

# Exam Questions AWS-Certified-Developer-Associate

Amazon AWS Certified Developer - Associate

<https://www.2passeasy.com/dumps/AWS-Certified-Developer-Associate/>



### NEW QUESTION 1

- (Exam Topic 1)

A Developer needs temporary access to resources in a second account. What is the MOST secure way to achieve this?

- A. Use the Amazon Cognito user pools to get short-lived credentials for the second account.
- B. Create a dedicated IAM access key for the second account, and send it by mail.
- C. Create a cross-account access role, and use sts:AssumeRole API to get short-lived credentials.
- D. Establish trust, and add an SSH key for the second account to the IAM user.

**Answer: C**

### NEW QUESTION 2

- (Exam Topic 1)

A Developer has been asked to make changes to the source code of an AWS Lambda function. The function is managed using an AWS CloudFormation template. The template is configured to load the source code from an Amazon S3 bucket. The Developer manually created a .ZIP file deployment package containing the changes and put the file into the correct location on Amazon S3. When the function is invoked, the code changes have not been applied. What step is required to update the function with the changes?

- A. Delete the .ZIP file on S3, and re-upload by using a different object key name.
- B. Update the CloudFormation stack with the correct values for the function code properties S3Bucket, S3Key, or S3ObjectVersion.
- C. Ensure that the function source code is base64-encoded before uploading the deployment package to S3.
- D. Modify the execution role of the Lambda function to allow S3 access permission to the deployment package .ZIP file.

**Answer: B**

#### Explanation:

Changes to a deployment package in Amazon S3 are not detected automatically during stack updates. To update the function code, change the object key or version in the template.

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-properties-lambda-function-code.htm>

### NEW QUESTION 3

- (Exam Topic 1)

For a deployment using AWS CodeDeploy, what is the run order of the hooks for in-place deployments?

- A. Before Install -> Application Stop -> Application Start -> After Install
- B. Application Stop -> Before Install -> After Install -> Application Start
- C. Before Install -> Application Stop -> Validate Service -> Application Start
- D. Application Stop -> Before Install -> Validate Service -> Application Start

**Answer: B**

### NEW QUESTION 4

- (Exam Topic 1)

You attempt to store an object in the US-STANDARD region in Amazon S3, and receive a confirmation that it has been successfully stored. You then immediately make another API call and attempt to read this object. S3 tells you that the object does not exist. What could explain this behavior?

- A. US-STANDARD uses eventual consistency and it can take time for an object to be readable in a bucket.
- B. Objects in Amazon S3 do not become visible until they are replicated to a second region.
- C. US-STANDARD imposes a 1 second delay before new objects are readable.
- D. You exceeded the bucket object limit, and once this limit is raised the object will be visible.

**Answer: A**

#### Explanation:

<https://acloud.guru/forums/aws-certified-developer-associate/discussion/-KGngHzVQ03OpeAA9jSP/i-cant-ans> [https://acloud.guru/forums/aws-certified-developer-associate/discussion/-K5WKXRAIJdOu58GREF\\_/s3-questio](https://acloud.guru/forums/aws-certified-developer-associate/discussion/-K5WKXRAIJdOu58GREF_/s3-questio)

### NEW QUESTION 5

- (Exam Topic 1)

A company has three different environments: Development, QA, and Production. The company wants to deploy its code first in the Development environment, then QA, and then Production.

Which AWS service can be used to meet this requirement?

- A. Use AWS CodeCommit to create multiple repositories to deploy the application.
- B. Use AWS CodeBuild to create, configure, and deploy multiple build application projects.
- C. Use AWS Data Pipeline to create multiple data pipeline provisions to deploy the application.
- D. Use AWS CodeDeploy to create multiple deployment groups.

**Answer: D**

#### Explanation:

<https://docs.aws.amazon.com/codedeploy/latest/userguide/deployment-groups.html>

"You can associate more than one deployment group with an application in CodeDeploy. This makes it possible to deploy an application revision to different sets of instances at different times. For example, you might use one deployment group to deploy an application revision to a set of instances tagged Test where you ensure the quality of the code. Next, you deploy the same application revision to a deployment group with instances tagged Staging for additional verification. Finally, when you are ready to release the latest application to customers, you deploy to a deployment group that includes instances tagged Production. "

### NEW QUESTION 6

- (Exam Topic 1)

A startup's photo-sharing site is deployed in a VPC. An ELB distributes web traffic across two subnets. ELB session stickiness is configured to use the AWS-generated session cookie, with a session TTL of 5 minutes. The webserver Auto Scaling Group is configured as: min-size=4, max-size=4.

The startups preparing for a public launch, by running load-testing software installed on a single EC2 instance running in us-west-2a. After 60 minutes of load-testing, the webserver logs show:

Which recommendations can help ensure load-testing HTTP requests are evenly distributed across the four web servers? Choose 2 answers

- A. Launch and run the load-tester EC2 instance from us-east-1 instead.
- B. Re-configure the load-testing software to re-resolve DNS for each web request.
- C. Use a 3rd-party load-testing service which offers globally-distributed test clients.
- D. Configure ELB and Auto Scaling to distribute across us-west-2a and us-west-2c.
- E. Configure ELB session stickiness to use the app-specific session cookie.

**Answer:** CE

### NEW QUESTION 7

- (Exam Topic 1)

How can software determine the public and private IP addresses of the Amazon EC2 instance that it is running on?

- A. Query the appropriate Amazon CloudWatch metric.
- B. Use ipconfig or ifconfig command.
- C. Query the local instance userdata.
- D. Query the local instance metadata.

**Answer:** D

#### Explanation:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/instancedata-data-categories.html>

Data: local-hostname Descriptions: The private IPv4 DNS hostname of the instance. In cases where multiple network interfaces are present, this refers to the eth0 device (the device for which the device number is 0). Data: public-ipv4 Descriptions: The public IPv4 address. If an Elastic IP address is associated with the instance, the value returned is the Elastic IP address.

### NEW QUESTION 8

- (Exam Topic 1)

A Developer is writing a Linux-based application to run on AWS Elastic Beanstalk. Application requirements state that the application must maintain full capacity during updates while minimizing cost.

Which type of Elastic Beanstalk deployment policy should the Developer specify for the environment?

- A. Immutable
- B. Rolling
- C. All at Once
- D. Rolling with additional batch

**Answer:** D

#### Explanation:

<https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/using-features.rolling-version-deploy.html>

### NEW QUESTION 9

- (Exam Topic 1)

What is the maximum number of S3 Buckets available per AWS account?

- A. 100 per region
- B. there is no limit
- C. 100 per account
- D. 500 per account
- E. 100 per IAM user

**Answer:** C

#### Explanation:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/BucketRestrictions.html>

### NEW QUESTION 10

- (Exam Topic 1)

A Developer is writing a mobile application that allows users to view images from an S3 bucket. The users must be able to log in with their Amazon login, as well as Facebook® and/or Google® accounts.

How can the Developer provide this authentication functionality?

- A. Use Amazon Cognito with web identity federation.
- B. Use Amazon Cognito with SAML-based identity federation.
- C. Use AWS IAM Access/Secret keys in the application code to allow Get\* on the S3 bucket.
- D. Use AWS STS AssumeRole in the application code and assume a role with Get\* permissions on the S3 bucket.

**Answer:** A

#### Explanation:

Reference:

<http://jayendrapatil.com/tag/iam-role/>

<https://docs.aws.amazon.com/sdk-for-javascript/v2/developer-guide/loading-browser-credentials-federated-id.ht>

#### NEW QUESTION 10

- (Exam Topic 1)

After launching an instance that you intend to serve as a NAT (Network Address Translation) device in a public subnet you modify your route tables to have the NAT device be the target of internet bound traffic of your private subnet. When you try and make an outbound connection to the Internet from an instance in the private subnet, you are not successful.

Which of the following steps could resolve the issue?

- A. Attaching a second Elastic Network interface (ENI) to the NAT instance, and placing it in the private subnet
- B. Attaching a second Elastic Network Interface (ENI) to the instance in the private subnet, and placing it in the public subnet
- C. Disabling the Source/Destination Check attribute on the NAT instance
- D. Attaching an Elastic IP address to the instance in the private subnet

**Answer:** C

**Explanation:**

[https://docs.aws.amazon.com/vpc/latest/userguide/VPC\\_NAT\\_Instance.html#NATInstance](https://docs.aws.amazon.com/vpc/latest/userguide/VPC_NAT_Instance.html#NATInstance)

#### NEW QUESTION 13

- (Exam Topic 1)

A Developer has created a Lambda function and is finding that the function is taking longer to complete than expected. After some debugging, the Developer has discovered that increasing compute capacity would improve performance.

How can the Developer increase the Lambda compute resources?

- A. Run on a larger instance size with more compute capacity.
- B. Increase the maximum execution time.
- C. Specify a larger compute capacity when calling the Lambda function.
- D. Increase the allocated memory for the Lambda function.

**Answer:** D

#### NEW QUESTION 17

- (Exam Topic 1) Company

C is currently hosting their corporate site in an Amazon S3 bucket with Static Website Hosting enabled. Currently, when visitors go to <http://www.companyc.com> the index.html page is returned. Company C now would like a new page welcome.html to be returned when a visitor enters <http://www.companyc.com> in the browser.

Which of the following steps will allow Company C to meet this requirement? Choose 2 answers

- A. Upload an html page named welcome.html to their S3 bucket
- B. Create a welcome subfolder in their S3 bucket
- C. Set the Index Document property to welcome.html
- D. Move the index.html page to a welcome subfolder
- E. Set the Error Document property to welcome.html

**Answer:** AC

**Explanation:**

<https://docs.aws.amazon.com/AmazonS3/latest/dev/WebsiteHosting.html> <https://docs.aws.amazon.com/AmazonS3/latest/dev/HostingWebsiteOnS3Setup.html>

#### NEW QUESTION 18

- (Exam Topic 1)

During non-peak hours, a Developer wants to minimize the execution time of a full Amazon DynamoDB table scan without affecting normal workloads. The workloads average half of the strongly consistent read capacity units during non-peak hours.

How would the Developer optimize this scan?

- A. Use parallel scans while limiting the rate
- B. Use sequential scans
- C. Increase read capacity units during the scan operation
- D. Change consistency to eventually consistent during the scan operation

**Answer:** A

**Explanation:**

<https://aws.amazon.com/blogs/developer/rate-limited-scans-in-amazon-dynamodb/>

#### NEW QUESTION 23

- (Exam Topic 1)

A Developer must repeatedly and consistently deploy a serverless RESTful API on AWS. Which techniques will work? (Choose two.)

- A. Define a Swagger fil
- B. Use AWS Elastic Beanstalk to deploy the Swagger file.
- C. Define a Swagger fil
- D. Use AWS CodeDeploy to deploy the Swagger file.
- E. Deploy a SAM template with an inline Swagger definition.
- F. Define a Swagger fil

- G. Deploy a SAM template that references the Swagger file.
- H. Define an inline Swagger definition in a Lambda function.
- I. Invoke the Lambda function.

**Answer:** CD

**Explanation:**

<https://aws.amazon.com/about-aws/whats-new/2017/02/aws-serverless-application-model-aws-sam-supports-inline-swagger/> <https://aws.amazon.com/about-aws/whats-new/2017/02/aws-serverless-application-model-aws-sam-supports-inline-swagger/>

**NEW QUESTION 26**

- (Exam Topic 1)

Company D is running their corporate website on Amazon S3 accessed from <http://www.companyd.com>. Their marketing team has published new web fonts to a separate S3 bucket accessed by the S3 endpoint <https://s3-us-west-1.amazonaws.com/cdfonts>. While testing the new web fonts, Company D recognized the web fonts are being blocked by the browser. What should Company D do to prevent the web fonts from being blocked by the browser?

- A. Enable versioning on the cdfonts bucket for each web font
- B. Create a policy on the cdfonts bucket to enable access to everyone
- C. Add the Content-MD5 header to the request for webfonts in the cdfonts bucket from the website
- D. Configure the cdfonts bucket to allow cross-origin requests by creating a CORS configuration

**Answer:** D

**Explanation:**

<https://docs.aws.amazon.com/AmazonS3/latest/dev/cors.html>

**NEW QUESTION 28**

- (Exam Topic 1)

A legacy service has an XML-based SOAP interface. The Developer wants to expose the functionality of the service to external clients with the Amazon API Gateway. Which technique will accomplish this?

- A. Create a RESTful API with the API Gateway; transform the incoming JSON into a valid XML message for the SOAP interface using mapping templates.
- B. Create a RESTful API with the API Gateway; pass the incoming JSON to the SOAP interface through an Application Load Balancer.
- C. Create a RESTful API with the API Gateway; pass the incoming XML to the SOAP interface through an Application Load Balancer.
- D. Create a RESTful API with the API Gateway; transform the incoming XML into a valid message for the SOAP interface using mapping templates.

**Answer:** A

**Explanation:**

<https://blog.codecentric.de/en/2016/12/serverless-soap-legacy-api-integration-java-aws-lambda-aws-api-gateway/>

**NEW QUESTION 31**

- (Exam Topic 1)

A Developer wants to enable AWS X-Ray for a secure application that runs in an Amazon ECS environment. What combination of steps will enable X-Ray? (Select THREE.)

