Question 1 of 65

Exit Quiz

Domain: Design High-Performing Architectures

An online hypermarket company has deployed a web application using REST API with Amazon API Gateway. Recently they have upgraded the backend to make API scalable. After the upgrade, it was found that some of the consumers using older methods cannot access this API. The older method used by these consumers is not compatible with the responses by the backend host.

How should a solution architect redesign the API Gateway to make API compatible with the old method?

- A. Enable API caching in Amazon API Gateway
- B. Configure Mapping templates with Amazon API Gateway
- C. Set up Gateway Response customization in OpenAPI
- D. Set up a method response model with Amazon API Gateway

Review Attempt

1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24
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33 34 35 36 37 38 39 40
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57 58 59 60 61 62 63 64
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https://docs.aws.amazon.com/apigateway/latest/developerguide/models-mappings.html#models-mappings-mappings

Question 2 of 65

DevOps 1

Domain: Design High-Performing Architectures

An engineering firm has an application that stores all the data in Amazon S3 buckets. The developer team has developed a new application that would start processing if there is any modification to the objects stored in these Amazon S3 buckets. The developer team is looking for a quick and reliable solution to get notifications from Amazon S3 for any updates to the objects. The proposed solution should be scalable and efficient to be used with all future deployments. The notifications should be specific to the new application and its associated objects and not for all objects in the S3 bucket.

What solution can be designed to get the required notifications for the Developer team?

- A. Use Amazon S3 Event Notifications with Amazon EventBridge
- B. Use Amazon S3 Event Notifications with AWS Lambda
- C. Use Amazon S3 Event Notifications with Amazon SQS queue
- D. Use Amazon S3 Event Notifications with the Amazon SNS

Review Attempt

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https://aws.amazon.com/blogs/aws/new-use-amazon-s3-event-notifications-with-amazon-eventbridge/

Question 3 of 65

DevOps 1

Domain: Design Cost-Optimized Architectures

A large engineering company has created multiple accounts for deploying applications in an AWS Cloud. Production Account is using Amazon Redshift for data warehousing applications. The Quality Assurance Team having accounts in the same region needs access to the data in this Amazon Redshift. Data should be securely shared with specific users in this account for further analysis.

What is the cost-effective and efficient method for sharing Amazon Redshift data between AWS accounts in the same region?

- A. Use a third-party ETL (extract transform load) tool to copy data from the production accounts and share it with specific users in Quality assurance accounts
- B. Create a Datashare from the Redshift console and authorize specific accounts to access this datashare
- C. Extract database from Amazon Redshift and store in Amazon S3. Use this S3 bucket to share the database with other accounts
- D. Extract database from Amazon Redshift and store in Amazon DynamoDB table. Use the Amazon DynamoDB table to share the database with other accounts

Review Attempt

1 2 3 4 5 6 7 8
9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24
25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40
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49 50 51 52 53 54 55 56
57 58 59 60 61 62 63 64
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https://aws.amazon.com/blogs/aws/cross-account-data-sharing-for-amazon-redshift/

A company is using AWS Organizations for managing multiple accounts created in an AWS cloud. During the annual audit, it was found that accounts use similar resources which increase cost and admin work. These resources are created for the same requirements in each account. The IT Head is looking for a cost-optimized solution for managing these resources across multiple accounts.

What solution can be designed for new resources deployment to minimize costs for resources across accounts in AWS Organizations?

- A. Create resources in a single account and share this resource with member accounts in AWS Organizations by attaching a resource-based policy
- B. Create resources in a single account and share this resource with management accounts in AWS Organizations by attaching a resource-based policy that will share resources with all other member accounts
- C. Create resources in a single account and use AWS Resource Access Manager to share resources across member accounts in AWS Organizations
- D. Create resources in a single account and use AWS Resource Access Manager to share resources with management accounts in AWS Organizations. Management Account will further share resources with all other member accounts

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Question 5 of 65

Exit Quiz

Domain: Design High-Performing Architectures

An IT company uses Scaling policies to maintain an exact number of Amazon EC2 instances in different Availability zones as per application workloads. The developer team has developed a new version of the application for which a new AMI needs to be updated to all the instances. For this, you have been asked to ensure that instances with previous AMI are phased out quickly.

Which termination criteria best suits the requirement?

- A. Specify termination criteria using "ClosestToNextInstanceHour" predefined termination policy
- B. Specify termination criteria using "OldestInstance" predefined termination policy
- C. Specify termination criteria using "AllocationStrategy" predefined termination policy
- D. Specify termination criteria using "OldestLaunchTemplate" predefined termination policy

Review Attempt

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https://docs.aws.amazon.com/autoscaling/ec2/userguide/ec2-auto-scaling-termination-policies.html

Domain: Design Resilient Architectures

A large engineering company plans to deploy a distributed application with Amazon Aurora as a database. The database should be restored with a Recovery Time objective (RTO) of one minute when there is a service degradation in the primary region. The service restoration should incur the least admin work.

What approach can be initiated to design an Aurora database to meet cross-region disaster recovery requirements?

- A. Use Amazon Aurora Global Database and use the secondary region as a failover for service degradation in the primary region
- B. Use Multi-AZ deployments with Aurora Replicas which will go into failover to one of the Replicas for service degradation in the primary region
- C. Create DB Snapshots from the existing Amazon Aurora database and save them in the Amazon S3 bucket. Create a new database instance in a new region using these snapshots when service degradation occurs in the primary region
- D. Use Amazon Aurora point-in-time recovery to automatically store backups in the Amazon S3 bucket. Restore a new database instance in a new region when service degradation occurs in the primary region using these backups

Review Attempt

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9 10 11 12 13 14 15 16
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57 58 59 60 61 62 63 64
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A financial company has deployed a business-critical application on an Amazon EC2 instance front-ended by an internet-facing Application Load Balancer. AWS WAF is used with an Application Load Balancer for securing this application. The security team is looking to prevent excessive requests for computational heavy resources of the application specifically. The requests to these resources should be limited to a threshold number of sessions beyond which all the requests should be dropped. There should be no limits for other low-cost resources used by the application.

Which security policy can be designed to get the required protection for the application?

- A. Create AWS WAF blanket rate-based rules and attach them to the Application Load Balancer
- B. Create AWS WAF URI-specific rate-based rules and attach them to the Application Load Balancer
- C. Create AWS WAF IP reputation rate-based rules and attach them to the Application Load Balancer
- D. Create AWS WAF Managed rule group statements and attach them to the Application Load Balancer

https://docs.aws.amazon.com/waf/latest/developerguide/waf-rule-statements-list.html

An IT company has recently deployed highly available resilient web servers on Amazon EC2 instances. Application Load Balancers are used as the front-end to these instances. The company has deployed a lower-capacity web server at the on-premises data center. IT Head wants to have Amazon EC2 instances in AWS Cloud as primary and web servers at the data center as secondary. You will be using Amazon Route 53 to configure this failover.

How can Amazon Route 53 health checks be designed to get the required results?

