

SET 2: PRACTICE QUESTIONS ONLY

For training purposes, go directly to [Set 2: Practice Questions, Answers & Explanations](#)

QUESTION 1

A team of Developers are working on a shared project and need to be able to collaborate on code. The shared application code must be encrypted at rest, stored on a highly available and durable architecture, and support multiple versions and batch change tracking.

Which AWS service should the Developer use?

1. AWS CodeBuild
2. Amazon S3
3. AWS CodeCommit
4. AWS Cloud9

QUESTION 2

A Developer is creating a serverless application that will process sensitive data. The AWS Lambda function must encrypt all data that is written to /tmp storage at rest.

How should the Developer encrypt this data?

1. Configure Lambda to use an AWS KMS *customer managed* customer master key (CMK). Use the CMK to generate a data key and encrypt all data prior to writing to /tmp storage.
2. Attach the Lambda function to a VPC and encrypt Amazon EBS volumes at rest using the AWS managed CMK. Mount the EBS volume to /tmp.
3. Enable default encryption on an Amazon S3 bucket using an AWS KMS *customer managed* customer master key (CMK). Mount the S3 bucket to /tmp.
4. Enable secure connections over HTTPS for the AWS Lambda API endpoints using Transport Layer Security (TLS).

QUESTION 3

A serverless application uses an IAM role to authenticate and authorize access to an Amazon DynamoDB table. A Developer is troubleshooting access issues affecting the application. The Developer has access to the IAM role that the application is using.

Which of the following commands will help the Developer to test the role permissions using the AWS CLI?

1. `aws sts get-session-token`
2. `aws iam get-role-policy`
3. `aws sts assume-role`
4. `aws dynamodb describe-endpoints`

QUESTION 4

An application runs on a fleet of Amazon EC2 instances in an Auto Scaling group. The application stores data in an Amazon DynamoDB table and all instances make updates to the table. When querying data, EC2 instances sometimes retrieve stale data. The Developer needs to update the application to ensure the most up-to-date data is retrieved for all queries.

How can the Developer accomplish this?

1. Set the `ConsistentRead` parameter to true when calling `GetItem`.
2. Cache the database writes using Amazon DynamoDB Accelerator.
3. Use the `TransactWriteItems` API when issuing `PutItem` actions.
4. Use the `UpdateGlobalTable` API to create a global secondary index.

QUESTION 5

A Developer is deploying an application using Docker containers running on the Amazon Elastic Container Service (ECS). The Developer is testing application latency and wants to capture trace information between the microservices.

Which solution will meet these requirements?

1. Install the Amazon CloudWatch agent on the container image. Use the CloudWatch SDK to publish custom metrics from each of the microservices.
2. Install the AWS X-Ray daemon on each of the Amazon ECS instances.
3. Install the AWS X-Ray daemon locally on an Amazon EC2 instance and instrument the Amazon ECS microservices using the X-Ray SDK.
4. Create a Docker image that runs the X-Ray daemon, upload it to a Docker image repository, and then deploy it to the Amazon ECS cluster.

QUESTION 6

A Developer is building a WebSocket API using Amazon API Gateway. The payload sent to this API is JSON that includes an action key which can have multiple values. The Developer must integrate with different routes based on the value of the action key of the incoming JSON payload.

How can the Developer accomplish this task with the LEAST amount of configuration?

1. Create a separate stage for each possible value of the action key.
2. Set the value of the route selection expression to `$request.body.action`.
3. Create a mapping template to map the action key to an integration request.
4. Set the value of the route selection expression to `$default`.

QUESTION 7

A company uses Amazon DynamoDB to store sensitive data that must be encrypted. The company security policy mandates that data must be encrypted before it is submitted to DynamoDB.

How can a Developer meet these requirements?