- A. Create a Docker image that runs the X-Ray daemon.
- B. Add instrumentation to the application code for X-Ray.
- C. Install the X-Ray daemon on the underlying EC2 instance.
- D. Configure and use an IAM EC2 instance role.
- E. Register the application with X-Ray.
- F. Configure and use an IAM role for tasks.

**Answer:** ABF

**Explanation:**

<https://docs.aws.amazon.com/xray/latest/devguide/xray-daemon-ecs.html> <https://docs.aws.amazon.com/xray/latest/devguide/scorekeep-ecs.html>

**NEW QUESTION 34**

- (Exam Topic 1)

A Developer is designing a fault-tolerant environment where client sessions will be saved. How can the Developer ensure that no sessions are lost if an Amazon EC2 instance fails?

- A. Use sticky sessions with an Elastic Load Balancer target group.
- B. Use Amazon SQS to save session data.
- C. Use Amazon DynamoDB to perform scalable session handling.
- D. Use Elastic Load Balancer connection draining to stop sending requests to failing instances.

**Answer:** C

**NEW QUESTION 36**

- (Exam Topic 1)

EC2 instances are launched from Amazon Machine images (AMIs). A given public AMI can:

- A. be used to launch EC2 Instances in any AWS region.

- B. only be used to launch EC2 instances in the same country as the AMI is stored.
- C. only be used to launch EC2 instances in the same AWS region as the AMI is stored.
- D. only be used to launch EC2 instances in the same AWS availability zone as the AMI is stored

**Answer:** C

**Explanation:**

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/usingsharedamis-finding.html>

**NEW QUESTION 41**

- (Exam Topic 1)

An Amazon S3 bucket, "myawsbucket" is configured with website hosting in Tokyo region, what is the region-specific website endpoint?

- A. [www.myawsbucket.ap-northeast-1.amazonaws.com](http://www.myawsbucket.ap-northeast-1.amazonaws.com)
- B. [myawsbucket.s3-website-ap-northeast-1.amazonaws.com](http://myawsbucket.s3-website-ap-northeast-1.amazonaws.com)
- C. [myawsbucket.amazonaws.com](http://myawsbucket.amazonaws.com)
- D. [myawsbucket.tokyo.amazonaws.com](http://myawsbucket.tokyo.amazonaws.com)

**Answer:** B

**Explanation:**

Depending on your Region, your Amazon S3 website endpoint follows one of these two formats. s3-website dash (-) Region <http://bucket-name.s3-website-Region.amazonaws.com>  
s3-website dot (.) Region  
<http://bucket-name.s3-website.Region.amazonaws.com>  
<https://docs.aws.amazon.com/AmazonS3/latest/dev/WebsiteEndpoints.html>

**NEW QUESTION 42**

- (Exam Topic 1)

Which of the following items are required to allow an application deployed on an EC2 instance to write data to a DynamoDB table? Assume that no security Keys are allowed to be stored on the EC2 instance. Choose 2 answers

- A. Create an IAM User that allows write access to the DynamoDB table.
- B. Add an IAM Role to a running EC2 instance.
- C. Add an IAM User to a running EC2 Instance.
- D. Launch an EC2 Instance with the IAM Role included in the launch configuration.
- E. Create an IAM Role that allows write access to the DynamoDB table.
- F. Launch an EC2 Instance with the IAM User included in the launch configuration.

**Answer:** BE

**Explanation:**

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/iam-roles-for-amazon-ec2.html#attach-iam-role>

**NEW QUESTION 47**

- (Exam Topic 1)

A Developer wants to use AWS X-Ray to trace a user request end-to-end throughout the software stack. The Developer made the necessary changes in the application tested it, and found that the application is able to send the traces to AWS X-Ray. However, when the application is deployed to an EC2 instance, the traces are not available.

Which of the following could create this situation? (Select two.)

- A. The traces are reaching X-Ray, but the Developer does not have access to view the records.
- B. The X-Ray daemon is not installed on the EC2 instance.
- C. The X-Ray endpoint specified in the application configuration is incorrect.
- D. The instance role does not have "xray:BatchGetTraces" and "xray:GetTraceGraph" permissions.
- E. The instance role does not have "xray:PutTraceSegments" and "xray:PutTelemetryRecords" permissions.

**Answer:** BE

**NEW QUESTION 51**

- (Exam Topic 1)

An application will ingest data at a very high throughput from many sources and must store the data in an Amazon S3 bucket. Which service would BEST accomplish this task?

- A. Amazon Kinesis Firehose
- B. Amazon S3 Acceleration Transfer
- C. Amazon SQS
- D. Amazon SNS

**Answer:** A

**NEW QUESTION 56**

- (Exam Topic 1)

A Developer is using AWS CLI, but when running list commands on a large number of resources, it is timing out. What can be done to avoid this time-out?

- A. Use pagination
- B. Use shorthand syntax

- C. Use parameter values
- D. Use quoting strings

**Answer:** A

**Explanation:**

Reference: <https://docs.aws.amazon.com/cli/latest/userguide/cli-usage-pagination.html>

**NEW QUESTION 60**

- (Exam Topic 1)

Where should an Elastic Beanstalk configuration file named healthcheckur1.config be placed in the application source bundle?

- A. In the root of the application
- B. In the bin folder
- C. In healthcheckur1.config.ebextension under root
- D. In the .ebextensions folder

**Answer:** D

**NEW QUESTION 63**

- (Exam Topic 1)

Which of the following is an example of a good DynamoDB hash key schema for provisioned throughput efficiency?

- A. User ID, where the application has many different users.
- B. Status Code where most status codes are the same
- C. Device ID, where one is by far more popular than all the others.
- D. Game Type, where there are three possible game types

**Answer:** A

**NEW QUESTION 68**

- (Exam Topic 1)

A Developer is working on an application that tracks hundreds of millions of product reviews in an Amazon DynamoDB table. The records include the data elements shown in the table:

Name	Type	Description
reviewID	Number	16 digit UUID
starRating	Number	Integer 1-5 of user rating
comment	String	User comment string
productID	Number	Product ID being reviewed

Which field, when used as the partition key, would result in the MOST consistent performance using DynamoDB?

- A. starRating
- B. reviewID
- C. comment
- D. productID

**Answer:** B

**NEW QUESTION 73**

- (Exam Topic 1)

Which of the following are valid SNS delivery transports? Choose 2 answers

- A. HTTP
- B. UDP
- C. SMS
- D. DynamoDB
- E. Named Pipes

**Answer:** AC

**Explanation:**

<https://aws.amazon.com/sns/faqs/>

Q: What are the different delivery formats/transports for receiving notifications?

In order for customers to have broad flexibility of delivery mechanisms, Amazon SNS supports notifications over multiple transport protocols. Customers can select one the following transports as part of the subscription requests:

“HTTP”, “HTTPS” – Subscribers specify a URL as part of the subscription registration; notifications will be delivered through an HTTP POST to the specified URL.

“Email”, “Email-JSON” – Messages are sent to registered addresses as email. Email-JSON sends notifications as a JSON object, while Email sends text-based email.

“SQS” – Users can specify an SQS standard queue as the endpoint; Amazon SNS will enqueue a notification message to the specified queue (which subscribers can then process using SQS APIs such as ReceiveMessage, DeleteMessage, etc.). Note that FIFO queues are not currently supported.

“SMS” – Messages are sent to registered phone numbers as SMS text messages.

**NEW QUESTION 77**

- (Exam Topic 1)

If an application is storing hourly log files from thousands of instances from a high traffic web site, which naming scheme would give optimal performance on S3?

- A. Sequential
- B. instanceID\_log-HH-DD-MM-YYYY
- C. instanceID\_log-YYYY-MM-DD-HH
- D. HH-DD-MM-YYYY-log\_instanceID
- E. YYYY-MM-DD-HH-log\_instanceID

**Answer: B**

**Explanation:**

Reference:

[https://acloud.guru/forums/aws-certified-developer-associate/discussion/-KU2dEtJb-LI5ISbH\\_S4/if-an-applicati](https://acloud.guru/forums/aws-certified-developer-associate/discussion/-KU2dEtJb-LI5ISbH_S4/if-an-applicati)

#### NEW QUESTION 81

- (Exam Topic 1)

Which statements about DynamoDB are true? Choose 2 answers

- A. DynamoDB uses a pessimistic locking model
- B. DynamoDB uses optimistic concurrency control
- C. DynamoDB uses conditional writes for consistency
- D. DynamoDB restricts item access during reads
- E. DynamoDB restricts item access during writes

**Answer: BC**

#### NEW QUESTION 85

- (Exam Topic 1)

Company B provides an online image recognition service and utilizes SQS to decouple system components for scalability. The SQS consumers poll the imaging queue as often as possible to keep end-to-end throughput as high as possible. However, Company B is realizing that polling in tight loops is burning CPU cycles and increasing costs with empty responses.

How can Company B reduce the number of empty responses?

- A. Set the imaging queue visibility Timeout attribute to 20 seconds
- B. Set the Imaging queue ReceiveMessageWaitTimeSeconds attribute to 20 seconds
- C. Set the imaging queue MessageRetentionPeriod attribute to 20 seconds
- D. Set the DelaySeconds parameter of a message to 20 seconds

**Answer: B**

**Explanation:**

<https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-short-and-long-polling>.

#### NEW QUESTION 87

- (Exam Topic 1)

Amazon S3 has the following structure: S3://BUCKET/FOLDERNAME/FILENAME.zip

Which S3 best practice would optimize performance with thousands of PUT request each second to a single bucket?

- A. Prefix folder names with user id; for example, s3://BUCKET/2013-FOLDERNAME/FILENAME.zip
- B. Prefix file names with timestamps; for example, s3://BUCKET/FOLDERNAME/2013-26-05-15-00-00- FILENAME.zip
- C. Prefix file names with random hex hashes; for example, s3://BUCKET/FOLDERNAME/23a6- FILENAME.zip
- D. Prefix folder names with random hex hashes; for example, s3://BUCKET/23a6-FOLDERNAME/ FILENAME.zip

**Answer: D**

#### NEW QUESTION 91

- (Exam Topic 1)

A static website is hosted in an Amazon S3 bucket. Several HTML pages on the site use JavaScript to download images from another Amazon S3 bucket. These images are not displayed when users browse the site.

What is the possible cause for the issue?

- A. The referenced Amazon S3 bucket is in another region.
- B. The images must be stored in the same Amazon S3 bucket.
- C. Port 80 must be opened on the security group in which the Amazon S3 bucket is located.
- D. Cross Origin Resource Sharing must be enabled on the Amazon S3 bucket.

**Answer: D**

#### NEW QUESTION 94

- (Exam Topic 1)

The Developer for a retail company must integrate a fraud detection solution into the order processing solution. The fraud detection solution takes between ten and thirty minutes to verify an order. At peak, the web site can receive one hundred orders per minute.

What is the most scalable method to add the fraud detection solution to the order processing pipeline?

- A. Add all new orders to an Amazon SQS queue
- B. Configure a fleet of 10 EC2 instances spanning multiple AZs with the fraud detection solution installed on them to pull orders from this queue
- C. Update the order with a pass or fails status.

- D. Add all new orders to an SQS queue
- E. Configure an Auto Scaling group that uses the queue depth metric as its unit of scale to launch a dynamically-sized fleet of EC2 instances spanning multiple AZs with the fraud detection solution installed on them to pull orders from this queue
- F. Update the order with a pass or fails status.
- G. Add all new orders to an Amazon Kinesis Stream
- H. Subscribe a Lambda function to automatically read batches of records from the Kinesis Stream
- I. The Lambda function includes the fraud detection software and will update the order with a pass or fail status.
- J. Write all new orders to Amazon DynamoDB
- K. Configure DynamoDB Streams to include all new orders. Subscribe a Lambda function to automatically read batches of records from the Kinesis Stream
- L. The Lambda function includes the fraud detection software and will update the order with a pass or fail status.

**Answer:** B

#### NEW QUESTION 95

- (Exam Topic 1)

Games-R-Us is launching a new game app for mobile devices. Users will log into the game using their existing Facebook account and the game will record player data and scoring information directly to a DynamoDB table.

What is the most secure approach for signing requests to the DynamoDB API?

- A. Create an IAM user with access credentials that are distributed with the mobile app to sign the requests
- B. Distribute the AWS root account access credentials with the mobile app to sign the requests
- C. Request temporary security credentials using web identity federation to sign the requests
- D. Establish cross account access between the mobile app and the DynamoDB table to sign the requests

**Answer:** C

#### NEW QUESTION 98

- (Exam Topic 1)

When uploading an object, what request header can be explicitly specified in a request to Amazon S3 to encrypt object data when saved on the server side?

- A. x-amz-storage-class
- B. Content-MD5
- C. x-amz-security-token
- D. x-amz-server-side-encryption

**Answer:** D

#### Explanation:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/UsingServerSideEncryption.html#APISupportforServer-Sid>

#### NEW QUESTION 103

- (Exam Topic 1)

What does an Amazon SQS delay queue accomplish?

