Amazon-Web-Services

Exam Questions DVA-C01

AWS Certified Developer Associate Exam

NEW QUESTION 1
- (Exam Topic 4)
A developer needs to secure the static assets in a company's Amazon S3 bucket that is named
DOC-EXAMPLE-BUCKET. The company has an Amazon CtoudFront distribution that serves the S3 bucket's assets to the public. The developer has already created the origin access identity (OAI) and has associated the OAI with the distribution. The developer must write a bucket policy that allows only the CloudFront distribution to access the S3 bucket
Which policy will meet this requirement MOST securely?
A)

```
{
    "Effect": "Allow",
    "Principal": {
        "AWS": "arn:aws:iam::cloudfront:user/CloudFront Origin Access Identity E123450AI12"
    },
    "Action": [
        "s3:GetObject"
    ],    "Resource": [
        "arn:aws:s3:::DOC-EXAMPLE-BUCKET/*"
    ]
}
```

B)

```
{
    "Effect": "Allow",
    "Principal": {
        "AWS": "arn:aws:iam::cloudfront:user/CloudFront Origin Access Identity E123450AI12"
    },
    "Action": [
        "s3:GetObject",
        "s3:PutObject"
    ],
    "Resource": [
        "arn:aws:s3:::DOC-EXAMPLE-BUCKET/*"
    ]
}
```

C)

```
{
    "Effect": "Allow",
    "Principal": {
        "AWS": "arn:aws:iam::cloudfront:user/CloudFront Origin Access Identity E123450AI12"
    },
    "Action": [
        "s3:GetObject"
    ],    "Resource": [
        "arn:aws:s3:::DOC-EXAMPLE-BUCKET"
    ]
}
```

D)

```
{
    "Effect": "Allow",
    "Principal": {
        "AWS": "arn:aws:iam::cloudfront:user/CloudFront Origin Access Identity E123450AI12"
    },
    "Action": [
        "s3:GetObject",
        "s3:PutObject"
    ],
    "Resource": [
        "arn:aws:s3:::DOC-EXAMPLE-BUCKET"
    ]
}
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

NEW QUESTION 2
- (Exam Topic 4)

A developer is migrating to Amazon Cognito from a custom user management solution that stores user information in a database. The developer has created a…… Amazon Cognito user pool. The developer needs to migrate the existing user information to the user pool without forcing users to change their passwords. Which solution will meet these requirements?

A. Import users from a .csv file.
B. Add an OpenID Connect (OIDC) identity provider to the user pool.
C. Import users from a .json file.
D. Import users with a user migration AWS Lambda trigger.

Answer: B

NEW QUESTION 3
- (Exam Topic 4)
A developer at a company recently created a serverless application to process and show data from business reports. The application's user interface (UI) allow users to select and start processing the files. The UI displays a message when the result is available to view. The application uses AWS Step Functions with A Lambda functions "to process the files. The developer used Amazon API Gateway and Lambda functions to create an API to support the UI.
The company's UI team reports that the request to process a file is often returning timeout errors because of the size or complexity of the files. The UI team w< API to provide an immediate response so that the UI can display a message while the files are being processed. The backend process that is invoked by the A needs to send an email message when the report processing is complete.
What should the developer do to configure the API to meet these requirements?

A. Change the API Gateway route to add an X-Amz-Invocation-Type header with a static value of 'Event' in the integration reques
B. Deploy the API Gatt stage to apply the changes.
C. Change the configuration of the Lambda function that implements the request to process a file.Configure the maximum age of the event so that the Lambda function will run asynchronously.
D. Change the API Gateway timeout value to match the Lambda function timeout valu
E. Deploy the API Gateway stage to apply the changes.
F. Change the API Gateway route to add an X-Amz-Target header with a static value of 'Async' in the integration reques
G. Deploy the API Gateway stag apply the changes.

Answer: A

NEW QUESTION 4
- (Exam Topic 4)
A developer runs an application that uses an Amazon API Gateway REST API. The developer needs to implement a solution to proactively monitor the health of both API responses and latencies in case a deployment causes a service disruption despite passing deployment pipeline tests. The solution also must check for endpoint vulnerability and unauthorized changes to APIs. URLs, and website content.
Which solution will meet these requirements?

A. Use the Amazon CloudWatch Synthetics canary functionality to call the API and check the responses and duration of the request.
B. Use a custom health check in the API that queries hosts to check the duration of the request.
C. Implement a custom AWS Lambda function with an Amazon EventBridge event to periodically call the API and check the responses and duration of the request.
D. Use the built-in API Gateway metrics to monitor the average duration of the API response.

Answer: A

NEW QUESTION 5
- (Exam Topic 4)
A company is hosting a workshop for external users and wants to share the reference documents with the external users for 7 days. The company stores the reference documents in an Amazon S3 bucket that the company owns.
What is the MOST secure way to share the documents with the external users?

A. Use S3 presigned URLs to share the documents with the external user
B. Set an expiration time of 7 days.
C. Move the documents to an Amazon WorkDocs folde
D. Share the links of the WorkDocs folder with the external users.
E. Create temporary 1AM users that have read-only access to the S3 bucke
F. Share the access keys with the external user
G. Expire the credentials after 7 days.
H. Create a role that has read-only access to the S3 bucke
I. Share the Amazon Resource Name (ARN) of this role with the external users.

Answer: A

NEW QUESTION 6
- (Exam Topic 4)
A developer has built an application running on AWS Lambda using AWS Serverless Application Model (AWS SAM).
What is the correct sequence of steps 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.

Answer: B

NEW QUESTION 7
- (Exam Topic 4)

A movie fan club hosts a serverless web application in an Amazon S3 bucket. The application uses an AWS Lambda function that is exposed by an Amazon API Gateway API. The function queries an Amazon DynamoDB table to list actors sorted by movie. In the DynamoDB table. Actor is the primary key, Movie is the sort key, and Role and Year are attributes.
In the web application, a developer wants to add a page that is named Phase 1 that lists only the movies that were released between 2008 and 2012. The developer needs to fetch the Phase 1 items in a way that minimizes the impact on the DynamoDB table.
Which solution will meet these requirements?

A. Create a global secondary index (GSI) with the Year attribute as the sort ke
B. Create a Lambda function to return the results from a new method in the API.
C. Design a Lambda function that scans the DynamoDB table and filters the results for the Phase 1 items.Invoke the function from a new method in the API.
D. Use a DynamoDB stream to send items that are filtered by Year to a new DynamoDB tabl
E. Invoke a Lambda function from a new method in the API.
F. Set up an Amazon CloudFront distributio
G. Create a Lambda@Edge function to filter the items that are returned from the API request.

Answer: B

NEW QUESTION 8
- (Exam Topic 4)
A company has a serverless application that uses AWS Lambda functions and AWS Systems Manager parameters to store configuration data. The company moves the Lambda functions inside the VPC and into private subnets. The Lambda functions are now producing errors in their attempts to access Systems Manager parameters.
Which solution will allow the Lambda functions to access Systems Manager parameters inside the VPC?

A. Configure security groups to allow access lo Systems Manager.
B. Create an interface VPC endpoint for Systems Manager.
C. Use an internet gateway from inside the VPC.
D. Create a gateway VPC endpoint for Systems Manager.

Answer: B

NEW QUESTION 9
- (Exam Topic 4)
A company hosts a monolithic application on Amazon EC2 instances. The company starts converting some features of the application to a serverless architecture by using Amazon API Gateway and AWS Lambda After the migration, some users report problems with payment processing
Upon inspection, a developer discovers that the Lambda function that calls the external payment API is taking longer than expected Therefore, the API Gateway requests are timing out
What should the developer do to resolve this issue in the serverless architecture?

A. Use the EC2 instances to make the API calls to the payment API
B. Use Amazon Simple Queue Service (Amazon SQS) with API Gateway and the Lambda function to asynchronously call the payment API
C. Increase the API Gateway timeout duration to match the payment API time
D. Increase the Lambda function's memory to increase the network bandwidth and increase the speed of the payment API calls

Answer: B

NEW QUESTION 10
- (Exam Topic 4)
A developer is receiving an intermittent ProvisionedThroughputExceededException error from an application that is based on Amazon DynamoDB. According to the Amazon CloudWatch metrics for the table, the application is not exceeding the provisioned throughput
What could be the cause of the issue?

A. The DynamoDB table storage size is larger than the provisioned size.
B. The application is exceeding capacity on a particular hash key.
C. The DynamoDB table is exceeding the provisioned scaling operations.
D. The application is exceeding capacity on a particular sort key.

Answer: B

NEW QUESTION 10
- (Exam Topic 4)
A company is creating a continuous integration and continuous delivery (CI/CD) process by using AWS CodePipeline for its application on AWS The CI/CD process will pull code from an AWS CodeCommit repository, create the application infrastructure by using AWS Cloud Formation, deploy the frontend code to an Amazon S3 bucket that is configured for static website hosting, and deploy the application backend on an Amazon Elastic Container Service (Amazon ECS) cluster.
A developer needs to create a new CodePipeline stage that creates the application infrastructure. Which solution will meet these requirements with the LEAST operational overhead?

A. Create a new action with AWS Lambda as the action provider Create a Lambda function that makes an AWS SDK API call to create the CloudFormation stack
B. Create a new action with CloudFormation as the action provider Set the action mode to CREATE UPDATE Target the CloudFormation stack to be launched.