1. Use the DynamoDB Encryption Client to enable end-to-end protection using client-side encryption.
2. Use the UpdateTable operation to switch to a customer managed customer master key (CMK).
3. Use AWS Certificate Manager (ACM) to create one certificate for each DynamoDB table.
4. Use the UpdateTable operation to switch to an AWS managed customer master key (CMK).

QUESTION 8

A company has deployed a REST API using Amazon API Gateway with a Lambda authorizer. The company needs to log who has accessed the API and how the caller accessed the API. They also require logs that include errors and execution traces for the Lambda authorizer.

Which combination of actions should the Developer take to meet these requirements? (Select TWO.)

1. Enable API Gateway execution logging.
2. Enable API Gateway access logs.
3. Enable detailed logging in Amazon CloudWatch.
4. Create an API Gateway usage plan.
5. Enable server access logging.

QUESTION 9

A company runs a popular website behind an Amazon CloudFront distribution that uses an Application Load Balancer as the origin. The Developer wants to set up custom HTTP responses to 404 errors for content that has been removed from the origin that redirects the users to another page.

The Developer wants to use an AWS Lambda@Edge function that is associated with the current CloudFront distribution to accomplish this goal. The solution must use a minimum amount of resources.

Which CloudFront event type should the Developer use to invoke the Lambda@Edge function that contains the redirect logic?

1. Viewer request
2. Viewer response
3. Origin request
4. Origin response

QUESTION 10

A Developer is creating a serverless application. The application looks up information about a customer using a separate Lambda function for each item such as address and phone number. The Developer has created branches in AWS Step Functions for each lookup function.

How can the Developer optimize the performance, so the lookups complete faster?

1. Use a Parallel state to iterate over all the branches parallel.
2. Use a Choice state to lookup the specific information required.
3. Use a Wait state to reduce the wait time for function execution.
4. Use a Map state to iterate over all the items.

QUESTION 11

A CloudFormation template is going to be used by a global team to deploy infrastructure in several regions around the world. Which section of the template file can be used to set values based on a region?

1. Metadata
2. Parameters
3. Conditions
4. Mappings

QUESTION 12

An application searches a DynamoDB table to return items based on primary key attributes. A developer noticed some **ProvisionedThroughputExceeded** exceptions being generated by DynamoDB.

How can the application be optimized to reduce the load on DynamoDB and use the LEAST amount of RCU?

1. Modify the application to issue query API calls with eventual consistency reads
2. Modify the application to issue scan API calls with eventual consistency reads
3. Modify the application to issue query API calls with strong consistency reads
4. Modify the application to issue scan API calls with strong consistency reads

QUESTION 13

A developer needs use the attribute of an Amazon S3 object that uniquely identifies the object in a bucket. Which of the following represents an Object Key?

1. s3://dctlabs/Development/Projects.xls
2. Development/Projects.xls
3. Project=Blue
4. arn:aws:s3:::dctlabs

QUESTION 14

A developer has created an Amazon API Gateway with caching enabled in front of AWS Lambda. For some requests, it is necessary to ensure the latest data is received from the endpoint. How can the developer ensure the data is not stale?

1. Send requests with the **Cache-Control: max-age=0** header
2. Modify the TTL on the cache to a lower number
3. The cache must be disabled
4. Send requests with the **Cache-Delete: max-age=0** header

QUESTION 15

A developer needs to add sign-up and sign-in capabilities for a mobile app. The solution should integrate with social identity providers (IdPs) and SAML IdPs. Which service should the developer use?

1. AWS Cognito user pool
2. AWS Cognito identity pool
3. API Gateway with a Lambda authorizer
4. AWS IAM and STS

QUESTION 16

An application is deployed using AWS Elastic Beanstalk and uses a Classic Load Balancer (CLB). A developer is performing a blue/green migration to change to an Application Load Balancer (ALB).

After deployment, the developer has noticed that customers connecting to the ALB need to re-authenticate every time they connect. Normally they would only authenticate once and then be able to reconnect without re-authenticating for several hours.

How can the developer resolve this issue?