- A. Messages are hidden for a configurable amount of time when they are first added to the queue.
- B. Messages are hidden for a configurable amount of time after they are consumed from the queue.
- C. The consumer can poll the queue for a configurable amount of time before retrieving a message.
- D. Message cannot be deleted for a configurable amount of time after they are consumed from the queue.

**Answer:** A

#### Explanation:

Reference:

<https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-delayqueues.html>

#### NEW QUESTION 107

- (Exam Topic 1)

A Developer is writing an imaging micro service on AWS Lambda. The service is dependent on several libraries that are not available in the Lambda runtime environment.

Which strategy should the Developer follow to create the Lambda deployment package?

- A. Create a ZIP file with the source code and all dependent libraries.
- B. Create a ZIP file with the source code and a script that installs the dependent libraries at runtime.
- C. Create a ZIP file with the source code
- D. Stage the dependent libraries on an Amazon S3 bucket indicated by the Lambda environment variable LD\_LIBRARY\_PATH
- E. Create a ZIP file with the source code and a buildspec.yaml file that installs the dependent libraries on AWS Lambda.

**Answer:** B

#### NEW QUESTION 109

- (Exam Topic 1)

A Development team currently supports an application that uses an in-memory store to save accumulated game results. Individual results are stored in a database. As part of migrating to AWS, the team needs to use automatic scaling. The team knows this will yield inconsistent results.

Where should the team store these accumulated game results to BEST allow for consistent results without impacting performance?

- A. Amazon S3
- B. Amazon RDS
- C. Amazon ElastiCache

D. Amazon Kinesis

**Answer:** C

#### NEW QUESTION 114

- (Exam Topic 1)

A Developer is building a mobile application and needs any update to user profile data to be pushed to all devices accessing the specific identity. The Developer does not want to manage a back end to maintain the user profile data.

What is the MOST efficient way for the Developer to achieve these requirements using Amazon Cognito?

- A. Use Cognito federated identities.
- B. Use a Cognito user pool.
- C. Use Cognito Sync.
- D. Use Cognito events.

**Answer:** C

#### Explanation:

Amazon Cognito Sync is an AWS service and client library that enables cross-device syncing of application-related user data. You can use it to synchronize user profile data across mobile devices and the web without requiring your own backend. <https://docs.aws.amazon.com/cognito/latest/developerguide/cognito-sync.html>

#### NEW QUESTION 118

- (Exam Topic 1)

A Developer has an application that can upload tens of thousands of objects per second to Amazon S3 in parallel within a single AWS account. As part of new requirements, data stored in S3 must use server side encryption with AWS KMS (SSE-KMS). After creating this change, performance of the application is slower. Which of the following is MOST likely the cause of the application latency?

- A. Amazon S3 throttles the rate at which uploaded objects can be encrypted using Customer Master Keys.
- B. The AWS KMS API calls limit is less than needed to achieve the desired performance.
- C. The client encryption of the objects is using a poor algorithm.
- D. KMS requires that an alias be used to create an independent display name that can be mapped to a CMK.

**Answer:** B

#### Explanation:

<https://aws.amazon.com/about-aws/whats-new/2018/08/aws-key-management-service-increases-api-requests-pe> KMS API access limit is 10k/sec in us-east and some others and 5.5k/sec for the rest of the regions. Client can request this limit to be changed.

#### NEW QUESTION 121

- (Exam Topic 1)

A Developer writes an AWS Lambda function and uploads the code in a .ZIP file to Amazon S3. The Developer makes changes to the code and uploads a new .ZIP file to Amazon S3. However, Lambda executes the earlier code.

How can the Developer fix this in the LEAST disruptive way?

- A. Create another Lambda function and specify the new .ZIP file.
- B. Call the update-function-code API.
- C. Remove the earlier .ZIP file first, then add the new .ZIP file.
- D. Call the create-alias API.

**Answer:** B

#### Explanation:

<https://docs.aws.amazon.com/cli/latest/reference/lambda/update-function-code.html>

#### NEW QUESTION 123

- (Exam Topic 1)

Given the source code for an AWS Lambda function in the local store.py containing a handler function called get\_store and the following AWS CloudFormation template:

```
Transform: AWS::Serverless-2016-10-31
```

Resources:

```
StoreFunc:
  Type: AWS::Serverless::Function
  Properties:
    Handler: store.get_store
    Runtime: python3.6
```

What should be done to prepare the template so that it can be deployed using the AWS CLI command `aws cloudformation deploy`?

- A. Use `aws cloudformation compile` to base64 encode and embed the source file into a modified CloudFormation template.
- B. Use `aws cloudformation package` to upload the source code to an Amazon S3 bucket and produce a modified CloudFormation template.
- C. Use `aws lambda zip` to package the source file together with the CloudFormation template and deploy the resulting zip archive.
- D. Use `aws serverless create-package` to embed the source file directly into the existing CloudFormation template.

**Answer:** B

**Explanation:**

<https://docs.aws.amazon.com/cli/latest/reference/cloudformation/package.html>

#### NEW QUESTION 124

- (Exam Topic 1)

A company is creating an application that will require users to access AWS services and allow them to reset their own passwords.

Which of the following would allow the company to manage users and authorization while allowing users to reset their own passwords?

- A. Amazon Cognito identity pools and AWS STS
- B. Amazon Cognito identity pools and AWS IAM
- C. Amazon Cognito user pools and AWS KMS
- D. Amazon Cognito user pools and identity pools

**Answer:** D

**Explanation:**

<https://serverless-stack.com/chapters/cognito-user-pool-vs-identity-pool.html>

#### NEW QUESTION 129

- (Exam Topic 1)

An application under development is required to store hundreds of video files. The data must be encrypted within the application prior to storage, with a unique key for each video file.

How should the Developer code the application?

- A. Use the KMS Encrypt API to encrypt the data
- B. Store the encrypted data key and data.
- C. Use a cryptography library to generate an encryption key for the application
- D. Use the encryption key to encrypt the data
- E. Store the encrypted data.
- F. Use the KMS GenerateDataKey API to get a data key
- G. Encrypt the data with the data key
- H. Store the encrypted data key and data.
- I. Upload the data to an S3 bucket using server side-encryption with an AWS KMS key.

**Answer:** C

**Explanation:**

[https://docs.aws.amazon.com/kms/latest/APIReference/API\\_GenerateDataKey.html](https://docs.aws.amazon.com/kms/latest/APIReference/API_GenerateDataKey.html)

#### NEW QUESTION 133

- (Exam Topic 1)

A Developer is creating a mobile application with a limited budget. The solution requires a scalable service that will enable customers to sign up and authenticate into the mobile application while using the organization's current SAML 2.0 identity provider.

Which AWS service should be used to meet these requirements?

- A. AWS Lambda
- B. Amazon Cognito
- C. AWS IAM
- D. Amazon EC2

**Answer:** B

#### NEW QUESTION 134

- (Exam Topic 1)

Which of the following programming languages have an officially supported AWS SDK? Choose 2 answers

- A. Perl
- B. PHP
- C. Pascal
- D. Java
- E. SQL

**Answer:** BD

#### NEW QUESTION 138

- (Exam Topic 1)

A Developer is asked to implement a caching layer in front of Amazon RDS. Cached content is expensive to regenerate in case of service failure. Which implementation below would work while maintaining maximum uptime?

- A. Implement Amazon ElastiCache Redis in Cluster Mode
- B. Install Redis on an Amazon EC2 instance.
- C. Implement Amazon ElastiCache Memcached.
- D. Migrate the database to Amazon Redshift.

**Answer:** A

**Explanation:**

<https://docs.aws.amazon.com/AmazonElastiCache/latest/mem-ug/SelectEngine.html>

**NEW QUESTION 143**

- (Exam Topic 1)

A company has multiple Developers located across the globe who are updating code incrementally for a development project. When Developers upload code concurrently, internet connectivity is slow, and it is taking a long time to upload code for deployment in AWS Elastic Beanstalk.

Which step will result in minimized upload and deployment time with the LEAST amount of administrative effort?

- A. Allow the Developers to upload the code to an Amazon S3 bucket, and deploy it directly to Elastic Beanstalk.
- B. Allow the Developers to upload the code to a central FTP server to deploy the application to Elastic Beanstalk.
- C. Create an AWS CodeCommit repository, allow the Developers to commit code to it, and then directly deploy the code to Elastic Beanstalk.
- D. Create a code repository on an Amazon EC2 instance so that all Developers can update the code, and deploy the application from the instance to Elastic Beanstalk.

**Answer: B**

**Explanation:**

<https://aws.amazon.com/premiumsupport/knowledge-center/deploy-codecommit-elastic-beanstalk/>

**NEW QUESTION 146**

- (Exam Topic 1)

A Lambda function is packaged for deployment to multiple environments, including development, test, production, etc. Each environment has unique set of resources such as databases, etc.

How can the Lambda function use the resources for the current environment?

- A. Apply tags to the Lambda functions.
- B. Hardcore resources in the source code.
- C. Use environment variables for the Lambda functions.
- D. Use separate function for development and production.

**Answer: C**

**NEW QUESTION 150**

- (Exam Topic 1)

An AWS Lambda function generates a 3MB JSON file and then uploads it to an Amazon S3 bucket daily. The file contains sensitive information, so the Developer must ensure that it is encrypted before uploading to the bucket.

Which of the following modifications should the Developer make to ensure that the data is encrypted before uploading it to the bucket?

- A. Use the default AWS KMS customer master key for S3 in the Lambda function code.
- B. Use the S3 managed key and call the GenerateDataKey API to encrypt the file.
- C. Use the GenerateDateKey API, then use that data key to encrypt the file in the Lambda function code.
- D. Use a custom KMS customer master key created for S3 in the Lambda function code.

**Answer: C**

**NEW QUESTION 154**

- (Exam Topic 1)

A nightly batch job loads 1 million new records into a DynamoDB table. The records are only needed for one hour, and the table needs to be empty by the next night's batch job.

Which is the MOST efficient and cost-effective method to provide an empty table?

- A. Use DeleteItem using a ConditionExpression.
- B. Use BatchWriteItem to empty all of the rows.
- C. With a recursive function that scans and calls out DeleteItem.
- D. Create and then delete the table after the task has completed.

**Answer: D**

**Explanation:**

"Deleting an entire table is significantly more efficient than removing items one-by-one, which essentially doubles the write throughput as you do as many delete operations as put operations"

**NEW QUESTION 155**

- (Exam Topic 1)

In a move toward using microservices, a company's Management team has asked all Development teams to build their services so that API requests depend only on that service's data store. One team is building a Payments service which has its own database; the service needs data that originates in the Accounts database. Both are using Amazon DynamoDB.

What approach will result in the simplest, decoupled, and reliable method to get near-real time updates from the Accounts database?

- A. Use Amazon Glue to perform frequent ETL updates from the Accounts database to the Payments database.
- B. Use Amazon ElastiCache in Payments, with the cache updated by triggers in the Accounts database.
- C. Use Amazon Kinesis Data Firehose to deliver all changes from the Accounts database to the Payments database.
- D. Use Amazon DynamoDB Streams to deliver all changes from the Accounts database to the Payments database.

**Answer: D**

**Explanation:**



applications for your customers without worrying about performance at scale.

#### NEW QUESTION 163

- (Exam Topic 1)

Which of the following services are key/value stores? Choose 3 answers

- A. Amazon ElastiCache
- B. Simple Notification Service
- C. DynamoDB
- D. Simple Workflow Service
- E. Simple Storage Service

**Answer:** ACE

#### NEW QUESTION 164

- (Exam Topic 1)

An application stores payroll information nightly in DynamoDB for a large number of employees across hundreds of offices. Item attributes consist of individual name, office identifier, and cumulative daily hours. Managers run reports for ranges of names working in their office. One query is. "Return all Items in this office for names starting with A through E".

Which table configuration will result in the lowest impact on provisioned throughput for this query?

- A. Configure the table to have a hash index on the name attribute, and a range index on the office identifier
- B. Configure the table to have a range index on the name attribute, and a hash index on the office identifier
- C. Configure a hash index on the name attribute and no range index
- D. Configure a hash index on the office Identifier attribute and no range index

**Answer:** B

#### Explanation:

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/HowItWorks.CoreComponents.html>

Partition key and sort key – Referred to as a composite primary key, this type of key is composed of two attributes. The first attribute is the partition key, and the second attribute is the sort key. DynamoDB uses the partition key value as input to an internal hash function. The output from the hash function determines the partition (physical storage internal to DynamoDB) in which the item will be stored. All items with the same partition key value are stored together, in sorted order by sort key value.

#### NEW QUESTION 167

- (Exam Topic 1)

An existing serverless application processes uploaded image files. The process currently uses a single Lambda function that takes an image file, performs the processing, and stores the file in Amazon S3. Users of the application now require thumbnail generation of the images. Users want to avoid any impact to the time it takes to perform the image uploads.

How can thumbnail generation be added to the application, meeting user requirements while minimizing changes to existing code?

