

## SAP-C02 Dumps

### AWS Certified Solutions Architect - Professional

<https://www.certleader.com/SAP-C02-dumps.html>



**NEW QUESTION 1**

- (Exam Topic 1)

A startup company recently migrated a large ecommerce website to AWS. The website has experienced a 70% increase in sales. Software engineers are using a private GitHub repository to manage code. The DevOps learn is using Jenkins for builds and unit testing. The engineers need to receive notifications for bad builds and zero downtime during deployments. The engineers also need to ensure any changes to production are seamless for users and can be rolled back in the event of a major issue.

The software engineers have decided to use AWS CodePipeline to manage their build and deployment process.

Which solution will meet these requirements?

- A. Use GitHub websockets to trigger the CodePipeline pipelin
- B. Use the Jenkins plugin for AWS CodeBuild to conduct unit testin
- C. Send alerts to an Amazon SNS topic for any bad build
- D. Deploy in an in-plac
- E. all-at-once deployment configuration using AWS CodeDeploy.
- F. Use GitHub webhooks to trigger the CodePipeline pipelin
- G. Use the Jenkins plugin for AWS CodeBuild to conduct unit testin
- H. Send alerts to an Amazon SNS topic for any bad build
- I. Deploy in a blue/green deployment using AWS CodeDeploy.
- J. Use GitHub websockets to trigger the CodePipeline pipelin
- K. Use AWS X-Ray for unit testing and static code analysi
- L. Send alerts to an Amazon SNS topic for any bad build
- M. Deploy in a blue/green deployment using AWS CodeDeploy.
- N. Use GitHub webhooks to trigger the CodePipeline pipelin
- O. Use AWS X-Ray for unit testing and static code analysi
- P. Send alerts to an Amazon SNS topic for any bad build
- Q. Deploy in an in-place, all-at-once deployment configuration using AWS CodeDeploy.

**Answer: B**

**NEW QUESTION 2**

- (Exam Topic 1)

A company has a website that enables users to upload videos. Company policy states the uploaded videos must be analyzed for restricted content. An uploaded video is placed in Amazon S3, and a message is pushed to an Amazon SOS queue with the video's location. A backend application pulls this location from Amazon SOS and analyzes the video.

The video analysis is compute-intensive and occurs sporadically during the day The website scales with demand. The video analysis application runs on a fixed number of instances. Peak demand occurs during the holidays, so the company must add instances to the application dunnig this time. All instances used are currently on-demand Amazon EC2 T2 instances. The company wants to reduce the cost of the current solution.

Which of the following solutions is MOST cost-effective?

- A. Keep the website on T2 instance
- B. Determine the minimum number of website instances required during off-peak times and use Spot Instances to cover them while using Reserved Instances to cover peak deman
- C. Use Amazon EC2 R4 and Amazon EC2 R5 Reserved Instances in an Auto Scaling group for the video analysis application
- D. Keep the website on T2 instance
- E. Determine the minimum number of website instances required during off-peak times and use Reserved Instances to cover them while using On-Demand Instances to cover peak deman
- F. Use Spot Fleet for the video analysis application comprised of Amazon EC2 C4 and Amazon EC2 C5 Spot Instances.
- G. Migrate the website to AWS Elastic Beanstalk and Amazon EC2 C4 instance
- H. Determine the minimum number of website instances required during off-peak times and use On-Demand Instances to cover them while using Spot capacity to cover peak demand Use Spot Fleet for the video anarysis application comprised of C4 and Amazon EC2 C5 instances.
- I. Migrate the website to AWS Elastic Beanstalk and Amazon EC2 R4 instance
- J. Determine the minimum number of website instances required during off-peak times and use Reserved Instances to cover them while using On-Demand Instances to cover peak demand Use Spot Fleet for the video analysis application comprised of R4 and Amazon EC2 R5 instances

**Answer: B**

**NEW QUESTION 3**

- (Exam Topic 1)

A company is running an application on several Amazon EC2 instances in an Auto Scaling group behind an Application Load Balancer. The load on the application varies throughout the day, and EC2 instances are scaled in and out on a regular basis. Log files from the EC2 instances are copied to a central Amazon S3 bucket every 15 minutes. The security team discovers that log files are missing from some of the terminated EC2 instances.

Which set of actions will ensure that log files are copied to the central S3 bucket from the terminated EC2 instances?

- A. Create a script to copy log files to Amazon S3, and store the script in a file on the EC2 instanc
- B. Create an Auto Scaling lifecycle hook and an Amazon EventBridge (Amazon CloudWatch Events) rule to detect lifecycle events from the Auto Scaling grou
- C. Invoke an AWS Lambda function on the autoscaling:EC2\_INSTANCE\_TERMINATING transition to send ABANDON to the Auto Scaling group to prevent termination, run the script to copy the log files, and terminate the instance using the AWS SDK.
- D. Create an AWS Systems Manager document with a script to copy log files to Amazon S3. Create an Auto Scaling lifecycle hook and an Amazon EventBridge (Amazon CloudWatch Events) rule to detect lifecycle events from the Auto Scaling grou
- E. Invoke an AWS Lambda function on the autoscaling:EC2\_INSTANCE\_TERMINATING transition to call the AWS Systems Manager API SendCommand operation to run the document to copy the log files and send CONTINUE to the Auto Scaling group to terminate the instance.
- F. Change the log delivery rate to every 5 minute
- G. Create a script to copy log files to Amazon S3, and add the script to EC2 instance user dat
- H. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to detect EC2 instance terminatio
- I. Invoke an AWS Lambda function from the EventBridge (CloudWatch Events) rule that uses the AWS CLI to run the user-data script to copy the log files and terminate the instance.
- J. Create an AWS Systems Manager document with a script to copy log files to Amazon S3. Create an Auto Scaling lifecycle hook that publishes a message to an Amazon Simple Notification Service (Amazon SNS) topi
- K. From the SNS notification, call the AWS Systems Manager API SendCommand operation to run the document to copy the log files and send ABANDON to the

Auto Scaling group to terminate the instance.

**Answer: B**

**Explanation:**

<https://docs.aws.amazon.com/autoscaling/ec2/userguide/adding-lifecycle-hooks.html>

- Refer to Default Result section - If the instance is terminating, both abandon and continue allow the instance

to terminate. However, abandon stops any remaining actions, such as other lifecycle hooks, and continue allows any other lifecycle hooks to complete.

<https://aws.amazon.com/blogs/infrastructure-and-automation/run-code-before-terminating-an-ec2-auto-scaling-i> <https://github.com/aws-samples/aws-lambda-lifecycle-hooks-function>

<https://github.com/aws-samples/aws-lambda-lifecycle-hooks-function/blob/master/cloudformation/template.yaml>

**NEW QUESTION 4**

- (Exam Topic 1)

A company has a complex web application that leverages Amazon CloudFront for global scalability and performance. Over time, users report that the web application is slowing down.

The company's operations team reports that the CloudFront cache hit ratio has been dropping steadily. The cache metrics report indicates that query strings on some URLs are inconsistently ordered and are specified sometimes in mixed-case letters and sometimes in lowercase letters.

Which set of actions should the solutions architect take to increase the cache hit ratio as quickly as possible?

- A. Deploy a Lambda@Edge function to sort parameters by name and force them to be lowercas
- B. Select the CloudFront viewer request trigger to invoke the function.
- C. Update the CloudFront distribution to disable caching based on query string parameters.
- D. Deploy a reverse proxy after the load balancer to post-process the emitted URLs in the application to force the URL strings to be lowercase.
- E. Update the CloudFront distribution to specify casing-insensitive query string processing.

**Answer: A**

**Explanation:**

[https://docs.amazonaws.cn/en\\_us/AmazonCloudFront/latest/DeveloperGuide/lambda-ex](https://docs.amazonaws.cn/en_us/AmazonCloudFront/latest/DeveloperGuide/lambda-examples.html#lambda-ex) Before CloudFront serves content from the cache it will trigger any Lambda function associated with the Viewer Request, in which we can normalize parameters.

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/lambda-examples.html#lambda-examp>

**NEW QUESTION 5**

- (Exam Topic 1)

A solutions architect is designing the data storage and retrieval architecture for a new application that a company will be launching soon. The application is designed to ingest millions of small records per minute from devices all around the world. Each record is less than 4 KB in size and needs to be stored in a durable location where it can be retrieved with low latency. The data is ephemeral and the company is required to store the data for 120 days only, after which the data can be deleted.

The solutions architect calculates that, during the course of a year, the storage requirements would be about 10-15 TB.

Which storage strategy is the MOST cost-effective and meets the design requirements?

- A. Design the application to store each incoming record as a single .csv file in an Amazon S3 bucket to allow for indexed retrieva
- B. Configure a lifecycle policy to delete data older than 120 days.
- C. Design the application to store each incoming record in an Amazon DynamoDB table properly configured for the scal
- D. Configure the DynamoDB Time to Live (TTL) feature to delete records older than 120 days.
- E. Design the application to store each incoming record in a single table in an Amazon RDS MySQL databas
- F. Run a nightly cron job that executes a query to delete any records older than 120 days.
- G. Design the application to batch incoming records before writing them to an Amazon S3 bucke
- H. Update the metadata for the object to contain the list of records in the batch and use the Amazon S3 metadatasearch feature to retrieve the dat
- I. Configure a lifecycle policy to delete the data after 120 days.

**Answer: B**

**Explanation:**

DynamoDB with TTL, cheaper for sustained throughput of small items + suited for fast retrievals. S3 cheaper for storage only, much higher costs with writes. RDS not designed for this use case.

**NEW QUESTION 6**

- (Exam Topic 1)

A company wants to change its internal cloud billing strategy for each of its business units. Currently, the cloud governance team shares reports for overall cloud spending with the head of each business unit. The company uses AWS Organizations to manage the separate AWS accounts for each business unit. The existing tagging standard in Organizations includes the application, environment, and owner. The cloud governance team wants a centralized solution so each business unit receives monthly reports on its cloud spending. The solution should also send notifications for any cloud spending that exceeds a set threshold.

Which solution is the MOST cost-effective way to meet these requirements?

- A. Configure AWS Budgets in each account and configure budget alerts that are grouped by application, environment, and owne
- B. Add each business unit to an Amazon SNS topic for each aler
- C. Use Cost Explorer in each account to create monthly reports for each business unit.
- D. Configure AWS Budgets in the organization's master account and configure budget alerts that are grouped by application, environment, and owne
- E. Add each business unit to an Amazon SNS topic for each aler
- F. Use Cost Explorer in the organization's master account to create monthly reports for each business unit.
- G. Configure AWS Budgets in each account and configure budget alerts lhat are grouped by application, environment, and owne
- H. Add each business unit to an Amazon SNS topic for each aler
- I. Use the AWS Billing and Cost Management dashboard in each account to create monthly reports for each business unit.
- J. Enable AWS Cost and Usage Reports in the organization's master account and configure reports grouped by application, environment, and owne
- K. Create an AWS Lambda function that processes AWS Cost and Usage Reports, sends budget alerts, and sends monthly reports to each business unit's email list.

**Answer: B**

**Explanation:**

Configure AWS Budgets in the organization's master account and configure budget alerts that are grouped by application, environment, and owner. Add each business unit to an Amazon SNS topic for each alert. Use Cost Explorer in the organization's master account to create monthly reports for each business unit.  
<https://aws.amazon.com/about-aws/whats-new/2019/07/introducing-aws-budgets-reports/#:~:text=AWS%20Bud>

**NEW QUESTION 7**

- (Exam Topic 1)

A travel company built a web application that uses Amazon Simple Email Service (Amazon SES) to send email notifications to users. The company needs to enable logging to help troubleshoot email delivery issues. The company also needs the ability to do searches that are based on recipient, subject, and time sent. Which combination of steps should a solutions architect take to meet these requirements? (Select TWO.)

