Question: 1 of 65

Domain : Design High-Performing Architectures

You are working as an AWS Architect for a start-up company. They have a two-tier production website. Database servers are spread across multiple Availability Zones and are stateful.
You have configured Auto Scaling Group for these database servers with a minimum of 2 instances & maximum of 6 instances. During post-peak hours, you observe some data loss. Which feature needs to be configured additionally to avoid future data loss (and copy data before instance termination)?

- A. **Modify the cooldown period to complete custom actions before the Instance terminates.**
- B. **Add lifecycle hooks to Auto Scaling group.**
- C. **Customize Termination policy to complete data copy before termination.**
- D. **Suspend Terminate process that will avoid data loss.**

Question: 2 of 65

Domain : Design Resilient Architectures

You have an application running in us-west-2 that requires 6 EC2 Instances running at all times. With 3 Availability Zones in the region viz. us-west-2a, us-west-2b, and us-west-2c, which of the following deployments provides fault tolerance if an Availability Zone in us-west-2 becomes unavailable? (SELECT TWO)

- A. **2 EC2 Instances in us-west-2a, 2 EC2 Instances in us-west-2b, and 2 EC2 Instances in us-west-2c**
- B. **3 EC2 Instances in us-west-2a, 3 EC2 Instances in us-west-2b, and no EC2 Instances in us-west-2c**
- C. **4 EC2 Instances in us-west-2a, 2 EC2 Instances in us-west-2b, and 2 EC2 Instances in us-west-2c**
- D. **6 EC2 Instances in us-west-2a, 6 EC2 Instances in us-west-2b, and no EC2 Instances in us-west-2c**
- E. **3 EC2 Instances in us-west-2a, 3 EC2 Instances in us-west-2b, and 3 EC2 Instances in us-west-2c**

Question: 3 of 65

Domain : Design Cost-Optimized Architectures

An application allows a manufacturing site to upload files. Each uploaded 3 GB file is processed to extract metadata, and this process takes a few seconds per file. The frequency at which the uploading happens is unpredictable. For instance, there may be no upload for hours, followed by several files being uploaded concurrently.
Which architecture will address this workload in the most cost-efficient manner?

- A. **Use a Kinesis Data Delivery Stream to store the file. Use Lambda for processing.**
- B. **Use an SQS queue to store the file to be accessed by a fleet of EC2 Instances.**
- C. **Store the file in an EBS volume, which can then be accessed by another EC2 Instance for processing.**
- D. **Store the file in an S3 bucket. Use Amazon S3 event notification to invoke a Lambda function for file processing.**

Question: 4 of 65

Domain : Design High-Performing Architectures

A company is migrating an on-premises 10TB MySQL database to AWS. There's a business requirement that the replica lag should be kept under 100 milliseconds. In addition to this requirement, the company expects this database to quadruple in size.
Which Amazon RDS engine meets the above requirements?

- A. **MySQL**
- B. **Microsoft SQL Server**
- C. **Oracle**
- D. **Amazon Aurora**

Question: 5 of 65

Domain : Design High-Performing Architectures

For which of the following scenarios should a Solutions Architect consider using ElasticBeanStalk? **(Choose Two)**

- A. A web application using Amazon RDS
- B. An Enterprise Data Warehouse
- C. A long-running worker process
- D. Capacity provisioning and load balancing of website
- E. A management task run once on nightly basis

Question: 6 of 65

Domain : Design Cost-Optimized Architectures

An application with a 150 GB relational database runs on an EC2 Instance. While the application is used infrequently with small peaks in the morning and evening, which storage type would be the most cost-effective option for the above requirement?

- A. Amazon EBS provisioned IOPS SSD
- B. Amazon EBS Throughput Optimized HDD
- C. Amazon EBS General Purpose SSD
- D. Amazon EFS

Question: 7 of 65

Domain : Design Cost-Optimized Architectures

You are working as an AWS consultant for a start-up company. They have developed a web application for their employees to share files with external vendors securely. They created an AutoScaling group for the web servers which requires two m4.large EC2 instances running at all times, scaling up to a maximum of twelve instances. Post-deployment of the application, a huge rise in cost was observed. Due to a limited budget, the CTO has requested your advice to optimize the usage of instances in the Auto Scaling groups. What would you suggest to reduce costs without any adverse impact on the performance?