- A. For primary resources in the AWS Cloud, create alias records and set **Evaluate Target Health** to **Yes**. For secondary records, create a health check in Route 53 for web servers in the data center. Create a single failover alias record for both primary and secondary resources
- B. For primary resources in the AWS Cloud, create alias records and health checks. For secondary records, create a health check in Route 53 for web servers in the data center. Create a single failover alias record for both primary and secondary resources
- C. For primary resources in the AWS Cloud, create alias records and set **Evaluate Target Health** to **Yes**. For secondary records, create a health check in Route 53 for web servers in the data center. Create two failover alias records for each primary and secondary resource
- D. For primary resources in the AWS Cloud, create alias records and health checks. For secondary records, create a health check in Route 53 for web servers in the data center. Create two failover alias records for each primary and secondary resource

https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/dns-failover-types.html

A media company uses Amazon EFS as shared storage for its distributed application. These applications are deployed on Amazon EC2 instances launched in different Availability Zones in the us-west-1 region. They are planning to launch these applications in Europe for which application will be set up in the eu-west-2 region. The IT team is looking for a cost-effective solution to transfer data in Amazon EFS between these two regions on a regular basis. The solution for this data transfer should not involve transferring data over an insecure public network.

What solution can be adapted to meet this requirement?

- A. Copy files in Amazon EFS to Amazon S3 bucket in us-west-1. Move data between regions using Amazon S3. In destination eu-west-2 region transfer files from S3 to Amazon EFS
- B. Use Open-source tools to transfer data between Amazon EFS securely
- C. Use AWS DataSync to transfer data between Amazon EFS
- D. In the us-west-1 region, copy files from Amazon EFS to Snowball. At the eu-west-2 region, transfer files from Snowball to EFS

A start-up company uses Amazon CloudFormation templates to launch Amazon EC2 instances in different regions. AMI used for these instances differs for each instance type and region. Separate templates need to be created to specify AMI ID as per instance type and as per the region in which instances need to be launched. The IT team is looking for an effective solution to updating the CloudFormation template with the correct AMI ID reducing additional management work.

Which solution can be suggested to get the AMI ID updated in the most effective manner?

- A. Use Custom resources and a Lambda function to create a function that will update AMI IDs in the CloudFormation template
- B. Map AMI IDs to the specific instance type and regions. Manually update the AMI IDs in the CloudFormation templates
- C. Use Custom resources along with Amazon SNS which will update AMI IDs in the CloudFormation template
- D. Use Custom resources along with Amazon SQS which will update AMI IDs in the CloudFormation template

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Domain: Design Secure Architectures

A large company has multiple AWS accounts as part of AWS Organizations. Some of these accounts have created VPC with NAT gateway for internet access. The Security Team needs to control internet access to these accounts by attaching the following SCP (Service Control Policies) at the Organizations' root level.

What will be the impact of applying this SCP?

