",
      "Resource": [
        "arn:aws:s3:::CompanyConfidential/*",
        "arn:aws:s3:::CompanyConfidential"
      ]
    }
  ]
}
```

B.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "s3:ListBucket",
      "Resource": [
        "arn:aws:s3:::AdminTools",
        "arn:aws:s3:::CompanyConfidential/*"
      ]
    },
    {
      "Effect": "Allow",
      "Action": [ "s3:GetObject", "s3:PutObject", "s3:DeleteObject" ],
      "Resource": "arn:aws:s3:::AdminTools/*"
    },
    {
      "Effect": "Deny",
      "Action": "s3:*",
      "Resource": "arn:aws:s3:::CompanyConfidential"
    }
  ]
}
```

C.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [ "s3:GetObject", "s3:PutObject" ],
      "Resource": "arn:aws:s3:::AdminTools/*"
    },
    {
      "Effect": "Deny",
      "Action": "s3:*",
      "Resource": [
        "arn:aws:s3:::CompanyConfidential/*",
        "arn:aws:s3:::CompanyConfidential"
      ]
    }
  ]
}
```

D.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "s3:ListBucket",
      "Resource": "arn:aws:s3:::AdminTools/*"
    },
    {
      "Effect": "Allow",
      "Action": [ "s3:GetObject", "s3:PutObject", "s3:DeleteObject" ],
      "Resource": "arn:aws:s3:::AdminTools/*"
    },
    {
      "Effect": "Deny",
      "Action": "s3:*",
      "Resource": [
        "arn:aws:s3:::CompanyConfidential",
        "arn:aws:s3:::CompanyConfidential/*",
        "arn:aws:s3:::AdminTools/*"
      ]
    }
  ]
}
```

Answer: A

QUESTION 279

An engineering team is developing and deploying AWS Lambda functions.

The team needs to create roles and manage policies in AWS IAM to configure the permissions of the Lambda functions. How should the permissions for the team be configured so they also adhere to the concept 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

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.

Answer: A

QUESTION 280

A company needs a secure connection between its on-premises environment and AWS.

This connection does not need high bandwidth and will handle a small amount of traffic.

The connection should be set up quickly.

What is the MOST cost-effective method to establish this type of connection?

- A. Implement a client VPN
- B. Implement AWS Direct Connect
- C. Implement a bastion host on Amazon EC2 53D.
- D. Implement an AWS Site-to-Site VPN connection.

Answer: D

QUESTION 281

A company is building a payment application that must be highly available even during regional service disruptions. A solutions architect must design a data storage solution that can be easily replicated and used in other AWS Regions. The application also requires low-latency atomicity, consistency, isolation, and durability (ACID) transactions that need to be immediately available to generate reports.

The development team also needs to use SQL.

Which, data storage solution meets these requirements'?

- A. Amazon Aurora Global Database
- B. Amazon DynamoDB global tables
- C. Amazon S3 with cross Region replication and Amazon Athena
- D. MySQL on Amazon EC2 instances with Amazon Elastic Block Store (Amazon EBS) snapshot replication

Answer: C

QUESTION 282

A solutions architect is using Amazon S3 to design the storage architecture of a new digital media application.

The media files must be resilient to the loss of an Availability Zone Some files are accessed frequently while other files are rarely accessed in an unpredictable pattern.

The solutions architect must minimize the costs of storing and retrieving the media files.

Which storage option meets these requirements?

- 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)

Answer: B

QUESTION 283

A company uses a legacy on-premises analytics application that operates on gigabytes of CSV files and represents months of data.

The legacy application cannot handle the growing size of csv files New csv files are added daily from various data sources to a central on-premises storage location.

The company wants to continue to support the legacy application while users learn AWS analytics services.

To achieve this, a solutions architect wants to maintain two synchronized copies of all the CSV files on-premises and in Amazon S3.

Which solution should the solutions architect recommend?

- A. Deploy AWS DataSync on-premises.

Configure DataSync to continuously replicate the csv files between the company's on-premises storage and the company's S3 bucket

- B. Deploy an on-premises file gateway.

Configure data sources to write the CSV files to the file gateway.

Point the legacy analytics application to the file gateway.

The file gateway should replicate the csv files to Amazon S3

C. Deploy an on-premises volume gateway.

Configure data sources to write the csv files to the volume gateway.

Point the legacy analytics application to the volume gateway.

The volume gateway should replicate data to Amazon S3.

D. Deploy AWS DataSync on-premises.

Configure DataSync to continuously replicate the CSV files between on-premises and Amazon Elastic File System (Amazon EFS).

Enable replication from Amazon EFS to the company's S3 bucket.

Answer: B

QUESTION 284

An application allows users at a company's headquarters to access product data.

The product data is stored in an Amazon RDS MySQL DB instance.