A. **Create an Auto Scaling group with t2. micro On-Demand instances.**

B. **Create an Auto Scaling group with a mix of On-Demand & Spot Instance. Select the On-Demand base as zero. Above On-Demand base, select 100% of On-Demand instance & 0% of Spot Instance.**

C. **Create an Auto Scaling group with all Spot Instance.**

D. **Create an Auto Scaling group with a mix of On-Demand & Spot Instance. Select the On-Demand base as 2. Above On-Demand base, select 20% of On-Demand instance & 80% of Spot Instance.**

Question: 8 of 65

Domain : Design Secure Applications and Architectures

You are working as an AWS Architect for a start-up company. The company has a two-tier production website on AWS with web servers in front end & database servers in the back end. The third-party firm has been looking after the operations of these database servers. They need to access these database servers in private subnets on SSH port. As per standard operating procedure provided by Security team, all access to these servers should be over a secure layer. What will be the best solution to meet this requirement?

A. **Deploy Bastion hosts in Private Subnet**

B. **Deploy NAT Instance in Private Subnet**

C. **Deploy NAT Instance in Public Subnet**

D. **Deploy Bastion hosts in Public Subnet**

Question: 9 of 65

Domain : Design Resilient Architectures

An AWS Solutions Architect who is designing a solution to store and archive corporate documents has determined Amazon Glacier as the right choice.
An important requirement is that the data must be delivered within 10 minutes of a retrieval request.
Which feature in Amazon Glacier could help to meet this requirement?

- A. **Vault Lock**
- B. **Expedited retrieval**
- C. **Bulk retrieval**
- D. **Standard retrieval**

Question: 10 of 65

Domain : Design High-Performing Architectures

You are working for a start-up company that develops mobile gaming applications using AWS resources. For creating AWS resources, the project team is using CloudFormation Templates. The Project Team is concerned about the changes made in EC2 instance properties by the Operations Team, apart from parameters specified in CloudFormation Templates. To observe changes in AWS EC2 instance, you advise using CloudFormation Drift Detection. After Drift detection, when you check drift status for all AWS EC2 instance, drift for certain property values having default values for resource properties is not displayed. What would you do to include these resources properties to be captured in CloudFormation Drift Detection?

- A. **Run CloudFormation Drift Detection on individual stack resources instead of entire CloudFormation stack.**
- B. **Explicitly set the property value, which can be the same as the default value.**
- C. **Manually check these resources as this is not supported in CloudFormation Drift Detection.**
- D. **Assign Read permission to CloudFormation Drift Detection to determine drift.**

Question: 11 of 65

Domain : Design Cost-Optimized Architectures

While reviewing the Auto Scaling events for your application, you notice that your application is scaling up and down multiple times in the same hour.
What changes would you suggest in order to optimize costs while preserving elasticity? (SELECT TWO)

- A. Modify the Auto Scaling group termination policy to terminate the older instance first.
- B. Modify the Auto Scaling group termination policy to terminate the newest instance first.
- C. Modify the Auto Scaling group cool down timers.
- D. Modify the Auto Scaling group to use Scheduled Scaling actions.
- E. Modify the CloudWatch alarm period that triggers your Auto Scaling scale down policy

Question: 12 of 65

Domain : Design High-Performing Architectures

A company hosts a popular web application that connects to an Amazon RDS MySQL DB instance running in a default VPC private subnet created with default ACL settings. The web servers must be accessible only to customers on an SSL connection and the database must only be accessible to web servers in a public subnet. Which solution would meet these requirements without impacting other applications? (SELECT TWO)

- A. Create a network ACL on the Web Server's subnets, allow HTTPS port 443 inbound and specify the source as 0.0.0.0/0
- B. Create a Web Server security group that allows HTTPS port 443 inbound traffic from anywhere (0.0.0.0/0) and apply it to the Web Servers.
- C. Create a DB Server security group that allows MySQL port 3306 inbound and specify the source as the Web Server security group.
- D. Create a network ACL on the DB subnet, allow MySQL port 3306 inbound for Web Servers and deny all outbound traffic.
- E. Create a DB Server security group that allows HTTPS port 443 inbound and specify the source as a Web Server security group.

Question: 13 of 65

Domain : Design High-Performing Architectures

You lead a team to develop a new online game application in AWS EC2. The application will have a large number of users globally. For a great user experience, this application requires very low network latency and jitter. If the network speed is not fast enough, you will lose customers. Which tool would you choose to improve the application performance? (Select TWO.)