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Action": [
        "ec2:AttachInternetGateway",
        "ec2:CreateInternetGateway",
        "ec2:CreateEgressOnlyInternetGateway",
        "ec2:CreateVpcPeeringConnection",
        "ec2:AcceptVpcPeeringConnection",
        "globalaccelerator:Create*",
        "globalaccelerator:Update*"
      ],
      "Resource": "*"
    }
  ]
}
```

Review Attempt

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9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24
25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40
41 42 43 44 45 46 47 48
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57 58 59 60 61 62 63 64
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- A. The policy will deny existing Internet access to all users and roles in member and management accounts
- B. The policy will deny creating a new Internet Gateway to all users and roles in member accounts. There will be no impact on users in management accounts
- C. The policy will deny creating a new Internet Gateway for all users and roles in member and management accounts
- D. The policy will deny existing Internet access to all users and roles in member accounts. There will be no impact on users in management accounts

A company has deployed a memory-intensive financial application on an Amazon EC2 instance. For an annual maintenance activity on the primary EC2 instance, there should not be a delay in the initialization of applications on the offline backup EC2 instances. The IT Head wants you to work on a solution to minimize this delay to ensure that applications on the backup instance are quickly initialized in a production environment.

What approach can be initiated to meet this requirement?

- A. Launch a backup Amazon EC2 instance. Configure all required applications and bring the instance to desired production state. Create an AMI from this instance and store it in Amazon S3 for future deployment
- B. Launch a backup Amazon EC2 instance with hibernation enabled. Configure all required applications and bring the instance to desired production state. Hibernate the instance
- C. Launch a backup Amazon EC2 instance. Configure all required applications and bring the instance to desired production state. Shut the instance and reboot once it's required to be in production
- D. Launch a backup Amazon EC2 instance. Configure all required applications and bring the instance to desired production state. Store RAM data to EBS volumes and shut the instance. Reboot the instance with EBS volumes once it's required to be in production

Question 13 of 65

Exit Quiz

Domain: Design Resilient Architectures

A start-up firm has established hybrid connectivity from an on-premises location to the AWS cloud using AWS Site-to-Site VPN. A large number of applications are deployed in the AWS cloud to be accessed from the on-premises location. Users are complaining of the slowness while accessing these applications during peak hours. You have been assigned to work on a solution to improve connectivity throughput from on-premises to AWS.

What solution can be designed to increase VPN throughput?

- A. Establish multiple VPN connections to the ECMP-enabled Transit gateway. Enable dynamic routing on the Transit Gateway
- B. Establish multiple VPN connections to ECMP-enabled Virtual Private gateway. Enable route propagation on the Virtual Private Gateway
- C. Establish multiple VPN connections to multiple Transit gateways. Enable dynamic routing on the Transit Gateway
- D. Establish multiple VPN connections to multiple Virtual private gateways. Enable route propagation on the Virtual Private Gateway

Review Attempt

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https://aws.amazon.com/blogs/networking-and-content-delivery/scaling-vpn-throughput-using-aws-transit-gateway/

Domain: Design Cost-Optimized Architectures

A start-up firm is using the Internet via NAT Gateway attached to VPC A. NAT gateway is in a single availability zone, and all the subnets of the VPC A are accessing the internet via this NAT Gateway. Instances in different availability zones are transferring large volumes of traffic to the Internet across availability zones using this NAT Gateway. This is leading to high operational costs. Management is looking for a cost-saving option along with reliable Internet connectivity.

What solution can be designed for cost-effective traffic flow between resources to the Internet?

- (●) A. Create a separate Public NAT gateway in a public subnet of the availability zone having instances with large volumes of internet traffic
- ( ) B. Create a separate Public NAT gateway in a private subnet of the availability zone having instances with large volumes of internet traffic
- ( ) C. Create a separate Private NAT gateway in a private subnet of the availability zone having instances with large volumes of internet traffic
- ( ) D. Create a separate Private NAT gateway in a public subnet of the availability zone having instances with large volumes of internet traffic

Review Attempt

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A company has created VPC A for deploying web applications. Recently this company has acquired another company that has created VPC B for deploying applications in an AWS cloud. It is found that the subnets of both these VPCs are overlapping. The company requires web applications in VPC A to communicate with servers in VPC B. This communication should be over AWS-managed networking infrastructure.

Which of the following design can be implemented to establish communications between these VPCs?

- A. Create new subnets from the new CIDR range in both VPCs. Create a public NAT Gateway in this subnet in both VPCs. Use AWS PrivateLink to connect these VPCs over new subnets. Update route table in both overlapping subnets to send traffic via NAT Gateway created in the new subnet to establish connectivity
- B. Create new subnets from the new CIDR range in both VPCs. Create a private NAT Gateway in this subnet in VPC A and an Application Load balancer in VPC B . Use AWS Transit Gateway to connect these VPCs over new subnets. Update route table in both overlapping subnets to send traffic via NAT Gateway in VPC A and via Load balancer in VPC B to establish connectivity.
- C. Create new subnets from the new CIDR range in both VPCs. Create a private NAT Gateway in this subnet in both VPCs. Use VPC Peering to connect these VPCs over new subnets. Update route table in both overlapping subnets to send traffic via NAT Gateway created in the new subnet to establish connectivity
- D. Create new subnets from the new CIDR range in both VPCs. Create a public NAT Gateway in this subnet in both VPCs. Use AWS Managed VPN to connect these VPCs over new subnets. Update route table in both overlapping subnets to send traffic via NAT Gateway created in the new subnet to establish connectivity

https://docs.aws.amazon.com/vpc/latest/userguide/nat-gateway-scenarios.html

Domain: Design Cost-Optimized Architectures

A large government Organization has created multiple accounts as part of the AWS Organizations. Each of these accounts has a NAT Gateway attached for Internet access to applications. The Finance team is looking for total combined charges incurred for all the NAT Gateways as well as charges of individual accounts for using NAT Gateway.

What strategy can be adopted to get cost details for all NAT Gateway in AWS Organizations?

- A. Assign Cost Allocation tags to NAT Gateway in each of the member accounts from individual member accounts. Use member accounts in AWS Organizations to access the Cost Allocation Tags manager in the billing console
- B. Assign Cost Allocation tags to NAT Gateway in each of the member accounts from the management account. Use a management account in an AWS Organizations to access the Cost Allocation Tags manager in the billing console
- C. Assign Cost Allocation tags to NAT Gateway in each of the member accounts from individual member accounts. Use a management account in an AWS Organizations to access the Cost Allocation Tags manager in the billing console
- D. Assign Cost Allocation tags to NAT Gateway in each of the member accounts from the management account. Use a member account in an AWS Organizations to access the Cost Allocation Tags manager in the billing console

Review Attempt

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Question 17 of 65

Exit Quiz

Domain: Design Secure Architectures

An oil drilling company is planning to use Kubernetes clusters on offshore platforms. Some of these platforms are in remote locations without having any Internet access. The IT Team is looking for an automated option for cluster management along with the creation of clusters at the offshore platforms.

What design can be proposed to manage these Kubernetes clusters?

- A. Deploy Amazon EKS Anywhere using VMware vSphere. Use the EKS distro along with open-source tools for running the clusters
- B. Deploy Amazon EKS Anywhere on AWS Outposts. Use Amazon EKS for running clusters
- C. Deploy Amazon EKS using BareMetal deployments. Use Amazon EKS for running clusters
- D. Deploy Amazon EKS Anywhere using AWS ECR. Use the EKS distro along with open-source tools for running the clusters

Review Attempt

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A Research and Development department in a global pharma company is planning to store all its formulation documents as an archive in Amazon S3 Glacier Vault. The security team of this company wants to ensure that no deletion of these formulation documents is permitted to any user for an indefinite period. Users should retain permissions to delete temporary document archives stored in these vaults.