1. Enable IAM authentication on the ALBs listener
2. Add a new SSL certificate to the ALBs listener
3. Change the load balancing algorithm on the target group to "least outstanding requests"
4. Enable Sticky Sessions on the target group

QUESTION 17

A DynamoDB table is being used to store session information for users of an online game. A developer has noticed that the table size has increased considerably and much of the data is not required after a gaming session is completed.

What is the MOST cost-effective approach to reducing the size of the table?

1. Use the **batch-write-item** API to delete the data
2. Create an AWS Lambda function that purges stale items from the table daily
3. Enable a Time To Live (TTL) on the table and add a timestamp attribute on new items
4. Use the **delete-item** API to delete the data

QUESTION 18

A developer created an operational dashboard for a serverless application using Amazon API Gateway, AWS Lambda, Amazon S3, and Amazon DynamoDB. Users will connect to the dashboard from a variety of mobile applications, desktops and tablets.

The developer needs an authentication mechanism that can allow users to sign-in and will remember the devices users sign in from and suppress the second factor of authentication for remembered devices. Which AWS service should the developer use to support this scenario?

1. Amazon Cognito
2. AWS Directory Service
3. AWS KMS
4. Amazon IAM

QUESTION 19

A developer is designing a web application that will run on Amazon EC2 Linux instances using an Auto Scaling Group. The application should scale based on a threshold for the number of users concurrently using the application.

How should the Auto Scaling Group be configured to scale out?

1. Create a custom Amazon CloudWatch metric for concurrent users
2. Use the Amazon CloudWatch metric "NetworkIn"
3. Use a target tracking scaling policy
4. Create a custom Amazon CloudWatch metric for memory usage

QUESTION 20

A Developer is creating an application and would like add AWS X-Ray to trace user requests end-to-end through the software stack. The Developer has implemented the changes and tested the application and the traces are successfully sent to X-Ray. The Developer then deployed the application on an Amazon EC2 instance, and noticed that the traces are not being sent to X-Ray.

What is the most likely cause of this issue? (Select TWO.)

1. The X-Ray API is not installed on the EC2 instance
2. The instance's instance profile role does not have permission to upload trace data to X-Ray
3. The traces are reaching X-Ray, but the Developer does not have permission to view the records

4. The X-Ray daemon is not installed on the EC2 instance.
5. The X-Ray segments are being queued

QUESTION 21

A Developer needs to manage AWS services from a local development server using the AWS CLI. How can the Developer ensure that the CLI uses their IAM permissions?

1. Create an IAM Role with the required permissions and attach it to the local server's instance profile
2. Put the Developer's IAM user account in an IAM group that has the necessary permissions
3. Save the Developer's IAM login credentials as environment variables and reference them when executing AWS CLI commands
4. Run the aws configure command and provide the Developer's IAM access key ID and secret access key

QUESTION 22

A Developer is creating an application that will process some data and generate an image file from it. The application will use an AWS Lambda function which will require 150 MB of temporary storage while executing. The temporary files will not be needed after the function execution is completed.

What is the best location for the Developer to store the files?

1. Store the files in Amazon S3 and use a lifecycle policy to delete the files automatically
2. Store the files in the /tmp directory and delete the files when the execution completes
3. Store the files in an Amazon Instance Store and delete the files when the execution completes
4. Store the files in an Amazon EFS filesystem and delete the files when the execution completes

QUESTION 23

AWS CodeBuild builds code for an application, creates the Docker image, pushes the image to Amazon Elastic Container Registry (Amazon ECR), and tags the image with a unique identifier.

If the Developers already have AWS CLI configured on their workstations, how can the Docker images be pulled to the workstations?

