

# Amazon

## Exam Questions AWS-Certified-Database-Specialty

AWS Certified Database - Specialty



**NEW QUESTION 1**

A corporation intends to migrate a 500-GB Oracle database to Amazon Aurora PostgreSQL utilizing the AWS Schema Conversion Tool (AWS SCT) and AWS Data Management Service (AWS DMS). The database does not have any stored procedures, but does contain several huge or partitioned tables. Because the program is vital to the company, it is preferable to migrate with little downtime.

Which measures should a database professional perform in combination to expedite the transfer process? (Select three.)

- A. Use the AWS SCT data extraction agent to migrate the schema from Oracle to Aurora PostgreSQL.
- B. For the large tables, change the setting for the maximum number of tables to load in parallel and perform a full load using AWS DMS.
- C. For the large tables, create a table settings rule with a parallel load option in AWS DMS, then perform a full load using DMS.
- D. Use AWS DMS to set up change data capture (CDC) for continuous replication until the cutover date.
- E. Use AWS SCT to convert the schema from Oracle to Aurora PostgreSQL.
- F. Use AWS DMS to convert the schema from Oracle to Aurora PostgreSQL and for continuous replication.

**Answer:** CDE

**NEW QUESTION 2**

A financial services organization employs an Amazon Aurora PostgreSQL DB cluster to host an application on AWS. No log files detailing database administrator activity were discovered during a recent examination. A database professional must suggest a solution that enables access to the database and maintains activity logs. The solution should be simple to implement and have a negligible effect on performance.

Which database specialist solution should be recommended?

- A. Enable Aurora Database Activity Streams on the database in synchronous mod
- B. Connect the Amazon Kinesis data stream to Kinesis Data Firehos
- C. Set the Kinesis Data Firehose destination to an Amazon S3 bucket.
- D. Create an AWS CloudTrail trail in the Region where the database run
- E. Associate the database activity logs with the trail.
- F. Enable Aurora Database Activity Streams on the database in asynchronous mod
- G. Connect the Amazon Kinesis data stream to Kinesis Data Firehos
- H. Set the Firehose destination to an Amazon S3 bucket.
- I. Allow connections to the DB cluster through a bastion host onl
- J. Restrict database access to the bastion host and application server
- K. Push the bastion host logs to Amazon CloudWatch Logs using the CloudWatch Logs agent.

**Answer:** C

**Explanation:**

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/DBActivityStreams.Overview.html>

**NEW QUESTION 3**

A user has a non-relational key-value database. The user is looking for a fully managed AWS service that will offload the administrative burdens of operating and scaling distributed databases. The solution must be cost- effective and able to handle unpredictable application traffic.

What should a Database Specialist recommend for this user?

- A. Create an Amazon DynamoDB table with provisioned capacity mode
- B. Create an Amazon DocumentDB cluster
- C. Create an Amazon DynamoDB table with on-demand capacity mode
- D. Create an Amazon Aurora Serverless DB cluster

**Answer:** C

**NEW QUESTION 4**

A company is closing one of its remote data centers. This site runs a 100 TB on-premises data warehouse solution. The company plans to use the AWS Schema Conversion Tool (AWS SCT) and AWS DMS for the migration to AWS. The site network bandwidth is 500 Mbps. A Database Specialist wants to migrate the on-premises data using Amazon S3 as the data lake and Amazon Redshift as the data warehouse. This move must take place during a 2-week period when source systems are shut down for maintenance. The data should stay encrypted at rest and in transit.

Which approach has the least risk and the highest likelihood of a successful data transfer?

