Question #426

A company needs to store data from its healthcare application. The application's data frequently changes. A new regulation requires audit access at all levels of the stored data. The company hosts the application on an on-premises infrastructure that is running out of storage capacity. A solutions architect must securely migrate the existing data to AWS while satisfying the new regulation. Which solution will meet these requirements?

A. Use AWS DataSync to move the existing data to Amazon S3. Use AWS CloudTrail to log data events.

B. Use AWS Snowcone to move the existing data to Amazon S3. Use AWS CloudTrail to log management events.

C. Use Amazon S3 Transfer Acceleration to move the existing data to Amazon S3. Use AWS CloudTrail to log data events.

D. Use AWS Storage Gateway to move the existing data to Amazon S3. Use AWS CloudTrail to log management events.

Question #427

A solutions architect is implementing a complex Java application with a MySQL database. The Java application must be deployed on Apache Tomcat and must be highly available. What should the solutions architect do to meet these requirements?

A. Deploy the application in AWS Lambda. Configure an Amazon API Gateway API to connect with the Lambda functions.

B. Deploy the application by using AWS Elastic Beanstalk. Configure a load-balanced environment and a rolling deployment policy.

C. Migrate the database to Amazon ElastiCache. Configure the ElastiCache security group to allow access from the application.

D. Launch an Amazon EC2 instance. Install a MySQL server on the EC2 instance. Configure the application on the server. Create an AM

I. Use the AMI to create a launch template with an Auto Scaling group.

Question #428

A serverless application uses Amazon API Gateway, AWS Lambda, and Amazon DynamoDB. The Lambda function needs permissions to read and write to the DynamoDB table. Which solution will give the Lambda function access to the DynamoDB table MOST securely?

A. Create an IAM user with programmatic access to the Lambda function. Attach a policy to the user that allows read and write access to the DynamoDB table. Store the access_key_id and secret_access_key parameters as part of the Lambda environment variables. Ensure that other AWS users do not have read and write access to the Lambda function configuration.

B. Create an IAM role that includes Lambda as a trusted service. Attach a policy to the role that allows read and write access to the DynamoDB table. Update the configuration of the Lambda function to use the new role as the execution role.

C. Create an IAM user with programmatic access to the Lambda function. Attach a policy to the user that allows read and write access to the DynamoDB table. Store the access_key_id and secret_access_key parameters in AWS Systems Manager Parameter Store as secure string parameters. Update the Lambda function code to retrieve the secure string parameters before connecting to the DynamoDB table.

D. Create an IAM role that includes DynamoDB as a trusted service. Attach a policy to the role that allows read and write access from the Lambda function. Update the code of the Lambda function to attach to the new role as an execution role.

Question #429

The following IAM policy is attached to an IAM group. This is the only policy applied to the group. What are the effective IAM permissions of this policy for group members?

A. Group members are permitted any Amazon EC2 action within the us-east-1 Region. Statements after the Allow permission are not applied.

B. Group members are denied any Amazon EC2 permissions in the us-east-1 Region unless they are logged in with multi- factor authentication (MFA).

C. Group members are allowed the ec2:StopInstances and ec2:TerminateInstances permissions for all Regions when logged in with multi-factor authentication (MFA). Group members are permitted any other Amazon EC2 action.

D. Group members are allowed the ec2:StopInstances and ec2:TerminateInstances permissions for the us-east-1 Region only when logged in with multi-factor authentication (MFA). Group members are permitted any other Amazon EC2 action within the us-east-1 Region.

Question #430

A manufacturing company has machine sensors that upload .csv files to an Amazon S3 bucket. These .csv files must be converted into images and must be made available as soon as possible for the automatic generation of graphical reports. The images become irrelevant after 1 month, but the .csv files must be kept to train machine learning (ML) models twice a year. The ML trainings and audits are planned weeks in advance. Which combination of steps will meet these requirements MOST cost-effectively? (Choose two.)

A. Launch an Amazon EC2 Spot Instance that downloads the .csv files every hour, generates the image files, and uploads the images to the S3 bucket.

B. Design an AWS Lambda function that converts the .csv files into images and stores the images in the S3 bucket. Invoke the Lambda function when a .csv file is uploaded.

C. Create S3 Lifecycle rules for .csv files and image files in the S3 bucket. Transition the .csv files from S3 Standard to S3 Glacier 1 day after they are uploaded. Expire the image files after 30 days.

D. Create S3 Lifecycle rules for .csv files and image files in the S3 bucket. Transition the .csv files from S3 Standard to S3 One Zone-Infrequent Access (S3 One Zone-IA) 1 day after they are uploaded. Expire the image files after 30 days.

E. Create S3 Lifecycle rules for .csv files and image files in the S3 bucket. Transition the .csv files from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-IA) 1 day after they are uploaded. Keep the image files in Reduced Redundancy Storage (RRS).

Question #431

A company has developed a new video game as a web application. The application is in a three-tier architecture in a VPC with Amazon RDS for MySQL in the database layer. Several players will compete concurrently online. The game's developers want to display a top-10 scoreboard in near-real time and offer the ability to stop and restore the game while preserving the current scores. What should a solutions architect do to meet these requirements?

A. Set up an Amazon ElastiCache for Memcached cluster to cache the scores for the web application to display.

B. Set up an Amazon ElastiCache for Redis cluster to compute and cache the scores for the web application to display.

C. Place an Amazon CloudFront distribution in front of the web application to cache the scoreboard in a section of the application.

D. Create a read replica on Amazon RDS for MySQL to run queries to compute the scoreboard and serve the read traffic to the web application.

Question #432

An ecommerce company wants to use machine learning (ML) algorithms to build and train models. The company will use the models to visualize complex scenarios and to detect trends in customer data. The architecture team wants to integrate its ML models with a reporting platform to analyze the augmented data and use the data directly in its business intelligence dashboards. Which solution will meet these requirements with the LEAST operational overhead?

A. Use AWS Glue to create an ML transform to build and train models. Use Amazon OpenSearch Service to visualize the data.

B. Use Amazon SageMaker to build and train models. Use Amazon QuickSight to visualize the data.

C. Use a pre-built ML Amazon Machine Image (AMI) from the AWS Marketplace to build and train models. Use Amazon OpenSearch Service to visualize the data.

D. Use Amazon QuickSight to build and train models by using calculated fields. Use Amazon QuickSight to visualize the data.

Question #433

A company is running its production and nonproduction environment workloads in multiple AWS accounts. The accounts are in an organization in AWS Organizations. The company needs to design a solution that will prevent the modification of cost usage tags. Which solution will meet these requirements?

A. Create a custom AWS Config rule to prevent tag modification except by authorized principals.

B. Create a custom trail in AWS CloudTrail to prevent tag modification.

C. Create a service control policy (SCP) to prevent tag modification except by authorized principals.

D. Create custom Amazon CloudWatch logs to prevent tag modification.

Question #434

A company hosts its application in the AWS Cloud. The application runs on Amazon EC2 instances behind an Elastic Load Balancer in an Auto Scaling group and with an Amazon DynamoDB table. The company wants to ensure the application can be made available in anotherAWS Region with minimal downtime. What should a solutions architect do to meet these requirements with the LEAST amount of downtime?

A. Create an Auto Scaling group and a load balancer in the disaster recovery Region. Configure the DynamoDB table as a global table. Configure DNS failover to point to the new disaster recovery Region's load balancer.

B. Create an AWS CloudFormation template to create EC2 instances, load balancers, and DynamoDB tables to be launched when needed Configure DNS failover to point to the new disaster recovery Region's load balancer.

C. Create an AWS CloudFormation template to create EC2 instances and a load balancer to be launched when needed. Configure the DynamoDB table as a global table. Configure DNS failover to point to the new disaster recovery Region's load balancer.

D. Create an Auto Scaling group and load balancer in the disaster recovery Region. Configure the DynamoDB table as a global table. Create an Amazon CloudWatch alarm to trigger an AWS Lambda function that updates Amazon Route 53 pointing to the disaster recovery load balancer.

Question #435

A company needs to migrate a MySQL database from its on-premises data center to AWS within 2 weeks. The database is 20 TB in size. The company wants to complete the migration with minimal downtime. Which solution will migrate the database MOST cost-effectively?

A. Order an AWS Snowball Edge Storage Optimized device. Use AWS Database Migration Service (AWS DMS) with AWS Schema Conversion Tool (AWS SCT) to migrate the database with replication of ongoing changes. Send the Snowball Edge device to AWS to finish the migration and continue the ongoing replication.