- A. AWS VPN
- B. AWS Global Accelerator
- C. Direct Connect
- D. API Gateway
- E. CloudFront

Question: 14 of 65

Domain : Design Secure Applications and Architectures

You are deploying an application on Amazon EC2 that must call AWS APIs. Which method would you use to securely pass the credentials to the application?

- A. Pass API credentials to the instance using Instance userdata.
- B. Store API credentials as an object in Amazon S3.
- C. Embed the API credentials into your application.
- D. Assign IAM roles to the EC2 Instances.

Question: 15 of 65

Domain : Design High-Performing Architectures

A website runs on EC2 Instances behind an Application Load Balancer. The instances run in an Auto Scaling Group across multiple Availability Zones and deliver several static files that are stored on a shared Amazon EFS file system. The company needs to avoid serving the files from EC2 Instances every time a user requests these digital assets.
What should the company do to improve the user experience of the website?

- A. **Move the digital assets to Amazon Glacier.**
- B. **Cache static content using CloudFront.**
- C. **Resize the images so that they are smaller.**
- D. **Use reserved EC2 Instances.**

Question: 16 of 65

Domain : Design Resilient Architectures

A Solutions Architect is designing a highly scalable system to track records. These records must remain available for immediate download for up to three months and then must be deleted. What is the most appropriate decision for this use case?

- A. **Store the files in Amazon EBS and create a Lifecycle Policy to remove files after 3 months.**
- B. **Store the files in Amazon S3 and create a Lifecycle Policy to remove files after 3 months.**
- C. **Store the files in Amazon Glacier and create a Lifecycle Policy to remove files after 3 months.**
- D. **Store the files in Amazon EFS and create a Lifecycle Policy to remove files after 3 months.**

Question: 17 of 65

Domain : Design High-Performing Architectures

A consulting firm repeatedly builds large architectures for their customers using AWS resources from several AWS services including IAM, Amazon EC2, Amazon RDS, DynamoDB and Amazon VPC. The consultants have architecture diagrams for each of their architectures, and are frustrated that they cannot use them to automatically create their resources.
Which service should provide immediate benefits to the organization?

- A. AWS Beanstalk
- B. AWS CloudFormation
- C. AWS CodeBuild
- D. AWS CodeDeploy

Question: 18 of 65

Domain : Design Secure Applications and Architectures

The security policy of an organization requires an application to encrypt data before writing to the disk. Which solution should the organization use to meet this requirement?

- A. AWS KMS API
- B. AWS Certificate Manager
- C. API Gateway with STS
- D. IAM Access Key

Question: 19 of 65

Domain : Design High-Performing Architectures

You are an AWS Solutions Architect. Your company has a successful web application deployed in an AWS Auto Scaling group. The application attracts more and more global customers. However, the application's performance is impacted. Your manager asks you how to improve the performance and availability of the application. Which of the following AWS services would you recommend?

- A. AWS DataSync
- B. Amazon DynamoDB Accelerator
- C. AWS Lake Formation
- D. AWS Global Accelerator

Question: 20 of 65

Domain : Design Secure Applications and Architectures

A retailer exports data daily from its transactional databases into an S3 bucket in the Sydney region. The retailer's Data Warehousing team wants to import this data into an existing Amazon Redshift cluster in their VPC at Sydney. Corporate security policy mandates that data can only be transported within a VPC.
Which steps would satisfy the security policy?
(SELECT TWO)

- A. **Enable Amazon Redshift Enhanced VPC Routing.**
- B. **Create a Cluster Security Group to allow the Amazon Redshift cluster to access Amazon S3.**
- C. **Create a NAT gateway in a public subnet to allow the Amazon Redshift cluster to access Amazon S3.**
- D. **Create and configure an Amazon S3 VPC endpoint.**

Question: 21 of 65

Domain : Design Resilient Architectures

A team is building an application that must persist and index JSON data in a highly available data store. The latency of data access must remain consistent despite very high application traffic.
Which service would help the team to meet the above requirement?

- A. **Amazon EFS**
- B. **Amazon Redshift**
- C. **DynamoDB**
- D. **AWS CloudFormation**

Question: 22 of 65

Domain : Design High-Performing Architectures

An organization hosts a multi-language website on AWS, which is served using CloudFront. Language is specified in the HTTP request as shown below:

- http://d11111f8.cloudfront.net/main.html?language=de
- http://d11111f8.cloudfront.net/main.html?language=en
- http://d11111f8.cloudfront.net/main.html?language=es

How should AWS CloudFront be configured to deliver cached data in the correct language?