C. Create a new action with Jenkins as the action provide
D. Create and configure a Jenkins job to make an API call by using the AWS CLI to create the CloudFormation stack.
E. Create a new action with AWS CodeBuikl as the action provider Configure the buildspec to make an API call by using the AWS CLI to create the CloudFormation stack

Answer: D

NEW QUESTION 12

- (Exam Topic 4)
A media company wants to test its web application more frequently. The company deploys the application by using a separate AWS CloudFormation stack for each environment. The same CloudFormation template is deployed to each stack as the application progresses through the development lifecycle.
A developer needs to build an automated alert for the quality assurance (QA) team. The developer wants the alert to occur for new deployments in the final pre-production environment.
Which solution will moot these requirements?

A. Create an Amazon Simple Notification Service (Amazon SNS) topi
B. Add a subscription to notify the QA tea
C. Update the CloudFormation stack options to point to the SNS topic in the pro-production environmen
D. Most Voted
E. Create an AWS Lambda function that notifies the QA tea
F. Create an Amazon EventBridge rule to invoke the Lambda function on the default event bu
G. Filter the events on the CloudFormation service and the CloudFormation stack Amazon Resource Name (ARM).
H. Create an Amazon CloudWatch alarm that monitors the metrics from CloudFormatio
I. Filter the metrics on the stack name and the stack statu
J. Configure the alarm to notify the QA team.
K. Create an AWS Lambda function that notifies the QA tea
L. Configure the event source mapping to receive events from CloudFormatio
M. Specify the filtering values to limit invocations to the desired CloudFormation stack.

Answer: A

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/cloudformation-rollback-email/
https://aws.amazon.com/premiumsupport/knowledge-center/cloudformation-rollback-email/ https://www.trendmicro.com/cloudoneconformity/knowledge-base/aws/CloudFormation/cloudformation-stack-n

NEW QUESTION 15
- (Exam Topic 4)
A company has an application that uses Amazon Cognito user pools as an identity provider. The company must secure access to user records. The company I up multi-factor authentication (MFA). The company also wants to send a login activity notification by email every time a user logs in.
What is the MOST operationally efficient solution that meets this requirement?

A. Create an AWS Lambda function that uses Amazon Simple Email Service (Amazon SES) to send the email notificatio
B. Add an Amazon API Gateway to invoke the functio
C. Call the API from the client side when login confirmation is received.
D. Create an AWS Lambda function that uses Amazon Simple Email Service (Amazon SES) to send the email notificatio
E. Add an Amazon Cognito post authentication Lambda trigger for the function.
F. Create an AWS Lambda function that uses Amazon Simple Email Service (Amazon SES) to send the email notificatio
G. Create an Amazon CloudWatch Logs log subscription filter to invoke the function based on the login status.
H. Configure Amazon Cognito to stream all logs to Amazon Kinesis Data Firehos
I. Create an AWS Lambda function to process the streamed logs and it send the email notification based on the login status of each user.

Answer: C

NEW QUESTION 17
- (Exam Topic 4)
A developer is creating a serverless orchestrator that performs a series of steps to processes incoming loT data. The orchestrator transforms the data, performs a series of calculations, and stores the results in Amazon DynamoDB. The entire process is completed in less than a minute.
The orchestrator must process tens of thousands of transactions each second. The orchestrator must not miss a transaction and must process each transaction at least once.
Which solution will meet these requirements MOST cost-effectively?

A. Use Amazon Simple Notification Service (Amazon SNS) to process the data through an HTTP or HTTPS endpoint.
B. Use AWS Step Functions to process the data as Standard Workflows.
C. Use AWS Step Functions to process the data as Synchronous Express Workflows.
D. Use AWS Step Functions to process the data as Asynchronous Express Workflows.

Answer: D

NEW QUESTION 21
- (Exam Topic 4)
A developer is implementing an AWS Lambda function that will be invoked when an object is uploaded to Amazon S3. The developer wants to test the Lambda function in a local development machine before publishing the function to a production AWS account.
Which solution will meet these requirements with the LEAST operational overhead?

A. Upload an object to Amazon S3 by using the aws s3api put-object CLI comman
B. Wait for the local Lambda invocation from the S3 event.
C. Create a sample JSON text file for a put object S3 even
D. Invoke the Lambda function locall
E. Use theaws lambda invoke CLI command with the JSON file and Lambda function name as arguments.
F. Use the sam local start-lambda CLI command lo start Lambd
G. Use the sam local generate-event s3 put CLI command to create the Lambda test JSON fil
H. Use the sam local invoke CLI command with the JSON file as the argument to invoke the Lambda function.
I. Create a JSON string for the put object S3 even
J. In the AWS Management Console, use the JSON string to create a test event for the local Lambda functio
K. Perform the test.

Answer: D

NEW QUESTION 26
- (Exam Topic 4)
A developer is writing an AWS Lambda function. The Lambda function needs to access items that are stored in an Amazon DynamoDB table.
What is the MOST secure way to configure this access for the Lambda function?

A. Create an IAM user that has permissions to access the DynamoDB tabl
B. Create an access key for this use
C. Store the access key ID and secret...... key in the Lambda function environment variables.
D. Add a resource-based policy to the DynamoDB table to allow access from the Lambda function's IAM role.
E. Create an IAM policy that allows access to the DynamoDB tabl
F. Attach this policy to the Lambda function's 1AM role.
G. Create a DynamoDB Accelerator (DAX) cluste
H. Configure the Lambda function to use the DAX cluster to access the DynamoDB table.

Answer: A

NEW QUESTION 30
- (Exam Topic 4)
A developer is migrating a legacy monolithic application to AWS and wants to convert the application's internal processes to microservices The application's internal processes communicate through internal asynchronous messaging Occasionally messages need to be reprocessed by multiple microservices
How should the developer migrate the application's internal messaging to AWS to meet these requirements?

A. Use Amazon Simple Queue Service (Amazon SQS) queues to communicate messages between the microservices
B. Use Amazon API Gateway to provide REST interfaces between the microservices
C. Use Amazon Kinesis Data Streams to communicate messages between the microservices
D. Use Amazon API Gateway to provide WebSocket APIs between the microservices.

Answer: A

NEW QUESTION 32
- (Exam Topic 4)
A company has a front-end application that runs on four Amazon EC2 instances behind an Elastic Load Balancer (ELB) in a production environment that is provisioned by AWS Elastic Beanstalk. A developer needs to deploy and test new application code while updating the Elastic Beanstalk platform from the current version to a newer version of Node.js. The solution must result in zero downtime for the application.
Which solution meets these requirements?

A. Clone the production environment to a different platform versio
B. Deploy the new application code, and test i
C. Swap the environment URLs upon verification.
D. Deploy the new application code in an all-at-once deployment to the existing EC2 instance
E. Test the cod
F. Redeploy the previous code if verification fails.
G. Perform an immutable update to deploy the new application code to new EC2 instance
H. Serve traffic to the new instances after they pass health checks
I. Use a rolling deployment for the new application cod
J. Apply the code to a subset of EC2 instances until the tests pas
K. Redeploy the previous code if the tests fail.

Answer: D

NEW QUESTION 37
- (Exam Topic 4)
A company is using an Amazon API Gateway REST API endpoint as a webhook lo publish events from an
on-premises source control management (SCM) system to Amazon EventBridge. The company has configured an EventBridge rule to listen for the events and to control application deployment m a central AWS account. The company needs to receive the same events across multiple receiver AWS accounts
How can a developer meet these requirements without changing the configuration of the SCM system?

A. Deploy the API Gateway REST API to all the required AWS account
B. Use the same custom domain name for all the gateway endpoints so that a single SCM webhook can be used for all events from all accounts.
C. Deploy the API Gateway REST API to all the receiver AWS accounts Create as many SCM webhooks as the number of AWS accounts.
D. Grant permission to the central AWS account for EventBridge to access the receiver AWS accounts.Add an EventBridge event bus on the receiver AWS accounts as the targets to the existing EventBridge rule
E. Convert the API Gateway type from REST API to HTTP API

Answer: A

NEW QUESTION 39
- (Exam Topic 4)
A company is running its website on Amazon EC2 instances behind an Application Load Balancer (ALB). The instances run in an Amazon EC2 Auto Scaling group. A developer needs to secure the internet-facing connection with HTTPS. The developer uses AWS Certificate Manager (ACM) to issue an X.509 certificate.
What should the developer do to secure the connection?

A. Configure the ALB to use the X.509 certificate by using the AWS Management Console.
B. Configure each EC2 instance to use the same X.509 certificate by using the AWS Management Console.
C. Export the root key of the X.509 certificate to an Amazon S3 bucke
D. Configure each EC2 instance to use the same X.509 certificate from the S3 bucket.
E. Export the root key of the X.509 certificate to an Amazon S3 bucke
F. Configure the ALB to use theX.509 certificate from the S3 bucket.

Answer: A

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/configure-acm-certificates-ec2/ https://aws.amazon.com/premiumsupport/knowledge-center/associate-acm-certificate-alb-nlb/
Configuring an Amazon Issued ACM public certificate for a website that's hosted on an EC2 instance requires exporting the certificate. However, you can't export the certificate because ACM manages the private key that signs and creates the certificate.
Instead, you can associate an ACM certificate with a load balancer or an ACM SSL/TLS certificate with a CloudFront distribution.
Associate an ACM SSL certificate with an Application Load Balancer
Open the Amazon EC2 console.