- A. Create an Amazon SES configuration set with Amazon Kinesis Data Firehose as the destination
- B. Choose to send logs to an Amazon S3 bucket.
- C. Enable AWS CloudTrail logging
- D. Specify an Amazon S3 bucket as the destination for the logs.
- E. Use Amazon Athena to query the logs in the Amazon S3 bucket for recipient, subject, and time sent.
- F. Create an Amazon CloudWatch log group
- G. Configure Amazon SES to send logs to the log group
- H. Use Amazon Athena to query the logs in Amazon CloudWatch for recipient, subject, and time sent.

**Answer:** AC

**Explanation:**

<https://docs.aws.amazon.com/ses/latest/dg/event-publishing-retrieving-firehose.html>

To enable you to track your email sending at a granular level, you can set up Amazon SES to publish email sending events to Amazon CloudWatch, Amazon Kinesis Data Firehose, or Amazon Simple Notification Service based on characteristics that you define.

<https://docs.aws.amazon.com/ses/latest/dg/monitor-using-event-publishing.html>

<https://aws.amazon.com/getting-started/hands-on/build-serverless-real-time-data-processing-app-lambda-kinesis>

**NEW QUESTION 8**

- (Exam Topic 1)

A company has a three-tier application running on AWS with a web server, an application server, and an Amazon RDS MySQL DB instance. A solutions architect is designing a disaster recovery (DR) solution with an RPO of 5 minutes. Which solution will meet the company's requirements?

- A. Configure AWS Backup to perform cross-Region backups of all servers every 5 minutes
- B. Reprovision the three tiers in the DR Region from the backups using AWS CloudFormation in the event of a disaster.
- C. Maintain another running copy of the web and application server stack in the DR Region using AWS CloudFormation drill detection
- D. Configure cross-Region snapshots of the DB instance to the DR Region every 5 minutes
- E. In the event of a disaster, restore the DB instance using the snapshot in the DR Region.
- F. Use Amazon EC2 Image Builder to create and copy AMIs of the web and application server to both the primary and DR Region
- G. Create a cross-Region read replica of the DB instance in the DR Region
- H. In the event of a disaster, promote the read replica to become the master and reprovision the servers with AWS CloudFormation using the AMIs.
- I. Create AMIs of the web and application servers in the DR Region
- J. Use scheduled AWS Glue jobs to synchronize the DB instance with another DB instance in the DR Region
- K. In the event of a disaster, switch to the DB instance in the DR Region and reprovision the servers with AWS CloudFormation using the AMIs.

**Answer:** C

**Explanation:**

Deploying a brand new RDS instance will take >30 minutes. You will use EC2 Image Builder to put the AMIs into the new region, but not use Image Builder to LAUNCH them.

**NEW QUESTION 9**

- (Exam Topic 1)

A company is deploying a new cluster for big data analytics on AWS. The cluster will run across many Linux Amazon EC2 instances that are spread across multiple Availability Zones.

All of the nodes in the cluster must have read and write access to common underlying file storage. The file storage must be highly available, must be resilient, must be compatible with the Portable Operating System Interface (POSIX), and must accommodate high levels of throughput.

Which storage solution will meet these requirements?

- A. Provision an AWS Storage Gateway file gateway NFS file share that is attached to an Amazon S3 bucket
- B. Mount the NFS file share on each EC2 instance in the cluster.
- C. Provision a new Amazon Elastic File System (Amazon EFS) file system that uses General Purpose performance mode
- D. Mount the EFS file system on each EC2 instance in the cluster.
- E. Provision a new Amazon Elastic Block Store (Amazon EBS) volume that uses the io2 volume type. Attach the EBS volume to all of the EC2 instances in the cluster.
- F. Provision a new Amazon Elastic File System (Amazon EFS) file system that uses Max I/O performance mode
- G. Mount the EFS file system on each EC2 instance in the cluster.

**Answer:** D

**NEW QUESTION 10**

- (Exam Topic 1)

A scientific organization requires the processing of text and picture data stored in an Amazon S3 bucket. The data is gathered from numerous radar stations during a mission's live, time-critical phase. The data is uploaded by the radar stations to the source S3 bucket. The data is preceded with the identification number of the radar station.

In a second account, the business built a destination S3 bucket. To satisfy a compliance target, data must be transferred from the source S3 bucket to the destination S3 bucket. Replication is accomplished by using an S3 replication rule that covers all items in the source S3 bucket.



A single radar station has been recognized as having the most precise data. At this radar station, data replication must be completed within 30 minutes of the radar station uploading the items to the source S3 bucket.

What actions should a solutions architect take to ensure that these criteria are met?

- A. Set up an AWS DataSync agent to replicate the prefixed data from the source S3 bucket to the destination S3 bucket
- B. Select to use available bandwidth on the task, and monitor the task to ensure that it is in the TRANSFERRING status
- C. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger an alert if this status changes.
- D. In the second account, create another S3 bucket to receive data from the radar station with the most accurate data. Set up a new replication rule for this new S3 bucket to separate the replication from the other radar stations. Monitor the maximum replication time to the destination.
- E. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger an alert when the time exceeds the desired threshold.
- F. Enable Amazon S3 Transfer Acceleration on the source S3 bucket, and configure the radar station with the most accurate data to use the new endpoint. Monitor the S3 destination bucket's TotalRequestLatency metric. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger an alert if this status changes.
- G. Create a new S3 replication rule on the source S3 bucket that filters for the keys that use the prefix of the radar station with the most accurate data. Enable S3 Replication Time Control (S3 RTC). Monitor the maximum replication time to the destination. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to trigger an alert when the time exceeds the desired threshold.

**Answer:** D

**Explanation:**

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/replication-time-control.html>

### NEW QUESTION 10

- (Exam Topic 1)

A large company with hundreds of AWS accounts has a newly established centralized internal process for purchasing new or modifying existing Reserved Instances. This process requires all business units that want to purchase or modify Reserved Instances to submit requests to a dedicated team for procurement or execution. Previously, business units would directly purchase or modify Reserved Instances in their own respective AWS accounts autonomously.

Which combination of steps should be taken to proactively enforce the new process in the MOST secure way possible? (Select TWO.)

- A. Ensure all AWS accounts are part of an AWS Organizations structure operating in all features mode.
- B. Use AWS Config to report on the attachment of an IAM policy that denies access to the ec2:PurchaseReservedInstancesOffering and ec2:ModifyReservedInstances actions.
- C. In each AWS account, create an IAM policy with a DENY rule to the ec2:PurchaseReservedInstancesOffering and ec2:ModifyReservedInstances actions.
- D. Create an SCP that contains a deny rule to the ec2:PurchaseReservedInstancesOffering and ec2:ModifyReservedInstances action.
- E. Attach the SCP to each organizational unit (OU) of the AWS Organizations structure.
- F. Ensure that all AWS accounts are part of an AWS Organizations structure operating in consolidated billing features mode.

**Answer:** AD

**Explanation:**

[https://docs.aws.amazon.com/organizations/latest/APIReference/API\\_EnableAllFeatures.html](https://docs.aws.amazon.com/organizations/latest/APIReference/API_EnableAllFeatures.html)

[https://docs.aws.amazon.com/organizations/latest/userguide/orgs\\_manage\\_policies\\_scp-strategies.html](https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scp-strategies.html)

### NEW QUESTION 15

- (Exam Topic 1)

A web application is hosted in a dedicated VPC that is connected to a company's on-premises data center over a Site-to-Site VPN connection. The application is accessible from the company network only. This is a temporary non-production application that is used during business hours. The workload is generally low with occasional surges.

The application has an Amazon Aurora MySQL provisioned database cluster on the backend. The VPC has an internet gateway and a NAT gateway attached. The web servers are in private subnets in an Auto Scaling group behind an Elastic Load Balancer. The web servers also upload data to an Amazon S3 bucket through the internet.

A solutions architect needs to reduce operational costs and simplify the architecture. Which strategy should the solutions architect use?

- A. Review the Auto Scaling group settings and ensure the scheduled actions are specified to operate the Amazon EC2 instances during business hours only.
- B. Use 3-year scheduled Reserved Instances for the web server EC2 instance.
- C. Detach the internet gateway and remove the NAT gateways from the VPC.
- D. Use an Aurora Serverless database and set up a VPC endpoint for the S3 bucket.
- E. Review the Auto Scaling group settings and ensure the scheduled actions are specified to operate the Amazon EC2 instances during business hours only.
- F. Detach the internet gateway and remove the NAT gateways from the VPC.
- G. Use an Aurora Serverless database and set up a VPC endpoint for the S3 bucket, then update the network routing and security rules and policies related to the changes.
- H. Review the Auto Scaling group settings and ensure the scheduled actions are specified to operate the Amazon EC2 instances during business hours only.
- I. Detach the internet gateway from the VPC, and use an Aurora Serverless database.
- J. Set up a VPC endpoint for the S3 bucket, then update the network routing and security rules and policies related to the changes.
- K. Use 3-year scheduled Reserved Instances for the web server Amazon EC2 instance.
- L. Remove the NAT gateways from the VPC, and set up a VPC endpoint for the S3 bucket.
- M. Use Amazon
- N. CloudWatch and AWS Lambda to stop and start the Aurora DB cluster so it operates during business hours only.
- O. Update the network routing and security rules and policies related to the changes.

**Answer:** B

**Explanation:**

The application is accessible from the company network only. Remove NAT and IGW, application - S3 with VPC endpoint. Non-Production application, no need to go for Reserved instances.

To build site-to-site VPN, you don't need internet gateway. Instead, customer gateway is needed.

<https://docs.aws.amazon.com/vpn/latest/s2svpn/SetUpVPNConnections.html#vpn-create-cgw>

### NEW QUESTION 18

- (Exam Topic 1)

A company has many services running in its on-premises data center. The data center is connected to AWS using AWS Direct Connect (DX) and an IPsec VPN.

The service data is sensitive and connectivity cannot traverse the internet. The company wants to expand into a new market segment and begin offering its services to other companies that are using AWS.  
Which solution will meet these requirements?

- A. Create a VPC Endpoint Service that accepts TCP traffic, host it behind a Network Load Balancer, and make the service available over DX.
- B. Create a VPC Endpoint Service that accepts HTTP or HTTPS traffic, host it behind an Application Load Balancer, and make the service available over DX.
- C. Attach an internet gateway to the VP
- D. and ensure that network access control and security group rules allow the relevant inbound and outbound traffic.
- E. Attach a NAT gateway to the VP
- F. and ensure that network access control and security group rules allow the relevant inbound and outbound traffic.

**Answer:** A

#### NEW QUESTION 21

- (Exam Topic 1)

A solutions architect is designing an application to accept timesheet entries from employees on their mobile devices. Timesheets will be submitted weekly, with most of the submissions occurring on Friday. The data must be stored in a format that allows payroll administrators to run monthly reports. The infrastructure must be highly available and scale to match the rate of incoming data and reporting requests.

Which combination of steps meets these requirements while minimizing operational overhead? (Select TWO.)