1. Run the following: `docker pull REPOSITORY_URI : TAG`
2. Run the output of the following: `aws ecr get-login` and then run: `docker pull REPOSITORY_URI : TAG`
3. Run the following: `aws ecr get-login` and then run: `docker pull REPOSITORY_URI : TAG`
4. Run the output of the following: `aws ecr get-download-url-for-layer` and then run: `docker pull REPOSITORY_URI : TAG`

QUESTION 24

A company recently migrated a multi-tier application to AWS. The web tier runs on an Auto Scaling group of Amazon EC2 instances and the database tier uses Amazon DynamoDB. The database tier requires extremely high performance and most requests are repeated read requests.

What service can be used to scale the database tier for BEST performance?

1. Amazon CloudFront
2. Amazon ElastiCache
3. Amazon DynamoDB Accelerator (DAX)
4. Amazon SQS

QUESTION 25

A company runs multiple microservices that each use their own Amazon DynamoDB table. The "customers" microservice needs data that originates in the "orders" microservice.

What approach represents the SIMPLEST method for the "customers" table to get near real-time updates from the "orders" table?

1. Enable Amazon DynamoDB streams on the "orders" table, configure the "customers" microservice to read records from the stream
2. Use Amazon CloudWatch Events to send notifications every time an item is added or modified in the "orders" table
3. Use Amazon Kinesis Firehose to deliver all changes in the "orders" table to the "customers" table

4. Enable DynamoDB streams for the “customers” table, trigger an AWS Lambda function to read records from the stream and write them to the “orders” table

QUESTION 26

A company manages a web application that is deployed on AWS Elastic Beanstalk. A Developer has been instructed to update to a new version of the application code. There is no tolerance for downtime if the update fails and rollback should be fast.

What is the SAFEST deployment method to use?

1. All at once
2. Rolling
3. Rolling with Additional Batch
4. Immutable

QUESTION 27

A Lambda function is taking a long time to complete. The Developer has discovered that inadequate compute capacity is being allocated to the function. How can the Developer ensure that more compute capacity is allocated to the function?

1. Allocate more memory to the function
2. Use an instance type with more CPU
3. Increase the maximum execution time
4. Increase the reserved concurrency

QUESTION 28

A Developer is configuring an Amazon ECS Service with Auto Scaling. The tasks should scale based on user load in the previous 20 seconds. How can the Developer enable the scaling?

1. Create a high-resolution custom Amazon CloudWatch metric for user activity data, then publish data every 10 seconds
2. Create a high-resolution custom Amazon CloudWatch metric for user activity data, then publish data every 5 seconds
3. Create a standard-resolution custom Amazon CloudWatch metric for user activity data, then publish data every 30 seconds
4. Create a standard-resolution custom Amazon CloudWatch metric for user activity data, then publish data every 5 seconds

QUESTION 29

An application exports documents to an Amazon S3 bucket. The data must be encrypted at rest and company policy mandates that encryption keys must be rotated annually. How can this be achieved automatically and with the LEAST effort?

1. Use AWS KMS keys with automatic rotation enabled
2. Import a custom key into AWS KMS and configure automatic rotation
3. Encrypt the data within the application before writing to S3
4. Configure automatic rotation with AWS Secrets Manager

QUESTION 30

A Development team are currently creating a new application that uses a microservices design pattern and runs on Docker containers. The team would like to run the platform on AWS using a managed platform. They want minimize management overhead for the platform. Which service should the Development team use?

- Amazon ECS with EC2 launch type
- Amazon ECS with Fargate launch type
- Amazon Elastic Kubernetes Service (EKS)
- AWS Lambda

QUESTION 31

A company is using Amazon API Gateway to manage access to a set of microservices implemented as AWS Lambda functions. The company has made some minor changes to one of the APIs. The company wishes to give existing customers

using the API up to 6 months to migrate from version 1 to version 2.

What approach should a Developer use to implement the change?

1. Update the underlying Lambda function and provide clients with the new Lambda invocation URL
2. Use API Gateway to automatically propagate the change to clients, specifying 180 days in the phased deployment parameter
3. Use API Gateway to deploy a new stage named v2 to the API and provide users with its URL
4. Update the underlying Lambda function, create an Amazon CloudFront distribution with the updated Lambda function as its origin

QUESTION 32

A Developer has completed some code updates and needs to deploy the updates to an Amazon Elastic Beanstalk environment. The update must be deployed in the fastest possible time and application downtime is acceptable.