In the navigation pane, choose Load Balancers, and then choose your Application Load Balancer. Choose Add listener.
For Protocol, choose HTTPS. For port, choose 443.
For Default action(s), choose Forward to, and then select your ALB target group from the dropdown list. For Default SSL certificate, choose From ACM (recommended) and then choose the ACM certificate. Choose Save.

NEW QUESTION 40
- (Exam Topic 4)
A data-processing application includes an AWS Lambda function that processes data in several steps. Recently, the function has been reaching the Lambda tii A developer wants to use AWS X-Ray to find out how long each step is taking so that the developer can determine which step is causing the timeout.
Which combination of actions should the developer take to accomplish this goal? (Select TWO.)

A. Modify the application to call the PutMetricData API operation after each processing ste
B. Include the time taken in milliseconds.
C. Use the aws lambda update-function-configuration AWS CLI command to enable active tracing on the Lambda function.
D. Modify the application to record each processing step in an X-Ray subsegment by using the X-Ray software development kit (SDK).
E. Add the xray:PutTraceSegments permission and the xray:PutTelemetryRecords permission to the Lambda function's execution role.
F. Modify the application to put each processing step in a separate Lambda laye
G. Include all the layers in the Lambda function.

Answer: B

NEW QUESTION 43
- (Exam Topic 4)
A company has an online order website that uses Amazon DynamoDB to store item inventory. A sample of the inventory object is as follows:

```
{
    "Id": { "N": "456"},
    "Price": {"N": "650"},
    "ProductCategory": {"S": "Sporting Goods"}
}
```

A developer needs to reduce all inventory prices by 100 as long as the resulting price would not be less than 500. What should the developer do to make this change with the LEAST number of calls to DynamoDB?

A. Perform a DynamoDB Query operation with the I
B. If the price is >= 600, perform an UpdateItem operation to update the price.
C. Perform a DynamoDB UpdateItem operation with a condition expression of "Price >= 600".
D. Perform a DynamoDB UpdateItem operation with a condition expression of "ProductCategory IN<{"S": "Sporting Goods"}) and Price = 600".

Answer: C

NEW QUESTION 47
- (Exam Topic 4)
An AWS Lambda function requires read access to an Amazon S3 bucket and requires read/write access to an Amazon DynamoDB table. The correct 1AM policy already exists. What is the MOST secure way to grant the Lambda function access to the S3 bucket and the DynamoDB table?

A. Attach the existing IAM policy to the Lambda function.
B. Create an IAM role for the Lambda functio
C. Attach the existing IAM policy to the rol
D. Attach the role to the Lambda function.
E. Create an IAM user with programmatic acces
F. Attach the existing IAM policy to the use
G. Add the user access key ID and secret access key as environment variables in the Lambda function.
H. Add the AWS account root user access key ID and secret access key as encrypted environment variables in the Lambda function.

Answer: B

NEW QUESTION 52
- (Exam Topic 4)
A developer has created a Java application that makes HTTP requests directly to AWS services. Application logging shows 5xx HTTP response codes that occ irregular intervals. The errors are affecting users.
How should the developer update the application to improve the application's resiliency?

A. Revise the request content in the application code.
B. Use the AWS SDK for Java to interact with AWS APIs.
C. Scale out the application so that more instances of the application are running.
D. Add additional logging to the application code.

Answer: B

NEW QUESTION 55
- (Exam Topic 4)
A developer is writing an application that will run on Amazon EC2 instances in an Auto Scaling group. The developer wants to externalize the session state to support the application. Miich AWS services or resources can the developer use to meet these requirements? (Select TWO.)

A. Amazon DynamoDB
B. Amazon Cognito
C. Amazon ElastiCache
D. Application Load Balancer
E. Amazon Simple Queue Service (Amazon SQS)

Answer: AC

NEW QUESTION 59
- (Exam Topic 4)
A developer is debugging an AWS Lambda function behind an Amazon API Gateway. Whenever the API Gateway endpoint is called, HTTP status code 200 is returned even though AWS Lambda is recording a 4xx error.
What change needs to be made to return a proper error code through the API Gateway?

A. Enable CORS in the API Gateway method settings.
B. Use a Lambda proxy integration to return HTTP codes and headers.
C. Enable API Gateway error pass-through.
D. Return the value in the header X-Amzn-ErrorType.

Answer: B

NEW QUESTION 60
- (Exam Topic 4)
A developer is creating a new batch application that will run on an Amazon EC2 instance. The application requires read access to an Amazon S3 bucket. The developer needs to follow security best practices to grant S3 read access to the application.
Which solution meets these requirements?

A. Add the permissions to an 1AM polic
B. Attach the policy to a role Attach the role to the EC2 instance profile.
C. Add the permissions inline to an 1AM grou
D. Attach the group to the EC2 instance profile.
E. Add the permissions to an 1AM polic
F. Attach the policy to a user Attach the user to the EC2 instance profile.
G. Add the permissions to an 1AM polic
H. Use 1AM web identity federation to access the S3 bucket with the policy

Answer: A

NEW QUESTION 64
- (Exam Topic 4)
A developer has an Amazon DynamoDB table that must be in provisioned mode to comply with user requirements. The application needs to support the following:
• Average item size: 10 KB
• Item reads each second: 10 strongly consistent
• Item writes each second: 2 transactional
Which read and write capacity cost-effectively meets these requirements?

A. Read 10; write 2
B. Read 30; write 40
C. Use on-demand scaling
D. Read 300; write 400

Answer: B

NEW QUESTION 68
- (Exam Topic 4)
A company has an ecommerce application. To track product reviews, the company's development team uses an Amazon DynamoDB table.
Every record includes the following:
• A Review ID, a 16-digit universally unique identifier (UUID)
• A Product ID and User ID. 16-digit UUIDs that reference other tables
• A Product Rating on a scale of 1—5 - An optional comment from the user
The table partition key is the Review ID. The most performed query against the table is to find the 10 reviews with the highest rating for a given product.
Which index will provide the FASTEST response tor this query?

A. A global secondary index (GSI) with Product ID as the partition key and Product Rating as the sort key
B. A global secondary index (GSI) with Product ID as the partition key and Review ID as the sort key
C. A local secondary index (LSI) with Product ID as the partition key and Product Rating as the sort key
D. A local secondary index (LSI) with Review ID as the partition key and Product ID as the sort key

Answer: A

NEW QUESTION 73
- (Exam Topic 3)
A company wants to make sure that only one user from its Admin group has the permanent right to delete an Amazon EC2 resource There should be no changes in the existing policy under the Admin group What should a developer use to meet these requirements?

A. AWS managed policy
B. Inline policy
C. IAM trust relationship
D. AWS Security Token Service (AWS STS)

Answer: B

NEW QUESTION 76
- (Exam Topic 3)
A developer works in an environment with multiple AWS accounts that have AWS Lambda functions processing the same 100 KB payloads. The developer wants to centralize the point of origin of the payloads to one account and have all the Lambda functions be invoked whenever the initiating event occurs in the parent account.
How can the developer design the workflow in the MOST efficient way, so all the multi-account Lambda functions get invoked when the event occurs?

A. Create a Lambda function in the parent account and use cross-account IAM roles with the AWS Security Token Service (AWS STS) AssumeRole API call to make AWS Lambda invoke the API call to invoke all the cross-account Lambda functions.
B. Subscribe all the multi-account Lambda functions to an Amazon SNS topic and make a SNS Publish API call with the payload to the SNS topic.
C. Set up an Amazon SQS queue with the queue policy permitting the ReceiveMessage action formulti-account Lambda function
D. Then send the payload to the SQS queue using the sqs:SendMessage permission and poll the queue using multi-account Lambda functions.
E. Use a worker on an Amazon EC2 instance to poll for the payload even
F. Invoke all Lambda functions using the Lambda Invoke API after using cross-account IAM roles with the AWS Security Token Service (AWS STS) AssumeRole API call.

Answer: B

Explanation:
https://aws.amazon.com/es/blogs/compute/cross-account-integration-with-amazon-sns/

NEW QUESTION 77
- (Exam Topic 3)
A developer is building an application using an Amazon API Gateway REST API backed by an AWS Lambda function that interacts with an Amazon DynamoDB table During testing, the developer observes high latency when making requests to the API
How can the developer evaluate the end-to-end latency and identify performance bottlenecks?

A. Enable AWS CloudTrail logging and use the logs to map each latency and bottleneck
B. Enable and configure AWS X-Ray tracing on API Gateway and the Lambda function Use X-Ray to trace and analyze user requests
C. Enable Amazon CloudWatch Logs for the Lambda function Enable execution logs for API Gateway to view and analyze user request logs.
D. Enable VPC Flow Logs to capture and analyze network traffic within the VPC

Answer: B

NEW QUESTION 81
- (Exam Topic 3)
A developer has written code for an application and wants to share it with other developers on the team to receive feedback. The shared application code needs to be stored long-term with multiple versions and batch change tracking.
Which AWS service should the developer use?

A. AWSCodeBuild
B. Amazon S3
C. AWS CodeCommit
D. AWS Cloud9

Answer: C

NEW QUESTION 84
- (Exam Topic 3)
A developer must modify an Alexa skill backed by an AWS Lambda function to access an Amazon DynamoDB table in a second account A role in the second account has been created with permissions to access the table
How should the table be accessed?