What approach should be initiated to meet this requirement?

- [ ] A. Use vault access policy to match the retention tag and deny deletion of the formulation document archive
- [ ] B. Use vault lock policy to match the retention tag and deny deletion of the formulation document archive
- [x] C. Apply a LegalHold Tag to the formulation document archive in the vault
- [ ] D. Apply a retention Tag to the formulation document archive in the vault
- [x] E. Use vault lock policy to match the LegalHold tag and deny deletion of the formulation document archive

https://docs.aws.amazon.com/amazonglacier/latest/dev/vault-lock.html

A company is using AWS Organizations for managing accounts created in multiple regions. Each of these accounts has created Amazon S3 buckets for storing files. During a security audit, it was found that some of these S3 buckets have public access without any proper requirements leading to security risks. The Security Team has engaged you to propose a secure design to deny all accounts in AWS Organizations from creating an S3 bucket with public access.

What policies can be designed to ensure additional protection?

- A. Enable Amazon S3 Block Public Access on AWS Organization's Service Control Policies (SCPs) to deny users making changes to these settings
- B. Enable Amazon S3 Block Public Access on individual objects in all the S3 buckets and configure SCPs to deny users making changes to these settings
- C. Use Amazon S3 ACLs on individual objects in all the S3 buckets and configure SCPs to deny users making changes to these settings
- D. Use the Amazon S3 bucket policy in all the S3 buckets and configure SCPs to deny users making changes to these settings

An IT Company has deployed Amazon EFS in VPC A created in eu-west-2. Data in this Amazon EFS needs to be accessed from the Amazon EC2 instance in VPC B created in us-east-1 and from an on-premises location. On-Premises locations have an existing AWS Direct Connect link with VPC B. You need to provide a high-performance cost-effective solution for this data access with optimum latency.

Which solution can be designed for accessing data in Amazon EFS?

- A. Create an AWS Managed VPN from on-premises to VPC A. Over this connectivity, access Amazon EFS in VPC A. For instance, in VPC B, connect to the on-premises network using the existing Direct Connect Link. From there, use VPN connectivity to establish connectivity to Amazon EFS in VPC A
- B. Create an AWS PrivateLink between VPC A and VPC B. Access Amazon EFS in VPC A from an instance in VPC B over this PrivateLink. From the on-premises network, use existing AWS Direct Connect to VPC B. From there, use PrivateLink to connect to Amazon EFS in VPC A
- C. Create an inter-region VPC peering between VPC A and VPC B. Create an AWS Managed VPN from on-premises to VPC A. Access Amazon EFS in VPC A from the instance in VPC B over VPC peering while establishing connectivity from on-premises servers to Amazon EFS in VPC A over VPN connectivity
- D. Create an inter-region VPC peering between VPC A and VPC B. Access Amazon EFS in VPC A from the instance in VPC B over VPC peering. From the on-premises network, use existing AWS Direct Connect to VPC B. From there, use VPC peering to connect to Amazon EFS in VPC A

Domain: Design Secure Architectures

Jim is a Solutions Architect working in an MNC that owns a global E-Commerce application. They have stored the data across different regions around the world and always look for ways to provide low latency data delivery to their global customers securely. All the data is encrypted using KMS, but they have observed some latency issues in some regions recently. After checking out a few configurations, Jim found the cause of the issue: the call made to KMS for using a single encryption key is available in the Mumbai region only.

What should Jim use to resolve the latency issues in the given scenario?

- A. Store all the data in the Mumbai Region only instead of multiple Regions
- B. Create Multi-Region keys in the Regions where the data resides
- C. Disable encryption and serve the unencrypted data to avoid the encryption key issue
- D. KMS Keys are not Region-specific. Instead, they are available in all regions by default, no matter where you create them. Latency might be due to other unknown issues

Review Attempt

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17 18 19 20 21 22 23 24
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Domain: Design Resilient Architectures

Whizlabs, an E-Learning platform hosted on AWS provides various online courses to a global audience. They have video lessons and quiz questions for every lesson. They are more customer-centric and always work to improve their services based on the feedback received from their customers. Recently they have seen a surge in the responses where their customers are demanding a feature where they can listen to the questions in the quiz instead of just reading it because they understand it better by listening. It will help the visually impaired learners as well.

Krish, the solutions architect at Whizlabs, is looking for a solution to introduce this feature to their platform. Which of the following options can fulfill the given requirement?

- A. Use Amazon Rekognition to identify the text from the quiz page and convert it from Text to Speech
- B. Use Amazon Textract to extract the text from the quiz questions and convert it from Text to Speech
- C. Use Amazon Comprehend to use its NLP-based functionality to implement this feature
- D. Use Amazon Polly to implement this feature in the platform

Review Attempt

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17 18 19 20 21 22 23 24
25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40
41 42 43 44 45 46 47 48
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Domain: Design Cost-Optimized Architectures

Shoptech is a recently launched E-Commerce platform serving customers around the globe. For the platform, they have used EC2 instances as application servers managed by an Auto Scaling Group. For the database layer, they have used Amazon RDS with MySQL engine.

During their regular monitoring activity, the team observed performance issues in the form of slower database queries over the last few days. They also observed that the DB instance is intermittently throwing "too many connections" errors. They found that this might happen due to the large number of database connections getting opened to ensure quick user response times. These active connections are barely getting used. Which of the following options can solve the problem in the MOST Efficient way?

- (●) A. Use Amazon RDS Proxy with the MySQL DB instance
- ( ) B. Provision more capacity to the MySQL DB instance
- ( ) C. Use Multi-AZ deployments for MySQL DB instance
- ( ) D. Create Read Replicas with the MySQL DB instance

Review Attempt

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17 18 19 20 21 22 23 24
25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40
41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56
57 58 59 60 61 62 63 64
65

Question 24 of 65

Exit Quiz

Domain: Design Resilient Architectures

An IT company Techify has recently started using Amazon SQS to let their web servers communicate with the application servers through the messages in the SQS queue. However, upon testing, the team observed that the request from the Web server is not reaching the App server and they are looking for an AWS Service that can efficiently help them debug such errors. They also want to identify potential issues and more information about errors and latency for the messages passing through SQS.

Which of the following services/ features can be used in the given scenario?

A. Amazon CloudTrail

B. Amazon Inspector

C. Amazon Cloudwatch

D. Amazon X-Ray

Review Attempt

1 2 3 4 5 6 7 8
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17 18 19 20 21 22 23 24
25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40
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57 58 59 60 61 62 63 64
65

Question 25 of 65

Exit Quiz

Domain: Design High-Performing Architectures

Kayne is instructed by his manager to build a solution to detect whether the visitors entering their office building are wearing a face mask or not. The building has two entrances with CCTVs installed on both. The data needs to be captured from them and sent to AWS for detection and analysis.

He is exploring AWS Services to build this solution efficiently. After some research, he has found that Amazon Kinesis with a combination of Amazon Rekognition can serve the purpose. But he is not aware of what capability in Kinesis will help in this case.
Which of the following Kinesis capabilities is MOST appropriate for the given scenario?

- A. Kinesis Data Firehose
- B. Kinesis Data Analytics
- C. Kinesis Video Streams
- D. Kinesis Data Streams

Review Attempt

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25 26 27 28 29 30 31 32
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Question 26 of 65

Exit Quiz

Domain: Design High-Performing Architectures

You are working on a Fraud Detection system that relies on getting real-time data from the database quickly. You perform the analysis on it. Your manager has instructed you to find a database solution where you can pursue the analytical queries directly on your current database where you are performing other transactional queries as well. The manager has asked you not to use a separate software or infrastructure to perform the analytics. Also, he has instructed you to use a solution where the underlying database can run the queries on thousands of CPUs together without slowing down or compromising the overall performance. Which of the following is the MOST efficient solution for this requirement?