B. Order an AWS Snowmobile vehicle. Use AWS Database Migration Service (AWS DMS) with AWS Schema Conversion Tool (AWS SCT) to migrate the database with ongoing changes. Send the Snowmobile vehicle back to AWS to finish the migration and continue the ongoing replication.

C. Order an AWS Snowball Edge Compute Optimized with GPU device. Use AWS Database Migration Service (AWS DMS) with AWS Schema Conversion Tool (AWS SCT) to migrate the database with ongoing changes. Send the Snowball device to AWS to finish the migration and continue the ongoing replication

D. Order a 1 GB dedicated AWS Direct Connect connection to establish a connection with the data center. Use AWS Database Migration Service (AWS DMS) with AWS Schema Conversion Tool (AWS SCT) to migrate the database with replication of ongoing changes.

Question #436

A company moved its on-premises PostgreSQL database to an Amazon RDS for PostgreSQL DB instance. The company successfully launched a new product. The workload on the database has increased. The company wants to accommodate the larger workload without adding infrastructure. Which solution will meet these requirements MOST cost-effectively?

A. Buy reserved DB instances for the total workload. Make the Amazon RDS for PostgreSQL DB instance larger.

B. Make the Amazon RDS for PostgreSQL DB instance a Multi-AZ DB instance.

C. Buy reserved DB instances for the total workload. Add another Amazon RDS for PostgreSQL DB instance.

D. Make the Amazon RDS for PostgreSQL DB instance an on-demand DB instance.

Question #437

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

A. Deploy Amazon Inspector and associate it with the AL

B.

B. Deploy AWS WAF, associate it with the ALB, and configure a rate-limiting rule.

C. Deploy rules to the network ACLs associated with the ALB to block the incomingtraffic.

D. Deploy Amazon GuardDuty and enable rate-limiting protection when configuring GuardDuty.

Question #438

A company wants to share accounting data with an external auditor. The data is stored in an Amazon RDS DB instance that resides in a private subnet. The auditor has its own AWS account and requires its own copy of the database. What is the MOST secure way for the company to share the database with the auditor?

A. Create a read replica of the database. Configure IAM standard database authentication to grant the auditor access.

B. Export the database contents to text files. Store the files in an Amazon S3 bucket. Create a new IAM user for the auditor. Grant the user access to the S3 bucket.

C. Copy a snapshot of the database to an Amazon S3 bucket. Create an IAM user. Share the user's keys with the auditor to grant access to the object in the S3 bucket.

D. Create an encrypted snapshot of the database. Share the snapshot with the auditor. Allow access to the AWS Key Management Service (AWS KMS) encryption key.

Question #439

A solutions architect configured a VPC that has a small range of IP addresses. The number of Amazon EC2 instances that are in the VPC is increasing, and there is an insufficient number of IP addresses for future workloads. Which solution resolves this issue with the LEAST operational overhead?

A. Add an additional IPv4 CIDR block to increase the number of IP addresses and create additional subnets in the VP

C. Create new resources in the new subnets by using the new CID

R.

B. Create a second VPC with additional subnets. Use a peering connection to connect the second VPC with the first VPC Update the routes and create new resources in the subnets of the second VP

C.

C. Use AWS Transit Gateway to add a transit gateway and connect a second VPC with the first VPUpdate the routes of the transit gateway and VPCs. Create new resources in the subnets of the second VP

C.

D. Create a second VP

C. Create a Site-to-Site VPN connection between the first VPC and the second VPC by using a VPN- hosted solution on Amazon EC2 and a virtual private gateway. Update the route between VPCs to the traffic through the VP

N. Create new resources in the subnets of the second VPC.

Question #440

A company used an Amazon RDS for MySQL DB instance during application testing. Before terminating the DB instance at the end of the test cycle, a solutions architect created two backups. The solutions architect created the first backup by using the mysqldump utility to create a database dump. The solutions architect created the second backup by enabling the final DB snapshot option on RDS termination. The company is now planning for a new test cycle and wants to create a new DB instance from the most recent backup. The company has chosen a MySQL-compatible edition ofAmazon Aurora to host the DB instance. Which solutions will create the new DB instance? (Choose two.)

A. Import the RDS snapshot directly into Aurora.

B. Upload the RDS snapshot to Amazon S3. Then import the RDS snapshot into Aurora.

C. Upload the database dump to Amazon S3. Then import the database dump into Aurora.

D. Use AWS Database Migration Service (AWS DMS) to import the RDS snapshot into Aurora.

E. Upload the database dump to Amazon S3. Then use AWS Database Migration Service (AWS DMS) to import the database dump into Aurora.

Question #441

A company hosts a multi-tier web application on Amazon Linux Amazon EC2 instances behind an Application Load Balancer. The instances run in an Auto Scaling group across multiple Availability Zones. The company observes that the Auto Scaling group launches more On-Demand Instances when the application's end users access high volumes of static web content. The company wants to optimize cost. What should a solutions architect do to redesign the application MOST cost-effectively?

A. Update the Auto Scaling group to use Reserved Instances instead of On-Demand Instances.

B. Update the Auto Scaling group to scale by launching Spot Instances instead of On-Demand Instances.

C. Create an Amazon CloudFront distribution to host the static web contents from an Amazon S3 bucket.

D. Create an AWS Lambda function behind an Amazon API Gateway API to host the static website contents.

Question #442

A company stores several petabytes of data across multiple AWS accounts. The company uses AWS Lake Formation to manage its data lake. The company's data science team wants to securely share selective data from its accounts with the company's engineering team for analytical purposes. Which solution will meet these requirements with the LEAST operational overhead?

A. Copy the required data to a common account. Create an IAM access role in that account. Grant access by specifying a permission policy that includes users from the engineering team accounts as trusted entities.

B. Use the Lake Formation permissions Grant command in each account where the data is stored to allow the required engineering team users to access the data.

C. Use AWS Data Exchange to privately publish the required data to the required engineering team accounts.

D. Use Lake Formation tag-based access control to authorize and grant cross-account permissions for the required data to the engineering team accounts.

Question #443

A company wants to host a scalable web application on AWS. The application will be accessed by users from different geographic regions of the world. Application users will be able to download and upload unique data up to gigabytes in size. The development team wants a cost-effective solution to minimize upload and download latency and maximize performance. What should a solutions architect do to accomplish this?

A. Use Amazon S3 with Transfer Acceleration to host the application.

B. Use Amazon S3 with CacheControl headers to host the application.

C. Use Amazon EC2 with Auto Scaling and Amazon CloudFront to host the application.

D. Use Amazon EC2 with Auto Scaling and Amazon ElastiCache to host the application.

Question #444

A company has hired a solutions architect to design a reliable architecture for its application. The application consists of one Amazon RDS DB instance and two manually provisioned Amazon EC2 instances that run web servers. The EC2 instances are located in a single Availability Zone. An employee recently deleted the DB instance, and the application was unavailable for 24 hours as a result. The company is concerned with the overall reliability of its environment. What should the solutions architect do to maximize reliability of the application's infrastructure?

A. Delete one EC2 instance and enable termination protection on the other EC2 instance. Update the DB instance to be Multi- AZ, and enable deletion protection.

B. Update the DB instance to be Multi-AZ, and enable deletion protection. Place the EC2 instances behind an Application Load Balancer, and run them in an EC2 Auto Scaling group across multiple Availability Zones.

C. Create an additional DB instance along with an Amazon API Gateway and an AWS Lambda function. Configure the application to invoke the Lambda function through API Gateway. Have the Lambda function write the data to the two DB instances.

D. Place the EC2 instances in an EC2 Auto Scaling group that has multiple subnets located in multiple Availability Zones. Use Spot Instances instead of On-Demand Instances. Set up Amazon CloudWatch alarms to monitor the health of the instances Update the DB instance to be Multi-AZ, and enable deletion protection.

Question #445

A company is storing 700 terabytes of data on a large network-attached storage (NAS) system in its corporate data center. The company has a hybrid environment with a 10 Gbps AWS Direct Connect connection. After an audit from a regulator, the company has 90 days to move the data to the cloud. The company needs to move the data efficiently and without disruption. The company still needs to be able to access and update the data during the transfer window. Which solution will meet these requirements?

A. Create an AWS DataSync agent in the corporate data center. Create a data transfer task Start the transfer to an Amazon S3 bucket.

B. Back up the data to AWS Snowball Edge Storage Optimized devices. Ship the devices to an AWS data center. Mount a target Amazon S3 bucket on the on-premises file system.

C. Use rsync to copy the data directly from local storage to a designated Amazon S3 bucket over the Direct Connect connection.

D. Back up the data on tapes. Ship the tapes to an AWS data center. Mount a target Amazon S3 bucket on the on-premises file system.