A. **Forward cookies to the origin**

B. **Based on query string parameters**

C. **Cache objects at the origin**

D. **Serve dynamic content**

Question: 23 of 65

Domain : Design Resilient Architectures

You have developed a new web application on AWS for a real estate firm. It has a web interface where real estate employees upload photos of newly constructed houses in S3 buckets. Prospective buyer's login to the website and access photos. The marketing team has initiated an intensive marketing event to promote new housing schemes which will lead to customers who frequently access these images. As this is a new application, you have no projection of traffic. You have created Auto Scaling across multiple instance types for these web servers, but you also need to optimize the cost for storage. You don't want to compromise on latency & all images should be downloaded instantaneously without any outage. Which of the following is a recommended storage solution to meet this requirement?

A. **Use One Zone-IA storage class to store all images.**

B. **Use Standard-IA to store all images.**

C. **Use S3 Intelligent-Tiering storage class.**

D. **Use Standard storage class, use Storage class analytics to identify & move objects using lifecycle policies.**

Question: 24 of 65

Domain : Design Resilient Architectures

A Solutions Architect is designing a shared service for hosting containers from several customers on Amazon ECS. These containers will use several AWS services. A container from one customer should not be able to access data from another customer.
Which solution would help the architect to meet these requirements?

- A. IAM roles for tasks
- B. IAM roles for EC2 Instances
- C. IAM Instance profile for EC2 Instances
- D. Security Group rules

Question: 25 of 65

Domain : Design High-Performing Architectures

A company is generating large datasets with millions of rows to be summarized column-wise. To build daily reports from these data sets, Business Intelligence tools would be used.
Which storage service would meet these requirements?

- A. Amazon Redshift
- B. Amazon RDS
- C. ElastiCache
- D. DynamoDB

Question: 26 of 65

Domain : Design High-Performing Architectures

A company is developing a web application to be hosted in AWS. This application needs a data store for session data.
As an AWS Solution Architect, what would you recommend as an ideal option to store session data? (SELECT TWO)

- A. CloudWatch
- B. DynamoDB
- C. Elastic Load Balancing
- D. ElastiCache
- E. Storage Gateway

Question: 27 of 65

Domain : Design Resilient Architectures

A company needs to store images that are uploaded by users via a mobile application. There is also a need to ensure that security measures are in place to avoid data loss.
What step should be taken for protection against unintended user actions?

- A. Store data in an EBS volume and create snapshots once a week.
- B. Store data in an S3 bucket and enable versioning.
- C. Store data on Amazon EFS storage.
- D. Store data on EC2 instance storage.

Question: 28 of 65

Domain : Design High-Performing Architectures

An application needs to have a Datastore hosted in AWS. The following requirements are in place for the Datastore:
a) The initial storage capacity of 8 TB
b) The ability to accommodate a database growth of 8GB per day
c) The ability to have 4 Read Replicas
Which of the following Datastore is the best for this requirement?

A. DynamoDB

B. Amazon S3

C. Amazon Aurora

D. SQL Server

Question: 29 of 65

Domain : Design Resilient Architectures

There is a requirement to host a database on an EC2 Instance. It is also required that the EBS volume should support 18,000 IOPS.
Which Amazon EBS volume type would meet the performance requirements of this database?

A. EBS Provisioned IOPS SSD

B. EBS Throughput Optimized HDD

C. EBS General Purpose SSD

D. EBS Cold HDD

Question: 30 of 65

Domain : Design Resilient Architectures

Development teams in your organization use S3 buckets to store log files for various applications hosted in AWS development environments. The developers intend to keep the logs for a month for troubleshooting purposes, and subsequently purge the logs.
Which feature should be used to enable this requirement?

- A. **Adding a bucket policy on the S3 bucket.**
- B. **Configuring lifecycle configuration rules on the S3 bucket.**
- C. **Creating an IAM policy for the S3 bucket.**
- D. **Enabling CORS on the S3 bucket.**

Question: 31 of 65

Domain : Design High-Performing Architectures

As an AWS solution architect, you are building a new image processing application with queuing service. There is fleet of m4.large EC2 instances which would poll SQS as images are uploaded by users. The image processing takes around 55 seconds for completion, and users are notified via emails on completion. During the trial period, you find duplicate messages being generated due to which users are getting multiple emails for the same image. What would be the best option to eliminate duplicate messages before going to production?