A. Amazon OpenSearch

B. Amazon Aurora Parallel Query

C. Amazon EMR

D. Amazon QuickSight

Review Attempt

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Question 27 of 65

Exit Quiz

Domain: Design Resilient Architectures

You have hosted an application on an EC2 Instance in a public subnet in a VPC. For this application's database layer, you are using an RDS DB instance placed in the private subnet of the same VPC, but it is not publicly accessible. As the best practice, you have been storing the DB credentials in AWS Secrets Manager instead of hardcoding them in the application code.

The Security team has reviewed the architecture and is concerned that the internet connectivity to AWS Secrets Manager is a security risk. How can you resolve this security concern?

- A. Create an Interface VPC endpoint to establish a private connection between your VPC and Secrets Manager
- B. Access the credentials from Secrets Manager through a Site-to-Site VPN Connection
- C. Create a Gateway VPC endpoint to establish a private connection between your VPC and Secrets Manager

Review Attempt

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You have deployed an application on a fleet of EC2 Instances managed by an Auto Scaling Group. For the even distribution of traffic, you have deployed a load balancer also. For better protection, you use a TLS Certificate issued by AWS Certificate Manager with the load balancer for 390 days. The domain ownership of this certificate has been validated by your email address.

Your manager instructed you to keep an eye on TLS Certificate expiration and renewal to avoid any downtime in your system. You checked the ACM (AWS Certificate Manager) Console for the certificate validity status, and it says "Pending validation." Which option describes the possible cause and the resolution for this?

- A. The TLS certificate is expiring soon and needs to be renewed. Renew it by following the link in the email received by ACM regarding certificate expiration on any of the domain's WHOIS mailbox addresses
- B. The TLS Certificate has expired today. ACM was not able to renew it before expiration. Request a new certificate
- C. The TLS certificate is expiring soon. ACM will automatically renew the certificate in some time, so no action is required by you
- D. The TLS Certificate has expired today. Write an email to AWS Support to renew your certificate

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Domain: Design Resilient Architectures

You have designed a loosely coupled architecture for a restaurant's order processing application. There is a set of microservices built using lambda functions for different processes. You have used Amazon SNS for all the notification sending requirements. When the user places an order, a notification is sent to the restaurant, and the restaurant sends confirmation of acceptance or cancellation, and the process continues.

You are exploring AWS services to find one that will let you orchestrate this architecture. You also want to have a track of each and every task and event in your application but without any additional overhead of building this manually. Which of the following services suits the given requirement in the BEST way?

- A. AWS Batch
- B. AWS Step Functions
- C. Amazon SQS
- D. AWS Glue

Review Attempt

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Domain: Design Resilient Architectures

You have designed the architecture for an E-Commerce website for one of the clients. It is hosted on a set of EC2 Instances managed by an Auto Scaling Group and sitting behind an Application Load Balancer.

You have registered the domain name as myshoppingweb.com. The client has asked you to ensure the users should be able to access the website with myshoppingweb.com (root domain) as well as www.myshoppingweb.com (subdomain). What configuration do you need to set up an Amazon Route 53 to satisfy the client's requirement?

A. Create a CNAME record for myshoppingweb.com pointing to the ALB and an Alias record for www.myshoppingweb.com pointing to the ALB

B. Create a CNAME record for myshoppingweb.com pointing to the ALB and a CNAME record for www.myshoppingweb.com pointing to the ALB

C. Create an Alias record for myshoppingweb.com pointing to the ALB and a CNAME record for www.myshoppingweb.com pointing to the ALB

D. Create an A record for myshoppingweb.com pointing to the ALB and AAAA record for www.myshoppingweb.com pointing to the ALB

Review Attempt

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An organization has recently adopted AWS cloud for hosting its applications. They have multiple AWS accounts to gain the highest level of isolation amongst its resources & security. They have implemented a Data Lake for analytics in one of their accounts (Analytics Account) and use SQS messaging queue for exporting data to the Analytics Account coming from various data sources in other accounts. A consumer in the Analytics Account reads the data from SQS & transfers it to the Data Lake. How would you, as a Solutions Architect, enable different accounts to access the SQS queue?

- A. Use an IAM policy and provide SendMessage permission to the SQS queue to other accounts
- B. Use an SQS policy and provide SendMessage permission to the SQS queue to other accounts
- C. Use an IAM Role and provide SendMessage permission through SQS policy and assume the role in the other accounts
- D. Both B & C will work

Domain: Design Resilient Architectures

An organization has implemented an online Savings Account application that uses a microservices architecture for orchestrating different processes. One of the orchestrating processes is "Account Creation" which orchestrates various API calls for creating the Savings Account. For performance reasons, the API orchestration is a mix of synchronous & asynchronous calls. It has been observed that certain asynchronous calls leave the system in an inconsistent state when they fail. An example of this is the Savings Account would have been created, but the Customer's information may not have been created. What would you, as an Architect, do to ensure the highest durability of the system?

- A. Implement the asynchronous calls as synchronous & encapsulate them in a distributed transaction to ensure the highest durability
- B. Process the exception from the asynchronous call and implement a retry mechanism for ensuring that the call succeeds
- C. Process the exception from the asynchronous call and send an SNS notification to interested parties for resolution
- D. Implement an event-driven mechanism using SQS and Lambda instead of calling the API asynchronously

Review Attempt

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An organization is currently planning to move its Employee Self Service applications from its on-premises data center to AWS Cloud. The organization presently has millions of users maintained in its Corporate Directory on-premises. The organization needs to provide access to all the applications that would be migrated from on-premises to the cloud after logging in to their on-premises employee portal. The Organization is also planning to extend access to other Cloud-based applications like SalesForce in the future. What is the best solution can you, as an Architect, propose to have users on-premises access the applications in AWS?

- A. Define all users that are existing on-premises in IAM, provide access to the applications using IAM policies, and ask the user to do a secondary login to AWS for accessing those applications after login into their on-premises portal
- B. Use web identity federation using an Identity Provider like Amazon and Facebook that will authenticate the user and request temporary credentials from AWS STS. Use these temporary credentials and assume a role to access AWS applications
- C. Use SAML 2.0 Identity federation to authenticate users within their Corporate Directory and request temporary credentials from AWS STS to assume a role with SAML for accessing AWS applications
- D. Use AWS IAM Identity Center to sign-on users defined in the Corporate Directory on-premises with SAML 2.0 based identity federation for accessing the AWS applications

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Domain: Design High-Performing Architectures

An organization is currently implementing a Cloud-Native microservices architecture using AWS EKS for their Banking application. The pods, whose nodes are EC2 instances running in the EKS cluster, store sensitive data. They are looking for a secure encrypted storage option that will exhibit high performance and throughput for their intensive transactional workloads. Which of the following can be the best fit Architecture for fulfilling the Organization's requirements?

- A. Use a general-purpose SSD Backed EBS volume with "Multi Attach" for storing data. Enable "Encryption at Rest"
- B. Use an EBS-Optimized instance with SSD Backed EBS volume and "Multi Attach" for storing data. Enable "Encryption at Rest"
- C. Use a Provisioned-IOPS SSD EBS volume with "Multi Attach" for storing data. Enable "Encryption at Rest"
- D. Use a throughput optimized HDD EBS volume for storing data with "Multi Attach". Enable "Encryption at Rest"

Review Attempt

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Domain: Design Cost-Optimized Architectures