- A. Deploy the application to Amazon EC2 On-Demand Instances With load balancing across multiple Availability Zone
- B. Use scheduled Amazon EC2 Auto Scaling to add capacity before the high volume of submissions on Fridays.
- C. Deploy the application in a container using Amazon Elastic Container Service (Amazon ECS) with load balancing across multiple Availability Zone
- D. Use scheduled Service Auto Scaling to add capacity before the high volume of submissions on Fridays.
- E. Deploy the application front end to an Amazon S3 bucket served by Amazon CloudFront
- F. Deploy the application backend using Amazon API Gateway with an AWS Lambda proxy integration.
- G. Store the timesheet submission data in Amazon Redshift
- H. Use Amazon QuickSight to generate the reports using Amazon Redshift as the data source.
- I. Store the timesheet submission data in Amazon S3. Use Amazon Athena and Amazon QuickSight to generate the reports using Amazon S3 as the data source.

**Answer:** AE

#### NEW QUESTION 26

- (Exam Topic 1)

A media company uses Amazon DynamoDB to store metadata for its catalog of movies that are available to stream. Each media item Contains user-facing content that concludes a description of the media, a list of search tags, and similar data. In addition, media items include a list of Amazon S3 key names that relate to movie files. The company stores these movie files in a single S3 bucket that has versioning enable. The company uses Amazon CloudFront to serve these movie files.

The company has 100.000 media items, and each media item can have many different S3 objects that represent different encodings of the same media S3 objects that belong to the same media item are grouped together under the same key prefix, which is a random unique ID

Because of an expiring contract with a media provider, the company must remove 2.000 media Items. The company must completely delete all DynamoDB keys and movie files on Amazon S3 that are related to these media items within 36 hours The company must ensure that the content cannot be recovered.

Which combination of actions will meet these requirements? (Select TWO.)

- A. Configure the dynamoDB table with a TTL field
- B. Create and invoke an AWS Lambda function to perform a conditional update Set the TTL field to the time of the contract's expiration on every affected media item.
- C. Configure an S3 Lifecycle object expiration rule that is based on the contract's expiration date
- D. Write a script to perform a conditional delete on all the affected DynamoDB records
- E. Temporarily suspend versioning on the S3 bucket
- F. Create and invoke an AWS Lambda function that deletes affected objects Reactivate versioning when the operation is complete
- G. Write a script to delete objects from Amazon S3 Specify in each request a NoncurrentVersionExpiration property with a NoncurrentDays attribute set to 0.

**Answer:** CE

#### NEW QUESTION 30

- (Exam Topic 1)

A company is running a containerized application in the AWS Cloud. The application is running by using Amazon Elastic Container Service (Amazon ECS) on a set of Amazon EC2 instances. The EC2 instances run in an Auto Scaling group.

The company uses Amazon Elastic Container Registry (Amazon ECR) to store its container images When a new image version is uploaded, the new image version receives a unique tag

The company needs a solution that inspects new image versions for common vulnerabilities and exposures The solution must automatically delete new image tags that have Critical or High severity findings The solution also must notify the development team when such a deletion occurs

Which solution meets these requirements?

- A. Configure scan on push on the repository
- B. Use Amazon EventBridge (Amazon CloudWatch Events) to invoke an AWS Step Functions state machine when a scan is complete for images that have Critical or High severity findings Use the Step Functions state machine to delete the image tag for those images and to notify the development team through Amazon Simple Notification Service (Amazon SNS)
- C. Configure scan on push on the repository Configure scan results to be pushed to an Amazon SimpleQueue Service (Amazon SQS) queue Invoke an AWS Lambda function when a new message is added to the SQS queue Use the Lambda function to delete the image tag for images that have Critical or High severity findings
- D. Notify the development team by using Amazon Simple Email Service (Amazon SES).
- E. Schedule an AWS Lambda function to start a manual image scan every hour Configure Amazon EventBridge (Amazon CloudWatch Events) to invoke another Lambda function when a scan is complete
- F. Use the second Lambda function to delete the image tag for images that have Critical or High severity findings
- G. Notify the development team by using Amazon Simple Notification Service (Amazon SNS)
- H. Configure periodic image scan on the repository Configure scan results to be added to an Amazon Simple Queue Service (Amazon SQS) queue Invoke an AWS Step Functions state machine when a new message is added to the SQS queue Use the Step Functions state machine to delete the image tag for images that have Critical or High severity findings

I. Notify the development team by using Amazon Simple Email Service (Amazon SES).

**Answer:** C

### NEW QUESTION 35

- (Exam Topic 1)

A company is building a hybrid solution between its existing on-premises systems and a new backend in AWS. The company has a management application to monitor the state of its current IT infrastructure and automate responses to issues. The company wants to incorporate the status of its consumed AWS services into the application. The application uses an HTTPS endpoint to receive updates.

Which approach meets these requirements with the LEAST amount of operational overhead?

- A. Configure AWS Systems Manager OpsCenter to ingest operational events from the on-premises systems Retire the on-premises management application and adopt OpsCenter as the hub
- B. Configure Amazon EventBridge (Amazon CloudWatch Events) to detect and react to changes for AWS Health events from the AWS Personal Health Dashboard Configure the EventBridge (CloudWatch Events) event to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic and subscribe the topic to the HTTPS endpoint of the management application
- C. Modify the on-premises management application to call the AWS Health API to poll for status events of AWS services.
- D. Configure Amazon EventBridge (Amazon CloudWatch Events) to detect and react to changes for AWS Health events from the AWS Service Health Dashboard Configure the EventBridge (CloudWatch Events) event to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic and subscribe the topic to an HTTPS endpoint for the management application with a topic filter corresponding to the services being used

**Answer:** A

#### Explanation:

ALB & NLB both supports IPs as targets. Questions is based on TCP traffic over VPN to on-premise. TCP is layer 4 and the , load balancer should be NLB. Then next questions does NLB supports loadbalancing traffic over VPN. And answer is YEs based on below URL.

<https://aws.amazon.com/about-aws/whats-new/2018/09/network-load-balancer-now-supports-aws-vpn/>

Target as IPs for NLB & ALB: <https://aws.amazon.com/elasticloadbalancing/faqs/?nc=sn&loc=5> <https://aws.amazon.com/elasticloadbalancing/application-load-balancer/>

### NEW QUESTION 38

- (Exam Topic 1)

A company has developed a single-page web application in JavaScript. The source code is stored in a single Amazon S3 bucket in the us-east-1 Region. The company serves the web application to a global user base through Amazon CloudFront.

The company wants to experiment with two versions of the website without informing application users. Each version of the website will reside in its own S3 bucket. The company wants to determine which version is most successful in marketing a new product.

The solution must send application users that are based in Europe to the new website design. The solution must send application users that are based in the United States to the current website design. However, some exceptions exist. The company needs to be able to redirect specific users to the new website design, regardless of the users' location.

Which solution meets these requirements?

- A. Configure two CloudFront distribution
- B. Configure a geolocation routing policy in Amazon Route 53 to route traffic to the appropriate CloudFront endpoint based on the location of clients.
- C. Configure a single CloudFront distributio
- D. Create a behavior with different paths for each version of the sit
- E. Configure Lambda@Edge on the default path to generate redirects and send the client to the correct version of the website.
- F. Configure a single CloudFront distributio
- G. Configure an alternate domain name on the distribution. Configure two behaviors to route users to the different S3 origins based on the domain name that the client uses in the HTTP request.
- H. Configure a single CloudFront distribution with Lambda@Edg
- I. Use Lambda@Edge to send user requests to different origins based on request attributes.

**Answer:** A

### NEW QUESTION 39

- (Exam Topic 1)

A company is launching a new web application on Amazon EC2 instances. Development and production workloads exist in separate AWS accounts.

According to the company's security requirements, only automated configuration tools are allowed to access the production account. The company's security team wants to receive immediate notification if any manual access to the production AWS account or EC2 instances occurs

Which combination of actions should a solutions architect take in the production account to meet these requirements? (Select THREE.)

- A. Turn on AWS CloudTrail logs in the application's primary AWS Region Use Amazon Athena to queiy the logs for AwsConsoleSignIn events.
- B. Configure Amazon Simple Email Service (Amazon SES) to send email to the security team when an alarm is activated.
- C. Deploy EC2 instances in an Auto Scaling group Configure the launch template to deploy instances without key pairs Configure Amazon CloudWatch Logs to capture system access logs Create an Amazon CloudWatch alarm that is based on the logs to detect when a user logs in to an EC2 instance
- D. Configure an Amazon Simple Notification Service (Amazon SNS) topic to send a message to the security team when an alarm is activated
- E. Turn on AWS CloudTrail logs for all AWS Region
- F. Configure Amazon CloudWatch alarms to provide an alert when an AwsConsoleSignin event is detected.
- G. Deploy EC2 instances in an Auto Scaling grou
- H. Configure the launch template to delete the key pair after launc
- I. Configure Amazon CloudWatch Logs for the system access logs Create an Amazon CloudWatch dashboard to show user logins over time.

**Answer:** CDE

### NEW QUESTION 42

- (Exam Topic 1)

A financial company is building a system to generate monthly, immutable bank account statements for its users. Statements are stored in Amazon S3. Users should have immediate access to their monthly statements for up to 2 years. Some users access their statements frequently, whereas others rarely access their



statements. The company's security and compliance policy requires that the statements be retained for at least 7 years. What is the MOST cost-effective solution to meet the company's needs?

- A. Create an S3 bucket with Object Lock disable
- B. Store statements in S3 Standard
- C. Define an S3 Lifecycle policy to transition the data to S3 Standard-Infrequent Access (S3 Standard-IA) after 30 day
- D. Define another S3 Lifecycle policy to move the data to S3 Glacier Deep Archive after 2 year
- E. Attach an S3 Glacier Vault Lock policy with deny delete permissions for archives less than 7 years old.
- F. Create an S3 bucket with versioning enable
- G. Store statements in S3 Intelligent-Tiering
- H. Use same-Region replication to replicate objects to a backup S3 bucket
- I. Define an S3 Lifecycle policy for the backup S3 bucket to move the data to S3 Glacier
- J. Attach an S3 Glacier Vault Lock policy with deny delete permissions for archives less than 7 years old.
- K. Create an S3 bucket with Object Lock enable
- L. Store statements in S3 Intelligent-Tiering
- M. Enable compliance mode with a default retention period of 2 year
- N. Define an S3 Lifecycle policy to move the data to S3 Glacier after 2 year
- O. Attach an S3 Glacier Vault Lock policy with deny delete permissions for archives less than 7 years old.
- P. Create an S3 bucket with versioning disable
- Q. Store statements in S3 One Zone-Infrequent Access (S3 One Zone-IA). Define an S3 Lifecycle policy to move the data to S3 Glacier Deep Archive after 2 year
- R. Attach an S3 Glacier Vault Lock policy with deny delete permissions for archives less than 7 years old.

**Answer: C**

**Explanation:**

<https://aws.amazon.com/about-aws/whats-new/2018/11/s3-object-lock/>

Create an S3 bucket with Object Lock enabled. Store statements in S3 Intelligent-Tiering. Enable compliance mode with a default retention period of 2 years.

Define an S3 Lifecycle policy to move the data to S3 Glacier after 2 years. Attach an S3 Glacier Vault Lock policy with deny delete permissions for archives less than 7 years old.