- A. **Create delay queue for 60 seconds.**
- B. **Increase visibility timeout to 60 seconds.**
- C. **Create delay queue to greater than 60 seconds.**
- D. **Decrease visibility timeout below 60 seconds.**

Question: 32 of 65

Domain : Design High-Performing Architectures

Which AWS services can be used to host and scale an application, in which a NGINX load balancer will be used? (SELECT TWO)

- A. AWS EC2
- B. AWS Elastic Beanstalk
- C. AWS SQS
- D. AWS ELB

Question: 33 of 65

Domain : Design High-Performing Architectures

A company has a media processing application deployed in a local data center. Its file storage is built on a Microsoft Windows file server. The application and file server need to be migrated to AWS. You want to quickly set up the file server in AWS and the application code should continue working to access the file systems. Which method should you choose to create the file server?

- A. Create a Windows File Server from Amazon WorkSpaces.
- B. Configure a high performance Windows File System in Amazon EFS.
- C. Create a Windows File Server in Amazon FSx.
- D. Configure a secure enterprise storage through Amazon WorkDocs.

Question: 34 of 65

Domain : Design Secure Applications and Architectures

There is a requirement to get the source IP addresses that access resources in a private subnet. Which of the following could be used to fulfill this purpose?

A. **Trusted Advisor**

B. **VPC Flow Logs**

C. **Use CloudWatch metrics**

D. **Use CloudTrail**

Question: 35 of 65

Domain : Design Resilient Architectures

There is a requirement for 500 messages to be sent and processed in order. Which service can be used in this regard?

A. **AWS SQS FIFO**

B. **AWS SNS**

C. **AWS Config**

D. **AWS ELB**

Question: 36 of 65

Domain : Design High-Performing Architectures

Your team is developing a high performance computing (HPC) application. The application resolves complex, compute-intensive problems and needs a high-performance and low-latency Lustre file system. You need to configure this file system in AWS at low cost. Which method is the most suitable?

A. **Create a Lustre file system through Amazon FSx.**

B. **Launch a high performance Lustre file system in Amazon EBS.**

C. **Create a high-speed volume cluster in EC2 placement group.**

D. **Launch the Lustre file system from AWS Marketplace.**

Question: 37 of 65

Domain : Design Resilient Architectures

A Redshift cluster currently contains 60TB of data. There is a requirement that a disaster recovery site is put in place in a region located 600 km away. Which solution would help ensure that this requirement is fulfilled?

- A. Take a copy of the underlying EBS volumes to S3, and then do Cross-Region Replication.
- B. Enable Cross-Region snapshots for the Redshift Cluster.
- C. Create a CloudFormation template to restore the Cluster in another region.
- D. Enable Cross Availability Zone snapshots for the Redshift Cluster.

Question: 38 of 65

Domain : Design Secure Applications and Architectures

A company is using a Redshift cluster to store their data warehouse. There is a requirement from the Internal IT Security team to encrypt data in the Redshift database. How could this be achieved? (SELECT TWO)

- A. Encrypt the EBS volumes of the underlying EC2 Instances.
- B. Use AWS KMS Customer Default master key.
- C. Use SSL/TLS for encrypting the data.
- D. Use hardware security module (HSM) to manage the top-level encryption keys .

Question: 39 of 65

Domain : Design Cost-Optimized Architectures

An EC2 instance in the private subnet needs access to the S3 bucket placed in the same region as that of the EC2 instance. The EC2 instance needs to upload and download bigger files to the S3 bucket frequently. As an AWS solutions architect what quick and cost-effective solution would you suggest to your customers. You need to consider the fact that the EC2 instances are present in the private subnet, and the customers do not want their data to be exposed over the internet.

A. Place the S3 bucket in another public subnet of the same region and create a VPC peering connection to this private subnet where the EC2 instance is placed. The traffic to upload and download files will go through secure Amazon's private network.

B. Create an IAM role having access over the S3 service and assign it to the EC2 instance.

C. Create a VPC endpoint for S3, use your route tables to control which instances can access resources in Amazon S3 via the endpoint. The traffic to upload and download files will go through the Amazon private network.

D. A private subnet can always access S3 bucket/ service through the NAT Gateways or NAT instances, so there is no need for additional setup.