- A. Set up a VPN tunnel for encrypting data over the network from the data center to AW
- B. Leverage AWS SCT and apply the converted schema to Amazon Redshif
- C. Once complete, start an AWS DMS task to move the data from the source to Amazon S3. Use AWS Glue to load the data from Amazon S3 to Amazon Redshift.
- D. Leverage AWS SCT and apply the converted schema to Amazon Redshif
- E. Start an AWS DMS task with two AWS Snowball Edge devices to copy data from on-premises to Amazon S3 with AWS KMS encryptio
- F. Use AWS DMS to finish copying data to Amazon Redshift.
- G. Leverage AWS SCT and apply the converted schema to Amazon Redshif
- H. Once complete, use a fleet of 10 TB dedicated encrypted drives using the AWS Import/Export feature to copy data from on-premises to Amazon S3 with AWS KMS encryptio
- I. Use AWS Glue to load the data to Amazon redshift.
- J. Set up a VPN tunnel for encrypting data over the network from the data center to AW
- K. Leverage a native database export feature to export the data and compress the file
- L. Use the aws S3 cp multi-port upload command to upload these files to Amazon S3 with AWS KMS encryptio
- M. Once complete, load the data to Amazon Redshift using AWS Glue.

**Answer:** B

**Explanation:**

<https://aws.amazon.com/blogs/database/new-aws-dms-and-aws-snowball-integration-enables-mass-database-mi>

**NEW QUESTION 5**

A company is using Amazon RDS for MySQL to redesign its business application. A Database Specialist has noticed that the Development team is restoring their MySQL database multiple times a day when Developers make mistakes in their schema updates. The Developers sometimes need to wait hours to the restores to complete.

Multiple team members are working on the project, making it difficult to find the correct restore point for each mistake.

Which approach should the Database Specialist take to reduce downtime?

- A. Deploy multiple read replicas and have the team members make changes to separate replica instances
- B. Migrate to Amazon RDS for SQL Server, take a snapshot, and restore from the snapshot
- C. Migrate to Amazon Aurora MySQL and enable the Aurora Backtrack feature
- D. Enable the Amazon RDS for MySQL Backtrack feature

**Answer: C**

**Explanation:**

"Amazon Aurora, a fully-managed relational database service in AWS, is now offering a backtrack feature. With Amazon Aurora with MySQL compatibility, users can backtrack, or "rewind", a database cluster to a specific point in time, without restoring data from a backup. The backtrack process allows a point in time to be specified with one second resolution, and the rewind process typically takes minutes. This new feature facilitates developers in undoing mistakes like deleting data inappropriately or dropping the wrong table."

**NEW QUESTION 6**

Recently, a financial institution created a portfolio management service. The application's backend is powered by Amazon Aurora, which supports MySQL.

The firm demands a response time of five minutes and a response time of five minutes. A database professional must create a disaster recovery system that is both efficient and has a low replication latency.

How should the database professional tackle these requirements?

- A. Configure AWS Database Migration Service (AWS DMS) and create a replica in a different AWS Region.
- B. Configure an Amazon Aurora global database and add a different AWS Region.
- C. Configure a binlog and create a replica in a different AWS Region.
- D. Configure a cross-Region read replica.

**Answer: B**

**Explanation:**

[https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-global-database-disaster-recovery.ht](https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-global-database-disaster-recovery.html) <https://aws.amazon.com/blogs/database/how-to-choose-the-best-disaster-recovery-option-for-your-amazon-aurora/>

<https://aws.amazon.com/about-aws/whats-new/2019/11/aurora-supports-in-place-conversion-to-global-database/>

**NEW QUESTION 7**

A financial company wants to store sensitive user data in an Amazon Aurora PostgreSQL DB cluster. The database will be accessed by multiple applications across the company. The company has mandated that all communications to the database be encrypted and the server identity must be validated. Any non-SSL-based connections should be disallowed access to the database.

Which solution addresses these requirements?