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/object-lock-overview.html>

**NEW QUESTION 43**

- (Exam Topic 1)

A company has a project that is launching Amazon EC2 instances that are larger than required. The project's account cannot be part of the company's organization in AWS Organizations due to policy restrictions to keep this activity outside of corporate IT. The company wants to allow only the launch of t3.small EC2 instances by developers in the project's account. These EC2 instances must be restricted to the us-east-2 Region. What should a solutions architect do to meet these requirements?

- A. Create a new developer account
- B. Move all EC2 instances, users, and assets into us-east-2. Add the account to the company's organization in AWS Organization
- C. Enforce a tagging policy that denotes Region affinity.
- D. Create an SCP that denies the launch of all EC2 instances except t3.small EC2 instances in us-east-2. Attach the SCP to the project's account.
- E. Create and purchase a t3.small EC2 Reserved Instance for each developer in us-east-2. Assign each developer a specific EC2 instance with their name as the tag.
- F. Create an IAM policy that allows the launch of only t3.small EC2 instances in us-east-2. Attach the policy to the roles and groups that the developers use in the project's account.

**Answer: D**

**NEW QUESTION 46**

- (Exam Topic 1)

A company needs to run a software package that has a license that must be run on the same physical host for the duration of its use. The software package is only going to be used for 90 days. The company requires patching and restarting of all instances every 30 days. How can these requirements be met using AWS?

- A. Run a dedicated instance with auto-placement disabled.
- B. Run the instance on a dedicated host with Host Affinity set to Host.
- C. Run an On-Demand Instance with a Reserved Instance to ensure consistent placement.
- D. Run the instance on a licensed host with termination set for 90 days.

**Answer: B**

**Explanation:**

Host Affinity is configured at the instance level. It establishes a launch relationship between an instance and a Dedicated Host. (This sets which host the instance can run on) Auto-placement allows you to manage whether instances that you launch are launched onto a specific host, or onto any available host that has matching configurations. Auto-placement must be configured at the host level. (This sets which instance the host can run.) When affinity is set to Host, an instance launched onto a specific host always restarts on the same host if stopped. This applies to both targeted and untargeted launches.

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/how-dedicated-hosts-work.html>

When affinity is set to Off, and you stop and restart the instance, it can be restarted on any available host. However, it tries to launch back onto the last Dedicated Host on which it ran (on a best-effort basis).

**NEW QUESTION 49**

- (Exam Topic 1)

A company's AWS architecture currently uses access keys and secret access keys stored on each instance to access AWS services. Database credentials are hard-coded on each instance. SSH keys for command-line remote access are stored in a secured Amazon S3 bucket. The company has asked its solutions architect to improve the security posture of the architecture without adding operational complexity.

Which combination of steps should the solutions architect take to accomplish this? (Select THREE.)

- A. Use Amazon EC2 instance profiles with an IAM role.
- B. Use AWS Secrets Manager to store access keys and secret access keys.



- C. Use AWS Systems Manager Parameter Store to store database credentials.
- D. Use a secure fleet of Amazon EC2 bastion hosts (or remote access).
- E. Use AWS KMS to store database credentials.
- F. Use AWS Systems Manager Session Manager for remote access

**Answer:** ACF

**Explanation:**

<https://docs.aws.amazon.com/systems-manager/latest/userguide/session-manager.html>

**NEW QUESTION 54**

- (Exam Topic 1)

A company has implemented an ordering system using an event-driven architecture. During initial testing, the system stopped processing orders. Further analysis revealed that one order message in an Amazon Simple Queue Service (Amazon SQS) standard queue was causing an error on the backend and blocking all subsequent order messages. The visibility timeout of the queue is set to 30 seconds, and the backend processing timeout is set to 10 seconds. A solutions architect needs to analyze faulty order messages and ensure that the system continues to process subsequent messages. Which step should the solutions architect take to meet these requirements?

- A. Increase the backend processing timeout to 30 seconds to match the visibility timeout
- B. Reduce the visibility timeout of the queue to automatically remove the faulty message
- C. Configure a new SQS FIFO queue as a dead-letter queue to isolate the faulty messages
- D. Configure a new SQS standard queue as a dead-letter queue to isolate the faulty messages.

**Answer:** D

**NEW QUESTION 55**

- (Exam Topic 1)

A company is planning on hosting its e-commerce platform on AWS using a multi-tier web application designed for a NoSQL database. The company plans to use the us-west-2 Region as its primary Region. The company wants to ensure that copies of the application and data are available in a second Region, us-west-1, for disaster recovery. The company wants to keep the time to fail over as low as possible. Failing back to the primary Region should be possible without administrative interaction after the primary service is restored. Which design should the solutions architect use?

- A. Use AWS CloudFormation StackSets to create the stacks in both Regions with Auto Scaling groups for the web and application tier
- B. Asynchronously replicate static content between Regions using Amazon S3 cross-Region replication
- C. Use an Amazon Route 53 DNS failover routing policy to direct users to the secondary site in us-west-1 in the event of an outage
- D. Use Amazon DynamoDB global tables for the database tier.
- E. Use AWS CloudFormation StackSets to create the stacks in both Regions with Auto Scaling groups for the web and application tier
- F. Asynchronously replicate static content between Regions using Amazon S3 cross-Region replication
- G. Use an Amazon Route 53 DNS failover routing policy to direct users to the secondary site in us-west-1 in the event of an outage
- H. Deploy an Amazon Aurora global database for the database tier.
- I. Use AWS Service Catalog to deploy the web and application servers in both Regions
- J. Asynchronously replicate static content between the two Regions using Amazon S3 cross-Region replication
- K. Use Amazon Route 53 health checks to identify a primary Region failure and update the public DNS entry listing to the secondary Region in the event of an outage
- L. Use Amazon RDS for MySQL with cross-Region replication for the database tier.
- M. Use AWS CloudFormation StackSets to create the stacks in both Regions using Auto Scaling groups for the web and application tier
- N. Asynchronously replicate static content between Regions using Amazon S3 cross-Region replication
- O. Use Amazon CloudFront with static files in Amazon S3, and multi-Region origins for the front-end web tier
- P. Use Amazon DynamoDB tables in each Region with scheduled backups to Amazon S3.

**Answer:** A

**NEW QUESTION 60**

- (Exam Topic 1)

A developer reports receiving an Error 403: Access Denied message when they try to download an object from an Amazon S3 bucket. The S3 bucket is accessed using an S3 endpoint inside a VPC and is encrypted with an AWS KMS key. A solutions architect has verified that the developer is assuming the correct IAM role in the account that allows the object to be downloaded. The S3 bucket policy and the NACL are also valid. Which additional step should the solutions architect take to troubleshoot this issue?

- A. Ensure that blocking all public access has not been enabled in the S3 bucket.
- B. Verify that the IAM role has permission to decrypt the referenced KMS key.
- C. Verify that the IAM role has the correct trust relationship configured.
- D. Check that local firewall rules are not preventing access to the S3 endpoint.

**Answer:** B

**NEW QUESTION 65**

- (Exam Topic 1)

A company has an internal application running on AWS that is used to track and process shipments in the company's warehouse. Currently, after the system receives an order, it emails the staff the information needed to ship a package. Once the package is shipped, the staff replies to the email and the order is marked as shipped.

The company wants to stop using email in the application and move to a serverless application model. Which architecture solution meets these requirements?

- A. Use AWS Batch to configure the different tasks required to ship a package
- B. Have AWS Batch trigger an AWS Lambda function that creates and prints a shipping label
- C. Once that label is scanned
- D. as it leaves the warehouse, have another Lambda function move the process to the next step in the AWS Batch job.
- E. When a new order is created, store the order information in Amazon SQS

- F. Have AWS Lambda check the queue every 5 minutes and process any needed wor
- G. When an order needs to be shipped, have Lambda print the label in the warehous
- H. Once the label has been scanned, as it leaves the warehouse, have an Amazon EC2 instance update Amazon SOS.
- I. Update the application to store new order information in Amazon DynamoD
- J. When a new order is created, trigger an AWS Step Functions workflow, mark the orders as "in progress," and print a package label to the warehous
- K. Once the label has been scanned and fulfilled, the application will trigger an AWS Lambda function that will mark the order as shipped and complete the workflow.
- L. Store new order information in Amazon EF
- M. Have instances pull the new information from the NFS and send that information to printers in the warehous
- N. Once the label has been scanned, as it leaves the warehouse, have Amazon API Gateway call the instances to remove the order information from Amazon EFS.

**Answer: C**

#### NEW QUESTION 69

- (Exam Topic 1)

A company is migrating applications from on premises to the AWS Cloud. These applications power the company's internal web forms. These web forms collect data for specific events several times each quarter. The web forms use simple SQL statements to save the data to a local relational database.

Data collection occurs for each event, and the on-premises servers are idle most of the time. The company needs to minimize the amount of idle infrastructure that supports the web forms.

Which solution will meet these requirements?

- A. Use Amazon EC2 Image Builder to create AMIs for the legacy server
- B. Use the AMIs to provision EC2 instances to recreate the applications in the AWS.Cloud
- C. Place an Application Load Balancer (ALB) in front of the EC2 instance
- D. Use Amazon Route 53 to point the DNS names of the web forms to the ALB.
- E. Create one Amazon DynamoDB table to store data for all the data input Use the application form name as the table key to distinguish data item
- F. Create an Amazon Kinesis data stream to receive the data input and store the input in DynamoD
- G. Use Amazon Route 53 to point the DNS names of the web forms to the Kinesis data stream's endpoint.
- H. Create Docker images for each server of the legacy web form application
- I. Create an Amazon Elastic Container Service (Amazon ECS) cluster on AWS Fargat
- J. Place an Application Load Balancer in front of the ECS cluste
- K. Use Fargate task storage to store the web form data.
- L. Provision an Amazon Aurora Serverless cluste
- M. Build multiple schemas for each web form's data storag
- N. Use Amazon API Gateway and an AWS Lambda function to recreate the data input form
- O. Use Amazon Route 53 to point the DNS names of the web forms to their corresponding API Gateway endpoint.

**Answer: D**

#### Explanation:

Provision an Amazon Aurora Serverless cluster. Build multiple schemas for each web forms data storage. Use Amazon API Gateway and an AWS Lambda function to recreate the data input forms. Use Amazon Route 53 to point the DNS names of the web forms to their corresponding API Gateway endpoint.

#### NEW QUESTION 70

- (Exam Topic 1)

An ecommerce website running on AWS uses an Amazon RDS for MySQL DB instance with General Purpose SSD storage. The developers chose an appropriate instance type based on demand, and configured 100 GB of storage with a sufficient amount of free space.

The website was running smoothly for a few weeks until a marketing campaign launched. On the second day of the campaign, users reported long wait times and time outs. Amazon CloudWatch metrics indicated that both reads and writes to the DB instance were experiencing long response times. The CloudWatch metrics show 40% to 50% CPU and memory utilization, and sufficient free storage space is still available. The application server logs show no evidence of database connectivity issues.

What could be the root cause of the issue with the marketing campaign?

- A. It exhausted the I/O credit balance due to provisioning low disk storage during the setup phase.
- B. It caused the data in the tables to change frequently, requiring indexes to be rebuilt to optimize queries.
- C. It exhausted the maximum number of allowed connections to the database instance.
- D. It exhausted the network bandwidth available to the RDS for MySQL DB instance.

**Answer: A**

#### Explanation:

"When using General Purpose SSD storage, your DB instance receives an initial I/O credit balance of 5.4 million I/O credits. This initial credit balance is enough to sustain a burst performance of 3,000 IOPS for 30 minutes."