A. Modify the Lambda function execution role's permissions to include the new role
B. Change the Lambda function execution role to be the new role
C. Assume the new role in the Lambda function when accessing the table
D. Store the access key and the secret key for the new role and use them when accessing the table

Answer: A

NEW QUESTION 85
- (Exam Topic 3)
A company is using AWS CloudFormation templates to deploy AWS resources. The company needs to update one of its AWS CloudFormation stacks What can the company do to find out how the changes will impact the resources that are running?

A. Investigate the change sets

B. Investigate the stack policies
C. Investigate the Metadata section.
D. Investigate the Resources section.

Answer: A

NEW QUESTION 86
- (Exam Topic 3)
An IAM role is attached to an Amazon EC2 instance that explicitly denies access to all Amazon S3 API actions. The EC2 instance credentials file specifies the IAM access key and secret access key, which allow full administrative access.
Given that multiple modes of IAM access are present for this EC2 instance, which of the following is correct?

A. The EC2 instance will only be able to list the S3 buckets
B. The EC2 instance will only be able to list the contents of one S3 bucket at a time
C. The EC2 instance will be able to perform all actions on any S3 bucket
D. The EC2 instance will not be able to perform any S3 action on any S3 bucket.

Answer: C

NEW QUESTION 91
- (Exam Topic 3)
Multiple development teams are working on a project to migrate a monolithic application to a microservices-based application running on AWS Lambda The teams need a way to centrally manage code that is shared across multiple functions
Which approach requires the LEAST maintenance?

A. Each team maintains the code for the common components in their own code repositor
B. They build and deploy the components with their Lambda functions together.
C. One team builds a Lambda layer to include the common components and shares the layer with the other teams
D. Each team builds and publishes the component they want to share to an Amazon S3 bucket The Lambda functions will download the components from the bucket
E. One team builds a Docker container for the common components and shares the container with the other teams

Answer: C

NEW QUESTION 94
- (Exam Topic 3)
A developer is building a static, client-side rendered website that is powered by ReactJS The code has no server-side generated components and does not need to run any programming languages on the server However the code serves static HTML, CSS, and JavaScript to the client on each request The developer's solution to host the website must maximize performance and cost-effectiveness
Which combination of AWS services or resources should the developer use to meet these requirements?

A. Application Load Balancer and Amazon EC2
B. Amazon API Gateway and AWS Lambda
C. Amazon CloudFront and Amazon S3
D. Amazon CloudFront and AWS Elastic Beanstalk

Answer: C

NEW QUESTION 97
- (Exam Topic 3)
A developer is building an AWS Lambda function that will dynamically generate and send a weekly newsletter to 100.000 users This newsletter contains both static text and images The developer needs a fast and highly scalable place to store the images that will be hyperlinked in the newsletter
Where should the developer store these images?

A. Use an Amazon DynamoDB table with DynamoDB Streams and read capacity auto scaling enabled
B. Use an Amazon S3 bucket and S3 Transfer Acceleration to speed up the image download
C. Use an Amazon Aurora database with a public DNS endpoint and auto scaling enabled
D. Use an Amazon S3 backed Amazon CloudFront distribution with a high Time-to-Live (TTL) to maximize caching

Answer: D

NEW QUESTION 102
- (Exam Topic 3)
A developer is creating an event handling system. To handle messages asynchronously, the developer created a standard Amazon SQS queue Quality assurance testing reveals that some events were processed multiple times.
What is the recommended way to ensure the events are not processed more than once?

A. Change long polling to short polling.
B. Use a FIFO queue and configure deduplication
C. Convert the standard SQS queue into a FIFO queue
D. Send the messages with message timers

Answer: C

NEW QUESTION 104
- (Exam Topic 3)
A developer receives the following error message when trying to launch or terminate an Amazon EC2 instance using a boto3 script.

boto.exception.BotoServerError: BotoServerError: 503 Service Unavailable
<?xml version="1.0" encoding="UTF-8"?>
<Response><Errors><Error><Code>RequestLimitExceeded</Code>
<Message>Request limit exceeded.</Message></Error></Errors><RequestID>bfddec34-53b3-4701-b729-dceefb696ced</RequestID>
</Response>

What should the developer do to correct this error message?

A. Assign an IAM role to the EC2 instance to allow necessary API calls on behalf of the client.
B. Implement an exponential backoff algorithm for optimizing the number of API requests made to Amazon EC2.
C. Increase the overall network bandwidth to handle higher API request rates.
D. Upgrade to the latest AWS CLI version so that boto3 can handle higher request rates

Answer: D

NEW QUESTION 109
- (Exam Topic 3)
A company is migrating the content delivery network for its dynamic PHP website to AWS An Amazon CloudFront web distribution is part of the new infrastructure The distribution has the following cache behavior settings
• Allowed HTTP Methods is set to GET, HEAD
• Viewer Protocol Policy is set to HTTP and HTTPS
Developers test the solution and can reach the company's website over HTTP and HTTPS However the developers are unable to tog in lo the previously working administration panel of the website
Which action will resolve this login issue1?

A. Set Allowed HTTP Methods to GE
B. HEAD; OPTIONS
C. Set Viewer Protocol Policy to HTTPS Only
D. Set Allowed HTTP Methods to GET, HEAD: OPTIONS, PUT, POST PATCH, DELETE
E. Set Viewer Protocol Policy to Redirect HTTP to HTTPS

Answer: A

NEW QUESTION 114
- (Exam Topic 3)
A developer implemented a static website hosted in Amazon S3 that makes web service requests hosted in Amazon API Gateway 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: B

Explanation:
https://docs.aws.amazon.com/apigateway/latest/developerguide/how-to-cors-console.html

NEW QUESTION 115
- (Exam Topic 3)
A developer is building an application using an Amazon API Gateway REST API backed by an AWS Lambda function that interacts with an Amazon DynamoDB table During testing, the developer observes high latency when making requests to the API
How can the developer evaluate the end-to-end latency and identify performance bottlenecks?

A. Enable AWS CloudTrail logging and use the logs to map each latency and bottleneck
B. Enable and configure AWS X-Ray tracing on API Gateway and the Lambda function Use X-Ray to trace and analyze user requests
C. Enable Amazon CloudWatch Logs for the Lambda function Enable execution logs for API Gateway to view and analyze user request logs.
D. Enable VPC Flow Logs to capture and analyze network traffic within the VPC

Answer: B

NEW QUESTION 119
- (Exam Topic 3)
A company has an internal website that gives users the ability to access contract ldata that is stored in an Amazon RDS DB instance The number of contracts has increased and several users have reported slow retrieval of the contract data
The company wants to set up a cache to improve the latency A developer must create a solution that ensures data resiliency The data must be encrypted and must be partitioned by department
Which solution will meet these requirements?

A. Amazon ElastiCache for Memcached with cluster mode enabled
B. Amazon ElastiCache for Redis with cluster mode enabled
C. Amazon ElastiCache for Redis with cluster mode disabled
D. Amazon ElastiCache for Memcached with cluster mode disabled

Answer: C

NEW QUESTION 121
- (Exam Topic 3)
A developer is working on a serverless application. The application uses Amazon API Gateway. AWS
Lambda functions that are written in Python, and Amazon DynamoDB.
Which combination of steps should the developer take so that the Lambda functions can be debugged in the event of application failures? (Select TWO)

A. Configure an AWS CloudTrail trail to deliver log files to an Amazon S3 bucket
B. Ensure that the Lambda functions write log messages to stdout and stderr
C. Enable an AWS CloudTrail trail for the Lambda function
D. Ensure that the execution role for the Lambda function has access to write to Amazon CloudWatch Logs.
E. Use the Amazon CloudWatch metric for Lambda errors to create a CloudWatch alarm.

Answer: DE

NEW QUESTION 125
- (Exam Topic 3)
A developer must cache dependent artifacts from Maven Central, a public package repository, as part of an application's build pipeline. The build pipeline has an AWS CodeArtifact repository where artifacts of the build are published. The developer needs a solution that requires minimum changes to the build pipeline
Which solution meets these requirements?

A. Modify the existing CodeArtifact repository to associate an upstream repository with the public package repository
B. Create a new CodeArtifact repository that has an external connection to the public package repository
C. Create a new CodeArtifact domain that contains a new repository that has an external connection to the public package repository
D. Modify the CodeArtifact repository resource policy to allow artifacts to be fetched from the public package repository

Answer: D

NEW QUESTION 127
- (Exam Topic 3)
A development team decides to adopt a continuous integration/continuous delivery (CI/CD) process using AWS CodePipehne and AWS CodeCommit for a new application. However, management wants a person to review and approve the code before it is deployed to production
How can the development team add a manual approver to the CI/CD pipeline?

A. Use AWS SES to send an email to approvers when their action is required Develop a simple application that allows approvers to accept or reject a build Invoke an AWS Lambda function to advance the pipeline when a build is accepted
B. If approved, add an approved tag when pushing changes to the CodeCommit repositor
C. CodePipeiine will proceed to build and deploy approved commits without interruption
D. Add an approval step to CodeCommit Commits will not be saved until approved.
E. Add an approval action to the pipelin
F. Configure the approval action to publish to an Amazon SNS topic when approval is require
G. The pipeline execution will stop and wait for an approval

Answer: D

NEW QUESTION 129
- (Exam Topic 3)
A developer is using AWS CodeDeploy to deploy an application running on Amazon EC2. The developer wants to change the file permissions for a specific deployment file. Which lifecycle event should a developer use to meet this requirement?