Which deployment policy should the Developer choose?

1. All at once
2. Rolling
3. Rolling with additional batch
4. Immutable

QUESTION 33

A Developer is creating a DynamoDB table for storing transaction logs. The table has 10 write capacity units (WCUs). The Developer needs to configure the read capacity units (RCUs) for the table in order to MAXIMIZE the number of requests allowed per second. Which of the following configurations should the Developer use?

1. Eventually consistent reads of 5 RCUs reading items that are 4 KB in size
2. Strongly consistent reads of 5 RCUs reading items that are 4 KB in size
3. Eventually consistent reads of 15 RCUs reading items that are 1 KB in size
4. Strongly consistent reads of 15 RCUs reading items that are 1KB in size

QUESTION 34

A Developer is attempting to call the Amazon CloudWatch API and is receiving **HTTP 400: ThrottlingException** errors intermittently. When a call fails, no data is retrieved.

What best practice should the Developer first attempt to resolve this issue?

1. Contact AWS Support for a limit increase
2. Use the AWS CLI to get the metrics
3. Analyze the applications and remove the API call
4. Retry the call with exponential backoff

QUESTION 35

A Developer is using AWS SAM to create a template for deploying a serverless application. The Developer plans to leverage an application from the AWS Serverless Application Repository in the template as a nested application.

Which resource type should the Developer specify?

1. **AWS::Serverless::Application**
2. **AWS::Serverless::Function**
3. **AWS::Serverless::HttpApi**
4. **AWS::Serverless::SimpleTable**

QUESTION 36

A Developer needs to be notified by email for all new object creation events in a specific Amazon S3 bucket. Amazon SNS will be used for sending the messages. How can the Developer enable these notifications?

1. Create an event notification for all **s3:ObjectCreated:Put** API calls
2. Create an event notification for all **s3:ObjectRemoved:Delete** API calls

3. Create an event notification for all `s3:ObjectRestore:Post` API calls
4. Create an event notification for all `s3:ObjectCreated:*` API calls

QUESTION 37

An application will be hosted on the AWS Cloud. Developers will be using an Agile software development methodology with regular updates deployed through a continuous integration and delivery (CI/CD) model. Which AWS service can assist the Developers with automating the build, test, and deploy phases of the release process every time there is a code change?

1. AWS CodeBuild
2. AWS CloudFormation
3. AWS Elastic Beanstalk
4. AWS CodePipeline

QUESTION 38

A Developer is creating a design for an application that will include Docker containers on Amazon ECS with the EC2 launch type. The Developer needs to control the placement of tasks onto groups of container instances organized by availability zone and instance type.

Which Amazon ECS feature provides expressions that can be used to group container instances by the relevant attributes?

1. Cluster Query Language
2. Task Group
3. Task Placement Constraints
4. Task Placement Strategy

QUESTION 39

An organization has an account for each environment: Production, Testing, Development. A Developer with an IAM user in the Development account needs to launch resources in the Production and Testing accounts. What is the MOST efficient way to provide access?

1. Create a role with the required permissions in the Production and Testing accounts and have the Developer assume that role
2. Create a separate IAM user in each account and have the Developer login separately to each account
3. Create an IAM group in the Production and Testing accounts and add the Developer's user from the Development account to the groups
4. Create an IAM permissions policy in the Production and Testing accounts and reference the IAM user in the Development account

QUESTION 40

An application running on Amazon EC2 generates a large number of small files (1KB each) containing personally identifiable information that must be converted to ciphertext. The data will be stored on a proprietary network-attached file system. What is the SAFEST way to encrypt the data using AWS KMS?