Question: 40 of 65

Domain : Design High-Performing Architectures

You are developing an application using AWS SDK to get objects in AWS S3. The objects have big sizes and sometimes there are failures when getting objects especially when the network connectivity is poor. You want to get a specific range of bytes in a single GET request and retrieve the whole object in parts. Which method can achieve this?

A. Enable multipart upload in the AWS SDK.

B. Use the “Range” HTTP header in a GET request to download the specified range bytes of an object.

C. Reduce the retry requests and enlarge the retry timeouts through AWS SDK when fetching S3 objects.

D. Retrieve the whole S3 object through a single GET operation.

Question: 41 of 65

Domain : Design Resilient Architectures

An application needs to access data in another AWS account in another VPC in the same region. What would ensure that the data can be accessed as required?

- A. **Establish a NAT instance between both accounts.**
- B. **Use a VPN between both accounts.**
- C. **Use a NAT Gateway between both accounts.**
- D. **Use VPC Peering between both accounts.**

Question: 42 of 65

Domain : Design High-Performing Architectures

You host a static website in an S3 bucket and there are global clients from multiple regions. You want to use an AWS service to store cache for frequently accessed content so that the latency is reduced and the data transfer rate is increased. Which of the following options would you choose?

- A. **Use AWS SDKs to horizontally scale parallel requests to the Amazon S3 service endpoints.**
- B. **Create multiple Amazon S3 buckets and put Amazon EC2 and S3 in the same AWS Region.**
- C. **Enable Cross-Region Replication to several AWS Regions to serve customers from different locations.**
- D. **Configure CloudFront to deliver the content in the S3 bucket.**

Question: 43 of 65

Domain : Design Resilient Architectures

An application consists of the following architecture:
a. EC2 Instances in multiple AZ's behind an ELB
b. EC2 Instances are launched via an Auto Scaling Group.
c. There is a NAT instance which is used so that instances can download updates from the Internet.
What is a bottleneck in the architecture?

A. The EC2 Instances

B. The ELB

C. The NAT Instance

D. The Auto Scaling Group

Question: 44 of 65

Domain : Design High-Performing Architectures

A company owns an API which sees a high influx of requests per second. The company wants to host this API with the least administrative maintenance and does not care about code changes. How can this be achieved?

A. Use API Gateway with the backend services as it is

B. Use the API Gateway along with AWS Lambda

C. Use CloudFront along with the API backend service as it is

D. Use ElastiCache along with the API backend service as it is

Question: 45 of 65

Domain : Design High-Performing Architectures

You have an application hosted in an Auto Scaling group and an application load balancer distributes traffic to the ASG. You want to add a scaling policy that keeps the average aggregate CPU utilization of the Auto Scaling group to be 60 percent. The capacity of the Auto Scaling group should increase or decrease based on this target value. Which scaling policy does it belong to?

A. Target tracking scaling policy.

B. Step scaling policy.

C. Simple scaling policy.

D. Scheduled scaling policy.

Question: 46 of 65

Domain : Design High-Performing Architectures

An application sends images to S3. The metadata for these images needs to be saved in persistent storage and is required to be indexed. Which one of the following could be used for the underlying metadata storage?

A. Amazon Aurora

B. Amazon S3

C. Amazon DynamoDB

D. Amazon RDS

Question: 47 of 65

Domain : Design High-Performing Architectures

An application hosted on EC2 Instances has its promotional campaign due, to start in 2 weeks. There is a mandate from the management to ensure that no performance problems are encountered due to traffic growth during this time. What should be done to the Auto Scaling Group to fulfill this requirement?

A. Configure Step scaling for the Auto Scaling Group.

B. Configure Dynamic Scaling and use Target tracking scaling Policy

C. Configure Scheduled scaling for the Auto Scaling Group

D. Configure Static scaling for the Auto Scaling Group

Question: 49 of 65

Domain : Design High-Performing Architectures

A company has an application hosted in AWS. This application consists of EC2 Instances which sit behind an ELB. The following are the requirements from an administrative perspective:
a) Ensure notifications are sent when the read requests go beyond 1000 requests per minute
b) Ensure notifications are sent when the latency goes beyond 10 seconds
c) Monitor all API activities on the AWS resources
Which of the followings can be used to satisfy these requirements? (SELECT TWO)

- A. **Use CloudTrail to monitor the API Activity.**
- B. **Use CloudWatch logs to monitor the API Activity.**
- C. **Use CloudWatch metrics for the metrics that need to be monitored as per the requirement and set up an alarm activity to send out notifications when the metric reaches the set threshold limit.**
- D. **Use custom log software to monitor the latency and read requests to the ELB.**

Question: 50 of 65

Domain : Design Secure Applications and Architectures

A company has resources hosted in their AWS Account. There is a requirement to monitor API activity for all regions and the audit needs to be applied for future regions as well. What would fulfill this requirement?