A financial firm has built an application on AWS which contains containerized components running on AWS ECS. The containerized components receive lots of critical financial data in the form of files (PDFs, JPEG, DOCX) uploaded to a Document Management Store (DMS) asynchronously. There were instances reported in the production environment where the files were not available in the DMS as the upload operation was unsuccessful. The application needs to scale with an increase in the user base during Campaigns. It is expected to receive 500% more traffic than what it is currently receiving. How would you, as a Solutions Architect, help build resilience in the system with an emphasis on the cost-effectiveness of the solution?

- A. Use the EFS Standard – IA storage class to store the files and use ECS to access files from EFS and upload them to DMS whenever the DMS operation fails.
- B. Use the EFS Standard storage class to store the files and use ECS to access files from EFS and upload them to DMS whenever the DMS operation fails.
- C. Use the EFS One Zone storage class to store the files and use ECS to access files from EFS and upload them to DMS whenever the DMS operation fails.
- D. Use a relational database running in an EC2 instance to store the files and use it to access them and upload them to DMS whenever the DMS operation fails.

Review Attempt

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Domain: Design High-Performing Architectures

A monolith application is currently being converted into a microservices architecture. The microservices use a container orchestration engine (ECS) for managing all container-based deployments. The AWS account which is hosting the application has high-Security requirements. It plans to build an analytics platform to gather data from all of the AWS ECS Service API calls in near real-time. It is necessary to track & analyze different state changes that occur during AWS ECS Service deployment & runtime with different tools like Kinesis, ELK, and Lambda. How will you architect this solution to meet the requirement?

- A. Configure AWS Config and stream AWS ECS API calls to an SNS topic. Use a Lambda function to perform an analysis of the configuration changes by subscribing to the SNS Topic
- B. Use AWS CloudTrail Setup that will deliver AWS ECS API calls to S3. Subscribe a Lambda function to S3 events which will insert records into an ELK stack for analysis
- C. Use Amazon EventBridge for pulling the AWS ECS API calls and submitting them to Amazon Kinesis Data Analytics for analysis
- D. Use CloudWatch Logs for pulling the AWS ECS API calls and integrate them with an ELK stack for analysis

Review Attempt

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The CEO of your organization would like to enforce stringent compliance over users of your AWS Account who access resources & make changes to them at all times. Changes to all AWS resources need to be recorded and maintained over a period of 2 years for enabling auditors to perform an analysis of the data and also store the results of the analysis. The CEO wants a solution that can be implemented quickly with the highest security & integrity of the stored data. How best would you, as an Architect, solve this?

- A. Create a CloudTrail trail & send the logs to an S3 bucket to store them securely. Use Athena to query the logs in S3 and store the results in another S3 bucket
- B. Use the Event History of CloudTrail, download the events to your local machine, and manually query the required data for a quick and cost-effective solution
- C. Use AWS CloudTrail Lake, configure the duration of storage and the events that need to be captured. Once configured, use the CloudTrail Lake interface for querying data
- D. Use CloudWatch event rules to capture API requests from AWS resources with SNS Topic notifications. Subscribe a Lambda function to the SNS Topic which writes the data to S3. Use Athena to Query S3 for analyzing the data

A company is using S3 as their primary storage of large amounts of financial data that arrives in the form of documents, images, videos which are highly confidential. This data is produced as a result of the company executing transactions using its highly modularized microservices architecture for different financial service domains. They require a monitoring solution that will intelligently detect malicious activities that can cause a threat to their storage media compromising confidential data.

Apart from S3, the company would also want its Accounts and other AWS services to be protected from threats. The solution should also be extremely cost-effective. Which of the following AWS services can be used for addressing the above requirements?

- A. Use Amazon Guard Duty to continuously monitor S3 events for any suspicious actions
- B. Use Amazon Macie to continuously monitor S3 events
- C. Use CloudTrail to record actions taken by users on S3. Monitor the actions by setting up CloudWatch logs and alarms
- D. Enable AWS Config rules to monitor compliance changes to S3 resources

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During a compliance review within an organization, the following issues were observed.

1. All S3 buckets were publicly accessible.
2. Many of the EC2 instances that are running were overutilized.

The organization would like to understand, manage & remediate these issues in the near future for different AWS services that they are using. Which of these services will help them do so? (Select Two)

- [ ] A. AWS Guard Duty
- [x] B. AWS Systems Manager
- [ ] C. AWS Shield
- [x] D. AWS Security Hub
- [ ] E. AWS Inspector

An organization has recently moved its workloads to AWS Cloud. They have migrated their applications to run on EC2 instances. Before rolling out their production deployments to their end users, they plan to perform a test to run vulnerability assessments on Production instances using AWS Inspector. They would like to know whether their EC2 instances have any critical ports exposed to the internet.

Which of the following steps related to configuring Amazon Inspector is incorrect? (Select TWO)

- [x] A. Define an Assessment Target and include all instances within the AWS Account & Region
- [ ] B. Include the "Network Reachability-1.1" rules package within the Assessment Template
- [ ] C. Do not set up the assessment to run in a recurring mode
- [x] D. Run the Inspector configuration manually after creation

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You are a solution architect in a gaming company and have been tasked to design Infrastructure as Code (IaC) for one of their online gaming applications. You have decided to use AWS CloudFormation for this. You create three stacks, e.g., Security Stack, Network Stack, and Application Stack. The customer has asked you to automate the creation of the Security Group defined in Security Stack for all the resources in a VPC defined in Network Stacks.

Which of the following CloudFormation features will help you to import values into other stacks and create cross-stack references?

- A. CloudFormation Outputs
- B. CloudFormation Mappings
- C. CloudFormation Parameters
- D. CloudFormation Conditions

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https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/outputs-section-structure.html

A retail company hosts its e-commerce application in EC2 behind an Application Load Balancer. AWS RDS is the Database platform.

A popular mobile brand has tied up with the retail company to launch all their flag-ship phones online using the company's e-commerce application. You are a solution architect in the company who manages AWS infra and the e-commerce application.

As the next product launch is due in a week, you have the responsibility to ensure that the existing AWS RDS Database can withstand write intensive dynamic and virtually infinite load without increasing the cost significantly. Which solution would you recommend to achieve the requirement?

- A. Vertically scale RDS by increasing RDS instance size and set the RDS storage type as "Provisioned IOPS"
- B. Migrate RDS data to the DynamoDB tables
- C. Implement the SQS service in front of the RDS to withstand write intensive load on the database
- D. Use Amazon MQ to take the user input and write data to the RDS database

Domain: Design Cost-Optimized Architectures

Utopia Municipality Corporation runs its application used for the local citizen in EC2 while its database is still in an on-premise data center. The Organization is adamant about not migrating its Database to AWS due to regulatory compliances. However, they are willing to extend the database to the cloud to serve all other AWS services. The organization is looking for a solution by which all AWS services can communicate seamlessly to their on-premises Database without migrating or hosting it in the cloud.

You are hired as a Solutions Architect to help the customer achieve this and also ensure a region-specific, friction-less, low-latency fully managed environment for a truly consistent hybrid experience.

Which of the following would you recommend?

- A. AWS Outposts
- B. Use AWS Snowball Edge to copy the data and upload to AWS
- C. AWS DataSync
- D. AWS Storage Gateway

Review Attempt

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A drug research company is receiving sensitive scientific data from multiple sources in different formats. The organization wants to create a Data Lake in AWS to analyze the data thoroughly. Data cleansing is a critical step before the data lands in Date Lake, and all the matching data need to be removed. The solution should also enable secure access to sensitive data using granular controls at the column, row, and cell levels.

You are hired as a Solutions Architect to help them achieve this in real quick time.

Which of the following do you think would resolve the problem?