A. AfterInstall
B. DownloadBundle
C. BeforeInstall
D. ValtdateService

Answer: A

NEW QUESTION 131
- (Exam Topic 3)
A company is developing a new web application in Python A developer must deploy the application using AWS Elastic Beanstalk from the AWS Management Console The developer creates an Elastic Beanstalk source bundle to upload using the console
Which of the following are requirements when creating the source bundle? (Select TWO.)

A. The source bundle must include the ebextensions.yaml file.
B. The source bundle must not include a top-level directory.
C. The source bundle must be compressed with any required dependencies in a top-level parent folder
D. The source bundle must be created as a single zip or war file
E. The source bundle must be uploaded into Amazon EFS.

Answer: BD

NEW QUESTION 134
- (Exam Topic 3)
A team deployed an AWS CloudFormaiion template to update a stack that already included an Amazon RDS DB instance However, before the deployment of the update the team changed the name of the DB instance on the template by mistake The DeletionPoIicy attribute for all resources was not changed from the default values
What will be the result of this mistake?

A. AWS CloudFormation will create a new database and delete the old one
B. AWS CloudFormation will create a new database and keep the old one
C. AWS CloudFormation will overwrite the existing database and rename it
D. AWS CloudFormation will leave the existing database and will not create a new one

Answer: A

NEW QUESTION 136
- (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 rightly batch. The system analysts do not want to wait unit the next day to view the processed data and have asked to have it available in near-real time.
Which application architect pattern would enables the data to be processed as it is received?

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

Answer: A

NEW QUESTION 139
- (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 140
- (Exam Topic 3)
A developer has written a multi-threaded application that is running on a fleet of Amazon EC2 instances. The operations team has requested a graphical method to monitor the number of running threads over time.
What is the MOST efficient way to fulfill this request?

A. Periodically send the thread count to AWS X-Ray segments, then generate a service graph on demand
B. Create a custom Amazon CloudWatch metric and periodically perform a PutMetricData call with the current thread count.
C. Periodically log thread count data to Amazon S3. Use Amazon Kinesis to process the data into a graph.
D. Periodically write the current thread count to a table using Amazon DynarnoDB and use Amazon CloudFront to create a graph

Answer: D

NEW QUESTION 143
- (Exam Topic 3)
A company is providing read access to objects in an Amazon S3 bucket for different customers The company uses 1AM permissions to restnd 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-aci 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 147
- (Exam Topic 3)
A company is developing a serverless ecommerce web application The application needs to make coordinated, all-or-nothing changes to multiple items in the company's inventory table in Amazon DynamoDB.
Which solution will meet these requirements?

A. Enable transactions for the DynamoDB table Use the BatchWriteItem operation to update the items.
B. Use the TransactWriteitem operation to group the changes Update the items in the table
C. Set up a FIFO queue using Amazon SQ
D. Group the changes in the queue
E. Update the table based on the grouped changes
F. Create a transaction table in an Amazon Aurora DB cluster to manage the transactions Write a backend process to sync the Aurora DB table and the DynamoDB table

Answer: B

Explanation:

TransactWriteItems is a synchronous write operation that groups up to 25 action requests. The BatchWriteItem operation puts or deletes multiple items in one or more tables. https://docs.aws.amazon.com/AWSJavaScriptSDK/latest/AWS/DynamoDB.html

NEW QUESTION 150
- (Exam Topic 3)
A developer is automating a new application deployment with AWS Serverless Application Model (AWS SAM) The new application has one AWS Lambda function and one Amazon S3 bucket The Lambda function must access the S3 bucket to only read objects
How should the developer configure AWS SAM to grant the necessary read privilege to the S3 bucket?

A. Reference a second Lambda authorizer function
B. Add a custom S3 bucket policy to the Lambda function
C. Create an Amazon Simple Queue Service (SQS) topic for only S3 object reads Reference the topic in the template
D. Add the S3ReadPolicy template to the Lambda function's execution role

Answer: D

NEW QUESTION 151
- (Exam Topic 3)
A company is running a custom application on a set of on-premises Linux servers that are accessed using Amazon API Gateway. AWS X-Ray tracing has been enabled on the API test stage
How can a developer enable X-Ray tracing on the on-premises servers with the LEAST amount of configuration"

A. Install and run the X-Ray SDK on the on-premises servers to capture and relay the data to the X-Ray service.
B. Install and run the X-Ray daemon on the on-premises servers to capture and relay the data to the X-Ray service
C. Capture incoming requests on-premises and configure an AWS Lambda function to pull, process, and relay relevant data to X-Ray using the PutTraceSegments API call
D. Capture incoming requests on-premises and configure an AWS Lambda function to pull, process, and relay relevant data to X-Ray using the PutTelemetryRecords API call.

Answer: B

NEW QUESTION 156
- (Exam Topic 2)
AWS CodeBuild builds code for an application, creates the Docker image, pushes the image to Amazon
Elastic Container Registry (Amazon ECR), and tags the image with a unique identifier.
If the Developers already have AWS CLI configured on their workstations, how can the Docker images be pulled to the workstations?

A. Run the following:docker pull REPOSITORY URI : TAG
B. Run the output of the following:aws ecr get-loginand then run:docker pull REPOSITORY URI : TAG
C. Run the following:aws ecr get-loginand then run:docker pull REPOSITORY URI : TAG
D. Run the output of the following:aws ecr get-download-url-for-layerand then run:docker pull REPOSITORY URI : TAG

Answer: B

Explanation:
https://docs.aws.amazon.com/cli/latest/reference/ecr/get-login.html

NEW QUESTION 159
- (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 161
- (Exam Topic 2)
A developer is storing sensitive data generated by an application in Amazon S3. The developer wants to encrypt the data at rest. A company policy requires an audit trail of when the master key was used and by whom.
Which encryption option will meet these requirements?

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

Answer: B

NEW QUESTION 163
- (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 CodeCommi
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 165
- (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 168
- (Exam Topic 2)
A developer is writing an application in AWS Lambda To simplify testing and deployments, the developer needs the database connection string to be easily changed without modifying the Lambda code.
How can this requirement be met?

A. Store the connection string as a secret in AWS Secrets Manager
B. Store the connection string in an IAM user account.
C. Store the connection string in AWS KMS
D. Store the connection string as a Lambda layer.

Answer: A

NEW QUESTION 169
- (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 171
- (Exam Topic 2)
To include objects defined by the AWS Serverless Application Model (SAM) in an AWS CloudFormation template, in addition to Resources, what section MUST be included in the document root?

A. Conditions
B. Globals
C. Transform
D. Properties

Answer: C

Explanation:
https://github.com/awslabs/serverless-application-model/blob/master/versions/2016-10-31.md https://docs.aws.amazon.com/serverless-application-model/latest/developerguide/sam-specification-template-an

NEW QUESTION 176
- (Exam Topic 2)
A developer is building an application that needs to store date 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 177
- (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 181
- (Exam Topic 2)
A Developer has a stateful web server on-premises that is being migrated to AWS. The Developer must have greater elasticity in the new design.
How should the Developer re-factor the application to make it more elastic? (Choose two.)

A. Use pessimistic concurrency on Amazon DynamoDB
B. Use Amazon CloudFront with an Auto Scaling group
C. Use Amazon CloudFront with an AWS Web Application Firewall
D. Store session state data in an Amazon DynamoDB table
E. Use an ELB with an Auto Scaling group

Answer: DE

NEW QUESTION 184
- (Exam Topic 2)
A company has a REST application comprised of an Amazon API Gateway and several AWS Lambda functions. A developer is responding to an alert that the API Gateway's HTTP response error rate has unexpectedly increased. The developer must determine must which Lambda function is malfunctioning.
Which method would help the developer make this determination while minimizing delays?

A. Execute an Amazon Athena query against the API Gateway and Lambda execution logs.
B. Execute an Amazon CloudWatch Logs Insights query against the API Gateway and Lambda execution logs.
C. Download the API Gateway and Lambda execution logs from Amazon S3, and perform a line-by-line search against them.
D. Download the API Gateway and Lambda execution logs from Amazon CloudWatch Events, and perform line-by-line search against them.

Answer: D

NEW QUESTION 185
- (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 188
- (Exam Topic 2)
A developer wants to send multi-value headers to an AWS Lambda function that is registered as a target with an Application Load Balancer (ALB).
What should the developer do to achieve this?

A. Place the Lambda function and target group in the same account
B. Send the request body to the Lambda function with a size less than 1 MB 0
C. Include the Base64 encoding status status code, status description, and headers in the Lambda function
D. Enable the multi-value headers on the ALB

Answer: D

NEW QUESTION 190

- (Exam Topic 2)
A development team wants to immediately build and deploy an application whenever there is a change to the source code. Which approaches could be used to trigger the deployment? (Select TWO.)

A. Store the source code in an Amazon S3 bucket Configure AWS CodePipeline to start whenever a file in the bucket changes
B. Store the source code in an encrypted Amazon EBS volume Configure AWS CodePipeline to startwhenever a file in the volume changes
C. Store the source code in an AWS CodeCommit repository Configure AWS CodePipeline to start whenever a change is committed to the repository.