<https://aws.amazon.com/blogs/database/how-to-use-cloudwatch-metrics-to-decide-between-general-purpose-or>

#### NEW QUESTION 73

- (Exam Topic 2)

A life sciences company is using a combination of open source tools to manage data analysis workflows and Docker containers running on servers in its on-premises data center to process genomics data Sequencing data is generated and stored on a local storage area network (SAN), and then the data is processed. The research and development teams are running into capacity issues and have decided to re-architect their genomics analysis platform on AWS to scale based on workload demands and reduce the turnaround time from weeks to days

The company has a high-speed AWS Direct Connect connection Sequencers will generate around 200 GB of data for each genome, and individual jobs can take several hours to process the data with ideal compute capacity. The end result will be stored in Amazon S3. The company is expecting 10-15 job requests each day Which solution meets these requirements?

- A. Use regularly scheduled AWS Snowball Edge devices to transfer the sequencing data into AWS When AWS receives the Snowball Edge device and the data is loaded into Amazon S3 use S3 events to trigger an AWS Lambda function to process the data
- B. Use AWS Data Pipeline to transfer the sequencing data to Amazon S3 Use S3 events to trigger an Amazon EC2 Auto Scaling group to launch custom-AMI EC2 instances running the Docker containers to process the data

- C. Use AWS DataSync to transfer the sequencing data to Amazon S3 Use S3 events to trigger an AWS Lambda function that starts an AWS Step Functions workflow Store the Docker images in Amazon Elastic Container Registry (Amazon ECR) and trigger AWS Batch to run the container and process the sequencing data
- D. Use an AWS Storage Gateway file gateway to transfer the sequencing data to Amazon S3 Use S3 events to trigger an AWS Batch job that runs on Amazon EC2 instances running the Docker containers to process the data

**Answer: C**

#### NEW QUESTION 76

- (Exam Topic 2)

A company is migrating its marketing website and content management system from an on-premises data center to AWS. The company wants the AWS application to be deployed in a VPC with Amazon EC2 instances used for the web servers and an Amazon RDS instance for the database.

The company has a runbook document that describes the installation process of the on-premises system. The company would like to base the AWS system on the processes referenced in the runbook document. The runbook document describes the installation and configuration of the operating systems, network settings, the website, and content management system software on the servers After the migration is complete, the company wants to be able to make changes quickly to take advantage of other AWS features.

How can the application and environment be deployed and automated in AWS, while allowing for future changes?

- A. Update the runbook to describe how to create the VPC
- B. the EC2 instances and the RDS instance for the application by using the AWS Console Make sure that the rest of the steps in the runbook are updated to reflect any changes that may come from the AWS migration
- C. Write a Python script that uses the AWS API to create the VPC
- D. the EC2 instances and the RDS instance for the application Write shell scripts that implement the rest of the steps in the runbook Have the Python script copy and run the shell scripts on the newly created instances to complete the installation
- E. Write an AWS CloudFormation template that creates the VPC, the EC2 instances, and the RDS instance for the application Ensure that the rest of the steps in the runbook are updated to reflect any changes that may come from the AWS migration
- F. Write an AWS CloudFormation template that creates the VPC the EC2 instances, and the RDS instance for the application Include EC2 user data in the AWS CloudFormation template to install and configure the software.

**Answer: D**

#### NEW QUESTION 79

- (Exam Topic 2)

A development team is Deploying new APIs as serverless applications within a company. The team is currently using the AWS Management Console to provision Amazon API Gateway, AWS Lambda, and Amazon DynamoDB resources A solutions architect has been tasked with automating the future deployments of these serverless APIs

How can this be accomplished?

- A. Use AWS CloudFormation with a Lambda-backed custom resource to provision API Gateway Use the `MyDynamoDB::Table` and `AWS::Lambda::Function` resources to create the Amazon DynamoDB table and Lambda functions Write a script to automate the deployment of the CloudFormation template.
- B. Use the AWS Serverless Application Model to define the resources Upload a YAML template and application files to the code repository Use AWS CodePipeline to connect to the code repository and to create an action to build using AWS CodeBuild
- C. Use the AWS CloudFormation deployment provider in CodePipeline to deploy the solution.
- D. Use AWS CloudFormation to define the serverless application
- E. Implement versioning on the Lambda functions and create aliases to point to the version
- F. When deploying, configure weights to implement shifting traffic to the newest version, and gradually update the weights as traffic moves over
- G. Commit the application code to the AWS CodeCommit code repository
- H. Use AWS CodePipeline and connect to the CodeCommit code repository Use AWS CodeBuild to build and deploy the Lambda functions using AWS CodeDeploy Specify the deployment preference type in CodeDeploy to gradually shift traffic over to the new version.

**Answer: B**

#### NEW QUESTION 83

- (Exam Topic 2)

A retail company is running an application that stores invoice files in an Amazon S3 bucket and metadata about the files in an Amazon DynamoDB table. The application software runs in both us-east-1 and eu-west-1 The S3 bucket and DynamoDB table are in us-east-1. The company wants to protect itself from data corruption and loss of connectivity to either Region

Which option meets these requirements?

- A. Create a DynamoDB global table to replicate data between us-east-1 and eu-west-1. Enable continuous backup on the DynamoDB table in us-east-1. Enable versioning on the S3 bucket
- B. Create an AWS Lambda function triggered by Amazon CloudWatch Events to make regular backups of the DynamoDB table Set up S3 cross-region replication from us-east-1 to eu-west-1 Set up MFA delete on the S3 bucket in us-east-1.
- C. Create a DynamoDB global table to replicate data between us-east-1 and eu-west-1. Enable versioning on the S3 bucket Implement strict ACLs on the S3 bucket
- D. Create a DynamoDB global table to replicate data between us-east-1 and eu-west-1. Enable continuous backup on the DynamoDB table in us-east-1. Set up S3 cross-region replication from us-east-1 to eu-west-1.

**Answer: B**

#### NEW QUESTION 87

- (Exam Topic 2)

A company operates quick-service restaurants. The restaurants follow a predictable model with high sales traffic for 4 hours daily Sales traffic is lower outside of those peak hours.

The point of sale and management platform is deployed in the AWS Cloud and has a backend that is based on Amazon DynamoDB The database table uses provisioned throughput mode with 100,000 RCUs and 80,000 WCUs to match known peak resource consumption.

The company wants to reduce its DynamoDB cost and minimize the operational overhead for the IT staff. Which solution meets these requirements MOST cost-effectively?



- A. Reduce the provisioned RCUs and WCUs
- B. Change the DynamoDB table to use on-demand capacity
- C. Enable Dynamo DB auto seating for the table.
- D. Purchase 1-year reserved capacity that is sufficient to cover the peak load for 4 hours each day.

**Answer:** C

#### NEW QUESTION 89

- (Exam Topic 2)

A company wants to send data from its on-premises systems to Amazon S3 buckets. The company created the S3 buckets in three different accounts. The company must send the data privately without the data traveling across the internet. The company has no existing dedicated connectivity to AWS. Which combination of steps should a solutions architect take to meet these requirements? (Select TWO.)

- A. Establish a networking account in the AWS Cloud Create a private VPC in the networking account Set up an AWS Direct Connect connection with a private VIF between the on-premises environment and the private VPC
- B. Establish a networking account in the AWS Cloud Create a private VPC in the networking account Set up an AWS Direct Connect connection with a public VIF between the on-premises environment and the private VPC
- C. Create an Amazon S3 interface endpoint in the networking account
- D. Create an Amazon S3 gateway endpoint in the networking account
- E. Establish a networking account in the AWS Clou
- F. Create a private VPC in the networking account Peer VPCs from the accounts that host the S3 buckets with the VPC in the network account

**Answer:** AD

#### NEW QUESTION 90

- (Exam Topic 2)

A gaming company created a game leaderboard by using a Multi-AZ deployment of an Amazon RDS database. The number of users is growing, and the queries to get individual player rankings are getting slower over time. The company expects a surge in users for an upcoming version and wants to optimize the design for scalability and performance.

Which solution will meet these requirements?

- A. Migrate the database to Amazon DynamoD
- B. Store the leader different table
- C. Use Apache HiveQL JOIN statements to build the leaderboard
- D. Keep the leaderboard data in the RDS DB instanc
- E. Provision a Multi-AZ deployment of an Amazon ElastiCache for Redis cluster.
- F. Stream the leaderboard data by using Amazon Kinesis Data Firehose with an Amazon S3 bucket as the destinatio
- G. Query the S3 bucket by using Amazon Athena for the leaderboard.
- H. Add a read-only replica to the RDS DB instanc
- I. Add an RDS Proxy database proxy.

**Answer:** C

#### NEW QUESTION 91

- (Exam Topic 2)

A company is creating a sequel for a popular online game. A large number of users from all over the world will play the game within the first week after launch. Currently, the game consists of the following components deployed in a single AWS Region:

- Amazon S3 bucket that stores game assets
- Amazon DynamoDB table that stores player scores

A solutions architect needs to design a Region solution that will reduce latency, improve reliability, and require the least effort to implement.

What should the solutions architect do to meet these requirements?

- A. Create an Amazon CloudFront distribution to serve assets from the S3 bucket Configure S3Cross-Region Replication Create a new DynamoDB table in a new Region Use the new table as a replica target for DynamoDB global tables.
- B. Create an Amazon CloudFront distribution to serve assets from the S3 bucket
- C. Configure S3Same-Region Replication
- D. Create a new DynamoDB table in a new Region
- E. Configure asynchronous replication between the DynamoDB tables by using AWS Database Migration Service (AWS DMS) with change data capture (CDC)
- F. Create another S3 bucket in a new Region and configure S3 Cross-Region Replication between the buckets Create an Amazon CloudFront distribution and configure origin failover with two origins accessing the S3 buckets in each Region
- G. Configure DynamoDB global tables by enabling Amazon DynamoDB Streams, and add a replica table in a new Region.
- H. Create another S3 bucket in the same Region, and configure S3 Same-Region Replication between the buckets- Create an Amazon CloudFront distribution and configure origin failover with two origins accessing the S3 buckets Create a new DynamoDB table in a new Region Use the new table as a replica target for DynamoDB global tables.

**Answer:** B

#### NEW QUESTION 93

- (Exam Topic 2)

A company runs a software-as-a-service (SaaS) application on AWS. The application consists of an AWS Lambda function and an Amazon RDS for MySQL Multi-AZ database. During market events, the application has a much higher workload than normal. Users notice slow response times during the peak periods because of many database connections. The company needs to improve the scalable performance and availability of the database.

Which solution meets these requirements?

- A. Create an Amazon CloudWatch alarm action that triggers a Lambda function to add an Amazon RDS for MySQL read replica when resource utilization hits a threshold.
- B. Migrate the database to Amazon Aurora and add a read replica Add a database connection pool outside of the Lambda function.
- C. Migrate the database to Amazon Aurora and add a read replica
- D. Use Amazon Route 53 weighted records

- E. Migrate the database to Amazon Aurora and add an Aurora Replic
- F. Configure Amazon RDS Proxy to manage database connection pools.

**Answer:** D

#### NEW QUESTION 94

- (Exam Topic 2)

A company has an organization that has many AWS accounts in AWS Organizations A solutions architect must improve how the company manages common security group rules for the AWS accounts in the organization.

The company has a common set of IP CIDR ranges in an allow list in each AWS account to allow access to and from the company's on-premises network

Developers within each account are responsible for adding new IP CIDR ranges to their security groups. The security team has its own AWS account. Currently, the security team notifies the owners of the other AWS accounts when changes are made to the allow list.