Question #446

A company stores data in PDF format in an Amazon S3 bucket. The company must follow a legal requirement to retain all new and existing data in Amazon S3 for 7 years. Which solution will meet these requirements with the LEAST operational overhead?

A. Turn on the S3 Versioning feature for the S3 bucket. Configure S3 Lifecycle to delete the data after 7 years. Configure multi-factor authentication (MFA) delete for all S3 objects.

B. Turn on S3 Object Lock with governance retention mode for the S3 bucket. Set the retention period to expire after 7 years. Recopy all existing objects to bring the existing data into compliance.

C. Turn on S3 Object Lock with compliance retention mode for the S3 bucket. Set the retention period to expire after 7 years. Recopy all existing objects to bring the existing data into compliance.

D. Turn on S3 Object Lock with compliance retention mode for the S3 bucket. Set the retention period to expire after 7 years. Use S3 Batch Operations to bring the existing data into compliance.

Question #447

A company has a stateless web application that runs on AWS Lambda functions that are invoked by Amazon API Gateway. The company wants to deploy the application across multiple AWS Regions to provide Regional failover capabilities. What should a solutions architect do to route traffic to multiple Regions?

A. Create Amazon Route 53 health checks for each Region. Use an active-active failover configuration.

B. Create an Amazon CloudFront distribution with an origin for each Region. Use CloudFront health checks to route traffic.

C. Create a transit gateway. Attach the transit gateway to the API Gateway endpoint in each Region. Configure the transit gateway to route requests.

D. Create an Application Load Balancer in the primary Region. Set the target group to point to the API Gateway endpoint hostnames in each Region.

Question #448

A company has two VPCs named Management and Production. The Management VPC uses VPNs through a customer gateway to connect to a single device in the data center. The Production VPC uses a virtual private gateway with two attached AWS Direct Connect connections. The Management and Production VPCs both use a single VPC peering connection to allow communication between the applications. What should a solutions architect do to mitigate any single point of failure in this architecture?

A. Add a set of VPNs between the Management and Production VPCs.

B. Add a second virtual private gateway and attach it to the Management VP

C.

C. Add a second set of VPNs to the Management VPC from a second customer gateway device.

D. Add a second VPC peering connection between the Management VPC and the Production VPC.

Question #449

A company runs its application on an Oracle database. The company plans to quickly migrate to AWS because of limited resources for the database, backup administration, and data center maintenance. The application uses third-party database features that require privileged access. Which solution will help the company migrate the database to AWS MOST cost-effectively?

A. Migrate the database to Amazon RDS for Oracle. Replace third-party features with cloud services.

B. Migrate the database to Amazon RDS Custom for Oracle. Customize the database settings to support third-party features.

C. Migrate the database to an Amazon EC2 Amazon Machine Image (AMI) for Oracle. Customize the database settings to support third-party features.

D. Migrate the database to Amazon RDS for PostgreSQL by rewriting the application code to remove dependency on Oracle APEX.

Question #450

A company has a three-tier web application that is in a single server. The company wants to migrate the application to the AWS Cloud. The company also wants the application to align with the AWS Well-Architected Framework and to be consistent with AWS recommended best practices for security, scalability, and resiliency. Which combination of solutions will meet these requirements? (Choose three.)

A. Create a VPC across two Availability Zones with the application's existing architecture. Host the application with existing architecture on an Amazon EC2 instance in a private subnet in each Availability Zone with EC2 Auto Scaling groups. Secure the EC2 instance with security groups and network access control lists (network ACLs).

B. Set up security groups and network access control lists (network ACLs) to control access to the database layer. Set up a single Amazon RDS database in a private subnet.

C. Create a VPC across two Availability Zones. Refactor the application to host the web tier, application tier, and database tier. Host each tier on its own private subnet with Auto Scaling groups for the web tier and application tier.

D. Use a single Amazon RDS database. Allow database access only from the application tier security group.

E. Use Elastic Load Balancers in front of the web tier. Control access by using security groups containing references to each layer's security groups.

F. Use an Amazon RDS database Multi-AZ cluster deployment in private subnets. Allow database access only from application tier security groups.

Question #451

A company is migrating its applications and databases to the AWS Cloud. The company will use Amazon Elastic Container Service (Amazon ECS), AWS Direct Connect, and Amazon RDS. Which activities will be managed by the company's operational team? (Choose three.)

A. Management of the Amazon RDS infrastructure layer, operating system, and platforms

B. Creation of an Amazon RDS DB instance and configuring the scheduled maintenance window

C. Configuration of additional software components on Amazon ECS for monitoring, patch management, log management, and host intrusion detection

D. Installation of patches for all minor and major database versions for Amazon RDS

E. Ensure the physical security of the Amazon RDS infrastructure in the data center

F. Encryption of the data that moves in transit through Direct Connect

Question #452

A company runs a Java-based job on an Amazon EC2 instance. The job runs every hour and takes 10 seconds to run. The job runs on a scheduled interval and consumes 1 GB of memory. The CPU utilization of the instance is low except for short surges during which the job uses the maximum CPU available. The company wants to optimize the costs to run the job. Which solution will meet these requirements?

A. Use AWS App2Container (A2C) to containerize the job. Run the job as an Amazon Elastic Container Service (Amazon ECS) task on AWS Fargate with 0.5 virtual CPU (vCPU) and 1 GB of memory.

B. Copy the code into an AWS Lambda function that has 1 GB of memory. Create an Amazon EventBridge scheduled rule to run the code each hour.

C. Use AWS App2Container (A2C) to containerize the job. Install the container in the existing Amazon Machine Image (AMI). Ensure that the schedule stops the container when the task finishes.

D. Configure the existing schedule to stop the EC2 instance at the completion of the job and restart the EC2 instance when the next job starts.

Question #453

A company wants to implement a backup strategy for Amazon EC2 data and multiple Amazon S3 buckets. Because of regulatory requirements, the company must retain backup files for a specific time period. The company must not alter the files for the duration of the retention period. Which solution will meet these requirements?

A. Use AWS Backup to create a backup vault that has a vault lock in governance mode. Create the required backup plan.

B. Use Amazon Data Lifecycle Manager to create the required automated snapshot policy.

C. Use Amazon S3 File Gateway to create the backup. Configure the appropriate S3 Lifecycle management.

D. Use AWS Backup to create a backup vault that has a vault lock in compliance mode. Create the required backup plan.

Question #454

A company has resources across multiple AWS Regions and accounts. A newly hired solutions architect discovers a previous employee did not provide details about the resources inventory. The solutions architect needs to build and map the relationship details of the various workloads across all accounts. Which solution will meet these requirements in the MOST operationally efficient way?

A. Use AWS Systems Manager Inventory to generate a map view from the detailed view report.

B. Use AWS Step Functions to collect workload details. Build architecture diagrams of the workloads manually.

C. Use Workload Discovery on AWS to generate architecture diagrams of the workloads.

D. Use AWS X-Ray to view the workload details. Build architecture diagrams with relationships.

Question #455

A company uses AWS Organizations. The company wants to operate some of its AWS accounts with different budgets. The company wants to receive alerts and automatically prevent provisioning of additional resources on AWS accounts when the allocated budget threshold is met during a specific period. Which combination of solutions will meet these requirements? (Choose three.)

A. Use AWS Budgets to create a budget. Set the budget amount under the Cost and Usage Reports section of the required AWS accounts.

B. Use AWS Budgets to create a budget. Set the budget amount under the Billing dashboards of the required AWS accounts.

C. Create an IAM user for AWS Budgets to run budget actions with the required permissions.

D. Create an IAM role for AWS Budgets to run budget actions with the required permissions.

E. Add an alert to notify the company when each account meets its budget threshold. Add a budget action that selects the IAM identity created with the appropriate config rule to prevent provisioning of additional resources.

F. Add an alert to notify the company when each account meets its budget threshold. Add a budget action that selects the IAM identity created with the appropriate service control policy (SCP) to prevent provisioning of additional resources.

Question #456

A company runs applications on Amazon EC2 instances in one AWS Region. The company wants to back up the EC2 instances to a second Region. The company also wants to provision EC2 resources in the second Region and manage the EC2 instances centrally from one AWS account. Which solution will meet these requirements MOST cost-effectively?

A. Create a disaster recovery (DR) plan that has a similar number of EC2 instances in the second Region. Configure data replication.

B. Create point-in-time Amazon Elastic Block Store (Amazon EBS) snapshots of the EC2 instances. Copy the snapshots to the second Region periodically.

C. Create a backup plan by using AWS Backup. Configure cross-Region backup to the second Region for the EC2 instances.

D. Deploy a similar number of EC2 instances in the second Region. Use AWS DataSync to transfer the data from the source Region to the second Region.