D. Store the source code in an Amazon S3 bucket Configure AWS CodePipeline to start every 15 minutes
E. Store the source code in an Amazon EC2 instance's ephemeral storag
F. Configure the instance to start AWS CodePipeline whenever there are changes to the source code

Answer: BC

Explanation:
Reference: https://docs.aws.amazon.com/codepipeline/latest/userguide/tutorials-ecs-ecr-codedeploy.html

NEW QUESTION 192
- (Exam Topic 2)
A Developer wants to upload data to Amazon S3 and must encrypt the data in transit. Which of the following solutions will accomplish this task? (Choose two.)

A. Set up hardware VPN tunnels to a VPC and access S3 through a VPC endpoint
B. Set up Client-Side Encryption with an AWS KMS-Managed Customer Master Key
C. Set up Server-Side Encryption with AWS KMS-Managed Keys
D. Transfer the data over an SSL connection
E. Set up Server-Side Encryption with S3-Managed Keys

Answer: BD

Explanation:
https://docs.aws.amazon.com/AmazonS3/latest/dev/UsingEncryption.html

NEW QUESTION 193
- (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. DecodeAutherizationMessage

Answer: B

NEW QUESTION 196
- (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 200
- (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 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 205
- (Exam Topic 2)
A developer has a legacy application that is hosted on-premises Other applications hosted on AWS depend on the on-premises application for proper functioning In case of any application errors, the developer wants to be able to use Amazon CloudWatch to monitor and troubleshoot all applications from one place.
How can the developer accomplish this?

A. Install an AWS SDK on the on-premises server to automatically send logs to CloudWatch .
B. Download the CloudWatch agent to the on-premises server Configure the agent to use IAM user credentials with permissions for CloudWatch
C. Upload log files from the on-premises server to Amazon S3 and have CloudWatch read the files
D. Upload log files from the on-premises server to an Amazon EC2 instance and have the instance forward the logs to CloudWatch.

Answer: B

Explanation:
Reference:
https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/install-CloudWatch-Agent-onpremise.Htm

NEW QUESTION 209
- (Exam Topic 2)
A company s website runs on an Amazon EC2 instance and uses Auto Scale the environment during peak times Website users across the world are experiencing high to sea latency due to static content on the EC2 instance, even during non-peak hours.
Which combination of steps will resolve the latency issue? (Select TWO)

A. Double the Auto Scaling group's maximum number of servers.
B. Host the application code on AWS Lambda
C. Scale vertically by resizing the EC2 instances
D. Create an Amazon CloudFront distribution to cache the static content
E. Store the application's static content in Amazon S3

Answer: CD

Explanation:
Reference: https://aws.amazon.com/getting-started/tutorials/deliver-content-faster/

NEW QUESTION 213
- (Exam Topic 2)
An application runs on multiple EC2 instances behind an ELB.
Where is the session data best written so that it can be served reliably across multiple requests?

A. Write data to Amazon ElastiCache
B. Write data to Amazon Elastic Block Store.
C. Write data to Amazon EC2 Instance Store.
D. Write data to the root filesystem.

Answer: C

Explanation:
Reference:https://docs.aws.amazon.com/aws-technical-content/latest/microservices-on-aws/microservices-on-aw

NEW QUESTION 214
- (Exam Topic 2)
A developer is testing an application that invokes an AWS Lambda function asynchronously During the testing phase, the Lambda function fails to process after two retries
How can the developer troubleshoot the failure?

A. Configure AWS CloudTrail logging to investigate the invocation failures
B. Configure Dead Letter Queues by sending events to Amazon SQS for investigation.
C. Configure Amazon Simple Workflow Service to process any direct unprocessed events
D. Configure AWS Config to process any direct unprocessed events

Answer: A

NEW QUESTION 218
- (Exam Topic 2)
A developer has written an Amazon Kinesis Data Streams application. As usage grows and traffic increases over time, the application is regularly receiving ProvisionedThroughputExceededException error messages
Which steps should the developer take to resolve the error? (Select TWO.)

A. Use Auto Scaling to scale the stream for better performance
B. Increase the delay between the GetRecords call and the PutRecords call.
C. Increase the number of shards in the data stream
D. Specify a shard iterator using the ShardIterator parameter.
E. Implement exponential backoff on the GetRecords call and the PutRecords call.

Answer: BC

Explanation:
Reference: https://docs.aws.amazon.com/streams/latest/dev/troubleshooting-consumers.html

NEW QUESTION 223
- (Exam Topic 2)
A developer wants to build an application that will allow new users to register and create new user accounts. The application must also allow users with social media accounts to log in using their social media credentials.
Which AWS service or feature can be used to meet these requirements?

A. AWS IAM
B. Amazon Cognito identity pools
C. Amazon Cognito user pools
D. AWS Directory Service

Answer: C

Explanation:
Reference:
https://aws.amazon.com/blogs/apn/how-to-authenticate-users-into-your-apps-using-applicationload-balancer-and

NEW QUESTION 227
- (Exam Topic 2)
A company provides APIs as a service and commits to a service level agreement (SLA) with all its users. To comply with each SLA, what should the company do?

A. Enable throttling limits for each method in Amazon API Getaway.
B. Create a usage plan for each user and request API keys to access the APIs.
C. Enable API rate limiting in Amazon cognito for each user.
D. Enable default throttling limits for each stage after deploying the APIs.

Answer: D

NEW QUESTION 232
- (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 i
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 dat
D. Use a cache-aside caching strategy.
E. Use a dedicated Amazon RDS instance for caching profile dat
F. Use a write-through caching strategy.
G. Create an ElastiCache cluster to cache the user profile dat
H. Use a write-through caching strategy.

Answer: B

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

NEW QUESTION 235
- (Exam Topic 2)
An application is running on an EC2 instance. The Developer wants to store an application metric in Amazon CloudWatch.
What is the best practice for implementing this requirement?

A. Use the PUT Object API call to send data to an S3 bucke
B. Use an event notification to invoke a Lambda function to publish data to CloudWatch.
C. Publish the metric data to an Amazon Kinesis Stream using a PutRecord API cal
D. Subscribe a Lambda function that publishes data to CloudWatch.
E. Use the CloudWatch PutMetricData API call to submit a custom metric to CloudWatc
F. Provide the required credentials to enable the API call.
G. Use the CloudWatch PutMetricData API call to submit a custom metric to CloudWatc
H. Launch theEC2 instance with the required IAM role to enable the API call.

Answer: D

Explanation:
https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_use_switch-role-ec2.html

NEW QUESTION 240
- (Exam Topic 2)
A Developer is making changes to a custom application that is currently using AWS Elastic Beanstalk.
After the Developer completes the changes, what solutions will update the Elastic Beanstalk environment with the new application version? (Choose two.)

A. Package the application code into a .zip file, and upload, then deploy the packaged application from the AWS Management Console
B. Package the application code into a .tar file, create a new application version from the AWS Management Console, then update the environment by using AWS CLI
C. Package the application code into a .tar file, and upload and deploy the packaged application from the AWS Management Console
D. Package the application code into a .zip file, create a new application version from the packaged application by using AWS CLI, then update the environment by

using AWS CLI
E. Package the application code into a .zip file, create a new application version from the AWS Management Console, then rebuild the environment by using AWS CLI

Answer: CD

NEW QUESTION 241
- (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 administrators 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 actional 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 EG2 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 GetSession token API in the application code logic to obtain credentials to access the PII table

Answer: BE

NEW QUESTION 246
- (Exam Topic 2)
A front-end web application is using Amazon Cognito user pools to handle the user authentication flow. A developer is integrating Amazon DynamoDB into the application using the AWS SDK for JavaScript
How would the developer securely call the API without exposing the access or secret keys?

A. Configure Amazon Cognito identity pools and exchange the JSON Web Token (JWT) for temporary credentials
B. Run the web application in an Amazon EC2 instance with the instance profile configured
C. Hardcode the credentials use Amazon S3 to host the web application, and enable server-side encryption
D. Use Amazon Cognito user pool JSON Web Tokens (JWTs) to access the DynamoDB APIs.

Answer: C

NEW QUESTION 247
- (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 251
- (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 254
- (Exam Topic 2)
An application is running on a cluster of Amazon EC2 instance. While trying to read objects stored within a single Amazon S3 bucket that are encrypted with server-side encryption with AWS KMS managed keys (SSE-KMS), the application receives the following error:
Service : AWSKMS: Status Code: 400: Code : ThrottlingException
Which combination of steps should be taken to prevent this failure? (Select TWO.)

A. Contact AWS Support to request an AWS KMS rate limit increase.
B. Perform error retries with exponential backoff in the application code.
C. Contact AWS Support to request a S3 rate limit increase.
D. Import a customer master key (CMK) with a larger key size.
E. Use more than one customer master key (CMK) to encrypt S3 data

Answer: AD

NEW QUESTION 258
- (Exam Topic 2)
A Developer created a new AWS account and must create a scalable AWS Lambda function that meets the following requirements for concurrent execution:

≫ Average execution time of 100 seconds

≫ 50 requests per second
Which step must be taken prior to deployment to prevent errors?

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

Answer: D

Explanation:
https://aws.amazon.com/about-aws/whats-new/2017/05/aws-lambda-raises-default-concurrent-execution-limit/

NEW QUESTION 263
- (Exam Topic 2)
A company is managing a NoSQL database on-premises to host a critical component of an application, which is starting to have scaling issues. The company wants to migrate the application to Amazon DynamoDB with the following considerations:
• Optimize frequent queries
• Reduce read latencies
• Plan for frequent queries on certain key attributes of the table Which solution would help achieve these objectives?