The solutions architect must design a solution that distributes the common set of CIDR ranges across all accounts Which solution meets these requirements with the LEAST amount of operational overhead.

- A. Set up an Amazon Simple Notification Service (Amazon SNS) topic in the security team's AWS account Deploy an AWS Lambda function in each AWS account Configure the Lambda function to run every time an SNS topic receives a message Configure the Lambda function to take an IP address as input and add it to a list of security groups in the account Instruct the security team to distribute changes by publishing messages to its SNS topic
- B. Create new customer-managed prefix lists in each AWS account within the organization Populate the prefix lists in each account with all internal CIDR ranges Notify the owner of each AWS account to allow the new customer-managed prefix list IDs in their accounts in their security groups Instruct the security team to share updates with each AWS account owner.
- C. Create a new customer-managed prefix list in the security team's AWS account Populate the customer-managed prefix list with all internal CIDR range
- D. Share the customer-managed prefix list.... organization by using AWS Resource Access Manager Notify the owner of each AWS account to allow the new customer-managed prefix list ID in their security groups

**Answer:** A

#### NEW QUESTION 99

- (Exam Topic 2)

A company is running a serverless application that consists of several AWS Lambda functions and Amazon DynamoDB tables. The company has created new functionality that requires the Lambda functions to access an Amazon Neptune DB cluster The Neptune DB cluster is located in three subnets in a VPC.

Which of the possible solutions will allow the Lambda functions to access the Neptune DB cluster and DynamoDB tables? (Select TWO )

- A. Create three public subnets in the Neptune VPC and route traffic through an internet gateway Host the Lambda functions in the three new public subnets
- B. Create three private subnets in the Neptune VPC and route internet traffic through a NAT gateway Host the Lambda functions in the three new private subnets.
- C. Host the Lambda functions outside the VPC
- D. Update the Neptune security group to allow access from the IP ranges of the Lambda functions.
- E. Host the Lambda functions outside the VPC
- F. Create a VPC endpoint for the Neptune database, and have the Lambda functions access Neptune over the VPC endpoint
- G. Create three private subnets in the Neptune VPC
- H. Host the Lambda functions in the three new isolated subnet
- I. Create a VPC endpoint for DynamoDB
- J. and route DynamoDB traffic to the VPC endpoint

**Answer:** AC

#### NEW QUESTION 101

- (Exam Topic 2)

A solutions architect is working with a company that is extremely sensitive to its IT costs and wishes to implement controls that will result in a predictable AWS spend each month Which combination of steps can help the company control and monitor its monthly AWS usage to achieve a cost that is as close as possible to the target amount? (Select THREE.)

- A. Implement an IAM policy that requires users to specify a 'workload' tag for cost allocation when launching Amazon EC2 instances
- B. Contact AWS Support and ask that they apply limits to the account so that users are not able to launch more than a certain number of instance types
- C. Purchase all upfront Reserved Instances that cover 100% of the account's expected Amazon EC2 usage
- D. Place conditions in the users' IAM policies that limit the number of instances they are able to launch
- E. Define 'workload' as a cost allocation tag in the AWS Billing and Cost Management console
- F. Set up AWS Budgets to alert and notify when a given workload is expected to exceed a defined cost

**Answer:** AEF

#### NEW QUESTION 103

- (Exam Topic 2)

A company is using multiple AWS accounts The DNS records are stored in a private hosted zone for Amazon Route 53 in Account A The company's applications and databases are running in Account B.

A solutions architect will deploy a two-tier application in a new VPC To simplify the configuration, the db.example.com CNAME record set for the Amazon RDS endpoint was created in a private hosted zone for Amazon Route 53.

During deployment, the application failed to start. Troubleshooting revealed that db.example.com is not resolvable on the Amazon EC2 instance The solutions architect confirmed that the record set was created correctly in Route 53.

Which combination of steps should the solutions architect take to resolve this issue? (Select TWO )

- A. Deploy the database on a separate EC2 instance in the new VPC Create a record set for the instance's private IP in the private hosted zone
- B. Use SSH to connect to the application tier EC2 instance Add an RDS endpoint IP address to the /etc/resolv.conf file
- C. Create an authorization to associate the private hosted zone in Account A with the new VPC in Account B
- D. Create a private hosted zone for the example.com domain in Account B Configure Route 53 replication between AWS accounts
- E. Associate a new VPC in Account B with a hosted zone in Account A
- F. Delete the association authorization in Account A.

**Answer:** CE

**NEW QUESTION 108**

- (Exam Topic 2)

A company's solutions architect is reviewing a web application that runs on AWS. The application references static assets in an Amazon S3 bucket in the us-east-1 Region. The company needs resiliency across multiple AWS Regions. The company already has created an S3 bucket in a second Region.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Configure the application to write each object to both S3 bucket
- B. Set up an Amazon Route 53 public hosted zone with a record set by using a weighted routing policy for each S3 bucket
- C. Configure the application to reference the objects by using the Route 53 DNS name.
- D. Create an AWS Lambda function to copy objects from the S3 bucket in us-east-1 to the S3 bucket in the second Region
- E. Invoke the Lambda function each time an object is written to the S3 bucket in us-east-1. Set up an Amazon CloudFront distribution with an origin group that contains the two S3 buckets as origins.
- F. Configure replication on the S3 bucket in us-east-1 to replicate objects to the S3 bucket in the second Region Set up an Amazon CloudFront distribution with an origin group that contains the two S3 buckets as origins.
- G. Configure replication on the S3 bucket in us-east-1 to replicate objects to the S3 bucket in the second Region
- H. If failover is required, update the application code to load S3 objects from the S3 bucket in the second Region.

**Answer: D**

**NEW QUESTION 111**

- (Exam Topic 2)

A flood monitoring agency has deployed more than 10,000 water-level monitoring sensors. Sensors send continuous data updates, and each update is less than 1 MB in size. The agency has a fleet of on-premises application servers. These servers receive updates from the sensors, convert the raw data into a human readable format, and write the results to an on-premises relational database server. Data analysts then use simple SQL queries to monitor the data.

The agency wants to increase overall application availability and reduce the effort that is required to perform maintenance tasks. These maintenance tasks, which include updates and patches to the application servers, cause downtime. While an application server is down, data is lost from sensors because the remaining servers cannot handle the entire workload.

The agency wants a solution that optimizes operational overhead and costs. A solutions architect recommends the use of AWS IoT Core to collect the sensor data. What else should the solutions architect recommend to meet these requirements?

- A. Send the sensor data to Amazon Kinesis Data Firehose
- B. Use an AWS Lambda function to read the Kinesis Data Firehose data, convert it to .csv format, and insert it into an Amazon Aurora MySQL DB Instance
- C. Instruct the data analysts to query the data directly from the DB Instance.
- D. Send the sensor data to Amazon Kinesis Data Firehose
- E. Use an AWS Lambda function to read the Kinesis Data Firehose data, convert it to Apache Parquet format, and save it to an Amazon S3 bucket
- F. Instruct the data analysts to query the data by using Amazon Athena.
- G. Send the sensor data to an Amazon Kinesis Data Analytics application to convert the data to csv format and store it in an Amazon S3 bucket
- H. Import the data into an Amazon Aurora MySQL DB instance
- I. Instruct the data analysts to query the data directly from the DB instance
- J. Send the sensor data to an Amazon Kinesis Data Analytics application to convert the data to Apache Parquet format and store it in an Amazon S3 bucket
- K. Instruct the data analysts to query the data by using Amazon Athena.

**Answer: B**

**NEW QUESTION 115**

- (Exam Topic 2)

A company used Amazon EC2 instances to deploy a web fleet to host a blog site. The EC2 instances are behind an Application Load Balancer (ALB) and are configured in an Auto Scaling group. The web application stores all blog content on an Amazon EFS volume.

The company recently added a feature 'vlog' to add video to their posts, attracting 10 times the previous user traffic. At peak times of day, users report buffering and timeout issues while attempting to reach the site or watch videos.

Which is the MOST cost-efficient and scalable deployment that will resolve the issues for users?

- A. Reconfigure Amazon EFS to enable maximum I/O.
- B. Update the web site to use instance store volumes for storage
- C. Copy the site contents to the volumes at launch and to Amazon S3 at shutdown.
- D. Configure an Amazon CloudFront distribution
- E. Point the distribution to an S3 bucket, and migrate the videos from EFS to Amazon S3.
- F. Set up an Amazon CloudFront distribution for all site contents, and point the distribution at the ALB.

**Answer: C**

**NEW QUESTION 118**

- (Exam Topic 2)

A company has its cloud infrastructure on AWS. A solutions architect needs to define the infrastructure as code. The infrastructure is currently deployed in one AWS Region. The company's business expansion plan includes deployments in multiple Regions across multiple AWS accounts.

What should the solutions architect do to meet these requirements?

- A. Use AWS CloudFormation templates. Add IAM policies to control the various accounts. Deploy the templates across the multiple Regions.
- B. Use AWS Organizations. Deploy AWS CloudFormation templates from the management account. Use AWS Control Tower to manage deployments across accounts.
- C. Use AWS Organizations and AWS CloudFormation StackSets. Deploy a CloudFormation template from an account that has the necessary IAM permissions.
- D. Use nested stacks with AWS CloudFormation templates. Change the Region by using nested stacks.

**Answer: B**

**NEW QUESTION 120**

- (Exam Topic 2)

A company is using multiple AWS accounts. The company has a shared services account and several other accounts (or different projects).



A team has a VPC in a project account. The team wants to connect this VPC to a corporate network through an AWS Direct Connect gateway that exists in the shared services account. The team wants to automatically perform a virtual private gateway association with the Direct Connect gateway by using an already-tested AWS Lambda function while deploying its VPC networking stack. The Lambda function code can assume a role by using AWS Security Token Service (AWS STS). The team is using AWS Cloud Formation to deploy its infrastructure.

- A. Deploy the Lambda function to the project account
- B. Update the Lambda function's 1AM role with the directconnect:\* permission
- C. Create a cross-account 1AM role in the shared services account that grants the Lambda function the directconnect:\* permission
- D. Add the sts:AssumeRole permission to the 1AM role that is associated with the Lambda function in the shared services account.
- E. Add a custom resource to the Cloud Formation networking stack that references the Lambda function in the project account.
- F. Deploy the Lambda function that is performing the association to the shared services account
- G. Update the Lambda function's 1AM role with the directconnect:\* permission.
- H. Create a cross-account 1AM role in the shared services account that grants the sts: Assume Role permission to the Lambda function with the directconnect:\* permission acting as a resource
- I. Add the sts AssumeRole permission with this cross-account 1AM role as a resource to the 1AM role that belongs to the Lambda function in the project account.
- J. Add a custom resource to the Cloud Formation networking stack that references the Lambda function in the shared services account.

**Answer:** BCE

#### NEW QUESTION 122

- (Exam Topic 2)

A company has used infrastructure as code (IaC) to provision a set of two Amazon EC2 instances. The instances have remained the same for several years. The company's business has grown rapidly in the past few months. In response, the company's operations team has implemented an Auto Scaling group to manage the sudden increases in traffic. Company policy requires a monthly installation of security updates on all operating systems that are running. The most recent security update required a reboot. As a result the Auto Scaling group terminated the instances and replaced them with new, unpatched instances. Which combination of steps should a solutions architect recommend to avoid a recurrence of this issue? (Select TWO)

- A. Modify the Auto Scaling group by setting the Update policy to target the oldest launch configuration for replacement.
- B. Create a new Auto Scaling group before the next patch maintenance. During the maintenance window, patch both groups and reboot the instances.
- C. Create an Elastic Load Balancer in front of the Auto Scaling group. Configure monitoring to ensure that target group health checks return healthy after the Auto Scaling group replaces the terminated instances.
- D. Create automation scripts to patch an AMI.
- E. Update the launch configuration, and invoke an Auto Scaling instance refresh.
- F. Create an Elastic Load Balancer in front of the Auto Scaling group. Configure termination protection on the instances.