1. Create a data encryption key from a customer master key and encrypt the data with the data encryption key
2. Encrypt the data directly with a customer managed customer master key
3. Create a data encryption key from a customer master key and encrypt the data with the customer master key
4. Encrypt the data directly with an AWS managed customer master key

QUESTION 41

A new application will be deployed using AWS CodeDeploy to Amazon Elastic Container Service (ECS). What must be supplied to CodeDeploy to specify the ECS service to deploy?

1. The AppSpec file
2. The BuildSpec file
3. The Template file
4. The Policy file

QUESTION 42

An application requires an in-memory caching engine. The cache should provide high availability as repopulating data is expensive. How can this requirement be met?

1. Use Amazon ElastiCache Redis with replicas
2. Use Amazon ElastiCache Memcached with partitions
3. Amazon RDS with a Read Replica
4. Amazon Aurora with a Global Database

QUESTION 43

A new application will be hosted on the domain name dctlabs.com using an Amazon API Gateway REST API front end. The Developer needs to configure the API with a path to dctlabs.com/products that will be accessed using the HTTP GET verb. How MUST the Developer configure the API? (Select TWO.)

1. Create a /products method
2. Create a /products resource
3. Create a GET resource
4. Create a GET method
5. Create a /GET method

QUESTION 44

An application is hosted in AWS Elastic Beanstalk and is connected to a database running on Amazon RDS MySQL. A Developer needs to instrument the application to trace database queries and calls to downstream services using AWS X-Ray.

How can the Developer enable tracing for the application?

1. Enable active tracing in the Elastic Beanstalk console
2. Add a `xray-daemon.config` file to the root of the source code to enable the X-Ray daemon
3. Add a `.ebextensions/xray-daemon.config` file to the source code to enable the X-Ray daemon
4. Enable X-Ray tracing using an AWS Lambda function

QUESTION 45

A Developer implemented a static website hosted in Amazon S3 that makes web service requests hosted in Amazon API Gateway and AWS Lambda. The site is showing an error that reads:

“No ‘Access-Control-Allow-Origin’ header is present on the requested resource. Origin ‘null’ is therefore not allowed access.”

What should the Developer do to resolve this issue?

1. Enable cross-origin resource sharing (CORS) on the S3 bucket
2. Enable cross-origin resource sharing (CORS) for the method in API Gateway
3. Add the Access-Control-Request-Method header to the request
4. Add the Access-Control-Request-Headers header to the request

QUESTION 46

A company runs an e-commerce website that uses Amazon DynamoDB where pricing for items is dynamically updated in real time. At any given time, multiple updates may occur simultaneously for pricing information on a particular product. This is causing the original editor’s changes to be overwritten without a proper review process.

Which DynamoDB write option should be selected to prevent this overwriting?

1. Concurrent writes
2. Conditional writes
3. Atomic writes
4. Batch writes

QUESTION 47

A company is using Amazon RDS MySQL instances for its application database tier and apache Tomcat servers for its web tier. Most of the database queries from web applications are repeated read requests.

A Developer plans to add an in-memory store to improve performance for repeated read requests. Which AWS service would BEST fit these requirements?

1. Amazon RDS Multi-AZ
2. Amazon SQS
3. Amazon ElastiCache
4. Amazon RDS read replica

QUESTION 48

An application that runs on an Amazon EC2 instance needs to access and make API calls to multiple AWS services.

What is the MOST secure way to provide access to the AWS services with MINIMAL management overhead?

1. Use AWS KMS to store and retrieve credentials
2. Use EC2 instance profiles
3. Use AWS root user to make requests to the application
4. Store and retrieve credentials from AWS CodeCommit

QUESTION 49

A company maintains a REST API service using Amazon API Gateway with native API key validation. The company recently launched a new registration page, which allows users to sign up for the service. The registration page creates a new API key using `CreateApiKey` and sends the new key to the user. When the user attempts to call the API using this key, the user receives a 403 Forbidden error. Existing users are unaffected and can still call the API.