Question #457

A company that uses AWS is building an application to transfer data to a product manufacturer. The company has its own identity provider (IdP). The company wants the IdP to authenticate application users while the users use the application to transfer data. The company must use Applicability Statement 2 (AS2) protocol. Which solution will meet these requirements?

A. Use AWS DataSync to transfer the data. Create an AWS Lambda function for IdP authentication.

B. Use Amazon AppFlow flows to transfer the data. Create an Amazon Elastic Container Service (Amazon ECS) task for IdP authentication.

C. Use AWS Transfer Family to transfer the data. Create an AWS Lambda function for IdP authentication.

D. Use AWS Storage Gateway to transfer the data. Create an Amazon Cognito identity pool for IdP authentication.

Question #458

A solutions architect is designing a RESTAPI in Amazon API Gateway for a cash payback service. The application requires 1 GB of memory and 2 GB of storage for its computation resources. The application will require that the data is in a relational format. Which additional combination ofAWS services will meet these requirements with the LEAST administrative effort? (Choose two.)

A. Amazon EC2

B. AWS Lambda

C. Amazon RDS

D. Amazon DynamoDB

E. Amazon Elastic Kubernetes Services (Amazon EKS)

Question #459

A company uses AWS Organizations to run workloads within multiple AWS accounts. A tagging policy adds department tags to AWS resources when the company creates tags. An accounting team needs to determine spending on Amazon EC2 consumption. The accounting team must determine which departments are responsible for the costs regardless ofAWS account. The accounting team has access to AWS Cost Explorer for all AWS accounts within the organization and needs to access all reports from Cost Explorer. Which solution meets these requirements in the MOST operationally efficient way?

A. From the Organizations management account billing console, activate a user-defined cost allocation tag named department. Create one cost report in Cost Explorer grouping by tag name, and filter by EC2.

B. From the Organizations management account billing console, activate an AWS-defined cost allocation tag named department. Create one cost report in Cost Explorer grouping by tag name, and filter by EC2.

C. From the Organizations member account billing console, activate a user-defined cost allocation tag named department. Create one cost report in Cost Explorer grouping by the tag name, and filter by EC2.

D. From the Organizations member account billing console, activate an AWS-defined cost allocation tag named department. Create one cost report in Cost Explorer grouping by tag name, and filter by EC2.

Question #460

A company wants to securely exchange data between its software as a service (SaaS) application Salesforce account and Amazon S3. The company must encrypt the data at rest by using AWS Key Management Service (AWS KMS) customer managed keys (CMKs). The company must also encrypt the data in transit. The company has enabled API access for the Salesforce account.

A. Create AWS Lambda functions to transfer the data securely from Salesforce to Amazon S3.

B. Create an AWS Step Functions workflow. Define the task to transfer the data securely from Salesforce to Amazon S3.

C. Create Amazon AppFlow flows to transfer the data securely from Salesforce to Amazon S3.

D. Create a custom connector for Salesforce to transfer the data securely from Salesforce to Amazon S3.

Question #461

A company is developing a mobile gaming app in a single AWS Region. The app runs on multiple Amazon EC2 instances in an Auto Scaling group. The company stores the app data in Amazon DynamoDB. The app communicates by using TCP traffic and UDP traffic between the users and the servers. The application will be used globally. The company wants to ensure the lowest possible latency for all users. Which solution will meet these requirements?

A. Use AWS Global Accelerator to create an accelerator. Create an Application Load Balancer (ALB) behind an accelerator endpoint that uses Global Accelerator integration and listening on the TCP and UDP ports. Update the Auto Scaling group to register instances on the AL

B.

B. Use AWS Global Accelerator to create an accelerator. Create a Network Load Balancer (NLB) behind an accelerator endpoint that uses Global Accelerator integration and listening on the TCP and UDP ports. Update the Auto Scaling group to register instances on the NL

B.

C. Create an Amazon CloudFront content delivery network (CDN) endpoint. Create a Network Load Balancer (NLB) behind the endpoint and listening on the TCP and UDP ports. Update the Auto Scaling group to register instances on the NL

B. Update CloudFront to use the NLB as the origin.

D. Create an Amazon CloudFront content delivery network (CDN) endpoint. Create an Application Load Balancer (ALB) behind the endpoint and listening on the TCP and UDP ports. Update the Auto Scaling group to register instances on the AL

B. Update CloudFront to use the ALB as the origin.

Question #462

A company has an application that processes customer orders. The company hosts the application on an Amazon EC2 instance that saves the orders to an Amazon Aurora database. Occasionally when traffic is high the workload does not process orders fast enough. What should a solutions architect do to write the orders reliably to the database as quickly as possible?

A. Increase the instance size of the EC2 instance when traffic is high. Write orders to Amazon Simple Notification Service (Amazon SNS). Subscribe the database endpoint to the SNS topic.

B. Write orders to an Amazon Simple Queue Service (Amazon SQS) queue. Use EC2 instances in an Auto Scaling group behind an Application Load Balancer to read from the SQS queue and process orders into the database.

C. Write orders to Amazon Simple Notification Service (Amazon SNS). Subscribe the database endpoint to the SNS topic. Use EC2 instances in an Auto Scaling group behind an Application Load Balancer to read from the SNS topic.

D. Write orders to an Amazon Simple Queue Service (Amazon SQS) queue when the EC2 instance reaches CPU threshold limits. Use scheduled scaling of EC2 instances in an Auto Scaling group behind an Application Load Balancer to read from the SQS queue and process orders into the database.

Question #463

An IoT company is releasing a mattress that has sensors to collect data about a user's sleep. The sensors will send data to an Amazon S3 bucket. The sensors collect approximately 2 MB of data every night for each mattress. The company must process and summarize the data for each mattress. The results need to be available as soon as possible. Data processing will require 1 GB of memory and will finish within 30 seconds. Which solution will meet these requirements MOST cost-effectively?

A. Use AWS Glue with a Scala job

B. Use Amazon EMR with an Apache Spark script

C. Use AWS Lambda with a Python script

D. Use AWS Glue with a PySpark job

Question #464

A company hosts an online shopping application that stores all orders in an Amazon RDS for PostgreSQL Single-AZ DB instance. Management wants to eliminate single points of failure and has asked a solutions architect to recommend an approach to minimize database downtime without requiring any changes to the application code. Which solution meets these requirements?

A. Convert the existing database instance to a Multi-AZ deployment by modifying the database instance and specifying the Multi-AZ option.

B. Create a new RDS Multi-AZ deployment. Take a snapshot of the current RDS instance and restore the new Multi-AZ deployment with the snapshot.

C. Create a read-only replica of the PostgreSQL database in another Availability Zone. Use Amazon Route 53 weighted record sets to distribute requests across the databases.

D. Place the RDS for PostgreSQL database in an Amazon EC2 Auto Scaling group with a minimum group size of two. Use Amazon Route 53 weighted record sets to distribute requests across instances.

Question #465

A company is developing an application to support customer demands. The company wants to deploy the application on multiple Amazon EC2 Nitro-based instances within the same Availability Zone. The company also wants to give the application the ability to write to multiple block storage volumes in multiple EC2 Nitro-based instances simultaneously to achieve higher application availability. Which solution will meet these requirements?

A. Use General Purpose SSD (gp3) EBS volumes with Amazon Elastic Block Store (Amazon EBS) Multi-Attach

B. Use Throughput Optimized HDD (st1) EBS volumes with Amazon Elastic Block Store (Amazon EBS) Multi-Attach

C. Use Provisioned IOPS SSD (io2) EBS volumes with Amazon Elastic Block Store (Amazon EBS) Multi-Attach

D. Use General Purpose SSD (gp2) EBS volumes with Amazon Elastic Block Store (Amazon EBS) Multi-Attach

Question #466

A company designed a stateless two-tier application that uses Amazon EC2 in a single Availability Zone and an Amazon RDS Multi-AZ DB instance. New company management wants to ensure the application is highly available. What should a solutions architect do to meet this requirement?

A. Configure the application to use Multi-AZ EC2 Auto Scaling and create an Application Load Balancer

B. Configure the application to take snapshots of the EC2 instances and send them to a different AWS Region

C. Configure the application to use Amazon Route 53 latency-based routing to feed requests to the application

D. Configure Amazon Route 53 rules to handle incoming requests and create a Multi-AZ Application Load Balancer

Question #467

A company uses AWS Organizations. A member account has purchased a Compute Savings Plan. Because of changes in the workloads inside the member account, the account no longer receives the full benefit of the Compute Savings Plan commitment. The company uses less than 50% of its purchased compute power.