The operations team has isolated an application performance slowdown and wants to separate read traffic from write traffic.

A solutions architect needs to optimize the application's performance quickly.

What should the solutions architect recommend?

A. Change the existing database to a Multi-AZ deployment.

Serve the read requests from the primary Availability Zone.

B. Change the existing database to a Multi-AZ deployment.

Serve the read requests from the secondary Availability Zone.

C. Create read replicas for the database.

Configure the read replicas with half of the compute and storage resources as the source database.

D. Create read replicas for the database.

Configure the read replicas with the same compute and storage resources as the source database.

Answer: D

QUESTION 285

A company wants to optimize the cost of its data storage for data that is accessed quarterly.

The company requires high throughput, low latency, and rapid access, when needed.

Which Amazon S3 storage class should a solutions architect recommend?

A. Amazon S3 Glacier (S3 Glacier)

B. Amazon S3 Standard (S3 Standard)

C. Amazon S3 Intelligent-Tiering (S3 Intelligent-Tiering)

D. Amazon S3 Standard-Infrequent Access (S3 Standard-IA)

Answer: C

QUESTION 286

A company requires that all versions of objects in its Amazon S3 bucket be retained.

Current object versions will be frequently accessed during the first 30 days, after which they will be rarely accessed and must be retrievable within 5 minutes.

Previous object versions need to be kept forever, will be rarely accessed, and can be retrieved within 1 week.

All storage solutions must be highly available and highly durable.

What should a solutions architect recommend to meet these requirements in the MOST cost-effective manner?

A. Create an S3 lifecycle policy for the bucket that moves current object versions from S3 Standard storage to S3 Glacier after 30 days and moves previous object versions to S3 Glacier after 1 day.

B. Create an S3 lifecycle policy for the bucket that moves current object versions from S3 Standard storage to S3 Glacier after 30 days and moves previous object versions to S3 Glacier Deep Archive after 1 day

C. Create an S3 lifecycle policy for the bucket that moves current object versions from S3 Standard storage to S3

Standard-infrequent Access (S3 Standard-IA) after 30 days and moves previous object versions to S3 Glacier Deep Archive after 1 day

D. Create an S3 lifecycle policy for the bucket that moves current object versions from S3 Standard storage to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 30 days and moves previous object versions to S3 Glacier Deep Archive after 1 day

Answer: A

QUESTION 287

A company hosts its core network services, including directory services and DNS, in its on-premises data center. The data center is connected to the AWS Cloud using AWS Direct Connect (DX). Additional AWS accounts are planned that will require quick, cost-effective, and consistent access to these network services.

What should a solutions architect implement to meet these requirements with the LEAST amount of operational overhead?

A. Create a DX connection in each new account.

Route the network traffic to the on-premises servers

B. Configure VPC endpoints in the DX VPC for all required services.

Route the network traffic to the on-premises servers

C. Create a VPN connection between each new account and the DX VPC

Route the network traffic to the on-premises servers

D. Configure AWS Transit Gateway between the accounts.

Assign DX to the transit gateway and route network traffic to the on-premises servers

Answer: D

QUESTION 288,

A company that hosts its web application on AWS wants to ensure all Amazon EC2 instances,

Amazon RDS DB instances and Amazon Redshift clusters are configured with tags.

The company wants to minimize the effort of configuring and operating this check.

What should a solutions architect do to accomplish this?

A. Use AWS Config rules to define and detect resources that are not properly tagged

B. Use Cost Explorer to display resources that are not properly tagged. Tag those resources manually.

C. Write API calls to check all resources for proper tag allocation. Periodically run the code on an EC2 instance.

D. Write API calls to check all resources for proper tag allocation. Schedule an AWS Lambda function through Amazon CloudWatch to periodically run the code

Answer: C

QUESTION 289

An application running on an Amazon EC2 instance needs to access an Amazon DynamoDB table.

Both the EC2 instance and the DynamoDB table are in the same AWS account.

A solutions architect must configure the necessary permissions.

Which solution will allow least privilege access to the DynamoDB table from the EC2 instance?

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

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

Answer: A

QUESTION 290

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 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

Answer: A

QUESTION 291

An operations team has a standard that states IAM policies should not be applied directly to users.

Some new team members have not been following this standard.

The operations manager needs a way to easily identify the users with attached policies.

What should a solutions architect do to accomplish this?"

- A. Monitor using AWS CloudTrail
- B. Create an AWS Config rule to run daily.
- C. Publish IAM user changes to Amazon SNS
- D. Run AWS Lambda when a user is modified

Answer: B

QUESTION 292

A company has an application that runs on Amazon EC2 instances within a private subnet in a VPC.

The instances access data in an Amazon S3 bucket in the same AWS Region.

The VPC contains a NAT gateway in a public subnet to access the S3 bucket.