A. Create global secondary indexes on keys that are frequently queried Add the necessary attributes into the indexes.
B. Create local secondary indexes on keys that are frequently queried DynamoDB will fetch needed attributes from the table .
C. Create DynamoDB global tables to speed up query responses Use a scan to fetch data from the table.
D. Create an AWS Auto Scaling policy for the DynamoDB table

Answer: A

Explanation:
"Global secondary index—An index with a partition key and a sort key that can be different from those on the base table. A global secondary index is considered "global" because queries on the index can span all of the data in the base table, across all partitions.
Local secondary index—An index that has the same partition key as the base table, but a different sort key. A local secondary index is "local" in the sense that every partition of a local secondary index is scoped to a base table partition that has the same partition key value. "
https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/bp-indexes-general.html

NEW QUESTION 268
- (Exam Topic 2)
A development team is designing a mobile app that requires multi-factor authentication Which steps should be taken to achieve this? (Select TWO)

A. Use Amazon Cognito to create a user pool and create users in the user pool
B. Send multi-factor authentication text codes to users with the Amazon SNS Publish API call in the app code
C. Enable multi-factor authentication for the Amazon Cognito user pool
D. Use AWS IAM to create IAM users
E. Enable multi-factor authentication for the users created in AWS IAM.

Answer: AC

NEW QUESTION 271
- (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 273
- (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 274
- (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 278
- (Exam Topic 1)
What happens, by default, when one of the resources in a CloudFormation stack cannot be created?

A. Previously-created resources are kept but the stack creation terminates.
B. Previously-created resources are deleted and the stack creation terminates.
C. The stack creation continues, and the final results indicate which steps failed.
D. CloudFormation templates are parsed in advance so stack creation is guaranteed to succeed.

Answer: B

Explanation:
https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/stacks.html
AWS CloudFormation ensures all stack resources are created or deleted as appropriate. Because AWS CloudFormation treats the stack resources as a single unit, they must all be created or deleted successfully for the stack to be created or deleted. If a resource cannot be created, AWS CloudFormation rolls the stack back and automatically deletes any resources that were created. If a resource cannot be deleted, any remaining resources are retained until the stack can be successfully deleted.

NEW QUESTION 281
- (Exam Topic 1)
How is provisioned throughput affected by the chosen consistency model when reading data from a DynamoDB table?

A. Strongly consistent reads use the same amount of throughput as eventually consistent reads
B. Strongly consistent reads use more throughput than eventually consistent reads.
C. Strongly consistent reads use less throughput than eventually consistent reads
D. Strongly consistent reads use variable throughput depending on read activity

Answer: B

NEW QUESTION 282
- (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 287
- (Exam Topic 1)
Which code snippet below returns the URL of a load balanced web site created in CloudFormation with an AWS::ElasticLoadBalancing::LoadBalancer resource name "ElasticLoad Balancer"?

A. "Fn::Join" : [""". ["http://", {"Fn::GetAtr" : ["ElasticLoadBalancer","DNSName"]}]]
B. "Fn::Join" : [""". ["http://", {"Fn::GetAtr" : ["ElasticLoadBalancer","Url"]}]]
C. "Fn::Join" : [""". ["http://", {"Ref" : "ElasticLoadBalancerUrl"}]]
D. "Fn::Join" : [".", ["http://", {"Ref" : "ElasticLoadBalancerDNSName"}]]

Answer: A

Explanation:
https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/intrinsic-function-reference-getatt.html

NEW QUESTION 288
- (Exam Topic 1)
An application running on EC2 instances is storing data in an S3 bucket. Security policy mandates that all data must be encrypted in transit.
How can the Developer ensure that all traffic to the S3 bucket is encrypted?

A. Install certificates on the EC2 instances.
B. Create a bucket policy that allows traffic where SecureTransport is true.
C. Create an HTTPS redirect on the EC2 instances.
D. Create a bucket policy that denies traffic where SecureTransport is false.

Answer: D

Explanation:
https://aws.amazon.com/blogs/security/how-to-use-bucket-policies-and-apply-defense-in-depth-to-help-secure-y

NEW QUESTION 290
- (Exam Topic 1)
An AWS Lambda function must read data from an Amazon RDS MySQL database in a VPC and also reach a public endpoint over the internet to get additional data.
Which steps must be taken to allow the function to access both the RDS resource and the public endpoint? (Select TWO.)

A. Modify the default configuration for the Lambda function to associate it with an Amazon VPC private subnet.
B. Modify the default network access control list to allow outbound traffic.
C. Add a NAT Gateway to the VPC.
D. Modify the default configuration of the Lambda function to associate it with a VPC public subnet.
E. Add an environmental variable to the Lambda function to allow outbound internet access.

Answer: AC

Explanation:
Reference: https://docs.aws.amazon.com/lambda/latest/dg/vpc.html

NEW QUESTION 291
- (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 wit 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 292
- (Exam Topic 1)
You run an ad-supported photo sharing website using S3 to serve photos to visitors of your site. At some point you find out that other sites have been linking to the photos on your site, causing loss to your business.
What is an effective method to mitigate this?

A. Store photos on an EBS volume of the web server
B. Remove public read access and use signed URLs with expiry dates.
C. Use CloudFront distributions for static content.
D. Block the IPs of the offending websites in Security Groups.

Answer: B

Explanation:
https://aws.amazon.com/getting-started/projects/building-fast-session-caching-with-amazon-elasticache-for-redi

NEW QUESTION 296
- (Exam Topic 1)

A company developed a set of APIs that are being served through the Amazon API Gateway. The API calls need to be authenticated based on OpenID identity providers such as Amazon or Facebook. The APIs should allow access based on a custom authorization model.
Which is the simplest and MOST secure design to use to build an authentication and authorization model for the APIs?

A. Use Amazon Cognito user pools and a custom authorizer to authenticate and authorize users based on JSON Web Tokens.
B. Build a OpenID token broker with Amazon and Faceboo
C. Users will authenticate with these identifyproviders and pass the JSON Web Token to the API to authenticate each API call.
D. Store user credentials in Amazon DynamoDB and have the application retrieve temporary credentials from AWS ST
E. Make API calls by passing user credentials to the APIs for authentication and authorization.
F. Use Amazon RDS to store user credentials and pass them to the APIs for authentications and authorization.

Answer: A

NEW QUESTION 297
- (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 storag
C. Change the existing Lambda function to invoke it asynchronously.
D. Create an S3 event notification with a Lambda function destinatio
E. Create a new Lambda function to generate and store thumbnails.
F. Create an S3 event notification to an SQS Queu
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 302
- (Exam Topic 1)
A company has an application that logs all information to Amazon S3. Whenever there is a new log file, an AWS Lambda function is invoked to process the log files. The code works, gathering all of the necessary information. However, when checking the Lambda function logs, duplicate entries with the same request ID are found.
What is causing the duplicate entries?

A. The S3 bucket name was specified incorrectly.
B. The Lambda function failed, and the Lambda service retired the invocation with a delay.
C. There was an S3 outage, which caused duplicate entries of the sale log file.
D. The application stopped intermittently and then resumed.

Answer: B

Explanation:
https://docs.aws.amazon.com/lambda/latest/dg/API_Invoke.html

NEW QUESTION 303
- (Exam Topic 1)
Which of the following is chosen as the default region when making an API call with an AWS SDK?

A. ap-northeast-1
B. us-west-2
C. us-east-1
D. eu-west-1
E. us-central-1

Answer: C

Explanation:
https://docs.aws.amazon.com/sdk-for-java/v1/developer-guide/java-dg-region-selection.html. This section applies only when using a client builder to access AWS services. AWS clients created by using the client constructor will not automatically determine region from the environment and will, instead, use the default SDK region (USEast1).

NEW QUESTION 304
- (Exam Topic 1)
A Developer will be using the AWS CLI on a local development server to manage AWS services.
What can be done to ensure that the CLI uses the Developer's IAM permissions when making commands?

A. Specify the Developer's IAM access key ID and secret access key as parameters for each CLI command.
B. Run the aws configure CLI command, and provide the Developer's IAM access key ID and secret access key.
C. Specify the Developer's IAM user name and password as parameters for each CLI command.
D. Use the Developer's IAM role when making the CLI command.

Answer: B

Explanation:
https://medium.com/faun/setting-up-a-production-environment-using-our-local-development-server-and-aws-f5e

NEW QUESTION 306
- (Exam Topic 1)
What item operation allows the retrieval of multiple items from a DynamoDB table in a single API call?

A. GetItem
B. BatchGetItem
C. GetMultipleItems
D. GetItemRange

Answer: B

Explanation:
https://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_BatchGetItem.html

NEW QUESTION 309
- (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 312
- (Exam Topic 1)
What is the format of structured notification messages sent by Amazon SNS?