What code updates will grant these new users' access to the API?

1. The `createDeployment` method must be called so the API can be redeployed to include the newly created API key
2. The `updateAuthorizer` method must be called to update the API's authorizer to include the newly created API key
3. The `importApiKeys` method must be called to import all newly created API keys into the current stage of the API
4. The `createUsagePlanKey` method must be called to associate the newly created API key with the correct usage plan

QUESTION 50

A Developer has deployed an application that runs on an Auto Scaling group of Amazon EC2 instances. The application data is stored in an Amazon DynamoDB table and records are constantly updated by all instances. An instance sometimes retrieves old data. The Developer wants to correct this by making sure the reads are strongly consistent.

How can the Developer accomplish this?

1. Set `ConsistentRead` to `true` when calling `GetItem`
2. Create a new DynamoDB Accelerator (DAX) table
3. Set consistency to strong when calling `UpdateTable`
4. Use the `GetShardIterator` command

QUESTION 51

A Developer created a new AWS account and must create a scalable AWS Lambda function that meets the following requirements for concurrent execution:

- Average execution time of 100 seconds
- 50 requests per second

Which step must be taken prior to deployment to prevent errors?

1. Implement dead-letter queues to capture invocation errors
2. Add an event source from Amazon API Gateway to the Lambda function
3. Implement error handling within the application code
4. Contact AWS Support to increase the concurrent execution limits

QUESTION 52

A company is developing a new online game that will run on top of Amazon ECS. Four distinct Amazon ECS services will be part of the architecture, each requiring specific permissions to various AWS services. The company wants to optimize the use of the

underlying Amazon EC2 instances by bin packing the containers based on memory reservation.

Which configuration would allow the Development team to meet these requirements MOST securely?

1. Create a new Identity and Access Management (IAM) instance profile containing the required permissions for the various ECS services, then associate that instance role with the underlying EC2 instances
2. Create four distinct IAM roles, each containing the required permissions for the associated ECS services, then configure each ECS service to reference the associated IAM role
3. Create four distinct IAM roles, each containing the required permissions for the associated ECS services, then, create an IAM group and configure the ECS cluster to reference that group
4. Create four distinct IAM roles, each containing the required permissions for the associated ECS services, then configure each ECS task definition to reference the associated IAM role

QUESTION 53

A utilities company needs to ensure that documents uploaded by customers through a web portal are securely stored in Amazon S3 with encryption at rest. The company does not want to manage the security infrastructure in-house. However, the company still needs maintain control over its encryption keys due to industry regulations.

Which encryption strategy should a Developer use to meet these requirements?

1. Server-side encryption with Amazon S3 managed keys (SSE-S3)
2. Server-side encryption with customer-provided encryption keys (SSE-C)
3. Server-side encryption with AWS KMS managed keys (SSE-KMS)
4. Client-side encryption

QUESTION 54

A Developer is creating a REST service using Amazon API Gateway with AWS Lambda integration. The service adds data to a spreadsheet and the data is sent as query string parameters in the method request.

How should the Developer convert the query string parameters to arguments for the Lambda function?

1. Enable request validation
2. Include the Amazon Resource Name (ARN) of the Lambda function
3. Change the integration type
4. Create a mapping template

QUESTION 55

A Development team would like to migrate their existing application code from a GitHub repository to AWS CodeCommit.

What needs to be created before they can migrate a cloned repository to CodeCommit over HTTPS?

1. A GitHub secure authentication token
2. A public and private SSH key file
3. A set of credentials generated from IAM
4. An Amazon EC2 IAM role with CodeCommit permissions

QUESTION 56

A team of Developers need to deploy a website for a development environment. The team do not want to manage the infrastructure and just need to upload Node.js code to the instances.

Which AWS service should Developers do?