A. Turn on discount sharing from the Billing Preferences section of the account console in the member account that purchased the Compute Savings Plan.

B. Turn on discount sharing from the Billing Preferences section of the account console in the company's Organizations management account.

C. Migrate additional compute workloads from another AWS account to the account that has the Compute Savings Plan.

D. Sell the excess Savings Plan commitment in the Reserved Instance Marketplace.

Question #468

A company is developing a microservices application that will provide a search catalog for customers. The company must use REST APIs to present the frontend of the application to users. The REST APIs must access the backend services that the company hosts in containers in private VPC subnets. Which solution will meet these requirements?

A. Design a WebSocket API by using Amazon API Gateway. Host the application in Amazon Elastic Container Service (Amazon ECS) in a private subnet. Create a private VPC link for API Gateway to access Amazon EC

S.

B. Design a REST API by using Amazon API Gateway. Host the application in Amazon Elastic Container Service (Amazon ECS) in a private subnet. Create a private VPC link for API Gateway to access Amazon EC

S.

C. Design a WebSocket API by using Amazon API Gateway. Host the application in Amazon Elastic Container Service (Amazon ECS) in a private subnet. Create a security group for API Gateway to access Amazon EC

S.

D. Design a REST API by using Amazon API Gateway. Host the application in Amazon Elastic Container Service (Amazon ECS) in a private subnet. Create a security group for API Gateway to access Amazon ECS.

Question #469

A company stores raw collected data in an Amazon S3 bucket. The data is used for several types of analytics on behalf of the company's customers. The type of analytics requested determines the access pattern on the S3 objects. The company cannot predict or control the access pattern. The company wants to reduce its S3 costs. Which solution will meet these requirements?

A. Use S3 replication to transition infrequently accessed objects to S3 Standard-Infrequent Access (S3 Standard-IA)

B. Use S3 Lifecycle rules to transition objects from S3 Standard to Standard-Infrequent Access (S3 Standard-IA)

C. Use S3 Lifecycle rules to transition objects from S3 Standard to S3 Intelligent-Tiering

D. Use S3 Inventory to identify and transition objects that have not been accessed from S3 Standard to S3 Intelligent-Tiering

Question #470

A company has applications hosted on Amazon EC2 instances with IPv6 addresses. The applications must initiate communications with other external applications using the internet. However the company’s security policy states that any external service cannot initiate a connection to the EC2 instances. What should a solutions architect recommend to resolve this issue?

A. Create a NAT gateway and make it the destination of the subnet's route table

B. Create an internet gateway and make it the destination of the subnet's route table

C. Create a virtual private gateway and make it the destination of the subnet's route table

D. Create an egress-only internet gateway and make it the destination of the subnet's route table

Question #471

A company is creating an application that runs on containers in a VPC. The application stores and accesses data in an Amazon S3 bucket. During the development phase, the application will store and access 1 TB of data in Amazon S3 each day. The company wants to minimize costs and wants to prevent traffic from traversing the internet whenever possible. Which solution will meet these requirements?

A. Enable S3 Intelligent-Tiering for the S3 bucket

B. Enable S3 Transfer Acceleration for the S3 bucket

C. Create a gateway VPC endpoint for Amazon S3. Associate this endpoint with all route tables in the VPC

D. Create an interface endpoint for Amazon S3 in the VP

C. Associate this endpoint with all route tables in the VPC

Question #472

A company has a mobile chat application with a data store based in Amazon DynamoDB. Users would like new messages to be read with as little latency as possible. A solutions architect needs to design an optimal solution that requires minimal application changes. Which method should the solutions architect select?

A. Configure Amazon DynamoDB Accelerator (DAX) for the new messages table. Update the code to use the DAX endpoint.

B. Add DynamoDB read replicas to handle the increased read load. Update the application to point to the read endpoint for the read replicas.

C. Double the number of read capacity units for the new messages table in DynamoD

B. Continue to use the existing DynamoDB endpoint.

D. Add an Amazon ElastiCache for Redis cache to the application stack. Update the application to point to the Redis cache endpoint instead of DynamoDB.

Question #473

A company hosts a website on Amazon EC2 instances behind an Application Load Balancer (ALB). The website serves static content. Website traffic is increasing, and the company is concerned about a potential increase in cost.

A. Create an Amazon CloudFront distribution to cache state files at edge locations

B. Create an Amazon ElastiCache cluster. Connect the ALB to the ElastiCache cluster to serve cached files

C. Create an AWS WAF web ACL and associate it with the AL

B. Add a rule to the web ACL to cache static files

D. Create a second ALB in an alternative AWS Region. Route user traffic to the closest Region to minimize data transfer costs

Question #474

A company has multiple VPCs across AWS Regions to support and run workloads that are isolated from workloads in other Regions. Because of a recent application launch requirement, the company's VPCs must communicate with all other VPCs across all Regions. Which solution will meet these requirements with the LEAST amount of administrative effort?

A. Use VPC peering to manage VPC communication in a single Region. Use VPC peering across Regions to manage VPC communications.

B. Use AWS Direct Connect gateways across all Regions to connect VPCs across regions and manage VPC communications.

C. Use AWS Transit Gateway to manage VPC communication in a single Region and Transit Gateway peering across Regions to manage VPC communications.

D. Use AWS PrivateLink across all Regions to connect VPCs across Regions and manage VPC communications

Question #475

A company is designing a containerized application that will use Amazon Elastic Container Service (Amazon ECS). The application needs to access a shared file system that is highly durable and can recover data to another AWS Region with a recovery point objective (RPO) of 8 hours. The file system needs to provide a mount target m each Availability Zone within a Region. A solutions architect wants to use AWS Backup to manage the replication to another Region. Which solution will meet these requirements?

A. Amazon FSx for Windows File Server with a Multi-AZ deployment

B. Amazon FSx for NetApp ONTAP with a Multi-AZ deployment

C. Amazon Elastic File System (Amazon EFS) with the Standard storage class

D. Amazon FSx for OpenZFS

Question #476

A company is expecting rapid growth in the near future. A solutions architect needs to configure existing users and grant permissions to new users on AWS. The solutions architect has decided to create IAM groups. The solutions architect will add the new users to IAM groups based on department. Which additional action is the MOST secure way to grant permissions to the new users?

A. Apply service control policies (SCPs) to manage access permissions

B. Create IAM roles that have least privilege permission. Attach the roles to the IAM groups

C. Create an IAM policy that grants least privilege permission. Attach the policy to the IAM groups

D. Create IAM roles. Associate the roles with a permissions boundary that defines the maximum permissions

Question #477

A group requires permissions to list an Amazon S3 bucket and delete objects from that bucket. An administrator has created the following IAM policy to provide access to the bucket and applied that policy to the group. The group is not able to delete objects in the bucket. The company follows least-privilege access rules. Which statement should a solutions architect add to the policy to correct bucket access?

A.

B.

C. D.

Question #478

A law firm needs to share information with the public. The information includes hundreds of files that must be publicly readable. Modifications or deletions of the files by anyone before a designated future date are prohibited. Which solution will meet these requirements in the MOST secure way?

A. Upload all files to an Amazon S3 bucket that is configured for static website hosting. Grant read-only IAM permissions to any AWS principals that access the S3 bucket until the designated date.

B. Create a new Amazon S3 bucket with S3 Versioning enabled. Use S3 Object Lock with a retention period in accordance with the designated date. Configure the S3 bucket for static website hosting. Set an S3 bucket policy to allow read-only access to the objects.

C. Create a new Amazon S3 bucket with S3 Versioning enabled. Configure an event trigger to run an AWS Lambda function in case of object modification or deletion. Configure the Lambda function to replace the objects with the original versions from a private S3 bucket.

D. Upload all files to an Amazon S3 bucket that is configured for static website hosting. Select the folder that contains the files. Use S3 Object Lock with a retention period in accordance with the designated date. Grant read-only IAM permissions to any AWS principals that access the S3 bucket.

Question #479

A company is making a prototype of the infrastructure for its new website by manually provisioning the necessary infrastructure. This infrastructure includes an Auto Scaling group, an Application Load Balancer and an Amazon RDS database. After the configuration has been thoroughly validated, the company wants the capability to immediately deploy the infrastructure for development and production use in two Availability Zones in an automated fashion. What should a solutions architect recommend to meet these requirements?

A. Use AWS Systems Manager to replicate and provision the prototype infrastructure in two Availability Zones

B. Define the infrastructure as a template by using the prototype infrastructure as a guide. Deploy the infrastructure with AWS CloudFormation.

C. Use AWS Config to record the inventory of resources that are used in the prototype infrastructure. Use AWS Config to deploy the prototype infrastructure into two Availability Zones.