- A. **Ensure CloudTrail for each region, then enable trail for each future region.**
- B. **Ensure one CloudTrail trail is enabled for all regions.**
- C. **Create a CloudTrail for each region. Use CloudFormation to enable the trail for all future regions.**
- D. **Create a CloudTrail for each region. Use AWS Config to enable the trail for all future regions.**

Question: 51 of 65

Domain : Design Resilient Architectures

There is a requirement for an iSCSI device and the legacy application needs local storage with low-latency access to all the data. What would you do to meet the demands of the application?

- A. **Configure the Simple Storage Service.**
- B. **Configure Storage Gateway Cached volume.**
- C. **Configure Storage Gateway Stored volume.**
- D. **Configure Amazon Glacier.**

Question: 52 of 65

Domain : Design High-Performing Architectures

Your company has an online game application deployed in an Auto Scaling group. The traffic of the application is predictable. Every Friday, the traffic starts to increase, remains high on weekends and then drops on Monday. You need to plan the scaling actions for the Auto Scaling group. Which method is the most suitable for the scaling policy?

A. Configure a scheduled CloudWatch event rule to launch/terminate instances at the specified time every week.

B. Create a predefined target tracking scaling policy based on the average CPU metric and the ASG will scale automatically.

C. Select the ASG and on the Automatic Scaling tab, add a step scaling policy to automatically scale out/in at fixed time every week.

D. Configure a scheduled action in the Auto Scaling group by specifying the recurrence, start/end time, capacities, etc.

Question: 53 of 65

Domain : Design High-Performing Architectures

There is an application that consists of EC2 Instances behind classic ELBs. An EC2 proxy is used for content management of the backend instances. The application might not be able to scale properly.
What should be used to scale the proxy and backend instances appropriately? (SELECT TWO)

A. Use Auto Scaling for the proxy servers.

B. Use Auto Scaling for the backend instances.

C. Replace the Classic ELB with Application ELB.

D. Use Application ELB for both the front end and backend instances.

Question: 54 of 65

Domain : Design Resilient Architectures

There is a website hosted in AWS that might get a lot of traffic over the next couple of weeks. If the application experiences a natural disaster at this time, what should be used to reduce potential disruption to users?

- A. Use an ELB to divert traffic to an Infrastructure hosted in another region.
- B. Use an ELB to divert traffic to an Infrastructure hosted in another AZ.
- C. Use CloudFormation to create backup resources in another AZ.
- D. Use Route53 to route requests to another instance in a different region

Question: 55 of 65

Domain : Define Operationally-Excellent Architectures

You have a requirement to host a static website for a domain named mycompany.com in AWS. How would you set up this? (SELECT TWO)

- A. Host the static site on an EC2 Instance.
- B. Use Route53 with static web site in S3.
- C. Enter the DNS records from Route53 in the domain registrar.
- D. Place the EC2 instance behind the ELB.

Question: 56 of 65

Domain : Design High-Performing Architectures

A database, hosted using the Amazon RDS service, is getting a lot of database queries and has now become a bottleneck for the associating application. Which action would ensure that the database is not a performance bottleneck?

- A. Setup a CloudFront distribution in front of the database.
- B. Setup an ELB in front of the database.
- C. Setup ElastiCache in front of the database.
- D. Setup SNS in front of the database.

Question: 57 of 65

Domain : Design Resilient Architectures

A database is being hosted using the Amazon RDS service. This database is to be made into a production database and is required to have high availability. Which of the following could be used to achieve this requirement?

A. **Use Multi-AZ for the RDS instance to ensure that a secondary database is created in another region.**

B. **Use the Read Replica feature to create another instance of the DB in another region.**

C. **Use Multi-AZ for the RDS instance to ensure that a secondary database is created in another Availability Zone.**

D. **Use the Read Replica feature to create another instance of the DB in another Availability Zone.**

Question: 58 of 65

Domain : Design Secure Applications and Architectures

A company wants to host a web application and a database layer in AWS. This will be done with the use of subnets in a VPC.
What would be a proper architectural design for supporting the required tiers of the application?