**Answer:** AC

#### NEW QUESTION 126

- (Exam Topic 2)

A company has several applications running in an on-premises data center. The data center runs a mix of Windows and Linux VMs managed by VMware vCenter. A solutions architect needs to create a plan to migrate the applications to AWS. However, the solutions architect discovers that the documentation for the applications is not up to date and that there are no complete infrastructure diagrams. The company's developers lack time to discuss their applications and current usage with the solutions architect. What should the solutions architect do to gather the required information?

- A. Deploy the AWS Server Migration Service (AWS SMS) connector using the OVA image on the VMware cluster to collect configuration and utilization data from the VMs.
- B. Use the AWS Migration Portfolio Assessment (MPA) tool to connect to each of the VMs to collect the configuration and utilization data.
- C. Install the AWS Application Discovery Service on each of the VMs to collect the configuration and utilization data.
- D. Register the on-premises VMs with the AWS Migration Hub to collect configuration and utilization data.

**Answer:** A

#### NEW QUESTION 129

- (Exam Topic 2)

A company is developing a new service that will be accessed using TCP on a static port. A solutions architect must ensure that the service is highly available, has redundancy across Availability Zones, and is accessible using the DNS name myservice.com, which is publicly accessible. The service must use fixed address assignments so other companies can add the addresses to their allow lists. Assuming that resources are deployed in multiple Availability Zones in a single Region, which solution will meet these requirements?

- A. Create Amazon EC2 instances with an Elastic IP address for each instance. Create a Network Load Balancer (NLB) and expose the static TCP port. Register EC2 instances with the NLB. Create a new name server record set named myservice.com, and assign the Elastic IP addresses of the EC2 instances to the record set. Provide the Elastic IP addresses of the EC2 instances to the other companies to add to their allow lists.
- B. Create an Amazon ECS cluster and a service definition for the application. Create and assign public IP addresses for the ECS cluster. Create a Network Load Balancer (NLB) and expose the TCP port. Create a target group and assign the ECS cluster name to the NLB. Create a new A record set named myservice.com and assign the public IP addresses of the ECS cluster to the record set. Provide the public IP addresses of the ECS cluster to the other companies to add to their allow lists.
- C. Create Amazon EC2 instances for the service. Create one Elastic IP address for each Availability Zone. Create a Network Load Balancer (NLB) and expose the assigned TCP port. Assign the Elastic IP addresses to the NLB for each Availability Zone. Create a target group and register the EC2 instances with the NLB. Create a new A (alias) record set named myservice.com, and assign the NLB DNS name to the record set.
- D. Create an Amazon ECS cluster and a service definition for the application. Create and assign public IP address for each host in the cluster. Create an Application Load Balancer (ALB) and expose the static TCP port. Create a target group and assign the ECS service definition name to the ALB. Create a new CNAME record set and associate the public IP addresses to the record set. Provide the Elastic IP addresses of the Amazon EC2 instances to the other companies to add to their allow lists.

**Answer:** C

#### NEW QUESTION 130

- (Exam Topic 2)

A company is migrating a legacy application from an on-premises data center to AWS. The application uses MangeDB as a key-value database According to the company's technical guidelines, all Amazon EC2 instances must be hosted in a private subnet without an internet connection In addition, all connectivity between applications and databases must be encrypted. The database must be able to scale based on demand

Which solution will meet these requirements?

- A. Create new Amazon DocumentDB (with MangeDB compatibility) tables for the application with Provisioned IOPS volumes Use the instance endpoint to connect to Amazon DocumentDB
- B. Create new Amazon DynamoDB tables for the application with on-demand capacity Use a gateway VPC endpoint for DynamoDB to connect lo the DynamoDB tables
- C. Create new Amazon DynamoDB tables for the application with on-demand capacity Use an interface VPC endpoint for DynamoDB to connect to the DynamoDB tables
- D. Create new Amazon DocumentDB (with MangeDB compatibility) tables for the application with Provisioned IOPS volumes Use the cluster endpoint to connect to Amazon DocumentDB

**Answer: C**

#### NEW QUESTION 132

- (Exam Topic 2)

A company is creating a sequel for a popular online game. A large number of users from all over the world will play the game within the first week after launch. Currently, the game consists of the following components deployed in a single AWS Region:

- Amazon S3 bucket that stores game assets
- Amazon DynamoDB table that stores player scores

A solutions architect needs to design a multi-Region solution that will reduce latency improve reliability, and require the least effort to implement

What should the solutions architect do to meet these requirements?

- A. Create an Amazon CloudFront distribution to serve assets from the S3 bucket Configure S3Cross-Region Replication Create a new DynamoDB able in a new Region Use the new table as a replica target tor DynamoDB global tables.
- B. Create an Amazon CloudFront distribution to serve assets from the S3 bucke
- C. Configure S3Same-Region Replicatio
- D. Create a new DynamoDB able m a new Regio
- E. Configure asynchronous replication between the DynamoDB tables by using AWS Database Migration Service (AWS DMS) with change data capture (CDC)
- F. Create another S3 bucket in a new Region and configure S3 Cross-Region Replication between the buckets Create an Amazon CloudFront distribution and configure origin failover with two origins accessing the S3 buckets in each Regio
- G. Configure DynamoDB global tables by enabling Amazon DynamoDB Streams, and add a replica table in a new Region.
- H. Create another S3 bucket in the same Region, and configure S3 Same-Region Replication between the buckets- Create an Amazon CloudFront distribution and configure origin failover with two origin accessing the S3 buckets Create a new DynamoDB table m a new Region Use the new table as a replica target for DynamoDB global tables.

**Answer: C**

#### NEW QUESTION 137

- (Exam Topic 2)

A company is using an Amazon EMR cluster to run its big data jobs The cluster's jobs are invoked by AWS

Step Functions Express Workflows that consume various Amazon Simple Queue Service (Amazon SQS) queues The workload of this solution is variable and unpredictable Amazon CloudWatch metrics show that the cluster's peak utilization is only 25% at times and that the cluster sits idle the rest of the time

A solutions architect must optimize the costs of the cluster without negatively impacting the time it takes to run the various jobs

What is the MOST cost-effective solution that meets these requirements?

- A. Modify the EMR cluster by turning on automatic scaling of the core nodes and task nodes with a custom policy that is based on cluster utilization Purchase Reserved Instance capacity to cover the master node.
- B. Modify the EMR cluster to use an instance fleet of Dedicated On-Demand Instances for the master node and core nodes, and to use Spot Instances for the task node
- C. Define target capacity for each node type to cover the load.
- D. Purchase Reserved Instances for the master node and core nodes Terminate all existing task nodes in the EMR cluster
- E. Modify the EMR cluster to use capacity-optimized Spot Instances and a diversified task flee
- F. Define target capacity for each node type with a mix of On-Demand Instances and Spot Instances.

**Answer: B**

#### NEW QUESTION 138

- (Exam Topic 2)

An auction website enables users to bid on collectible items The auction rules require that each bid is processed only once and in the order it was received The current implementation is based on a fleet of Amazon EC2 web servers that write bid records into Amazon Kinesis Data Streams A single 12 large instance has a cron job that runs the bid processor, which reads incoming bids from Kinesis Data Streams and processes each bid The auction site is growing in popularity, but users are complaining that some bids are not registering

Troubleshooting indicates that the bid processor is too slow during peak demand hours sometimes crashes while processing and occasionally loses track of which record is being processed

What changes should make the bid processing more reliable?

- A. Refactor the web application to use the Amazon Kinesis Producer Library (KPL) when posting bids to Kinesis Data Streams Refactor the bid processor to flag each record in Kinesis Data Streams as being unread processing and processed At the start of each bid processing run; scan Kinesis Data Streams for unprocessed records
- B. Refactor the web application to post each incoming bid to an Amazon SNS topic in place of Kinesis Data Streams Configure the SNS topic to trigger an AWS Lambda function that
- C. processes each bid as soon as a user submits it
- D. Refactor the web application to post each incoming bid to an Amazon SQS FIFO queue in place of Kinesis Data Streams Refactor the bid processor to continuously consume the SQS queue Place the bid processing EC2 instance in an Auto Scaling group with a minimum and a maximum size of 1
- E. Switch the EC2 instance type from t2 large to a larger general compute instance type Put the bid processor EC2 instances in an Auto Scaling group that scales out the number of EC2 instances running the bid processor based on the incomingRecords metric in Kinesis Data Streams

**Answer:** C

**Explanation:**

<https://aws.amazon.com/sqs/faqs/#:~:text=A%20single%20Amazon%20SQS%20message,20%2C000%20for%2>

**NEW QUESTION 140**

- (Exam Topic 2)

A company that uses AWS Organizations is creating several new AWS accounts. The company is setting up controls to properly allocate AWS costs to business units. The company must implement a solution to ensure that all resources include a tag that has a key of costcenter and a value from a predefined list of business units. The solution must send a notification each time a resource tag does not meet these criteria. The solution must not prevent the creation of resources. Which solution will meet these requirements with the LEAST operational overhead?

- A. Create an IAM policy for all actions that create AWS resource
- B. Add a condition to the policy that aws:RequestTag/costcenter must exist and must contain a valid business unit value
- C. Create an Amazon EventBridge (Amazon CloudWatch Events) rule that monitors IAM service events and Amazon EC2 service events for noncompliant tag policies
- D. Configure the rule to send notifications through Amazon Simple Notification Service (Amazon SNS).
- E. Create an IAM policy for all actions that create AWS resource
- F. Add a condition to the policy that awsResourceTag/costcenter must exist and must contain a valid business unit value
- G. Create an Amazon EventBridge (Amazon CloudWatch Events) rule that monitors IAM service events and Amazon EC2 service events for noncompliant tag policies
- H. Configure the rule to send notifications through Amazon Simple Notification Service (Amazon SNS).
- I. Create an organization tag policy that ensures that all resources have the costcenter tag with a valid business unit value
- J. Do not select the option to prevent operations when tags are noncompliant
- K. Create an Amazon EventBridge (Amazon CloudWatch Events) rule that monitors all events for noncompliant tag policies
- L. Configure the rule to send notifications through Amazon Simple Notification Service (Amazon SNS).
- M. Create an organization tag policy that ensures that all resources have the costcenter tag with a valid business unit value
- N. Select the option to prevent operations when tags are noncompliant
- O. Create an Amazon EventBridge (Amazon CloudWatch Events) rule that monitors all events for noncompliant tag policies
- P. Configure the rule to send notifications through Amazon Simple Notification Service (Amazon SNS).

**Answer:** B

**NEW QUESTION 143**

- (Exam Topic 2)

A company uses AWS Organizations to manage more than 1,000 AWS accounts. The company has created a new developer organization. There are 540 developer member accounts that must be moved to the new developer organization. All accounts are set up with all the required information so that each account can be operated as a standalone account.

Which combination of steps should a solutions architect take to move all of the developer accounts to the new developer organization? (Select THREE.)