The company wants to reduce costs by replacing the NAT gateway without compromising security or redundancy

Which solution meets these requirements?

- A. Replace the NAT gateway with a NAT instance
- B. Replace the NAT gateway with an internet gateway.
- C. Replace the NAT gateway with a gateway VPC endpoint
- D. Replace the NAT gateway with an AWS Direct Connect connection

Answer: C

QUESTION 293

A company is designing a message-driven order processing application on AWS.

The application consists of many services and needs to communicate the results of its processing to multiple consuming services.

Each of the consuming services may take up to 5 days to receive the messages.

Which process will meet these requirements?

- A. The application sends the results of its processing to an Amazon Simple Notification Service (Amazon SNS) topic.
Each consuming service subscribes to this SNS topic and consumes the results
- B. The application sends the results of its processing to an Amazon Simple Notification Service (Amazon SNS) topic.
Each consuming service consumes the messages directly from its corresponding SNS topic.
- C. The application sends the results of its processing to an Amazon Simple Queue Service (Amazon SQS) queue.
Each consuming service runs as an AWS Lambda function that consumes this single SQS queue.
- D. The application sends the results of its processing to an Amazon Simple Notification Service (Amazon SNS) topic.
An Amazon Simple Queue Service (Amazon SQS) queue is created for each service and each queue is configured

to be a subscriber of the SNS topic.

Answer: C

QUESTION 294

A company stores call recordings on a monthly basis. Statistically, the recorded data may be referenced randomly within a year but accessed rarely after 1 year.

Files that are newer than 1 year old must be queried and retrieved as quickly as possible.

A delay in retrieving older files is acceptable. A solutions architect needs to store the recorded data at a minimal cost.

Which solution is MOST cost-effective?

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 after 1 year.

Query and retrieve the files from Amazon S3 or S3 Glacier.

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.

Answer: B

QUESTION 295

A company has a highly dynamic batch processing job that uses many Amazon EC2 instances to complete it.

The job is stateless in nature, can be started and stopped at any given time with no negative impact, and typically takes upwards of 60 minutes total to complete.

The company has asked a solutions architect to design a scalable and cost-effective solution that meets the requirements of the job.

What should the solutions architect recommend?

A. Implement EC2 Spot Instances

B. Purchase EC2 Reserved Instances

C. Implement EC2 On-Demand Instances

D. Implement the processing on AWS Lambda

Answer: A

QUESTION 296

An online photo application lets users upload photos and perform image editing operations.

The application offers two classes of service: free and paid. Photos submitted by paid users are processed before those submitted by free users.

Photos are uploaded to Amazon S3 and the job information is sent to Amazon SQS.

Which configuration should a solutions architect recommend?

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.

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.

Answer: A

QUESTION 297

A company has an application hosted on Amazon EC2 instances in two VPCs across different AWS Regions. To communicate with each other, the instances use the internet for connectivity.

The security team wants to ensure that no communication between the instances happens over the internet.

What should a solutions architect do to accomplish this?"

- A. Create a NAT gateway and update the route table of the EC2 instances' subnet
- B. Create a VPC endpoint and update the route table of the EC2 instances' subnet
- C. Create a VPN connection and update the route table of the EC2 instances' subnet
- D. Create a VPC peering connection and update the route table of the EC2 instances' subnet

Answer: D

QUESTION 298

A company runs a production application on a fleet of Amazon EC2 instances.

The application reads the data from an Amazon SQS queue and processes the messages in parallel.

The message volume is unpredictable and often has intermittent traffic.

This application should continually process messages without any downtime

Which solution meets these requirements MOST cost-effectively?

- 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
- D. Use Reserved instances for the baseline capacity and use On-Demand Instances to handle additional capacity

Answer: C

QUESTION 299

A company with facilities in North America, Europe, and Asia is designing new distributed application to optimize its global supply chain and manufacturing process.

The orders booked on one continent should be visible to all Regions in a second or less. The database should be able to support failover with a short Recovery Time Objective (RTO).

The uptime of the application is important to ensure that manufacturing is not impacted.

What should a solutions architect recommend?

- A. Use Amazon DynamoDB global tables
- B. Use Amazon Aurora Global Database
- C. Use Amazon RDS for MySQL with a cross-Region read replica
- D. Use Amazon RDS for PostgreSQL with a cross-Region read replica

Answer: A

QUESTION 300

A company has several Amazon EC2 instances set up in a private subnet for security reasons.

These instances host applications that read and write large amounts of data to and from Amazon S3 regularly.

Currently, subnet routing directs all the traffic destined for the internet through a NAT gateway.

The company wants to optimize the overall cost without impacting the ability of the application to communicate with Amazon S3 or the outside internet.

What should a solutions architect do to optimize costs?