D. Use AWS Elastic Beanstalk and configure it to use an automated reference to the prototype infrastructure to automatically deploy new environments in two Availability Zones.

Question #480

A business application is hosted on Amazon EC2 and uses Amazon S3 for encrypted object storage. The chief information security officer has directed that no application traffic between the two services should traverse the public internet. Which capability should the solutions architect use to meet the compliance requirements?

A. AWS Key Management Service (AWS KMS)

B. VPC endpoint

C. Private subnet

D. Virtual private gateway

Question #481

A company hosts a three-tier web application in the AWS Cloud. A Multi-AZAmazon RDS for MySQL server forms the database layer Amazon ElastiCache forms the cache layer. The company wants a caching strategy that adds or updates data in the cache when a customer adds an item to the database. The data in the cache must always match the data in the database. Which solution will meet these requirements?

A. Implement the lazy loading caching strategy

B. Implement the write-through caching strategy

C. Implement the adding TTL caching strategy

D. Implement the AWS AppConfig caching strategy

Question #482

A company wants to migrate 100 GB of historical data from an on-premises location to an Amazon S3 bucket. The company has a 100 megabits per second (Mbps) internet connection on premises. The company needs to encrypt the data in transit to the S3 bucket. The company will store new data directly in Amazon S3. Which solution will meet these requirements with the LEAST operational overhead?

A. Use the s3 sync command in the AWS CLI to move the data directly to an S3 bucket

B. Use AWS DataSync to migrate the data from the on-premises location to an S3 bucket

C. Use AWS Snowball to move the data to an S3 bucket

D. Set up an IPsec VPN from the on-premises location to AW

S. Use the s3 cp command in the AWS CLI to move the data directly to an S3 bucket

Question #483

A company containerized a Windows job that runs on .NET 6 Framework under a Windows container. The company wants to run this job in the AWS Cloud. The job runs every 10 minutes. The job's runtime varies between 1 minute and 3 minutes. Which solution will meet these requirements MOST cost-effectively?

A. Create an AWS Lambda function based on the container image of the job. Configure Amazon EventBridge to invoke the function every 10 minutes.

B. Use AWS Batch to create a job that uses AWS Fargate resources. Configure the job scheduling to run every 10 minutes.

C. Use Amazon Elastic Container Service (Amazon ECS) on AWS Fargate to run the job. Create a scheduled task based on the container image of the job to run every 10 minutes.

D. Use Amazon Elastic Container Service (Amazon ECS) on AWS Fargate to run the job. Create a standalone task based on the container image of the job. Use Windows task scheduler to run the job every 10 minutes.

Question #484

A company wants to move from many standalone AWS accounts to a consolidated, multi-account architecture. The company plans to create many new AWS accounts for different business units. The company needs to authenticate access to these AWS accounts by using a centralized corporate directory service. Which combination of actions should a solutions architect recommend to meet these requirements? (Choose two.)

A. Create a new organization in AWS Organizations with all features turned on. Create the new AWS accounts in the organization.

B. Set up an Amazon Cognito identity pool. Configure AWS IAM Identity Center (AWS Single Sign-On) to accept Amazon Cognito authentication.

C. Configure a service control policy (SCP) to manage the AWS accounts. Add AWS IAM Identity Center (AWS Single Sign- On) to AWS Directory Service.

D. Create a new organization in AWS Organizations. Configure the organization's authentication mechanism to use AWS Directory Service directly.

E. Set up AWS IAM Identity Center (AWS Single Sign-On) in the organization. Configure IAM Identity Center, and integrate it with the company's corporate directory service.

Question #485

A company is looking for a solution that can store video archives in AWS from old news footage. The company needs to minimize costs and will rarely need to restore these files. When the files are needed, they must be available in a maximum of five minutes. What is the MOST cost-effective solution?

A. Store the video archives in Amazon S3 Glacier and use Expedited retrievals.

B. Store the video archives in Amazon S3 Glacier and use Standard retrievals.

C. Store the video archives in Amazon S3 Standard-Infrequent Access (S3 Standard-IA).

D. Store the video archives in Amazon S3 One Zone-Infrequent Access (S3 One Zone-IA).

Question #486

A company is building a three-tier application on AWS. The presentation tier will serve a static website The logic tier is a containerized application. This application will store data in a relational database. The company wants to simplify deployment and to reduce operational costs. Which solution will meet these requirements?

A. Use Amazon S3 to host static content. Use Amazon Elastic Container Service (Amazon ECS) with AWS Fargate for compute power. Use a managed Amazon RDS cluster for the database.

B. Use Amazon CloudFront to host static content. Use Amazon Elastic Container Service (Amazon ECS) with Amazon EC2 for compute power. Use a managed Amazon RDS cluster for the database.

C. Use Amazon S3 to host static content. Use Amazon Elastic Kubernetes Service (Amazon EKS) with AWS Fargate for compute power. Use a managed Amazon RDS cluster for the database.

D. Use Amazon EC2 Reserved Instances to host static content. Use Amazon Elastic Kubernetes Service (Amazon EKS) with Amazon EC2 for compute power. Use a managed Amazon RDS cluster for the database.

Question #487

A company seeks a storage solution for its application. The solution must be highly available and scalable. The solution also must function as a file system be mountable by multiple Linux instances in AWS and on premises through native protocols, and have no minimum size requirements. The company has set up a Site-to-Site VPN for access from its on-premises network to its VPC. Which storage solution meets these requirements?

A. Amazon FSx Multi-AZ deployments

B. Amazon Elastic Block Store (Amazon EBS) Multi-Attach volumes

C. Amazon Elastic File System (Amazon EFS) with multiple mount targets

D. Amazon Elastic File System (Amazon EFS) with a single mount target and multiple access points

Question #488

A 4-year-old media company is using the AWS Organizations all features feature set to organize its AWS accounts. According to the company's finance team, the billing information on the member accounts must not be accessible to anyone, including the root user of the member accounts. Which solution will meet these requirements?

A. Add all finance team users to an IAM group. Attach an AWS managed policy named Billing to the group.

B. Attach an identity-based policy to deny access to the billing information to all users, including the root user.

C. Create a service control policy (SCP) to deny access to the billing information. Attach the SCP to the root organizational unit (OU).

D. Convert from the Organizations all features feature set to the Organizations consolidated billing feature set.

Question #489

An ecommerce company runs an application in the AWS Cloud that is integrated with an on-premises warehouse solution. The company uses Amazon Simple Notification Service (Amazon SNS) to send order messages to an on-premises HTTPS endpoint so the warehouse application can process the orders. The local data center team has detected that some of the order messages were not received. A solutions architect needs to retain messages that are not delivered and analyze the messages for up to 14 days. Which solution will meet these requirements with the LEAST development effort?

A. Configure an Amazon SNS dead letter queue that has an Amazon Kinesis Data Stream target with a retention period of 14 days.

B. Add an Amazon Simple Queue Service (Amazon SQS) queue with a retention period of 14 days between the application and Amazon SN

S.

C. Configure an Amazon SNS dead letter queue that has an Amazon Simple Queue Service (Amazon SQS) target with a retention period of 14 days.

D. Configure an Amazon SNS dead letter queue that has an Amazon DynamoDB target with a TTL attribute set for a retention period of 14 days.

Question #490

A gaming company uses Amazon DynamoDB to store user information such as geographic location, player data, and leaderboards. The company needs to configure continuous backups to an Amazon S3 bucket with a minimal amount of coding. The backups must not affect availability of the application and must not affect the read capacity units (RCUs) that are defined for the table. Which solution meets these requirements?

A. Use an Amazon EMR cluster. Create an Apache Hive job to back up the data to Amazon S3.

B. Export the data directly from DynamoDB to Amazon S3 with continuous backups. Turn on point-in-time recovery for the table.

C. Configure Amazon DynamoDB Streams. Create an AWS Lambda function to consume the stream and export the data to an Amazon S3 bucket.

D. Create an AWS Lambda function to export the data from the database tables to Amazon S3 on a regular basis. Turn on point-in-time recovery for the table.

Question #491

A solutions architect is designing an asynchronous application to process credit card data validation requests for a bank. The application must be secure and be able to process each request at least once. Which solution will meet these requirements MOST cost-effectively?

A. Use AWS Lambda event source mapping. Set Amazon Simple Queue Service (Amazon SQS) standard queues as the event source. Use AWS Key Management Service (SSE-KMS) for encryption. Add the kms:Decrypt permission for the Lambda execution role.

B. Use AWS Lambda event source mapping. Use Amazon Simple Queue Service (Amazon SQS) FIFO queues as the event source. Use SQS managed encryption keys (SSE-SQS) for encryption. Add the encryption key invocation permission for the Lambda function.