- A. Amazon Redshift Spectrum
- B. Amazon Redshift
- C. AWS Glue Data Catalog
- D. AWS Lake Formation

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Question 45 of 65

Exit Quiz

Domain: Design Cost-Optimized Architectures

To comply with industry regulations, a Healthcare Institute wants to keep their large volume of lab records in some durable, secure, lowest-cost storage class for an extended period of time (say about five years). The data will be rarely accessed but requires immediate retrieval (in milliseconds) when required. As a Solutions Architect, the Institute wants your suggestion to select a suitable storage class here. Which of the following would you recommend for the given requirement?

- A. Amazon S3 Standard
- B. Amazon S3 Standard-Infrequent Access
- C. Amazon S3 Glacier Instant Retrieval
- D. AWS S3 One Zone-Infrequent Access

Review Attempt

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Domain: Design Resilient Architectures

A media company is planning to host its relational database in AWS. They want a database from the RDS family that can handle variable and unpredictable workloads without any manual intervention and scales compute capacity up and down based on the application's user traffic.

Which of the following RDS types will fulfill this requirement?

- A. Amazon Aurora
- B. Amazon RDS for MySQL
- C. Amazon Aurora Serverless
- D. Amazon RDS for PostgreSQL

Review Attempt

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A popular media company delivers content on News, Sports and Entertainment to the audiences across the globe. The company uses AWS Redshift to analyze petabytes of structured and semi-structured data across their data warehouse, operational database, and Amazon S3 files to activate data-driven decisions and powerful insights. As their petabyte-scale data continues to grow rapidly, the company starts facing bottlenecks around network bandwidth and memory processing (CPU) that result in slow query performance.

As a solution architect in the company, you have to find a solution that will improve the query performance without increasing the operational overhead and cost. What would you recommend?

- A. Use Amazon S3 Transfer Acceleration to copy the data to a central S3 bucket and then use Redshift Spectrum for the query purpose
- B. Use Amazon Redshift Spectrum to enhance query performance
- C. Use AQUA (Advanced Query Accelerator) for Amazon Redshift
- D. Enable and configure caching solutions to expedite query performance using Amazon ElastiCache Memcached

Question 48 of 65

Exit Quiz

Domain: Design Resilient Architectures

An organization runs nearly 500 EC2 instances in several accounts across regions.

These EC2 instances are built on custom Amazon Machine Images (AMIs). The organization is concerned about the accidental deletions of AMIs used for production EC2 instances. They want a solution that can help them recover from accidental deletions as soon as they know about it.

Which of the following can be used for the above scenario?

- A. Use Recycle Bin
- B. Use Cloudformation StackSets
- C. Use Elastic Beanstalk
- D. Take a snapshot of the EBS volume attached to all EC2 and later use it to restore the AMIs

Review Attempt

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Question 49 of 65

Exit Quiz

Domain: Design Resilient Architectures

You are the Solutions Architect of an organization that runs 100 of modern EC2 instances in a production environment. To avoid non-compliance, you must immediately update the packages on all the production EC2 instances. There is a DevSecOps team who is in charge of security group policies used in those EC2, has the SSH access disabled in the security group policy. When you reached them to get the SSH enabled, they denied that.

Which of the below options will help you to roll out the package for all the EC2 instances despite having the above restrictions from the DevSecOps team?

A. Use AWS Config to roll out the package all at once and install it in EC2 instances

B. Get the System Manager role added to your IAM roles and use Systems Manager Run Command to roll out the package installation

C. Get the System Manager role added to your IAM roles and use System Manager Session Manager to SSH into the EC2s from browser mode to install the package

D. Get the user credentials of one of the Security members to SSH into the EC2 instance and proceed with package installation

Review Attempt

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25 26 27 28 29 30 31 32
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https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/outputs-section-structure.html

Question 50 of 65

Exit Quiz

Domain: Design Cost-Optimized Architectures

A major news broadcasting company is looking for a solution to build a throughput intense, high performance, low-cost redundant file storage class to ensure continuous availability of data that are being used by several EC2 instances running in a region. The redundant data are meant for some local advertisements targeted at the audience of a particular availability zone (AZ). Also, these data can be re-created easily, if it is lost. The redundant data will be accessed infrequently unless there is loss or damage to the primary storage. But the customer prefers it to be a cost-optimized one. Which of the below suits the best to this requirement?

- A. EFS Standard
- B. EFS One Zone
- C. EFS Standard–Infrequent Access (IA)
- D. EFS One Zone-Infrequent Access (IA)

Review Attempt

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Domain: Design Cost-Optimized Architectures

A major health care institution is looking for a solution to store their files in the cloud to achieve high availability, durability, elasticity, and lower storage cost. The storage must support the Network File System version 4 (NFSv4.1 and NFSv4.0) protocol. These files in the cloud storage will mainly be used by Auditor once in a while.

Which of the below best suits this requirement?

- A. EFS Standard
- B. EFS One Zone
- C. EFS Standard–Infrequent Access (IA)
- D. EFS One Zone–Infrequent Access (IA)

Review Attempt

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17 18 19 20 21 22 23 24
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Question 52 of 65

Exit Quiz

Domain: Design Resilient Architectures

You are a solutions architect in a gaming company. The customer has asked you to design Infrastructure as Code (IaC) for one of their applications. You have decided to use AWS CloudFormation for this. The customer has asked you to build the infrastructure so that all the EC2 instances are created out of their predefined Amazon Machine Images (AMIs) set based on a region.

Which of the below CloudFormation features will help you satisfy the customer requirement?

- A. CloudFormation Outputs
- B. CloudFormation Mappings
- C. CloudFormation Parameters
- D. CloudFormation Conditions

Review Attempt

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Question 53 of 65

Exit Quiz

Domain: Design Secure Architectures

A document management company has an application A that sends a file to application B in their AWS account. These are classified files from the defense department. The organization wants the file to be digitally signed so that the receiving application B can verify that it hasn't been tampered with in transit.

The organization also wants to ensure only application A can digitally sign files using the key because they don't want application B to receive a file thinking it's from application A when it was from a different sender that had access to the signing key. As a solution architect in the company, you are offering a solution with AWS KMS. Which of these encryption types will satisfy the customer requirement?

- A. Asymmetric KMS Keys
- B. AWS CloudHSM
- C. Symmetric KMS Keys
- D. Customer managed keys

Review Attempt

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Question 54 of 65

Exit Quiz

Domain: Design Secure Architectures

A Pharmaceutical company wants to apply encryption all through the lifecycle of their data generated by the drug research team. Initially, the data will be stored in S3; then, the same will be processed by some filtering logic written in the AWS Lambda function. Finally, it will be stored in DynamoDB tables. All these AWS services integrate with AWS KMS. Hence, the customer is exploring options to create an Encryption Key using KMS that should be a 256-bit encryption key that never leaves AWS KMS unencrypted. Additionally, they want to use the same key for encryption and decryption without any ownership of the KEY.

Which type of encryption key should be applied to the data in this scenario?

- A. Asymmetric KMS Keys
- B. AWS CloudHSM
- C. Symmetric KMS Keys
- D. Customer managed key

Review Attempt

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Question 55 of 65

Exit Quiz

Domain: Design Secure Architectures

A scientific research team is using EBS as storage for their highly sensitive documents to be processed by EC2 instances for some scientific experiment. The team wants to manage their own keys and also ensure the highest level of security for their documents so that even if they are compromised, they cannot be read.

Which of the following AWS features would you recommend as a Solutions Architect?

- A. Amazon EBS encryption with AWS Managed Keys
- B. Policies and permissions in AWS IAM
- C. AWS Config
- D. Amazon EBS encryption with Customer Managed Keys

Review Attempt

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Domain: Design Secure Architectures