A. An XML object containing MessageId, UnsubscribeURL, Subject, Message and other values
B. An JSON object containing MessageId, DuplicateFlag, Message and other values
C. An XML object containing MessageId, DuplicateFlag, Message and other values
D. An JSON object containing MessageId, unsubscribeURL, Subject, Message and other values

Answer: D

Explanation:
https://docs.aws.amazon.com/sns/latest/dg/sns-message-and-json-formats.html#http-notification-json

NEW QUESTION 316
- (Exam Topic 1)
In AWS, which security aspects are the customer's responsibility? Choose 4 answers

A. Life-cycle management of IAM credentials
B. Decommissioning storage devices
C. Security Group and ACL (Access Control List) settings
D. Encryption of EBS (Elastic Block Storage) volumes
E. Controlling physical access to compute resources
F. Patch management on the EC2 instance's operating system

Answer: ACDF

Explanation:
Physical and Environmental Security
AWS's data centers are state of the art, utilizing innovative architectural and engineering approaches. Amazon has many years of experience in designing, constructing, and operating large-scale data centers. This experience has been applied to the AWS platform and infrastructure. AWS data centers are housed in nondescript facilities. Physical access is strictly controlled both at the perimeter and at building ingress points by professional security staff utilizing video surveillance, intrusion detection systems, and other electronic means. Authorized staff must pass two-factor authentication a minimum of two times to access data center floors. All visitors and contractors are required to present identification and are signed in and continually escorted by authorized staff.
Storage Decommissioning
> When a storage device has reached the end of its useful life, AWS procedures include a decommissioning process that is designed to prevent customer data from being exposed to unauthorized individuals.
> AWS uses the techniques detailed in DoD 5220.22-M (National Industrial Security Program Operating Manual) or NIST 800-88 (Guidelines for Media Sanitization) to destroy data as part of the decommissioning process.
> All decommissioned magnetic storage devices are degaussed and physically destroyed in accordance with industry-standard practices.

NEW QUESTION 317
- (Exam Topic 1)

An application has hundreds of users. Each user may use multiple devices to access the application. The Developer wants to assign unique identifiers to these users regardless of the device they use.
Which of the following methods should be used to obtain unique identifiers?

A. Create a user table in Amazon DynamoDB as key-value pairs of users and their device
B. Use these keys as unique identifiers.
C. Use IAM-generated access key IDs for the users as the unique identifier, but do not store secret keys.
D. Implement developer-authenticated identities by using Amazon Cognito, and get credentials for these identities.
E. Assign IAM users and roles to the user
F. Use the unique IAM resource ID as the unique identifier.

Answer: C

NEW QUESTION 319
- (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 320
- (Exam Topic 1)
You are providing AWS consulting services for a company developing a new mobile application that will be leveraging Amazon SNS Mobile Push for push notifications. In order to send direct notification messages to individual devices each device registration identifier or token needs to be registered with SNS; however the developers are not sure of the best way to do this.
You advise them to:

A. Bulk upload the device tokens contained in a CSV file via the AWS Management Console.
B. Let the push notification service (e.
C. Amazon Device Messaging) handle the registration.
D. Implement a token vending service to handle the registration.
E. Call the CreatePlatformEndPoint API function to register multiple device tokens.

Answer: D

Explanation:
https://docs.aws.amazon.com/sns/latest/dg/mobile-push-send-devicetoken.html

NEW QUESTION 322
- (Exam Topic 1)
Which of the following services are included at no additional cost with the use of the AWS platform? Choose 2 answers

A. Simple Storage Service
B. Elastic Compute Cloud
C. Auto Scaling
D. Elastic Load Balancing
E. CloudFormation
F. Simple Workflow Service

Answer: CE

NEW QUESTION 326
- (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 327
- (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 330
- (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 332
- (Exam Topic 1)
What type of block cipher does Amazon S3 offer for server side encryption?

A. Triple DES
B. Advanced Encryption Standard
C. Blowfish
D. RC5

Answer: B

Explanation:
https://docs.aws.amazon.com/AmazonS3/latest/dev/serv-side-encryption.html

NEW QUESTION 334
- (Exam Topic 1)
A Development team has pushed out 10 applications running on several Amazon EC2 instances. The Operations team is asking for a graphical representation of one key performance metric for each application. These metrics should be available on one screen for easy monitoring.
Which steps should the Developer take to accomplish this using Amazon CloudWatch?

A. Create a custom namespace with a unique metric name for each application.
B. Create a custom dimension with a unique metric name for each application.
C. Create a custom event with a unique metric name for each application.
D. Create a custom alarm with a unique metric name for each application.

Answer: A

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/cloudwatch-custom-metrics/

NEW QUESTION 339
- (Exam Topic 1)
Where should the appspec.yml file be placed in order for AWS CodeDeploy to work?

A. In the root of the application source code directory structure
B. In the bin folder along with all the complied code
C. In an S3 bucket
D. In the same folder as the application configuration files

Answer: A

NEW QUESTION 340
- (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 341
- (Exam Topic 1)
A Developer has created a large Lambda function, and deployment is failing with the following error: ClientError: An error occurred (InvalidParameterValueException) when calling the CreateFunction operation: Unzipped size must be smaller than XXXXXXXXX bytes', where XXXXXXXXX is the current Lambda limit
What can the Developer do to fix this problem?

A. Submit a limit increase request to AWS Support to increase the function to the size needed.
B. Use a compression algorithm that is more efficient than ZIP.
C. Break the function into multiple smaller Lambda functions.
D. ZIP the ZIP file twice to compress it further.

Answer: C

NEW QUESTION 345
- (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 346
- (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 350
- (Exam Topic 1)
An application is real-time processing millions of events that are received through an API.
What service could be used to allow multiple consumers to process the data concurrently and MOST cost-effectively?

A. Amazon SNS with fanout to an SQS queue for each application
B. Amazon SNS with fanout to an SQS FIFO (first-in, firtst-out) queue for each application
C. Amazon Kinesis Firehouse
D. Amazon Kinesis Streams

Answer: D

NEW QUESTION 352
- (Exam Topic 1)
A Developer is developing an application that manages financial transactions. To improve security, multi-factor authentication (MFA) will be required as part of the login protocol.
What services can the Developer use to meet these requirements?

A. Amazon DynamoDB to store MFA session data, and Amazon SNS to send MFA codes
B. Amazon Cognito with MFA
C. AWS Directory Service
D. AWS IAM with MFA enabled

Answer: B

Explanation:
AWS documentation - Cognito MFA Managing Security
You can add multi-factor authentication (MFA) to a user pool to protect the identity of your users. MFA adds a second authentication method that doesn't rely solely on user name and password. You can choose to use SMS text messages, or time-based one-time (TOTP) passwords as second factors in signing in your users. You can also use adaptive authentication with its risk-based model to predict when you might need another authentication factor. It's part of the user pool advanced security features, which also include protections against compromised credentials.

NEW QUESTION 356

- (Exam Topic 1)
When writing a Lambda function, what is the benefit of instantiating AWS clients outside the scope of the handler?

A. Legibility and stylistic convention
B. Taking advantage of connection re-use
C. Better error handling
D. Creating a new instance per invocation

Answer: B

NEW QUESTION 358
- (Exam Topic 1)
An AWS Elastic Beanstalk application needs to be deployed in multiple regions and requires a different Amazon Machine Image (AMI) in each region.
Which AWS CloudFormation template key can be used to specify the correct AMI for each region?

A. Parameters
B. Outputs
C. Mappings
D. Resources

Answer: C

Explanation:
Reference: https://docs.aws.amazon.com/marketplace/latest/userguide/cloudformation.html

NEW QUESTION 362
- (Exam Topic 1)
A Developer is creating an application that needs to locate the public IPv4 address of the Amazon EC2 instance on which it runs. How can the application locate this information?

A. Get the instance metadata by retrieving http://169.254.169.254/latest/metadata/.
B. Get the instance user data by retrieving http://169.254.169.254/latest/userdata/.
C. Get the application to run IFCONFIG to get the public IP address.
D. Get the application to run IPCONFIG to get the public IP address.

Answer: A

NEW QUESTION 363
- (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 368
- (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 371
- (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 webservers? 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 372
- (Exam Topic 1)
An application reads data from an Amazon DynamoDB table. Several times a day, for a period of 15 seconds, the application receives multiple ProvisionedThroughputExceeded errors.
How should this exception be handled?

A. Create a new global secondary index for the table to help with the additional requests.
B. Retry the failed read requests with exponential backoff.
C. Immediately retry the failed read requests.
D. Use the DynamoDB "UpdateItem" API to increase the provisioned throughput capacity of the table.

Answer: B

Explanation:
https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Programming.Errors.html

NEW QUESTION 376
- (Exam Topic 1)
A Developer is writing a serverless application that requires that an AWS Lambda function be invoked every 10 minutes.
What is an automated and serverless way to trigger the function?

A. Deploy an Amazon EC2 instance based on Linux, and edit its /etc/crontab file by adding a command to periodically invoke the Lambda function.
B. Configure an environment variable named PERIOD for the Lambda functio
C. Set the value to 600.
D. Create an Amazon CloudWatch Events rule that triggers on a regular schedule to invoke the Lambda function.
E. Create an Amazon SNS topic that has a subscription to the Lambda function with a 600-second timer.

Answer: C

Explanation:
Reference:
https://aws.amazon.com/blogs/architecture/a-serverless-solution-for-invoking-aws-lambda-at-asub-minute-frequ

NEW QUESTION 378
- (Exam Topic 1)
An application stops working with the following error: The specified bucket does not exist. Where is the BEST place to start the root cause analysis?

A. Check the Elastic Load Balancer logs for DeleteBucket requests.
B. Check the application logs in Amazon CloudWatch Logs for Amazon S3 DeleteBucket errors.
C. Check AWS X-Ray for Amazon S3 DeleteBucket alarms.
D. Check AWS CloudTrail for a DeleteBucket event.

Answer: D

NEW QUESTION 382
- (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 384
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