C. Use the AWS Lambda event source mapping. Set Amazon Simple Queue Service (Amazon SQS) FIFO queues as the event source. Use AWS KMS keys (SSE-KMS). Add the kms:Decrypt permission for the Lambda execution role.

D. Use the AWS Lambda event source mapping. Set Amazon Simple Queue Service (Amazon SQS) standard queues as the event source. Use AWS KMS keys (SSE-KMS) for encryption. Add the encryption key invocation permission for the Lambda function.

Question #492

A company has multiple AWS accounts for development work. Some staff consistently use oversized Amazon EC2 instances, which causes the company to exceed the yearly budget for the development accounts. The company wants to centrally restrict the creation of AWS resources in these accounts. Which solution will meet these requirements with the LEAST development effort?

A. Develop AWS Systems Manager templates that use an approved EC2 creation process. Use the approved Systems Manager templates to provision EC2 instances.

B. Use AWS Organizations to organize the accounts into organizational units (OUs). Define and attach a service control policy (SCP) to control the usage of EC2 instance types.

C. Configure an Amazon EventBridge rule that invokes an AWS Lambda function when an EC2 instance is created. Stop disallowed EC2 instance types.

D. Set up AWS Service Catalog products for the staff to create the allowed EC2 instance types. Ensure that staff can deploy EC2 instances only by using the Service Catalog products.

Question #493

A company wants to use artificial intelligence (AI) to determine the quality of its customer service calls. The company currently manages calls in four different languages, including English. The company will offer new languages in the future. The company does not have the resources to regularly maintain machine learning (ML) models. The company needs to create written sentiment analysis reports from the customer service call recordings. The customer service call recording text must be translated into English. Which combination of steps will meet these requirements? (Choose three.)

A. Use Amazon Comprehend to translate the audio recordings into English.

B. Use Amazon Lex to create the written sentiment analysis reports.

C. Use Amazon Polly to convert the audio recordings into text.

D. Use Amazon Transcribe to convert the audio recordings in any language into text.

E. Use Amazon Translate to translate text in any language to English.

F. Use Amazon Comprehend to create the sentiment analysis reports.

Question #494

A company uses Amazon EC2 instances to host its internal systems. As part of a deployment operation, an administrator tries to use the AWS CLI to terminate an EC2 instance. However, the administrator receives a 403 (Access Denied) error message. The administrator is using an IAM role that has the following IAM policy attached: What is the cause of the unsuccessful request?

A. The EC2 instance has a resource-based policy with a Deny statement.

B. The principal has not been specified in the policy statement.

C. The "Action" field does not grant the actions that are required to terminate the EC2 instance.

D. The request to terminate the EC2 instance does not originate from the CIDR blocks 192.0.2.0/24 or 203.0.113.0/24.

Question #495

A company is conducting an internal audit. The company wants to ensure that the data in an Amazon S3 bucket that is associated with the company's AWS Lake Formation data lake does not contain sensitive customer or employee data. The company wants to discover personally identifiable information (PII) or financial information, including passport numbers and credit card numbers. Which solution will meet these requirements?

A. Configure AWS Audit Manager on the account. Select the Payment Card Industry Data Security Standards (PCI DSS) for auditing.

B. Configure Amazon S3 Inventory on the S3 bucket Configure Amazon Athena to query the inventory.

C. Configure Amazon Macie to run a data discovery job that uses managed identifiers for the required data types.

D. Use Amazon S3 Select to run a report across the S3 bucket.

Question #496

A company uses on-premises servers to host its applications. The company is running out of storage capacity. The applications use both block storage and NFS storage. The company needs a high-performing solution that supports local caching without re-architecting its existing applications. Which combination of actions should a solutions architect take to meet these requirements? (Choose two.)

A. Mount Amazon S3 as a file system to the on-premises servers.

B. Deploy an AWS Storage Gateway file gateway to replace NFS storage.

C. Deploy AWS Snowball Edge to provision NFS mounts to on-premises servers.

D. Deploy an AWS Storage Gateway volume gateway to replace the block storage.

E. Deploy Amazon Elastic File System (Amazon EFS) volumes and mount them to on-premises servers.

Question #497

A company has a service that reads and writes large amounts of data from an Amazon S3 bucket in the same AWS Region. The service is deployed on Amazon EC2 instances within the private subnet of a VPC. The service communicates with Amazon S3 over a NAT gateway in the public subnet. However, the company wants a solution that will reduce the data output costs. Which solution will meet these requirements MOST cost-effectively?

A. Provision a dedicated EC2 NAT instance in the public subnet. Configure the route table for the private subnet to use the elastic network interface of this instance as the destination for all S3 traffic.

B. Provision a dedicated EC2 NAT instance in the private subnet. Configure the route table for the public subnet to use the elastic network interface of this instance as the destination for all S3 traffic.

C. Provision a VPC gateway endpoint. Configure the route table for the private subnet to use the gateway endpoint as the route for all S3 traffic.

D. Provision a second NAT gateway. Configure the route table for the private subnet to use this NAT gateway as the destination for all S3 traffic.

Question #498

A company uses Amazon S3 to store high-resolution pictures in an S3 bucket. To minimize application changes, the company stores the pictures as the latest version of an S3 object. The company needs to retain only the two most recent versions of the pictures. The company wants to reduce costs. The company has identified the S3 bucket as a large expense. Which solution will reduce the S3 costs with the LEAST operational overhead?

A. Use S3 Lifecycle to delete expired object versions and retain the two most recent versions.

B. Use an AWS Lambda function to check for older versions and delete all but the two most recent versions.

C. Use S3 Batch Operations to delete noncurrent object versions and retain only the two most recent versions.

D. Deactivate versioning on the S3 bucket and retain the two most recent versions.

Question #499

A company needs to minimize the cost of its 1 Gbps AWS Direct Connect connection. The company's average connection utilization is less than 10%. A solutions architect must recommend a solution that will reduce the cost without compromising security. Which solution will meet these requirements?

A. Set up a new 1 Gbps Direct Connect connection. Share the connection with another AWS account.

B. Set up a new 200 Mbps Direct Connect connection in the AWS Management Console.

C. Contact an AWS Direct Connect Partner to order a 1 Gbps connection. Share the connection with another AWS account.

D. Contact an AWS Direct Connect Partner to order a 200 Mbps hosted connection for an existing AWS account.

Question #500

A company has multiple Windows file servers on premises. The company wants to migrate and consolidate its files into an Amazon FSx for Windows File Server file system. File permissions must be preserved to ensure that access rights do not change. Which solutions will meet these requirements? (Choose two.)

A. Deploy AWS DataSync agents on premises. Schedule DataSync tasks to transfer the data to the FSx for Windows File Server file system.

B. Copy the shares on each file server into Amazon S3 buckets by using the AWS CL

I. Schedule AWS DataSync tasks to transfer the data to the FSx for Windows File Server file system.

C. Remove the drives from each file server. Ship the drives to AWS for import into Amazon S3. Schedule AWS DataSync tasks to transfer the data to the FSx for Windows File Server file system.

D. Order an AWS Snowcone device. Connect the device to the on-premises network. Launch AWS DataSync agents on the device. Schedule DataSync tasks to transfer the data to the FSx for Windows File Server file system.

E. Order an AWS Snowball Edge Storage Optimized device. Connect the device to the on-premises network. Copy data to the device by using the AWS CL

I. Ship the device back to AWS for import into Amazon S3. Schedule AWS DataSync tasks to transfer the data to the FSx for Windows File Server file system.

Question #501

A company wants to ingest customer payment data into the company's data lake in Amazon S3. The company receives payment data every minute on average. The company wants to analyze the payment data in real time. Then the company wants to ingest the data into the data lake. Which solution will meet these requirements with the MOST operational efficiency?

A. Use Amazon Kinesis Data Streams to ingest data. Use AWS Lambda to analyze the data in real time.

B. Use AWS Glue to ingest data. Use Amazon Kinesis Data Analytics to analyze the data in real time.

C. Use Amazon Kinesis Data Firehose to ingest data. Use Amazon Kinesis Data Analytics to analyze the data in real time.

D. Use Amazon API Gateway to ingest data. Use AWS Lambda to analyze the data in real time.

Question #502

A company runs a website that uses a content management system (CMS) on Amazon EC2. The CMS runs on a single EC2 instance and uses an Amazon Aurora MySQL Multi-AZ DB instance for the data tier. Website images are stored on an Amazon Elastic Block Store (Amazon EBS) volume that is mounted inside the EC2 instance. Which combination of actions should a solutions architect take to improve the performance and resilience of the website? (Choose two.)