- A. Create an additional NAT gateway Update the route table to route to the NAT gateway.
Update the network ACL to allow S3 traffic
- B. Create an internet gateway Update the route table to route traffic to the internet gateway.
Update the network ACL to allow S3 traffic.

- C. Create a VPC endpoint for Amazon S3 Attach an endpoint policy to the endpoint.
Update the route table to direct traffic to the VPC endpoint
- D. Create an AWS Lambda function outside of the VPC to handle S3 requests.
Attach an IAM policy to the EC2 instances, allowing them to invoke the Lambda function.
- Answer: C

QUESTION 301

- 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 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.
- 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
- Answer: C

QUESTION 302

- A media company stores video content in an Amazon Elastic Block Store (Amazon EBS) volume.
A certain video file has become popular and a large number of users across the world are accessing this content.
This has resulted in a cost increase.
Which action will DECREASE cost without compromising 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.
- 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.
- Answer: B

QUESTION 303

- A solutions architect is designing the cloud architecture for a new application being deployed to AWS.
The application allows users to interactively download and upload files. Files older than 2 years will be accessed less frequently. The solutions architect needs to ensure that the application can scale to any number of files while maintaining high availability and durability.
Which scalable solutions should the solutions architect recommend? (Choose two)
- A. Store the files on Amazon S3 with a lifecycle policy that moves objects older than 2 years to S3 Glacier.
- B. Store the files on Amazon S3 with a lifecycle policy that moves objects older than 2 years to S3 Standard-Infrequent Access (S3 Standard-IA)
- C. Store the files on Amazon Elastic File System (Amazon EFS) with a lifecycle policy that moves objects older than 2 years to EFS Infrequent Access (EFS IA)
- D. Store the files in Amazon Elastic Block Store (Amazon EBS) volumes. Schedule snapshots of the volumes. Use the snapshots to archive data older than 2 years.
- E. Store the files in RAID-striped Amazon Elastic Block Store (Amazon EBS) volumes. Schedule snapshots of the volumes. Use the snapshots to archive data older than 2 years.

Answer: BC

QUESTION 304

A company is hosting multiple websites for several lines of business under its registered parent domain. Users accessing these websites will be routed to appropriate backend Amazon EC2 instances based on the subdomain. The websites host static webpages, images, and server-side scripts like PHP and JavaScript.

Some of the websites experience peak access during the first two hours of business with constant usage throughout the rest of the day. A solutions architect needs to design a solution that will automatically adjust capacity to these traffic patterns while keeping costs low.

Which combination of AWS services or features will meet these requirements? (Choose two)

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

Answer: DE

QUESTION 305

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? (Choose 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.

Answer: AE

QUESTION 306

A company is hosting an election reporting website on AWS for users around the world. The website uses Amazon EC2 instances for the web and application tiers in an Auto Scaling group with Application Load Balancers. The database tier uses an Amazon RDS for MySQL Database. The website is updated with election results once an hour and has historically observed hundreds of users accessing the reports.

The company is expecting a significant increase in demand because of upcoming elections in different countries. A solutions architect must improve the website's ability to handle additional demand while minimizing the need for additional EC2 instances.

Which solution will meet these requirements?

- A. Launch an Amazon ElastiCache cluster to cache common database queries.
- B. Launch an Amazon CloudFront web distribution to cache commonly requested website content.
- 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.

Answer: B

QUESTION 307

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 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.

Answer: B

QUESTION 308

A company operates an ecommerce website on Amazon EC2 instances behind an Application Load Balancer (ALB) in an Auto Scaling group. The site is experiencing performance issues related to a high request rate from illegitimate external systems with changing IP addresses. The security team is worried about potential DDos attacks against the website. The company must block the illegitimate incoming requests in a way that has a minimal impact on legitimate users.

What should a solutions architect recommend?

- A. Deploy Amazon Inspector and associate it with the ALB.
- B. Deploy AWS WAF, associate it with the ALB, and configure a rate-limiting rule.
- C. Deploy rules to the network ACLs associated with the ALB to block the incoming traffic.
- D. Deploy Amazon GuardDuty and enable rate-limiting protection when configuring GuardDuty.

Answer: B

QUESTION 309

A company hosts its core network services, including directory services and DNS, in its on premises data center. The data center is connected to the AWS Cloud using AWS Direct Connect (DX). Additional AWS accounts are planned that will require quick, cost-effective, and consistent access to these network services.

What should a solutions architect implement to meet these requirements with the LEAST amount of operational overhead?

- A. Create a DX connection in each new account. Route the network traffic to the on-premises servers.
- B. Configure VPC endpoints in the DX VPC for all required services. Route the network traffic to the on-premises servers.
- C. Create a VPN connection between each new account and the DX VPC, Route the network traffic to the on-premises servers.
- D. Configure AWS Transit Gateway between the accounts. Assigns DX to the transit gateway and route network traffic to the on-premises servers.

Answer: A