- A. Change the existing Lambda function handling the uploads to create thumbnails at the time of upload. Have the function store both the image and thumbnail in Amazon S3.
- B. Create a second Lambda function that handles thumbnail generation and storage
- C. Change the existing Lambda function to invoke it asynchronously.
- D. Create an S3 event notification with a Lambda function destination
- E. Create a new Lambda function to generate and store thumbnails.
- F. Create an S3 event notification to an SQS Queue
- G. Create a scheduled Lambda function that processes the queue, and generates and stores thumbnails.

**Answer:** C

#### Explanation:

<https://docs.aws.amazon.com/lambda/latest/dg/with-s3-example.html>

#### NEW QUESTION 169

- (Exam Topic 1)

A company is providing services to many downstream consumers. Each consumer may connect to one or more services. This has resulted in a complex architecture that is difficult to manage and does not scale well. The company needs a single interface to manage these services to consumers.

Which AWS service should be used to refactor this architecture?

- A. AWS Lambda
- B. AWS X-Ray
- C. Amazon SQS
- D. Amazon API Gateway

**Answer:** D

#### NEW QUESTION 174

- (Exam Topic 1)

In a multi-container Docker environment in AWS Elastic Beanstalk, what is required to configure container instances in the environment?

- A. An Amazon ECS task definition
- B. An Amazon ECS cluster
- C. A Docker in an application package
- D. A CLI for Elastic Beanstalk

**Answer:** A

**Explanation:**

Reference: [https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/create\\_deploy\\_docker\\_ecs.html](https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/create_deploy_docker_ecs.html)

**NEW QUESTION 176**

- (Exam Topic 1)

A Developer is creating an Auto Scaling group whose instances need to publish a custom metric to Amazon CloudWatch. Which method would be the MOST secure way to authenticate a CloudWatch PUT request?

- A. Create an IAM user with PutMetricData permission and put the user credentials in a private repository; have applications pull the credentials as needed.
- B. Create an IAM user with PutMetricData permission, and modify the Auto Scaling launch configuration to inject the user credentials into the instance user data.
- C. Modify the CloudWatch metric policies to allow the PutMetricData permission to instances from the Auto Scaling group.
- D. Create an IAM role with PutMetricData permission and modify the Auto Scaling launching configuration to launch instances using that role.

**Answer:** D

**NEW QUESTION 179**

- (Exam Topic 1)

A development team consists of 10 team members. Similar to a home directory for each team member the manager wants to grant access to user-specific folders in an Amazon S3 bucket. For the team member with the username "TeamMemberX", the snippet of the IAM policy looks like this:

```
{ "Sid": "AllowS3ActionToFolders", "Effect": "Allow", "Action":  
  ["s3:*"], "Resource":  
  ["arn:aws:s3:::companyname/home/TeamMemberX/*"] }
```

Instead of creating distinct policies for each team member, what approach can be used to make this policy snippet generic for all team members?

- A. Use IAM policy condition
- B. Use IAM policy principal
- C. Use IAM policy variables
- D. Use IAM policy resource

**Answer:** C

**Explanation:**

> [https://docs.aws.amazon.com/IAM/latest/UserGuide/reference\\_policies\\_variables.html](https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_policies_variables.html) > Use AWS Identity and Access Management (IAM) policy variables as placeholders when you don't know the exact value of a resource or condition key when you write the policy.

**NEW QUESTION 180**

- (Exam Topic 1)

A serverless application uses an API Gateway and AWS Lambda. Where should the Lambda function store its session information across function calls?

- A. In an Amazon DynamoDB table
- B. In an Amazon SQS queue
- C. In the local filesystem
- D. In an SQLite session table using `-DSQLITE_ENABLE_SESSION`

**Answer:** A

**NEW QUESTION 182**

- (Exam Topic 1)

A company is migrating a single-server, on-premises web application to AWS. The company intends to use multiple servers behind an Elastic Load Balancer (ELB) to balance the load, and will also store session data in memory on the web server. The company does not want to lose that session data if a server fails or goes offline, and it wants to minimize user's downtime.

Where should the company move session data to MOST effectively reduce downtime and make users' session data more fault tolerant?

- A. An Amazon ElastiCache for Redis cluster
- B. A second Amazon EBS volume
- C. The web server's primary disk
- D. An Amazon EC2 instance dedicated to session data

**Answer:** A

**NEW QUESTION 185**

- (Exam Topic 1)

A Developer has implemented a Lambda function that needs to add new customers to an RDS database that is expected to run hundreds of times per hour. The Lambda function is configured to use 512MB of RAM and is based on the following pseudo code:

```
def lambda_handler(event, context):  
  
    db = database.connect()  
  
    db.statement('INSERT INTO Customers (CustomerName) VALUES  
    (context.name)')  
  
    db.close()
```

After testing the Lambda function, the Developer notices that the Lambda execution time is much longer than expected. What should the Developer do to improve performance?

- A. Increase the amount of RAM allocated to the Lambda function, which will increase the number of threads the Lambda can use.
- B. Increase the size of the RDS database to allow for an increased number of database connections each hour.
- C. Move the database connection and close statement out of the handle
- D. Place the connection in the global space.
- E. Replace RDS with Amazon DynamoDB to implement control over the number of writes per second.

**Answer: C**

**Explanation:**

Refer AWS documentation - Lambda Best Practices

Take advantage of Execution Context reuse to improve the performance of your function. Make sure any externalized configuration or dependencies that your code retrieves are stored and referenced locally after initial execution. Limit the re-initialization of variables/objects on every invocation. Instead use static initialization/constructor, global/static variables and singletons. Keep alive and reuse connections (HTTP, database, etc.) that were established during a previous invocation.

**NEW QUESTION 188**

- (Exam Topic 1)

A large e-commerce site is being designed to deliver static objects from Amazon S3. The Amazon S3 bucket will server more than 300 GET requests per second. What should be done to optimize performance? (Select TWO.)

- A. Integrate Amazon CloudFront with Amazon S3.
- B. Enable Amazon S3 cross-region replication.
- C. Delete expired Amazon S3 server log files.
- D. Configure Amazon S3 lifecycle rules.
- E. Randomize Amazon S3 key name prefixes.

**Answer: AE**

**Explanation:**

CloudWatch definitely. Random key prefixes is still a valid method of improving performance by using parallel reads. It doesn't mention prefix hashing. For instance prefixes 1/,2/,3/,4/,5/ could provide 5 x parallel streams for S3 as opposed to all objects being in a single folder/prefix e.g. dev/  
<https://docs.aws.amazon.com/AmazonS3/latest/dev/optimizing-performance.html>

"There are no limits to the number of prefixes in a bucket. You can increase your read or write performance by parallelizing reads. For example, if you create 10 prefixes in an Amazon S3 bucket to parallelize reads, you could scale your read performance to 55,000 read requests per second." The assumption that prefixes don't matter is incorrect, as described by "Amazon S3 performance guidelines recommended randomizing prefix naming with \*\*hashed characters\*\* to optimize performance for frequent data retrievals. You no longer have to randomize prefix naming for performance, and can use sequential date-based naming for your prefixes"

**NEW QUESTION 191**

- (Exam Topic 1)

A company is building an application to track athlete performance using an Amazon DynamoDB table. Each item in the table is identified by a partition key (user\_id) and a sort key (sport\_name). The table design is shown below: (Note: Not all table attributes are shown)

A Developer is asked to write a leaderboard application to display the top performers (user\_id) based on the score for each sport\_name. What process will allow the Developer to extract results MOST efficiently from the DynamoDB table?

- A. Use a DynamoDB query operation with the key attributes of user\_id and sport\_name and order the results based on the score attribute.
- B. Create a global secondary index with a partition key of sport\_name and a sort key of score, and get the results
- C. Use a DynamoDB scan operation to retrieve scores and user\_id based on sport\_name, and order the results based on the score attribute.
- D. Create a local secondary index with a primary key of sport\_name and a sort key of score and get the results based on the score attribute.

**Answer: B**

**Explanation:**

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/SecondaryIndexes.html>  
[https://docs.aws.amazon.com/zh\\_cn/amazondynamodb/latest/developerguide/GSI.html](https://docs.aws.amazon.com/zh_cn/amazondynamodb/latest/developerguide/GSI.html)

**NEW QUESTION 195**

- (Exam Topic 1)

A deployment package uses the AWS CLI to copy files into any S3 bucket in the account, using access keys stored in environment variables. The package is running on EC2 instances, and the instances have been modified to run with an assumed IAM role and a more restrictive policy that allows access to only one bucket.

After the change, the Developer logs into the host and still has the ability to write into all of the S3 buckets in that account.

What is the MOST likely cause of this situation?

- A. An IAM inline policy is being used on the IAM role

- B. An IAM managed policy is being used on the IAM role
- C. The AWS CLI is corrupt and needs to be reinstalled
- D. The AWS credential provider looks for instance profile credentials last

**Answer:** B

**Explanation:**

<https://docs.aws.amazon.com/sdk-for-java/v1/developer-guide/credentials.html>

**NEW QUESTION 197**

- (Exam Topic 1)

When a Developer tries to run an AWS CodeBuild project, it raises an error because the length of all environment variables exceeds the limit for the combined maximum of characters.

What is the recommended solution?

- A. Add the export LC\_ALL="en\_US.utf8" command to the pre\_build section to ensure POSIX localization.
- B. Use Amazon Cognito to store key-value pairs for large numbers of environment variables.
- C. Update the settings for the build project to use an Amazon S3 bucket for large numbers of environment variables.
- D. Use AWS Systems Manager Parameter Store to store large numbers of environment variables.

**Answer:** D

**NEW QUESTION 198**

- (Exam Topic 1)

You have an environment that consists of a public subnet using Amazon VPC and 3 instances that are running in this subnet. These three instances can successfully communicate with other hosts on the Internet. You launch a fourth instance in the same subnet, using the same AMI and security group configuration you used for the others, but find that this instance cannot be accessed from the Internet.

What should you do to enable internet access?

- A. Deploy a NAT instance into the public subnet.
- B. Modify the routing table for the public subnet
- C. Configure a publically routable IP Address In the host OS of the fourth instance.
- D. Assign an Elastic IP address to the fourth instance.

**Answer:** C

**NEW QUESTION 199**

- (Exam Topic 1)

A Developer is designing a new application that uses Amazon S3. To satisfy compliance requirements, the Developer must encrypt the data at rest. How can the Developer accomplish this?

- A. Use s3:x-amz-acl as a condition in the S3 bucket policy.
- B. Use Amazon RDS with default encryption.
- C. Use aws:SecureTransport as a condition in the S3 bucket policy.
- D. Turn on S3 default encryption for the S3 bucket.

**Answer:** D

**NEW QUESTION 202**

- (Exam Topic 1)

A Developer is creating a Lambda function and will be using external libraries that are not included in the standard Lambda libraries.

What action would minimize the Lambda compute time consumed?

- A. Install the dependencies and external libraries at the beginning of the Lambda function.
- B. Create a Lambda deployment package that includes the external libraries.
- C. Copy the external libraries to Amazon S3, and reference the external libraries to the S3 location.
- D. Install the external libraries in Lambda to be available to all Lambda functions.

**Answer:** D

**NEW QUESTION 206**

- (Exam Topic 2)

A Developer is writing an application that runs on Amazon EC2 instances in an Auto scaling group. 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?

- A. Set consistentRead to true when calling Getitem.
- B. Create a new DynamoDB Accelerator (DAX) table.
- C. Set consistency to strong when calling Update Table.
- D. Use the Getshardlterator command.

**Answer:** B

**Explanation:**

Reference: <https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/HowItWorks.ReadConsistency.html>

#### NEW QUESTION 211

- (Exam Topic 2)

A social media company is using Amazon Cognito in order to synchronize profiles across different mobile devices, to enable end users to have a seamless experience.

Which of the following configurations can be used to silently notify users whenever an update is available on all other devices?

- A. Modify the user pool to include all the devices which keep them in sync.
- B. Use the SyncCallback interface to receive notifications on the application.
- C. Use an Amazon Cognito stream to analyze the data and push the notifications.
- D. Use the push synchronization feature with the appropriate IAM role.

**Answer:** D

#### Explanation:

<https://docs.aws.amazon.com/cognito/latest/developerguide/push-sync.html>

#### NEW QUESTION 214

- (Exam Topic 2)

A company is developing a report executed by AWS Step Functions Amazon CloudWatch shows errors in the Step Functions task state machine To troubleshoot each task, the state input needs to be included along with the error message in the state output.

Which coding practice can preserve both the original input and the error for the state?

- A. Use ResultPath in a Catch statement to include the error with the original input
- B. Use inputPath in a Catch statement and set the value to null.
- C. Use ErrorEquals in a Retry statement to include the error with the original input
- D. Use OutputPath in a Retry statement and set the value to \$.

**Answer:** A

#### Explanation:

Use ResultPath in a Catch to include the error with the original input.

Reference: <https://docs.aws.amazon.com/step-functions/latest/dg/input-output-resultpath.html>

#### NEW QUESTION 216

- (Exam Topic 2)

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.

Use of which AWS service would increase in performance by adding in-memory store for repeated read queries?