A private bank is planning to use Amazon RDS as a database for its banking application. Data Files and backups for this database will be managed by a third-party vendor. Security Head wants you to ensure sensitive data is encrypted at rest in the database without any additional changes in the application. Cryptographic keys used for this encryption should be securely stored in a single tenant hardware module.
Which database design can suffice these security requirements?

- A. Deploy Oracle on Amazon RDS with Transparent Data Encryption enabled. Use AWS CloudHSM to store all keys
- B. Deploy MariaDB on Amazon RDS with Transparent Data Encryption enabled. Use AWS CloudHSM to store all keys
- C. Deploy Microsoft SQL server on Amazon RDS with Transparent Data Encryption enabled. Use AWS KMS to store all keys
- D. Deploy PostgreSQL on Amazon RDS with Transparent Data Encryption enabled. Use AWS KMS to store all keys

Review Attempt

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A critical web application is deployed on an Amazon EC2 instance. ELB (Elastic Load Balancer) is deployed in front of this Amazon EC2 instance to load balance incoming traffic. The security team is looking for the maximum level of protection for this application from DDoS attacks, and it customized mitigations during attacks. The Operations Team should get near real-time visibility for the complex attacks on this application.

What secure solution can be deployed for this purpose?

- A. Enable Amazon GuardDuty in an account where Amazon EC2 instances are launched. Use Amazon Detective to get real-time visibility for complex attacks
- B. Enable AWS Shield Advanced protection on ELB. Use AWS WAF to create a proactive rule to mitigate application attacks
- C. Use AWS Shield Standard to detect DDoS attacks on Amazon EC2 Instance. Use AWS WAF to create a proactive rule to mitigate application attacks
- D. Use Amazon Inspector to detect DDoS attacks on Amazon EC2 Instance. Use Amazon Detective to get real-time visibility for complex attacks

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Question 58 of 65

Exit Quiz

Domain: Design High-Performing Architectures

A start-up company is using AWS CloudFormation templates to deploy software on Amazon EC2 instances. Developers are looking for an option to read metadata from the CloudFormation template and start software package installation on the Amazon EC2 instance.

Which of the following scripts can be executed directly from AWS CloudFormation templates for this purpose?

- A. Use cfn-hup helper script to read template metadata and install the packages
- B. Use cfn-signal helper script to read template metadata and install the packages
- C. Use cfn-get-metadata helper script to read template metadata and install the packages
- D. Use cfn-init helper script to read template metadata and install the packages

Review Attempt

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https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/cfn-helper-scripts-reference.html

Domain: Design Secure Architectures

A web-application deployed on Amazon EC2 Instance launched in VPC A needs to connect with AWS KMS for data encryption. This traffic should preferably flow over the AWS network. Access to the AWS KMS keys should be controlled by granting permissions only to specific entities and ensuring the least privileged security practice is followed. The proposed solution should be cost-effective and should be set up effectively.

What design can be proposed?

A. Deploy a firewall proxy server on an Amazon EC2 instance for internet access to AWS KMS. Create policies on proxy servers to control access to AWS KMS only from the Instance IP address

B. Attach a NAT Gateway to VPC A to access AWS KMS. Create a Network ACL allowing communication with AWS KMS only from the Instance IP address

C. Create a VPC endpoint from VPC A for AWS KMS. Create a key policy matching '*aws: SourceVpc*' condition key which will match VPC A

D. Create a VPC endpoint from VPC A for AWS KMS. Create a key policy matching '*aws: SourceVpce*' condition key which will match VPC endpoint ID

Review Attempt

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Domain: Design High-Performing Architectures

A startup firm has a large number of application servers hosted on VMs (virtual machines) associated with VMware vCenter at the on-premises data center. Each of these VMs has different operating system. They are planning to host these servers in the AWS Cloud. For estimating Amazon EC2 sizing in the AWS Cloud, the IT Team is looking for resource utilization from on-premises servers which should include key parameters like CPU, disk, memory, and network throughput. This data should be saved in an encrypted format and shared with the SME (Subject Matter Expert) working on this migration.

Which method is best suited to get these server details?

- A. Use Agentless-discovery method with AWS Application Discovery Service
- B. Use Agentless-discovery method with AWS Server Migration Service
- C. Use Agent-based discovery method with AWS Server Migration Service
- D. Use Agent-based discovery method with AWS Application Discovery Service

Review Attempt

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9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24
25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40
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49 50 51 52 53 54 55 56
57 58 59 60 61 62 63 64
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https://aws.amazon.com/application-discovery/faqs/

Question 61 of 65

Exit Quiz

Domain: Design Cost-Optimized Architectures

A company has SQL Servers at the on-premises location which they are planning to migrate to AWS Cloud. This migration should be non-disruptive with minimal downtime. Prerequisite tests should be performed, and results should be captured before servers in AWS are elevated as primary servers.

What cost-effective automated tool can be used to perform SQL server migration?

- A. AWS Migration Hub API.
- B. AWS Application Migration Service
- C. AWS DataSync
- D. AWS Server Migration Service

Review Attempt

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A finance company is using Amazon S3 to store data for all its customers. During an annual audit, it was observed that sensitive data is stored by some of the customers. Operations Head is looking for an automated tool to scan all data in Amazon S3 buckets and create a report based on the findings from all the buckets with sensitive data.

Which solution can be designed to get the required details?

- A. Enable Amazon GuardDuty on the Amazon S3 buckets
- B. Enable Amazon Detective on the Amazon S3 buckets
- C. Enable Amazon Macie on the Amazon S3 buckets
- D. Enable Amazon Inspector on the Amazon S3 buckets

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25 26 27 28 29 30 31 32
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41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56
57 58 59 60 61 62 63 64
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Question 63 of 65

Exit Quiz

Domain: Design High-Performing Architectures

An online photo printing company is planning to free up on-premises IT resources by moving all its data to Amazon S3 buckets. This data is around 50 TB in size. All the data must be processed using a customized AWS Lambda function before storing them into the Amazon S3 bucket.

Which design approach is best suited for this data transfer?

- (●) A. Migrate data using AWS Snowball Edge
- ( ) B. Migrate data using AWS Snowcone
- ( ) C. Migrate data using AWS Transfer Family with FTPS
- ( ) D. Migrate data using AWS Snowcone SSD

Review Attempt

1 2 3 4 5 6 7 8
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33 34 35 36 37 38 39 40
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57 58 59 60 61 62 63 64
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Question 64 of 65

Exit Quiz

Domain: Design High-Performing Architectures

An e-commerce company is planning to build an application for identifying site visitors based upon prior site visits. The database should query large amounts of site visit data from Amazon S3 and create a graph database. The company is looking for a fully managed high-performance database for this requirement. Additionally, this database should be deployed in an isolated environment.

Which database can be selected to meet the requirements?

- A. Use Amazon Neptune
- B. Use Amazon DynamoDB
- C. Use Amazon Aurora Serverless
- D. Use Amazon RDS

Review Attempt

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Domain: Design High-Performing Architectures

A cyber security company needs to extract face attributes from millions of images. These images are stored in an Amazon S3 bucket. The company is mainly looking to extract the gender of the person from the image along with the emotions of the detected person.

Which approach can be initiated to meet this requirement?

- A. Copy all the images from Amazon S3 buckets to Amazon Rekognition. Use the Facial Recognition feature of Amazon Rekognition to fetch the gender and emotions of the person in the images
- B. Point Amazon Rekognition to Amazon S3 buckets that contain images. Use the Facial Analysis feature of Amazon Rekognition to fetch the gender and emotions of the person in the images
- C. Copy all the images from Amazon S3 buckets to Amazon Rekognition. Use the Facial Comparison feature of Amazon Rekognition to fetch the gender and emotions of the person in the images
- D. Point Amazon Rekognition to Amazon S3 buckets that contain images. Use the Object and Scene Detection feature of Amazon Rekognition to fetch the gender and emotions of the person in the images