A. **Use a public subnet for the web tier and another public subnet for the database layer.**

B. **Use a public subnet for the web tier and a private subnet for the database layer.**

C. **Use a private subnet for the web tier and another private subnet for the database layer.**

D. **Use a private subnet for the web tier and a public subnet for the database layer.**

Question: 59 of 65

Domain : Design Resilient Architectures

You need to launch a number of EC2 instances to run Cassandra. There are large distributed and replicated workloads in Cassandra and you plan to launch instances using EC2 placement groups. The traffic should be distributed evenly across several partitions and each partition should contain multiple instances. Which strategy would you use when launching the placement groups?

A. **Cluster placement strategy.**

B. **Spread placement strategy.**

C. **Partition placement strategy.**

D. **Network placement strategy.**

Question: 60 of 65

Domain : Design Resilient Architectures

A company has an infrastructure that consists of machines which send log information every 5 minutes. The number of these machines can run into thousands and it is required to ensure that the analysis of every log item is completed within 24 hours. What could be helpful in fulfilling this requirement?

A. **Use Kinesis Data Streams with S3 to take the logs and store them in S3 for processing**

B. **Launch an Elastic Beanstalk application to take the processing job of the logs.**

C. **Launch an EC2 instance with enough EBS volumes to consume the logs which can be used for further processing.**

D. **Use CloudTrail to store all the logs which can be analyzed at a later stage.**

Question: 61 of 65

Domain : Design High-Performing Architectures

An application hosted in AWS allows users to upload videos to an S3 bucket. A user is required to be given access to upload some videos for a week based on the profile. How could this be accomplished in the best way possible?

- A. Create an IAM bucket policy to provide access for one week.
- B. Create a pre-signed URL for each profile which will last for one week.
- C. Create an S3 bucket policy to provide access for one week.
- D. Create an IAM role to provide access for one week.

Question: 62 of 65

Domain : Design Resilient Architectures

You are creating several EC2 instances for a new application. For a better performance of the application, both low network latency and high network throughput are required for the EC2 instances. All instances should be launched in a single availability zone. How would you configure this?

- A. Launch all EC2 instances in a placement group using a Cluster placement strategy.
- B. Auto assign a public IP when launching the EC2 instances.
- C. Launch EC2 instances in an EC2 placement group and select the Spread placement strategy.
- D. When launching the EC2 instances, select an instance type that supports enhanced networking.

Question: 63 of 65

Domain : Design High-Performing Architectures

To improve the network performance, you launch a C5 EC2 Amazon Linux instance and enable enhanced networking by modifying the instance attribute with "aws ec2 modify-instance-attribute --instance-id instance_id --ena-support". Which mechanism does the EC2 instance use to enhance the networking capabilities?

- A. **Intel 82599 Virtual Function (VF) interface.**
- B. **Elastic Fabric Adapter (EFA).**
- C. **Elastic Network Adapter (ENA).**
- D. **Elastic Network Interface (ENI).**

Question: 64 of 65

Domain : Design Secure Applications and Architectures

A company hosts 5 web servers in AWS. They want to ensure that Route53 can be used to route user traffic to random healthy web servers when they request for the underlying web application. Which routing policy should be used to fulfill this requirement?

- A. **Simple**
- B. **Weighted**
- C. **Multivalue Answer**
- D. **Latency**

Question: 65 of 65

Domain : Design High-Performing Architectures

You are working as AWS Solutions Architect for a large banking organization. The requirement is that under normal business hours, there would always be 24 web servers up and running in a region (example: US - West (Oregon)). It will be a three-tier architecture connecting to the databases. The solution offered should be highly available, secure, cost-effective, and should be able to respond to the heavy requests during peak hours and tolerate up to one AZ failure.
What would be the best solution to meet this requirement?

A. In a given region, use ELB behind two different AZs, each AZ with minimum or desired 24 web servers hosted in a public subnet and Multi-AZ database architecture in a private subnet.

B. In a given region, use ELB behind three different AZs, each AZ having ASG, with minimum or desired 12 web servers hosted in a public subnet and Multi-AZ database architecture in a private subnet.

C. In a given region, use ELB behind two different AZs, each AZ having ASG, with minimum or desired 12 web servers hosted in a public subnet and Multi-AZ database architecture in a private subnet.

D. In a given region, use ELB behind three different AZs, each AZ having ASG, with minimum or desired 8 web servers hosted in public subnet and Multi-AZ database architecture in a different public subnet.