- A. Amazon RDS Multi-AZ
- B. Amazon SQS
- C. Amazon ElastiCache
- D. Amazon RDS read replica

**Answer:** C

#### NEW QUESTION 220

- (Exam Topic 2)

A developer has written a serverless application and wants to deploy it to AWS Lambda to leverage the function's multi-threaded execution to improve performance. Which action should the developer take to achieve these requirements?

- A. increase the Lambda function execution timeout
- B. Use unreserved account concurrency.
- C. Increase the memory allocation of the Lambda function
- D. Set the reserved concurrency of the Lambda function to a higher number

**Answer:** C

#### NEW QUESTION 223

- (Exam Topic 2)

A Developer is building a three-tier web application that should be able to handle a minimum of 5000 requests per minute. Requirements state that the web tier should be completely stateless while the application maintains session state for the users.

How can session data be externalized, keeping latency at the LOWEST possible value?

- A. Create an Amazon RDS instance, then implement session handling at the application level to leverage a database inside the RDS database instance for session data storage
- B. Implement a shared file system solution across the underlying Amazon EC2 instances, then implement session handling at the application level to leverage the shared file system for session data storage
- C. Create an Amazon ElastiCache Memcached cluster, then implement session handling at the application level to leverage the cluster for session data storage
- D. Create an Amazon DynamoDB table, then implement session handling at the application level to leverage the table for session data storage

**Answer:** A

#### Explanation:

<https://aws.amazon.com/caching/session-management/>

#### NEW QUESTION 226

- (Exam Topic 2)

An e-commerce web application that shares session state on-premises is being migrated to AWS. The application must be fault tolerant, natively highly scalable, and any service interruption should not affect the user experience.

What is the best option to store the session state?

- A. Store the session state in Amazon ElastiCache
- B. Store the session state in Amazon CloudFront
- C. Store the session state in Amazon S3
- D. Enable session stickiness using elastic load balancers

**Answer:** A

**Explanation:**

<https://aws.amazon.com/caching/session-management/>

#### NEW QUESTION 230

- (Exam Topic 2)

A Developer wants to encrypt new objects that are being uploaded to an Amazon S3 bucket by an application. There must be an audit trail of who has used the key during this process. There should be no change to the performance of the application.

Which type of encryption meets these requirements?

- A. Server-side encryption using S3-managed keys
- B. Server-side encryption with AWS KMS-managed keys
- C. Client-side encryption with a client-side symmetric master key
- D. Client-side encryption with AWS KMS-managed keys

**Answer:** B

#### NEW QUESTION 232

- (Exam Topic 2)

A company is adding stored value for gift card) capability to its highly popular casual gaming website. Users need to be able to trade this value for other users' items on the platform. This would require both users' records be updated as a single transaction, or both users' records to be completely rolled back.

Which AWS database options can provide the transactional capability required for this new feature? (Select TWO )

- A. Amazon DynamoDB with operations made with the ConsistentRead parameter set to true
- B. Amazon ElastiCache for Memcached with operations made within a transaction block
- C. Amazon Aurora MySQL with operations made within a transaction block
- D. Amazon DynamoDB with reads and writes made using Transact" operations
- E. Amazon Redshift with operations made within a transaction block

**Answer:** CD

#### NEW QUESTION 234

- (Exam Topic 2)

A web application is designed to allow new users to create accounts using their email addresses. The application will store attributes for each user, and is expecting millions of user to sign up.

What should the Developer implement to achieve the design goals?

- A. Amazon Cognito user pools
- B. AWS Mobile Hub user data storage
- C. Amazon Cognito Sync
- D. AWS Mobile Hub cloud logic

**Answer:** A

#### NEW QUESTION 239

- (Exam Topic 2)

An Amazon RDS database instance is used by many applications to look up historical data. The query rate is relatively constant. When the historical data is updated each day, the resulting write traffic slows the read query performance and affects all application users.

What can be done to eliminate the performance impact on application users?

- A. Make sure Amazon RDS is Multi-AZ so it can better absorb increased traffic.
- B. Create an RDS Read Replica and direct all read traffic to the replica.
- C. Implement Amazon ElastiCache in front of Amazon RDS to buffer the write traffic.
- D. Use Amazon DynamoDB instead of Amazon RDS to buffer the read traffic.

**Answer:** B

**Explanation:**

<https://aws.amazon.com/rds/details/read-replicas/>

#### NEW QUESTION 244

- (Exam Topic 2)

A Developer is working on an application that handles 10MB documents that contain highly-sensitive data. The application will use AWS KMS to perform client-side encryption.

What steps must be followed?

- A. Invoke the Encrypt API passing the plaintext data that must be encrypted, then reference the customer managed key ARN in the KeyId parameter

- B. Invoke the GenerateRandom API to get a data encryption key, then use the data encryption key to encrypt the data
- C. Invoke the GenerateDataKey API to retrieve the encrypted version of the data encryption key to encrypt the data
- D. Invoke the GenerateDataKey API to retrieve the plaintext version of the data encryption key to encrypt the data

**Answer:** D

**Explanation:**

<https://docs.aws.amazon.com/AmazonS3/latest/dev/UsingClientSideEncryption.html>

GenerateDataKey API: Generates a unique data key. This operation returns a plaintext copy of the data key and a copy that is encrypted under a customer master key (CMK) that you specify. You can use the plaintext key to encrypt your data outside of KMS and store the encrypted data key with the encrypted data.

**NEW QUESTION 245**

- (Exam Topic 2)

A Developer has developed a web application and wants to deploy it quickly on a Tomcat server on AWS. The Developer wants to avoid having to manage the underlying infrastructure.

What is the easiest way to deploy the application, based on these requirements?

- A. AWS CloudFormation
- B. AWS Elastic Beanstalk
- C. Amazon S3
- D. AWS CodePipeline

**Answer:** B

**NEW QUESTION 250**

- (Exam Topic 2)

A company is developing a web application that allows its employees to upload a profile picture to a private Amazon S3 bucket. There is no size limit for the profile pictures, which should be displayed every time an employee logs in. For security reasons, the pictures cannot be publicly accessible.

What is a viable long-term solution for this scenario?"

- A. Generate a presigned URL when a picture is uploaded. Save the URL in an Amazon DynamoDB table. Return the URL to the browser when the employee logs in.
- B. Save the picture's S3 key in an Amazon DynamoDB table. Create an Amazon S3 VPC endpoint to allow the employees to download pictures once they log in.
- C. Encode a picture using base64. Save the base64 string in an Amazon DynamoDB table. Allow the browser to retrieve the string and convert it to a picture.
- D. Save the picture's S3 key in an Amazon DynamoDB table.
- E. Use a function to generate a presigned URL every time an employee logs in.
- F. Return the URL to the browser.

**Answer:** B

**Explanation:**

Reference:

<https://aws.amazon.com/premiumsupport/knowledge-center/s3-private-connection-noauthentication/>

**NEW QUESTION 251**

- (Exam Topic 2)

A website's page load times are gradually increasing as more users access the system at the same time. Analysis indicates that a user profile is being loaded from a database in all the web pages being visited by each user and this is increasing the database load and the page load latency. To address this issue the Developer decides to cache the user profile data.

Which caching strategy will address this situation MOST efficiently?

- A. Create a new Amazon EC2 Instance and run a NoSQL database on it.
- B. Cache the profile data within this database using the write-through caching strategy.
- C. Create an Amazon ElastiCache cluster to cache the user profile data.
- D. Use a cache-aside caching strategy.
- E. Use a dedicated Amazon RDS instance for caching profile data.
- F. Use a write-through caching strategy.
- G. Create an ElastiCache cluster to cache the user profile data.
- H. Use a write-through caching strategy.

**Answer:** B

**Explanation:**

<https://docs.aws.amazon.com/AmazonElastiCache/latest/mem-ug/Strategies.html>

**NEW QUESTION 256**

- (Exam Topic 2)

A software engineer developed an AWS Lambda function in Node.js to do some CPU-intensive data processing.

With the default settings, the Lambda function takes about 5 minutes to complete. Which approach should a developer take to increase the speed of completion?"

- A. Instead of using Node.js
- B. rewrite the Lambda function using Python
- C. Instead of packaging the libraries in the ZIP file with the function, move them to a Lambda layer and use the layer with the function.
- D. Allocate the maximum available CPU units to the function
- E. Increase the available memory to the function.

**Answer:** D

#### NEW QUESTION 261

- (Exam Topic 2)

A developer is testing a Docker-based application that uses the AWS SDK to interact with Amazon DynamoDB. In the local development environment, the application has used IAM access keys. The application is now ready for deployment onto an ECS cluster. How should the application authenticate with AWS services in production?

- A. Configure an ECS task IAM role for the application to use
- B. Refactor the application to call AWS STS AssumeRole based on an instance role
- C. Configure AWS access key/secret access key environment variables with new credentials
- D. Configure the credentials file with a new access key/secret access key

**Answer:** A

#### NEW QUESTION 265

- (Exam Topic 2)

A developer needs to create an application that supports Security Assertion Markup Language (SAML) and Facebook authentication. It must also allow access to AWS services, such as Amazon DynamoDB.

Which AWS service or feature will meet these requirements with the LEAST amount of additional coding?

- A. AWSAppSync
- B. Amazon Cognito identity pools
- C. Amazon Cognito user pools
- D. Amazon Lambda@Edge

**Answer:** B

#### Explanation:

Reference: <https://aws.amazon.com/blogs/mobile/amazon-cognito-user-pools-supports-federation-with-saml/>

#### NEW QUESTION 268

- (Exam Topic 2)

An application needs to use the IP address of the client in its processing. The application has been moved into AWS and has been placed behind an Application Load Balancer (ALB). However, all the client IP addresses now appear to be the same. The application must maintain the ability to scale horizontally. Based on this scenario, what is the MOST cost-effective solution to this problem?

- A. Remove the application from the ALB
- B. Delete the ALB and change Amazon Route 53 to direct traffic to the instance running the application.
- C. Remove the application from the ALB
- D. Create a Classic Load Balancer in its place
- E. Direct traffic to the application using the HTTP protocol.
- F. Alter the application code to inspect the X-Forwarded-For header
- G. Ensure that the code can work properly if a list of IP addresses is passed in the header.
- H. Alter the application code to inspect a custom header
- I. Alter the client code to pass the IP address in the custom header.

**Answer:** C

#### NEW QUESTION 272

- (Exam Topic 2)

A developer is writing an application that will process data delivered into an Amazon S3 bucket. The data is delivered approximately 10 times a day, and the developer expects the data will be processed in less than 1 minute, on average.

How can the developer deploy and invoke the application with the lowest cost and lowest latency?

- A. Deploy the application as an AWS Lambda function and invoke it with an Amazon CloudWatch alarm triggered by an S3 object upload
- B. Deploy the application as an AWS Lambda function and invoke it with an S3 event notification
- C. Deploy the application as an AWS Lambda function and invoke it with an Amazon CloudWatch scheduled event
- D. Deploy the application onto an Amazon EC2 instance and have it poll the S3 bucket for new objects.

**Answer:** A

#### Explanation:

Reference: <https://docs.aws.amazon.com/lambda/latest/dg/with-s3.html>

#### NEW QUESTION 275

- (Exam Topic 2)

A developer is implementing authentication and authorization for an application. The developer needs to ensure that the user credentials are never exposed. Which approach should the developer take to meet this requirement?

- A. Store the user credentials in Amazon DynamoDB. Build an AWS Lambda function to validate the credentials and authorize users.
- B. Deploy a custom authentication and authorization API on an Amazon EC2 instance.
- C. Store the user credentials in Amazon S3 and encrypt the credentials using Amazon S3 server-side encryption.
- D. Use Amazon Cognito to configure a user pool, and use the Cognito API to authenticate and authorize the users.
- E. Store the user credentials in Amazon RDS. Enable the encryption option for the Amazon RDS DB instances. Build an API using AWS Lambda to validate the credentials and authorize users.

**Answer:** C

#### NEW QUESTION 278

- (Exam Topic 2)

An application is expected to process many files. Each file takes four minutes to process each AWS Lambda invocation. The Lambda function does not return any important data.

What is the fastest way to process all the files?

- A. First split the files to make them smaller, then process with synchronous RequestResponse Lambda invocations.
- B. Make synchronous RequestResponse Lambda invocations and process the files one by one.
- C. Make asynchronous Event Lambda invocations and process the files in parallel.
- D. First join all the files, then process it all at once with an asynchronous Event Lambda invocation.

**Answer: C**

#### NEW QUESTION 279

- (Exam Topic 2)

A developer uses Amazon S3 buckets for static website hosting. The developer creates one S3 bucket for the code and another S3 bucket for the assets, such as image and video files. Access is denied when a user attempts to access the assets bucket from the code bucket, with the website application showing a 403 error. How should the developer solve this issue?

- A. Create an IAM role and apply it to the assets bucket for the code bucket to be granted access.
- B. Edit the bucket policy of the assets bucket to open access to all principals.
- C. Edit the cross-origin resource sharing (CORS) configuration of the assets bucket to allow any origin to access the assets.
- D. Change the code bucket to use AWS Lambda functions instead of static website hosting.

**Answer: C**

#### NEW QUESTION 280

- (Exam Topic 2)

A team of Developers must migrate an application running inside an AWS Elastic Beanstalk environment from a Classic Load Balancer to an Application Load Balancer.