1. Create an AWS CloudFormation template
2. Create an AWS Elastic Beanstalk environment
3. Create an AWS Lambda package
4. Launch an Auto Scaling group of Amazon EC2 instances

QUESTION 57

A Developer is launching an application on Amazon ECS. The application should scale tasks automatically based on load and incoming connections must be spread across the containers.

How should the Developer configure the ECS cluster?

1. Create an ECS Service with Auto Scaling and attach an Elastic Load Balancer
2. Create an ECS Task Definition that uses Auto Scaling and Elastic Load Balancing
3. Create a capacity provider and configure cluster auto scaling
4. Write statements using the Cluster Query Language to scale the Docker containers

QUESTION 58

An Amazon DynamoDB table has been created using provisioned capacity. A manager needs to understand whether the DynamoDB table is cost-effective. How can the manager query how much provisioned capacity is actually being used?

1. Monitor the **ConsumedReadCapacityUnits** and **ConsumedWriteCapacityUnits** over a specified time period
2. Monitor the **ReadThrottleEvents** and **WriteThrottleEvents** metrics for the table
3. Use Amazon CloudTrail and monitor the **DescribeLimits** API action
4. Use AWS X-Ray to instrument the DynamoDB table and monitor subsegments

QUESTION 59

A static website that serves a collection of images runs from an Amazon S3 bucket in the us-east-1 region. The website is gaining in popularity and is now being viewed around the world. How can a Developer improve the performance of the website for global users?

1. Use cross region replication to replicate the bucket to several global regions
2. Use Amazon S3 Transfer Acceleration to improve the performance of the website
3. Use Amazon ElastiCache to cache the website content
4. Use Amazon CloudFront to cache the website content

QUESTION 60

A customer requires a relational database for a transactional workload. Which type of AWS database is BEST suited to this requirement?

1. Amazon RDS
2. Amazon RedShift
3. Amazon DynamoDB
4. Amazon ElastiCache

QUESTION 61

A Developer is developing a web application and will maintain separate sets of resources for the alpha, beta, and release stages. Each version runs on Amazon EC2 and uses an Elastic Load Balancer.

How can the Developer create a single page to view and manage all of the resources?

1. Create a resource group
2. Deploy all resources using a single Amazon CloudFormation stack
3. Create an AWS Elastic Beanstalk environment for each stage
4. Create a single AWS CodeDeploy deployment

QUESTION 62

A temporary Developer needs to be provided with access to specific resources for a one week period. Which element of an IAM policy statement can be used to allow access only on or before a specific date?

1. **Condition**
2. **NotResource**
3. **Action**
4. **Version**

QUESTION 63

A Developer has created an Amazon S3 bucket and uploaded some objects that will be used for a publicly available static website. What steps MUST be performed to configure the bucket as a static website? (Select TWO.)

1. Upload an index and error document and enter the name of the index and error documents when enabling static website hosting
2. Upload an index document and enter the name of the index document when enabling static website hosting
3. Enable public access and grant everyone the **s3:GetObject** permissions
4. Create an object access control list (ACL) granting **READ** permissions to the **AllUsers** group
5. Upload a certificate from AWS Certificate Manager

QUESTION 64

There are multiple AWS accounts across multiple regions managed by a company. The operations team require a single operational dashboard that displays some key performance metrics from these accounts and regions. What is the SIMPLEST solution?

1. Create an Amazon CloudWatch cross-account cross-region dashboard
2. Create an Amazon CloudWatch dashboard in one account and region and import the data from the other accounts and regions
3. Create an AWS Lambda function that collects metrics from each account and region and pushes the metrics to the account where the dashboard has been created
4. Create an Amazon CloudTrail trail that applies to all regions and deliver the logs to a single Amazon S3 bucket. Create a dashboard using the data in the bucket

QUESTION 65

Customers who use a REST API have reported performance issues. A Developer needs to measure the time between when API Gateway receives a request from a client and when it returns a response to the client.

Which metric should the Developer monitor?

1. IntegrationLatency
2. Latency
3. CacheHitCount
4. 5XXError