- A. Call the MoveAccount operation in the Organizations API from the old organization's management account to migrate the developer accounts to the new developer organization.
- B. From the management account, remove each developer account from the old organization using the RemoveAccountFromOrganization operation in the Organizations API.
- C. From each developer account, remove the account from the old organization using the RemoveAccountFromOrganization operation in the Organizations API.
- D. Sign in to the new developer organization's management account and create a placeholder member account that acts as a target for the developer account migration.
- E. Call the InviteAccountToOrganization operation in the Organizations API from the new developer organization's management account to send invitations to the developer accounts.
- F. Have each developer sign in to their account and confirm to join the new developer organization.

**Answer:** BDE

**NEW QUESTION 146**

- (Exam Topic 2)

A company has an application. Once a month, the application creates a compressed file that contains every object within an Amazon S3 bucket. The total size of the objects before compression is 1 TB.

The application runs by using a scheduled cron job on an Amazon EC2 instance that has a 5 TB Amazon Elastic Block Store (Amazon EBS) volume attached. The application downloads all the files from the source S3 bucket to the EBS volume, compresses the file, and uploads the file to a target S3 bucket. Every invocation of the application takes 2 hours from start to finish.

Which combination of actions should a solutions architect take to OPTIMIZE costs for this application? (Select TWO.)

- A. Migrate the application to run as an AWS Lambda function. Use Amazon EventBridge (Amazon CloudWatch Events) to schedule the Lambda function to run once each month.
- B. Configure the application to download the source files by using streams. Direct the streams into a compression library. Direct the output of the compression library into a target object in Amazon S3.
- C. Configure the application to download the source files from Amazon S3 and save the files to local storage. Compress the files and upload them to Amazon S3.
- D. Configure the application to run as a container in AWS Fargate. Use Amazon EventBridge (Amazon CloudWatch Events) to schedule the task to run once each month.
- E. Provision an Amazon Elastic File System (Amazon EFS) file system. Attach the file system to the AWS Lambda function.

**Answer:** CD

**NEW QUESTION 149**

- (Exam Topic 2)

A company's security compliance requirements state that all Amazon EC2 images must be scanned for vulnerabilities and must pass a CVE assessment. A solutions architect is developing a mechanism to create security-approved AMIs that can be used by developers. Any new AMIs should go through an automated assessment process and be marked as approved before developers can use them. The approved images must be scanned every 30 days to ensure compliance. Which combination of steps should the solutions architect take to meet these requirements while following best practices? (Select TWO.)



- A. Use the AWS Systems Manager EC2 agent to run the CVE assessment on the EC2 instances launched from the AMIs that need to be scanned
- B. Use AWS Lambda to write automatic approval rules Store the approved AMI list in AWS Systems Manager Parameter Store Use Amazon EventBridge to trigger an AWS Systems Manager Automation document on all EC2 instances every 30 days.
- C. Use Amazon Inspector to run the CVE assessment on the EC2 instances launched from the AMIs that need to be scanned
- D. Use AWS Lambda to write automatic approval rules Store the approved AMI list in AWS Systems Manager Parameter Store Use a managed AWS Config rule for continuous scanning on all EC2 instances, and use AWS Systems Manager Automation documents for remediation
- E. Use AWS CloudTrail to run the CVE assessment on the EC2 instances launched from the AMIs that need to be scanned

**Answer:** BC

#### NEW QUESTION 150

- (Exam Topic 2)

A company is finalizing the architecture for its backup solution for applications running on AWS. All of the applications run on AWS and use at least two Availability Zones in each tier.

Company policy requires IT to durably store nightly backups of all its data in at least two locations: production and disaster recovery. The locations must be in different geographic regions. The company also needs the backup to be available to restore immediately at the production data center, and within 24 hours at the disaster recovery location backup processes must be fully automated.

What is the MOST cost-effective backup solution that will meet all requirements?

- A. Back up all the data to a large Amazon EBS volume attached to the backup media server in the production region
- B. Run automated scripts to snapshot these volumes nightly
- C. and copy these snapshots to the disaster recovery region.
- D. Back up all the data to Amazon S3 in the disaster recovery region Use a Lifecycle policy to move this data to Amazon Glacier in the production region immediately Only the data is replicated: remove the data from the S3 bucket in the disaster recovery region.
- E. Back up all the data to Amazon Glacier in the production region
- F. Set up cross-region replication of this data to Amazon Glacier in the disaster recovery region
- G. Set up a lifecycle policy to delete any data older than 60 days.
- H. Back up all the data to Amazon S3 in the production region
- I. Set up cross-region replication of this S3 bucket to another region and set up a lifecycle policy in the second region to immediately move this data to Amazon Glacier

**Answer:** D

#### NEW QUESTION 154

- (Exam Topic 2)

A company has automated the nightly retraining of its machine learning models by using AWS Step Functions. The workflow consists of multiple steps that use AWS Lambda. Each step can fail for various reasons, and any failure causes a failure of the overall workflow.

A review reveals that the retraining has failed multiple nights in a row without the company noticing the failure. A solutions architect needs to improve the workflow so that notifications are sent for all types of failures in the retraining process.

Which combination of steps should the solutions architect take to meet these requirements? (Select THREE.)

- A. Create an Amazon Simple Notification Service (Amazon SNS) topic with a subscription of type "Email" that targets the team's mailing list.
- B. Create a task named "Email" that forwards the input arguments to the SNS topic
- C. Add a Catch field to all Tasks
- D. Map
- E. and Parallel states that have a statement of "ErrorEquals": [ "states.all" ] and "Next": "Email".
- F. Add a new email address to Amazon Simple Email Service (Amazon SES). Verify the email address.
- G. Create a task named "Email" that forwards the input arguments to the SES email address
- H. Add a Catch field to all Task, Map, and Parallel states that have a statement of "ErrorEquals": [ "states.Bun time" ] and "Next": "Email".

**Answer:** BCD

#### NEW QUESTION 157

- (Exam Topic 2)

A company is currently using AWS CodeCommit for its source control and AWS CodePipeline for continuous integration The pipeline has a build stage for building the artifacts, which is then staged in an Amazon S3 bucket.

The company has identified various improvement opportunities in the existing process and a solutions architect has been given the following requirements

- Create a new pipeline to support feature development
  - Support feature development without impacting production applications
  - Incorporate continuous testing with unit tests
  - Isolate development and production artifacts
  - Support the capability to merge tested code into production code
- How should the solutions architect achieve these requirements?

- A. Trigger a separate pipeline from CodeCommit feature branches Use AWS CodeBuild for running unit tests Use CodeBuild to stage the artifacts within an S3 bucket in a separate testing account
- B. Trigger a separate pipeline from CodeCommit feature branches Use AWS Lambda for running unit tests Use AWS CodeDeploy to stage the artifacts within an S3 bucket in a separate testing account
- C. Trigger a separate pipeline from CodeCommit tags Use Jenkins for running unit tests Create a stage in the pipeline with S3 as the target for staging the artifacts within an S3 bucket in a separate testing account.
- D. Create a separate CodeCommit repository for feature development and use it to trigger the pipeline Use AWS Lambda for running unit tests Use AWS CodeBuild to stage the artifacts within different S3 buckets in the same production account

**Answer:** A

#### NEW QUESTION 161

- (Exam Topic 2)

A company is planning to host a web application on AWS and works to load balance the traffic across a group of Amazon EC2 instances. One of the security requirements is to enable end-to-end encryption in transit between the client and the web server.

Which solution will meet this requirement?

- A. Place the EC2 instances behind an Application Load Balancer (ALB). Provision an SSL certificate using AWS Certificate Manager (ACM), and associate the SSL certificate with the AL.
- B. Export the SSL certificate and install it on each EC2 instance.
- C. Configure the ALB to listen on port 443 and to forward traffic to port 443 on the instances.
- D. Associate the EC2 instances with a target group.
- E. Provision an SSL certificate using AWS Certificate Manager (ACM). Create an Amazon CloudFront distribution and configure it to use the SSL certificate. Set CloudFront to use the target group as the origin server.
- F. Place the EC2 instances behind an Application Load Balancer (ALB). Provision an SSL certificate using AWS Certificate Manager (ACM), and associate the SSL certificate with the AL.
- G. Provision a third-party SSL certificate and install it on each EC2 instance.
- H. Configure the ALB to listen on port 443 and to forward traffic to port 443 on the instances.
- I. Place the EC2 instances behind a Network Load Balancer (NLB). Provision a third-party SSL certificate and install it on the NLB and on each EC2 instance.
- J. Configure the NLB to listen on port 443 and to forward traffic to port 443 on the instances.

**Answer: C**

### NEW QUESTION 163

- (Exam Topic 2)

A solutions architect needs to implement a client-side encryption mechanism for objects that will be stored in a new Amazon S3 bucket. The solutions architect created a CMK that is stored in AWS Key Management Service (AWS KMS) for this purpose.

The solutions architect created the following IAM policy and attached it to an IAM role:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "DownloadUpload",
      "Action": [
        "s3:GetObject",
        "s3:GetObjectVersion",
        "s3:PutObject",
        "s3:PutObjectAcl"
      ],
      "Effect": "Allow",
      "Resource": "arn:aws:s3:::BucketName/*"
    },
    {
      "Sid": "KMSAccess",
      "Action": [
        "kms:Decrypt",
        "kms:Encrypt"
      ],
      "Effect": "Allow",
      "Resource": "arn:aws:kms:Region:Account:key/Key ID"
    }
  ]
}
```

During tests, the solutions architect was able to successfully get existing test objects in the S3 bucket. However, attempts to upload a new object resulted in an error message. The error message stated that the action was forbidden.

Which action must the solutions architect add to the IAM policy to meet all the requirements?

- A. kms:GenerateDataKey
- B. kms:GetKeyPolicy
- C. kms:GetPublicKey
- D. kms:Sign

**Answer: A**

### NEW QUESTION 166

- (Exam Topic 2)

A medical company is running an application in the AWS Cloud. The application simulates the effect of medical drugs in development.

The application consists of two parts: configuration and simulation. The configuration part runs in AWS Fargate containers in an Amazon Elastic Container Service (Amazon ECS) cluster. The simulation part runs on large, compute-optimized Amazon EC2 instances. Simulations can restart if they are interrupted.

The configuration part runs 24 hours a day with a steady load. The simulation part runs only for a few hours each night with a variable load. The company stores simulation results in Amazon S3, and researchers use the results for 30 days. The company must store simulations for 10 years and must be able to retrieve the simulations within 5 hours.

Which solution meets these requirements MOST cost-effectively?

- A. Purchase an EC2 Instance Savings Plan to cover the usage for the configuration part. Run the simulation part by using EC2 Spot Instances. Create an S3 Lifecycle policy to transition objects that are older than 30 days to S3 Intelligent-Tiering.
- B. Purchase an EC2 Instance Savings Plan to cover the usage for the configuration part and the simulation part. Create an S3 Lifecycle policy to transition objects that are older than 30 days to S3 Glacier.
- C. Purchase Compute Savings Plans to cover the usage for the configuration part. Run the simulation part by using EC2 Spot instances. Create an S3 Lifecycle policy to transition objects that are older than 30 days to S3 Glacier.
- D. Purchase Compute Savings Plans to cover the usage for the configuration part. Purchase EC2 Reserved Instances for the simulation part. Create an S3 Lifecycle policy to transition objects that are older than 30 days to S3 Glacier Deep Archive.

**Answer: C**

### NEW QUESTION 168

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