Which steps should be taken to accomplish the task using the AWS Management Console?

- A. \*1. Update the application code in the existing deployment.\* 2. Select a new load balancer type before running the deployment.\* 3. Deploy the new version of the application code to the environment.
- B. \*1. Create a new environment with the same configurations except for the load balancer type.\* 2. Deploy the same application version as used in the original environment.\* 3. Run the swap-environment-cnames action.
- C. \*1. Clone the existing environment, changing the associated load balancer type.\*2. Deploy the same application version as used in the original environment.\*3. Run the swap-environment-cnames action.
- D. \*1. Edit the environment definitions in the existing deployment.\*2. Change the associated load balancer type according to the requirements.\*3. Rebuild the environment with the new load balancer type.

**Answer: B**

#### Explanation:

<https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/using-features.managing.elb.html>

By default, Elastic Beanstalk creates an Application Load Balancer for your environment when you enable load balancing with the Elastic Beanstalk console or the EB CLI. It configures the load balancer to listen for HTTP traffic on port 80 and forward this traffic to instances on the same port. You can choose the type of load balancer that your environment uses only during environment creation. Later, you can change settings to manage the behavior of your running environment's load balancer, but you can't change its type.

#### NEW QUESTION 281

- (Exam Topic 2)

A Developer has been asked to create an AWS Lambda function that is triggered any time updates are made to items in an Amazon DynamoDB table. The function has been created, and appropriate permissions have been added to the Lambda execution role. Amazon DynamoDB streams have been enabled for the table, but the function is still not being triggered.

Which option would enable DynamoDB table updates to trigger the Lambda function?

- A. Change the StreamViewType parameter value to NEW\_AND\_OLD\_IMAGES for the DynamoDB table
- B. Configure event source mapping for the Lambda function
- C. Map an Amazon SNS topic to the DynamoDB streams
- D. Increase the maximum execution time (timeout) setting of the Lambda function

**Answer: B**

#### Explanation:

[https://docs.aws.amazon.com/en\\_us/amazondynamodb/latest/developerguide/Streams.Lambda.Tutorial.html](https://docs.aws.amazon.com/en_us/amazondynamodb/latest/developerguide/Streams.Lambda.Tutorial.html) Create an event source mapping to tell Lambda to send records from your stream to a Lambda function. You can create multiple event source mappings to process the same data with multiple Lambda functions, or process items from multiple streams with a single function.

#### NEW QUESTION 283

- (Exam Topic 2)

A company runs continuous integration/continuous delivery (CI/CD) pipeline for its application on AWS CodePipeline. A developer must write unit tests and run them as part of the pipeline before staging the artifacts for testing.

How should the Developer incorporate unit tests as part of CI/CD pipeline?

- A. Create a separate codePipeline pipeline to run unit tests.
- B. Update the AWS codeBuild build specification to include a phase for running unit tests.
- C. Install the AWS CodeDeploy agent on an Amazon EC2 instance to run unit tests.
- D. Create a testing branch in AWS CodeCommit to run unit tests.

**Answer:** B

#### NEW QUESTION 287

- (Exam Topic 2)

A company needs to ingest terabytes of data each hour from thousands of sources that are delivered almost continually throughout the day. The volume of messages generated varies over the course of the day. Messages must be delivered in real time for fraud detection and live operational dashboards. Which approach will meet these requirements?

- A. Send the messages to an Amazon SQS queue, then process the messages by using a fleet of Amazon EC2 instances
- B. Use the Amazon S3 API to write messages to an S3 bucket, then process the messages by using Amazon Redshift
- C. Use AWS Data Pipeline to automate the movement and transformation of data
- D. Use Amazon Kinesis Data Streams with Kinesis Client Library to ingest and deliver messages

**Answer:** D

#### Explanation:

<https://aws.amazon.com/streaming-data/>

#### NEW QUESTION 290

- (Exam Topic 2)

An advertising company has a dynamic website with heavy traffic. The company wants to migrate the website infrastructure to AWS to handle everything except website development.

Which solution BEST meets these requirements?

- A. Use AWS VM Import to migrate a web server image to AWS Launch the image on a compute-optimized Amazon EC2 instanceLaunch.
- B. Launch multiple Amazon Lightsail instance behind a load balance
- C. Set up the website on those instances.
- D. Deploy the website code in an AWS Elastic Beanstalk environment
- E. Use Auto Scaling to scale the numbers of instance
- F. Use Amazon S3 to host the website
- G. Use Amazon CloudFront to deliver the content at scale.

**Answer:** C

#### NEW QUESTION 291

- (Exam Topic 2)

A developer is updating an application deployed on AWS Elastic Beanstalk The new version is incompatible with the old version To successfully deploy the update, a full cutover to the new updated version must be performed on all instances at one time, with the ability to roll back changes in case of a deployment failure in the new version

How can this be performed with the LEAST amount of downtime?

- A. Use the Elastic Beanstalk All at once deployment policy to update all instances simultaneously
- B. Perform an Elastic Beanstalk Rolling with additional batch deployment
- C. Deploy the new version in a new Elastic Beanstalk environment and swap environment URLs
- D. Perform an Elastic Beanstalk Rolling deployment

**Answer:** C

#### NEW QUESTION 293

- (Exam Topic 2)

A developer is refactoring a monolithic application. The application takes a POST request and performs several operations. Some of the operations are in parallel while others run sequentially. These operations have been refactored into individual AWS Lambda functions. The POST request will be processed by Amazon API Gateway.

How should the developer invoke the Lambda functions in the same sequence using API Gateway\*?

- A. Use Amazon SQS to invoke the Lambda functions
- B. Use an AWS Step Functions activity to run the Lambda functions
- C. Use Amazon SNS to trigger the Lambda functions
- D. Use an AWS Step Functions state machine to orchestrate the Lambda functions.

**Answer:** A

#### NEW QUESTION 295

- (Exam Topic 2)

A global company has an application running on Amazon EC2 instances that serves image files from Amazon S3. User requests from the browser are causing high traffic, which results in degraded performance.

Which optimization solution should a Developer implement to increase application performance?

- A. Create multiple prefix in the S3 bucket to increase the request rate
- B. Create an Amazon ElastiCache cluster to cache and serve frequently accessed items.
- C. Use Amazon CloudFront to serve the content of images stored in Amazon S3.
- D. Submit a ticket to AWS support to request a rate limit increase for the S3 bucket.

**Answer:** B

#### NEW QUESTION 298

- (Exam Topic 2)

An organization is using Amazon CloudFront to ensure that its users experience low-latency access to its web application. The organization has identified a need to encrypt all traffic between users and CloudFront, and all traffic between CloudFront and the web application. How can these requirements be met? (Choose two.)

- A. Use AWS KMS to encrypt traffic between CloudFront and the web application.
- B. Set the Origin Protocol Policy to "HTTPS Only".
- C. Set the Origin's HTTP Port to 443.
- D. Set the Viewer Protocol Policy to "HTTPS Only" or "Redirect HTTP to HTTPS".
- E. Enable the CloudFront option Restrict Viewer Access.

**Answer:** AB

**Explanation:**

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/using-https-viewers-to-cloudfront.htm>  
<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/using-https-cloudfront-to-custom-origi>

**NEW QUESTION 301**

- (Exam Topic 2)

A developer has discovered that an application responsible for processing messages in an Amazon SQS queue is routinely falling behind. The application is capable of processing multiple messages in one execution, but is only receiving one message at a time. What should the developer do to increase the number of messages the application receives?

- A. Call the ChangeMessageVisibility API for the queue and set MaxNumberOfMessages to a value greater than the default of 1.
- B. Call the AddPermission API to set MaxNumberOfMessages for the ReceiveMessage action to a value greater than the default of 1.
- C. Call the ReceiveMessage API to set MaxNumberOfMessages to a value greater than the default of 1.
- D. Call the SetQueueAttributes API for the queue and set MaxNumberOfMessages to a value greater than the default of 1.

**Answer:** A

**NEW QUESTION 306**

- (Exam Topic 2)

A Developer is trying to make API calls using SDK. The IAM user credentials used by the application require multi-factor authentication for all API calls. Which method the Developer use to access the multi-factor authentication protected API?

- A. GetFederationToken
- B. GetCallerIdentity
- C. GetSessionToken
- D. DecodeAuthorizationMessage

**Answer:** B

**NEW QUESTION 311**

- (Exam Topic 2)

A software company needs to make sure user-uploaded documents are securely stored in Amazon S3. The documents must be encrypted at rest in Amazon S3. The company does not want to manage the security infrastructure in-house, but the company still needs extra protection to ensure it has control over its encryption keys due to industry regulations. Which encryption strategy should a developer use to meet these requirements?

- A. Server-side encryption with Amazon S3 managed keys (SSE-S3)
- B. Server-side encryption with customer-provided encryption keys (SSE-C)
- C. Server-side encryption with AWS KMS managed keys (SSE-KMS)
- D. Client-side encryption

**Answer:** D

**NEW QUESTION 315**

- (Exam Topic 2)

The development team is working on an API that will be served from Amazon API gateway. The API will be served from three environments: development, test, and production. The API Gateway is configured to use 237 GB of cache in all three stages. Which is the MOST cost-efficient deployment strategy?

- A. Create a single API Gateway with all three stages.
- B. Create three API Gateways, one for each stage in a single AWS account.
- C. Create an API Gateway in three separate AWS accounts.
- D. Enable the cache for development and test environments only when needed.

**Answer:** D

**NEW QUESTION 316**

- (Exam Topic 2)

A developer implemented a static website hosted in amazon s3 that makes web service requests 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?

- A. Enable cross-origin resource sharing (cors) on the s3 bucket
- B. Enable cross-origin resource sharing (cors) for the method in api gateway
- C. Add the access-control-request-method header to the request

D. Add the access-control request headers header to the request

**Answer:** A

**Explanation:**

Reference: <https://forums.aws.amazon.com/thread.jspa?threadid=252972>

#### NEW QUESTION 317

- (Exam Topic 2)

A developer is creating a new application that will be accessed by users through an API created using Amazon API Gateway. The users need to be authenticated by a third-party Security Assertion Markup Language (SAML) identity provider. Once authenticated, users will need access to other AWS services such as Amazon S3 and Amazon DynamoDB.

How can these requirements be met?

- A. Use an Amazon Cognito user pool with SAML as the resource server.
- B. Use Amazon Cognito Identity pools with a SAML identity provider as one of the authentication providers.
- C. Use the AWS IAM service to provide the sign-up and sign-in functionality.
- D. Use Amazon CloudFront signed URLs to connect with the SAML identity provider.

**Answer:** B

#### NEW QUESTION 318

- (Exam Topic 2)

A developer is setting up Amazon API Gateway for their company's products. The API will be registered developers to query and update their environments. The company wants to limit the amount of requests end users send for bot cost and security reason management wants to offer registered the option of buying larger packages that allow for more requests.

- A. Enable throttling for the API Gateway stage. Set a value for both the rate and burst capacity. If a registered larger package, create a stage for them, adjust the values, and share the new URL with them.
- B. Set up Amazon CloudWatch API logging in API Gateway. Create a filter based on the user and requestTime fields and create an alarm on this filter. Write an AWS Lambda function to analyze the values and requester information, and respond accordingly. Set up the function as the target for the alarm. If a registered user chooses a larger package, update the Lambda code with the values.
- C. Enable Amazon CloudWatch metrics for the API Gateway stage. Set up CloudWatch alarms based off the Count metric and the ApiName, Method, Resource, and Stage dimensions to alerts when request rates pass the threshold. Set the alarm action to Deny. If a registered user chooses a larger package, create a user-specific alarm and adjust the values.
- D. Set up a default usage plan. Specify values for the rate and burst capacity, and associate it with a stage. If a registered user chooses a larger package, create a custom plan with the appropriate values and associate the plan with the user.

**Answer:** A

#### NEW QUESTION 322

- (Exam Topic 2)

A company is running an application built on AWS Lambda functions. One Lambda function has performance issues when it has to download a 50MB file from the Internet in every execution. This function is called multiple times a second.

What solution would give the BEST performance increase?

- A. Cache the file in the /tmp directory.
- B. Increase the Lambda maximum execution time.
- C. Put an Elastic Load Balancer in front of the Lambda function.
- D. Cache the file in Amazon S3.

**Answer:** A

**Explanation:**

<https://docs.aws.amazon.com/lambda/latest/dg/runtimes-context.html>

#### NEW QUESTION 327

- (Exam Topic 2)

A company is using AWS CodePipeline to deliver one of its applications. The delivery pipeline is triggered by changes to the master branch of an AWS CodeCommit repository and uses AWS CodeBuild to implement the test and build stages of the process and AWS CodeDeploy to deploy the application. The pipeline has been operating successfully for several months and there have been no modifications. Following a recent change to the application's source code, AWS CodeDeploy has not deployed the updated application as expected.

What are the possible causes? (Choose two.)