A. Move the website images into an Amazon S3 bucket that is mounted on every EC2 instance

B. Share the website images by using an NFS share from the primary EC2 instance. Mount this share on the other EC2 instances.

C. Move the website images onto an Amazon Elastic File System (Amazon EFS) file system that is mounted on every EC2 instance.

D. Create an Amazon Machine Image (AMI) from the existing EC2 instance. Use the AMI to provision new instances behind an Application Load Balancer as part of an Auto Scaling group. Configure the Auto Scaling group to maintain a minimum of two instances. Configure an accelerator in AWS Global Accelerator for the website

E. Create an Amazon Machine Image (AMI) from the existing EC2 instance. Use the AMI to provision new instances behind an Application Load Balancer as part of an Auto Scaling group. Configure the Auto Scaling group to maintain a minimum of two instances. Configure an Amazon CloudFront distribution for the website.

Question #503

A company runs an infrastructure monitoring service. The company is building a new feature that will enable the service to monitor data in customer AWS accounts. The new feature will call AWS APIs in customer accounts to describe Amazon EC2 instances and read Amazon CloudWatch metrics. What should the company do to obtain access to customer accounts in the MOST secure way?

A. Ensure that the customers create an IAM role in their account with read-only EC2 and CloudWatch permissions and a trust policy to the company's account.

B. Create a serverless API that implements a token vending machine to provide temporary AWS credentials for a role with read-only EC2 and CloudWatch permissions.

C. Ensure that the customers create an IAM user in their account with read-only EC2 and CloudWatch permissions. Encrypt and store customer access and secret keys in a secrets management system.

D. Ensure that the customers create an Amazon Cognito user in their account to use an IAM role with read-only EC2 and CloudWatch permissions. Encrypt and store the Amazon Cognito user and password in a secrets management system.

Question #504

A company needs to connect several VPCs in the us-east-1 Region that span hundreds of AWS accounts. The company's networking team has its own AWS account to manage the cloud network. What is the MOST operationally efficient solution to connect the VPCs?

A. Set up VPC peering connections between each VP

C. Update each associated subnet’s route table

B. Configure a NAT gateway and an internet gateway in each VPC to connect each VPC through the internet

C. Create an AWS Transit Gateway in the networking team’s AWS account. Configure static routes from each VP

C.

D. Deploy VPN gateways in each VP

C. Create a transit VPC in the networking team’s AWS account to connect to each VPC.

Question #505

A company has Amazon EC2 instances that run nightly batch jobs to process data. The EC2 instances run in an Auto Scaling group that uses On-Demand billing. If a job fails on one instance, another instance will reprocess the job. The batch jobs run between 12:00 AM and 06:00 AM local time every day. Which solution will provide EC2 instances to meet these requirements MOST cost-effectively?

A. Purchase a 1-year Savings Plan for Amazon EC2 that covers the instance family of the Auto Scaling group that the batch job uses.

B. Purchase a 1-year Reserved Instance for the specific instance type and operating system of the instances in the Auto Scaling group that the batch job uses.

C. Create a new launch template for the Auto Scaling group. Set the instances to Spot Instances. Set a policy to scale out based on CPU usage.

D. Create a new launch template for the Auto Scaling group. Increase the instance size. Set a policy to scale out based on CPU usage.

Question #506

A social media company is building a feature for its website. The feature will give users the ability to upload photos. The company expects significant increases in demand during large events and must ensure that the website can handle the upload traffic from users. Which solution meets these requirements with the MOST scalability?

A. Upload files from the user's browser to the application servers. Transfer the files to an Amazon S3 bucket.

B. Provision an AWS Storage Gateway file gateway. Upload files directly from the user's browser to the file gateway.

C. Generate Amazon S3 presigned URLs in the application. Upload files directly from the user's browser into an S3 bucket.

D. Provision an Amazon Elastic File System (Amazon EFS) file system. Upload files directly from the user's browser to the file system.

Question #507

A company has a web application for travel ticketing. The application is based on a database that runs in a single data center in North America. The company wants to expand the application to serve a global user base. The company needs to deploy the application to multiple AWS Regions. Average latency must be less than 1 second on updates to the reservation database. The company wants to have separate deployments of its web platform across multiple Regions. However, the company must maintain a single primary reservation database that is globally consistent. Which solution should a solutions architect recommend to meet these requirements?

A. Convert the application to use Amazon DynamoD

B. Use a global table for the center reservation table. Use the correct Regional endpoint in each Regional deployment.

B. Migrate the database to an Amazon Aurora MySQL database. Deploy Aurora Read Replicas in each Region. Use the correct Regional endpoint in each Regional deployment for access to the database.

C. Migrate the database to an Amazon RDS for MySQL database. Deploy MySQL read replicas in each Region. Use the correct Regional endpoint in each Regional deployment for access to the database.

D. Migrate the application to an Amazon Aurora Serverless database. Deploy instances of the database to each Region. Use the correct Regional endpoint in each Regional deployment to access the database. Use AWS Lambda functions to process event streams in each Region to synchronize the databases.

Question #508

A company has migrated multiple Microsoft Windows Server workloads to Amazon EC2 instances that run in the us-west-1 Region. The company manually backs up the workloads to create an image as needed. In the event of a natural disaster in the us-west-1 Region, the company wants to recover workloads quickly in the us-west-2 Region. The company wants no more than 24 hours of data loss on the EC2 instances. The company also wants to automate any backups of the EC2 instances. Which solutions will meet these requirements with the LEAST administrative effort? (Choose two.)

A. Create an Amazon EC2-backed Amazon Machine Image (AMI) lifecycle policy to create a backup based on tags. Schedule the backup to run twice daily. Copy the image on demand.

B. Create an Amazon EC2-backed Amazon Machine Image (AMI) lifecycle policy to create a backup based on tags. Schedule the backup to run twice daily. Configure the copy to the us-west-2 Region.

C. Create backup vaults in us-west-1 and in us-west-2 by using AWS Backup. Create a backup plan for the EC2 instances based on tag values. Create an AWS Lambda function to run as a scheduled job to copy the backup data to us-west-2.

D. Create a backup vault by using AWS Backup. Use AWS Backup to create a backup plan for the EC2 instances based on tag values. Define the destination for the copy as us-west-2. Specify the backup schedule to run twice daily.

E. Create a backup vault by using AWS Backup. Use AWS Backup to create a backup plan for the EC2 instances based on tag values. Specify the backup schedule to run twice daily. Copy on demand to us-west-2.

Question #509

A company operates a two-tier application for image processing. The application uses two Availability Zones, each with one public subnet and one private subnet. An Application Load Balancer (ALB) for the web tier uses the public subnets. Amazon EC2 instances for the application tier use the private subnets. Users report that the application is running more slowly than expected. A security audit of the web server log files shows that the application is receiving millions of illegitimate requests from a small number of IP addresses. A solutions architect needs to resolve the immediate performance problem while the company investigates a more permanent solution. What should the solutions architect recommend to meet this requirement?

A. Modify the inbound security group for the web tier. Add a deny rule for the IP addresses that are consuming resources.

B. Modify the network ACL for the web tier subnets. Add an inbound deny rule for the IP addresses that are consuming resources.

C. Modify the inbound security group for the application tier. Add a deny rule for the IP addresses that are consuming resources.

D. Modify the network ACL for the application tier subnets. Add an inbound deny rule for the IP addresses that are consuming resources.

Question #510

A global marketing company has applications that run in the ap-southeast-2 Region and the eu-west-1 Region. Applications that run in a VPC in eu-west-1 need to communicate securely with databases that run in a VPC in ap-southeast-2. Which network design will meet these requirements?

A. Create a VPC peering connection between the eu-west-1 VPC and the ap-southeast-2 VP

C. Create an inbound rule in the eu-west-1 application security group that allows traffic from the database server IP addresses in the ap-southeast-2 security group.

B. Configure a VPC peering connection between the ap-southeast-2 VPC and the eu-west-1 VP

C. Update the subnet route tables. Create an inbound rule in the ap-southeast-2 database security group that references the security group ID of the application servers in eu-west-1.

C. Configure a VPC peering connection between the ap-southeast-2 VPC and the eu-west-1 VPUpdate the subnet route tables. Create an inbound rule in the ap-southeast-2 database security group that allows traffic from the eu-west-1 application server IP addresses.

D. Create a transit gateway with a peering attachment between the eu-west-1 VPC and the ap-southeast-2 VP

C. After the transit gateways are properly peered and routing is configured, create an inbound rule in the database security group that references the security group ID of the application servers in eu-west-1.