- A. The change was not made in the master branch of the AWS CodeCommit repository.
- B. One of the earlier stages in the pipeline failed and the pipeline has terminated.
- C. One of the Amazon EC2 instances in the company's AWS CodePipeline cluster is inactive.
- D. The AWS CodePipeline is incorrectly configured and is not executing AWS CodeDeploy.
- E. AWS CodePipeline does not have permissions to access AWS CodeCommit.

**Answer:** AB

#### NEW QUESTION 329

- (Exam Topic 2)

A company has implemented AWS CodePipeline to automate its release pipelines. The development team is writing an AWS Lambda function that will send notifications for state changes of each of the actions in the stages.

Which steps must be taken to associate the Lambda function with the event source?

- A. Create a trigger that invokes the Lambda function from the Lambda console by selecting CodePipeline as the event source
- B. Create an event trigger and specify the Lambda function from the CodePipeline console.
- C. Create an Amazon CloudWatch alarm that monitors status changes in CodePipeline and triggers the Lambda function
- D. Create an Amazon CloudWatch Events rule that uses CodePipeline as an event source.

**Answer:** B

#### NEW QUESTION 331

- (Exam Topic 2)

A company wants to implement authentication for its new REST service using Amazon API Gateway. To authenticate the calls, each request must include HTTP headers with a client ID and user ID. These credentials must be compared to authentication data in an Amazon DynamoDB table. What MUST the company do to implement this authentication in API Gateway?

- A. Implement an AWS Lambda authorizer that references the DynamoDB authentication table
- B. Create a model that requires the credentials, then grant API Gateway access to the authentication table
- C. Modify the integration requests to require the credentials, then grant API Gateway access to the authentication table
- D. Implement an Amazon Cognito authorizer that references the DynamoDB authentication table

**Answer:** A

#### Explanation:

<https://docs.aws.amazon.com/apigateway/latest/developerguide/apigateway-use-lambda-authorizer.html>

#### NEW QUESTION 333

- (Exam Topic 2)

A developer has created a new AWS IAM user that has s3 putobject permission to write to a specific Amazon bucket. This S3 bucket uses server-side encryption with AWS KMS managed keys (SEE-KMS) as the encryption. Using the access key and secret key of the IAM user, the application received an access denied error when calling the PutObject API. How can this issue be resolved?

- A. Update the policy of the IAM user to allow the s3 Encrypt action.
- B. Update the bucket policy of the S3 bucket to allow the IAM user to upload objects
- C. Update the policy of the IAM user to allow the kms GenerateDatakey action
- D. Update the ACL of the bucket to allow the IAM user to upload objects

**Answer:** C

#### NEW QUESTION 337

- (Exam Topic 2)

A company has a legacy application that was migrated to a fleet of Amazon EC2 instances. The application stores data in a MySQL database that is currently installed on a single EC2 instance. The company has decided to migrate the database from the EC2 instance to MySQL on Amazon RDS. What should the developer do to update the application to support data storage in Amazon RDS?

- A. Update the database connection parameters in the application to point to the new RDS instance
- B. Add a script to the EC2 instance that implements an AWS SDK for requesting database credentials.
- C. Create a new EC2 instance with an IAM role that allows access to the new RDS database
- D. Create an AWS Lambda function that will route traffic from the EC2 instance to the RDS database.

**Answer:** A

#### NEW QUESTION 340

- (Exam Topic 2)

The upload of a 15 GB object to Amazon S3 fails. The error message reads: "Your proposed upload exceeds the maximum allowed object size." What technique will allow the Developer to upload this object?

- A. Upload the object using the multi-part upload API.
- B. Upload the object over an AWS Direct Connect connection.
- C. Contact AWS Support to increase the object size limit.
- D. Upload the object to another AWS region.

**Answer:** A

#### Explanation:

<https://docs.aws.amazon.com/AmazonS3/latest/dev/UploadingObjects.html>

#### NEW QUESTION 345

- (Exam Topic 2)

A Developer must trigger an AWS Lambda function based on the item lifecycle activity in an Amazon DynamoDB table. How can the Developer create the solution?

- A. Enable a DynamoDB stream that publishes an Amazon SNS message
- B. Trigger the Lambda function synchronously from the SNS message.
- C. Enable a DynamoDB stream that publishes an SNS message
- D. Trigger the Lambda function asynchronously from the SNS message.
- E. Enable a DynamoDB stream, and trigger the Lambda function synchronously from the stream.
- F. Enable a DynamoDB stream, and trigger the Lambda function asynchronously from the stream.

**Answer:** C

**Explanation:**

<https://docs.aws.amazon.com/lambda/latest/dg/with-ddb.html>

**NEW QUESTION 347**

- (Exam Topic 2)

A Developer must analyze performance issues with production-distributed applications written as AWS Lambda functions. These distributed Lambda applications invoke other components that make up the applications.

How should the Developer identify and troubleshoot the root cause of the performance issues in production?

- A. Add logging statements to the Lambda functions, then use Amazon CloudWatch to view the logs.
- B. Use AWS Cloud Trail and then examine the logs
- C. Use AWS X-Ray, then examine the segments and errors
- D. Run Amazon Inspector agents and then analyze performance

**Answer: C**

**Explanation:**

<https://aws.amazon.com/blogs/developer/new-analyze-and-debug-distributed-applications-interactively-using-aw>

**NEW QUESTION 348**

- (Exam Topic 2)

A developer is building an application that needs to store data in Amazon S3. Management requires that the data be encrypted before is it sent to Amazon S3 for storage. The encryption keys need to be managed by the security team.

Which approach should the developer take to meet these requirements?

- A. Implement server-side encryption using customer-provided encryption keys (SSE-C).
- B. Implement server-side encryption by using client-side master key.
- C. Implement client-side encryption using an AWS KMS managed customer master key (CMK).
- D. Implement Client-side encryption using Amazon S3 managed keys.

**Answer: C**

**Explanation:**

Reference: <https://aws.amazon.com/s3/faqs/>

**NEW QUESTION 353**

- (Exam Topic 2)

An application uses Amazon Kinesis Data Streams to ingest and process large streams of data records in real time. Amazon EC2 instances consume and process the data from the shards of the Kinesis data stream by using Amazon Kinesis Client Library (KCL). The application handles the failure scenarios and does not require standby workers. The application reports that a specific shard is receiving more data than expected. To adapt to the changes in the rate of data flow, the "hot" shard is resharded.

Assuming that the initial number of shards in the Kinesis data stream is 4, and after resharding the number of shards increased to 6, what is the maximum number of EC2 instances that can be deployed to process data from all the shards?

- A. 12
- B. 6
- C. 4
- D. 1

**Answer: B**

**Explanation:**

Typically, when you use the KCL, you should ensure that the number of instances does not exceed the number of shards (except for failure standby purposes). Each shard is processed by exactly one KCL worker and has exactly one corresponding record processor, so you never need multiple instances to process one shard. However, one worker can process any number of shards, so it's fine if the number of shards exceeds the number of instances.

<https://docs.aws.amazon.com/streams/latest/dev/kinesis-record-processor-scaling.html>

**NEW QUESTION 356**

- (Exam Topic 2)

A developer wants to ensure the Amazon EC2 instances in AWS Elastic Beanstalk execute a certain set of commands before the application is ready to use Which Elastic Beanstalk feature will allow the developer to accomplish this?

- A. Rolling update
- B. Immutable update
- C. User data
- D. ebextensions

**Answer: D**

**NEW QUESTION 360**

- (Exam Topic 2)

A Developer is migrating existing applications to AWS. These applications use MongoDB as their primary data store, and they will be deployed to Amazon EC2 instances. Management requires that the Developer minimize changes to applications while using AWS services

Which solution should the Developer use to host MongoDB in AWS?

- A. Install MongoDB on the same instance where the application is running
- B. Deploy Amazon DocumentDB in MongoDB compatibility mode
- C. Use Amazon API Gateway to translate API calls from MongoDB to Amazon DynamoDB.

D. Replicate the existing MongoDB workload to Amazon DynamoDB

**Answer:** D

#### NEW QUESTION 364

- (Exam Topic 2)

An application is being developed to audit several AWS accounts. The application will run in Account A and must access AWS services in Accounts B and C. What is the MOST secure way to allow the application to call AWS services in each audited account?

- A. Configure cross-account roles in each audited account
- B. Write code in Account A that assumes those roles
- C. Use S3 cross-region replication to communicate among accounts, with Amazon S3 event notifications to trigger Lambda functions
- D. Deploy an application in each audited account with its own role
- E. Have Account A authenticate with the application
- F. Create an IAM user with an access key in each audited account
- G. Write code in Account A that uses those access keys

**Answer:** A

#### Explanation:

[https://docs.aws.amazon.com/IAM/latest/UserGuide/tutorial\\_cross-account-with-roles.html](https://docs.aws.amazon.com/IAM/latest/UserGuide/tutorial_cross-account-with-roles.html)

#### NEW QUESTION 366

- (Exam Topic 2)

An application uses Lambda functions to extract metadata from files uploaded to an S3 bucket; the metadata is stored in Amazon DynamoDB. The application starts behaving unexpectedly, and the Developer wants to examine the logs of the Lambda function code for errors.

Based on this system configuration, where would the Developer find the logs?

- A. Amazon S3
- B. AWS CloudTrail
- C. Amazon CloudWatch
- D. Amazon DynamoDB

**Answer:** C

#### NEW QUESTION 367

- (Exam Topic 2)

A company is migrating from a monolithic architecture to a microservices-based architecture. The Developers need to refactor the application so that the many microservices can asynchronously communicate with each other without impacting performance.

Use of which managed AWS services will enable asynchronous message passing? (Choose two.)

- A. Amazon SQS
- B. Amazon Cognito
- C. Amazon Kinesis
- D. Amazon SNS
- E. Amazon ElastiCache

**Answer:** AD

#### NEW QUESTION 370

- (Exam Topic 2)

A developer has built an application running on AWS Lambda using AWS Serverless Application Model (AWS SAM). What is the correct order of execution to successfully deploy the application?

- A. \* 1 Build the SAM template in Amazon EC2\* 2 Package the SAM template to Amazon EBS storage\* 3. Deploy the SAM template from Amazon EBS.
- B. \* 1 Build the SAM template locally\* 2 Package the SAM template onto Amazon S3\* 3. Deploy the SAM template from Amazon S3.
- C. \* 1 Build the SAM template locally\* 2. Deploy the SAM template from Amazon S3. \* 3 Package the SAM template for use
- D. \* 1 Build the SAM template locally\* 2 Package the SAM template from AWS CodeCommit
- E. \* 3 Deploy the SAM template to CodeCommit

**Answer:** B

#### Explanation:

Reference:

<https://docs.aws.amazon.com/serverless-application-model/latest/developerguide/serverlessdeploying.html>

#### NEW QUESTION 371

- (Exam Topic 2)

A company wants to migrate an imaging service to Amazon EC2 while following security best practices. The images are sourced and read from a non-public Amazon S3 bucket.

What should a developer do to meet these requirements?

- A. Create an IAM user with read-only permissions for the S3 bucket Temporarily store the user credentials in the Amazon EBS volume of the EC2 instance
- B. Create an IAM user with read-only permissions for the S3 bucket
- C. Temporarily store the user credentials in the user data of the EC2 instance.
- D. Create an EC2 service role with read-only permissions for the S3 bucket Attach the role to the EC2 instance
- E. Create an S3 service role with read-only permissions for the S3 bucket Attach the role to the EC2 instance

Answer: A

#### NEW QUESTION 376

- (Exam Topic 2)

A company stores all personally identifiable information (PII) in an Amazon DynamoDB table named PII in Account A. An application running on Amazon EC2 instances in Account B requires access to the PII table. An administrator in Account A created an IAM role named AccessPII with privileges to access the PII table and made Account B a trusted entity.

Which combination of additional steps should developers take to access the table? (Select TWO )

- A. Ask an administrator in Account B to allow the EC2 IAM role permission to assume the AccessPII role
- B. Ask an administrator in Account B to allow the EC2 IAM role permission to assume the AccessPII role with predefined service control policies
- C. Ask an administrator in Account A to allow the EC2 IAM role permission to assume the AccessPII role with predefined service control policies
- D. Include the AssumeRole API in the application code logic to obtain credentials to access the PII table.
- E. Include the GetSessionToken API in the application code logic to obtain credentials to access the PII table

Answer: AD

#### NEW QUESTION 379

- (Exam Topic 2)

A company experienced partial downtime during the last deployment of a new application AWS Elastic Beanstalk split the environment's Amazon EC2 instances into batches and deployed a new version one batch at a time after taking them out of service. Therefore, full capacity was not maintained during deployment. The developer plans to release a new version of the application, and is looking for a policy that will maintain full capacity and minimize the impact of the failed deployment

Which deployment policy should the developer use?

- A. Immutable
- B. All at Once
- C. Rolling
- D. Rolling with an Additional Batch

Answer: A

#### Explanation:

Immutable infrastructure has become a new norm in IT operations. Immutable Deployment is one of those approaches, and it simply means: Immutable: the "staging" environment, once ready to become production, doesn't change. If we need to change something, we then deploy new code on completely new infrastructure. The benefits of an immutable infrastructure include more consistency and reliability in your infrastructure and a simpler, more predictable deployment process

#### NEW QUESTION 380

- (Exam Topic 2)

While developing an application that runs on Amazon EC2 in an Amazon VPC, a Developer identifies the need for centralized storage of application-level logs. Which AWS service can be used to securely store these logs?

- A. Amazon EC2 VPC Flow Logs
- B. Amazon CloudWatch Logs
- C. Amazon CloudSearch
- D. AWS CloudTrail

Answer: B

#### NEW QUESTION 383

- (Exam Topic 2)

A Developer is building a web application that uses Amazon API Gateway to expose an AWS Lambda function to process requests from clients. During testing, the Developer notices that the API Gateway times out even though the Lambda function finishes under the set time limit.

Which of the following API Gateway metrics in Amazon CloudWatch can help the Developer troubleshoot the issue? (Choose two.)

- A. CacheHitCount
- B. IntegrationLatency
- C. CacheMissCount
- D. Latency
- E. Count

Answer: BC

#### Explanation:

<https://docs.aws.amazon.com/apigateway/latest/developerguide/api-gateway-metrics-and-dimensions.html>

#### NEW QUESTION 384

- (Exam Topic 2)

A Developer is creating a template that uses AWS CloudFormation to deploy an application. This application is serverless and uses Amazon API Gateway, Amazon DynamoDB, and AWS Lambda.

Which tool should the Developer use to define simplified syntax for expressing serverless resources?

- A. CloudFormation serverless intrinsic functions
- B. AWS serverless express
- C. An AWS serverless application model
- D. A CloudFormation serverless plugin

Answer: A

#### NEW QUESTION 386

- (Exam Topic 2)

A company has a two-tier application running on an Amazon EC2 server that handles all of its AWS based e-commerce activity. During peak times, the backend servers that process orders are overloaded with requests. This results in some orders failing to process. A developer needs to create a solution that will re-factor the application.

Which steps will allow for more flexibility during peak times, while still remaining cost-effective? (Select TWO.)

- A. Increase the backend T2 EC2 instance size to xl to handle the largest possible load throughout the year
- B. Implement an Amazon SQS queue to decouple the front-end and backend servers
- C. Use an Amazon SNS queue to decouple the front-end and backend servers.
- D. Migrate the backend servers to on-premises and pull from an Amazon SNS queue
- E. Modify the backend servers to pull from an Amazon SQS queue.

Answer: CD

#### NEW QUESTION 390

- (Exam Topic 3)

When using the AWS Encryption SDK, how does the developer keep track of the data encryption keys used to encrypt data?

- A. The developer must manually keep track of the data encryption keys used for each data object
- B. The SDK encrypts the data encryption key and stores it (encrypted) as part of the returned ciphertext
- C. The SDK stores the data encryption keys automatically in Amazon S3
- D. The data encryption key is stored in the userdata for the EC2 instance

Answer: B

#### NEW QUESTION 391

- (Exam Topic 3)

A Lambda function processes data before sending it to a downstream service. Each piece of data is approximately 1 MB in size. After a security audit, the function is now required to encrypt the data before sending it downstream. Which API call is required to perform the encryption?

- A. Pass the data to the KMS ReEncrypt API for encryption
- B. Use the KMS GenerateDataKey API to get an encryption key
- C. Use the KMS GenerateDataKeyWithoutPlainText API to get an encryption key
- D. Pass the data to KMS as part of the Encrypt API for encryption

Answer: D

#### NEW QUESTION 394

- (Exam Topic 3)

A developer has designed a customer-facing application that is running on an Amazon EC2 instance. The application logs every request made to it. The application usually runs seamlessly, but a spike in traffic generates several logs that cause the disk to fill up and eventually run out of memory. Company policy requires logs to be centralized for analysis.

Which long-term solution should the developer employ to prevent the issue from reoccurring?

- A. Install the Amazon CloudWatch agent on the instance to send the logs to CloudWatch
- B. Delete the logs from the instance once they are sent to CloudWatch.
- C. Enable AWS Auto Scaling on Amazon Elastic Block Store (Amazon EBS) to automatically add volumes to the instance when it reaches a specified threshold.
- D. Enable AWS Auto Scaling on Amazon Elastic Block Store (Amazon EBS) to automatically add volume to the instance when it reaches a specified threshold.
- E. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to pull the logs from the instance. Configure the rule to delete the logs they have been pulled.

Answer: D

#### NEW QUESTION 397

- (Exam Topic 3)

Which of the following are good use cases for how Amazon ElastiCache can help an application? (Select TWO.)

- A. Improve the performance of S3 PUT operations
- B. Improve the latency of deployments performed by AWS CodeDeploy
- C. Improve latency and throughput for read-heavy application workloads.
- D. Reduce the time required to merge AWS CodeCommit branches
- E. Improve performance of compute-intensive applications.

Answer: CE

#### NEW QUESTION 401

- (Exam Topic 3)

A developer converted an existing program to an AWS Lambda function in the console. The program runs properly on a local laptop, but shows an "Unable to import module" error when tested in the Lambda console.

Which of the following can fix the error?

- A. Install the missing module and specify the current directory as the target. Create a ZIP file to include all files under the current directory, and upload the ZIP file.
- B. Install the missing module in a lib directory. Create a ZIP file to include all files under the lib directory, and upload the ZIP file as a dependency file.
- C. In the Lambda code, invoke a Linux command to install the missing modules under the /usr/lib directory.
- D. In the Lambda console, create a LD\_LIBRARY\_PATH environment and specify the value for the system library path.

Answer: C

#### NEW QUESTION 402

- (Exam Topic 3)

A developer is working with a Docker application that needs to be quickly deployed using AWS without changing the infrastructure or configuring health checks. The application should be configured so that changes and updates can be made automatically without any downtime. Which solution will meet these requirements?

- A. Use AWS Elastic Beanstalk for application deployment and select an all-at-once update policy.
- B. Use AWS Elastic Beanstalk for application deployment and select a rolling deployment policy.
- C. Deploy the Docker container on an Amazon EC2 instance in an Auto Scaling group and configure a health check on the EC2 instance.
- D. Deploy the Docker container using AWS Lambda and enable Amazon CloudWatch monitoring.

Answer: A

#### NEW QUESTION 404

- (Exam Topic 3)

A company is providing read access to objects in an Amazon S3 bucket for different customers. The company uses IAM permissions to restrict access to the S3 bucket. The customers can access only their own files.

Due to a regulation requirement, the company needs to enforce encryption in transit for interactions with Amazon S3.

Which solution will meet these requirements?

- A. Add a bucket policy to the S3 bucket to deny S3 actions when the aws:SecureTransport condition is equal to false.
- B. Add a bucket policy to the S3 bucket to deny S3 actions when the s3:x-amz-acl condition is equal to public-read.
- C. Add an IAM policy to the IAM users to enforce the usage of the AWS SDK.
- D. Add an IAM policy to the IAM users that allows S3 actions when the s3:x-arnz-acl condition is equal to bucket-owner-read.

Answer: C

#### NEW QUESTION 407

- (Exam Topic 3)

A developer is troubleshooting a three-tier application, which is deployed on Amazon EC2 instances. There is a connectivity problem between the application servers and the database servers.

Which AWS services or tools should be used to identify the faulty component? (Select TWO.)

- A. AWS CloudTrail.
- B. AWS Trusted Advisor.
- C. Amazon VPC Flow Logs.
- D. Network access control lists.
- E. AWS Config rules.

Answer: CD

#### NEW QUESTION 408

- (Exam Topic 3)

A developer must extend an existing application that is based on the AWS Services Application Model (AWS SAM). The developer has used the AWS SAM CLI to create the project. The project contains different AWS Lambda functions.

Which combination of commands must the developer use to redeploy the AWS SAM application? (Select TWO.)

- A. sam init
- B. sam validate
- C. sam build
- D. sam deploy
- E. sam publish

Answer: AD

#### NEW QUESTION 409

- (Exam Topic 3)

A developer is building an application integrating an Amazon API Gateway with an AWS Lambda function. When calling the API, the developer receives the following error: Wed Nov 03 01:13:00 UTC 2017 : Method completed with status: 502. What should the developer do to resolve the error?

- A. Change the HTTP endpoint of the API to an HTTPS endpoint.
- B. Change the format of the payload sent to the API Gateway.
- C. Change the format of the Lambda function response to the API call.
- D. Change the authorization header in the API call to access the Lambda function.

Answer: C

#### NEW QUESTION 412

- (Exam Topic 3)

A developer is building a serverless application using AWS Lambda and must create a REST API using an HTTP GET method. What needs to be defined to meet this requirement? (Select TWO.)

- A. A Lambda@Edge function.
- B. An Amazon API Gateway with a Lambda function.
- C. An exposed GET method in an Amazon API Gateway ID.

- D. An exposed GET method in the Lambda function
- E. An exposed GET method in Amazon Route 53

**Answer:** BE

#### NEW QUESTION 415

- (Exam Topic 3)

A company has three AWS Lambda functions that are written in Node.js. The Lambda functions include a mix of custom code and open-source modules. When bugs are occasionally detected in the open-source modules, all three Lambda functions must be patched. What is the MOST operationally efficient solution to deploy a patched open-source library for all three Lambda functions?

- A. Create a custom AWS CloudFormation public registry extension. Reference a GitHub repository that hosts the open-source modules in the extension. Configure CloudFormation to scan the repository once each day. Write an AWS Serverless Application Model (AWS SAM) template to redeploy the three Lambda functions upon a scan notification change.
- B. Create an Amazon CloudFront distribution with an Amazon S3 bucket as the origin. Upload the patched modules to Amazon S3 when needed. Modify each Lambda function to download the patched modules from the CloudFront distribution during the cold start.
- C. Launch an Amazon EC2 instance. Host a private open-source module registry on the EC2 instance. Upload the modified open-source modules to the private registry when needed.
- D. Modify each Lambda function deployment script to download the modules from the private registry. Redeploy the three new Lambda functions.
- E. Create a Lambda layer with the open-source modules. Modify all three Lambda functions to depend on the layer. Remove the open-source modules from each Lambda function. Patch the Lambda layer with the modified open-source modules when needed. Update the Lambda functions to reference the new layer version.

**Answer:** D

#### NEW QUESTION 419

- (Exam Topic 3)

A developer is creating an application that is based on an AWS Lambda function. The function uses the AWS SDK to read product price data from an Amazon S3 bucket and to write user information to an Amazon Aurora DB instance. The Lambda function runs often, up to a few times each minute. To meet performance requirements, the developer must minimize the run duration of the Lambda function. Which actions can help the developer increase the performance? (Select TWO)

- A. Initialize SDK clients and database connections outside of the function handler.
- B. Read the S3 product price data initially and cache it locally in the /tmp directory.
- C. Use environment variables to pass operational parameters to the function.
- D. Use most-restrictive permissions when setting the IAM policies for the Lambda IAM role.
- E. Split the code into different Lambda functions to keep the functions smaller.

**Answer:** AC

#### NEW QUESTION 422

- (Exam Topic 3)

A developer needs to manage AWS infrastructure as code and must be able to deploy multiple identical copies of the infrastructure, stage changes, and revert to previous versions. Which approach addresses these requirements?

- A. Use cost allocation reports and AWS OpsWorks to deploy and manage the infrastructure.
- B. Use Amazon CloudWatch metrics and alerts along with resource tagging to deploy and manage the infrastructure.
- C. Use AWS Elastic Beanstalk and AWS CodeCommit to deploy and manage the infrastructure.
- D. Use AWS CloudFormation and AWS CodeCommit to deploy and manage the infrastructure.

**Answer:** D

#### NEW QUESTION 426

- (Exam Topic 3)

A developer is writing an AWS Lambda function. The developer wants to log key events that occur during the Lambda function and include a unique identifier to associate the events with a specific function invocation. Which of the following will help the developer accomplish this objective?

- A. Obtain the request identifier from the Lambda context object. Architect the application to write logs to the console.
- B. Obtain the request identifier from the Lambda event object. Architect the application to write logs to a file.
- C. Obtain the request identifier from the Lambda event object. Architect the application to write logs to the console.
- D. Obtain the request identifier from the Lambda context object. Architect the application to write logs to a file.

**Answer:** A

#### NEW QUESTION 430

- (Exam Topic 3)

A developer needs to modify an application architecture to meet new functional requirements. Application data is stored in Amazon DynamoDB and processed for analysis in a nightly batch. The system analysts do not want to wait until the next day to view the processed data and have asked to have it available in near-real time.

Which application architect pattern would enable the data to be processed as it is received?

- A. Event driven
- B. Client served driven
- C. Fan-out driven
- D. Schedule driven

**Answer:** A

**NEW QUESTION 431**

- (Exam Topic 3)

A company has a web application that uses an Amazon Cognito user pool for authentication. The company wants to create a login page with the company logo. What should a developer do to meet these requirements?

- A. Create a hosted user interface in Amazon Cognito and customize it with the company logo
- B. Create a login page with the company logo and upload it to Amazon Cognito
- C. Create a login page in Amazon API Gateway with the logo and save the link in Amazon Cognito.
- D. Upload the logo to the Amazon Cognito app settings and point to the logo on a custom login page

**Answer:** A

**NEW QUESTION 436**

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