- A. Set the `rds.force_ssl=0` parameter in DB parameter group
- B. Download and use the Amazon RDS certificate bundle and configure the PostgreSQL connection string with `sslmode=allow`.
- C. Set the `rds.force_ssl=1` parameter in DB parameter group
- D. Download and use the Amazon RDS certificate bundle and configure the PostgreSQL connection string with `sslmode=disable`.
- E. Set the `rds.force_ssl=0` parameter in DB parameter group
- F. Download and use the Amazon RDS certificate bundle and configure the PostgreSQL connection string with `sslmode=verify-ca`.
- G. Set the `rds.force_ssl=1` parameter in DB parameter group
- H. Download and use the Amazon RDS certificate bundle and configure the PostgreSQL connection string with `sslmode=verify-full`.

**Answer: D**

**Explanation:**

PostgreSQL: `sslrootcert=rds-cert.pem sslmode=[verify-ca | verify-full]`

**NEW QUESTION 8**

A Database Specialist is working with a company to launch a new website built on Amazon Aurora with several Aurora Replicas. This new website will replace an on-premises website connected to a legacy relational database. Due to stability issues in the legacy database, the company would like to test the resiliency of Aurora.

Which action can the Database Specialist take to test the resiliency of the Aurora DB cluster?

- A. Stop the DB cluster and analyze how the website responds
- B. Use Aurora fault injection to crash the master DB instance
- C. Remove the DB cluster endpoint to simulate a master DB instance failure
- D. Use Aurora Backtrack to crash the DB cluster

**Answer: B**

**Explanation:**

[https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraMySQL.Managing.FaultInjectionQu](https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraMySQL.Managing.FaultInjectionQueries.html) "You can test the fault tolerance of your Amazon Aurora DB cluster by using fault injection queries. Fault injection queries are issued as SQL commands to an Amazon Aurora instance and they enable you to schedule a simulated occurrence of one of the following events: A crash of a writer or reader DB instance A failure of an Aurora Replica A disk failure Disk congestion When a fault injection query specifies a crash, it forces a crash of the Aurora DB instance. The other fault injection queries result in simulations of failure events, but don't cause the event to occur. When you submit a fault injection query, you also specify an amount of time for the failure event simulation to occur for."

**NEW QUESTION 9**

A company wants to migrate its on-premises MySQL databases to Amazon RDS for MySQL. To comply with the company's security policy, all databases must be encrypted at rest. RDS DB instance snapshots must also be shared across various accounts to provision testing and staging environments. Which solution meets these requirements?

- A. Create an RDS for MySQL DB instance with an AWS Key Management Service (AWS KMS) customer managed CM
- B. Update the key policy to include the Amazon Resource Name (ARN) of the other AWS accounts as a principal, and then allow the kms:CreateGrant action.
- C. Create an RDS for MySQL DB instance with an AWS managed CM
- D. Create a new key policy to include the Amazon Resource Name (ARN) of the other AWS accounts as a principal, and then allow the kms:CreateGrant action.
- E. Create an RDS for MySQL DB instance with an AWS owned CM
- F. Create a new key policy to include the administrator user name of the other AWS accounts as a principal, and then allow the kms:CreateGrant action.
- G. Create an RDS for MySQL DB instance with an AWS CloudHSM ke
- H. Update the key policy to include the Amazon Resource Name (ARN) of the other AWS accounts as a principal, and then allow the kms:CreateGrant action.

**Answer:** A

**Explanation:**

[https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_ShareSnapshot.html](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ShareSnapshot.html)

**NEW QUESTION 10**

A company is concerned about the cost of a large-scale, transactional application using Amazon DynamoDB that only needs to store data for 2 days before it is deleted. In looking at the tables, a Database Specialist notices that much of the data is months old, and goes back to when the application was first deployed. What can the Database Specialist do to reduce the overall cost?

- A. Create a new attribute in each table to track the expiration time and create an AWS Glue transformation to delete entries more than 2 days old.
- B. Create a new attribute in each table to track the expiration time and enable DynamoDB Streams on each table.
- C. Create a new attribute in each table to track the expiration time and enable time to live (TTL) on each table.
- D. Create an Amazon CloudWatch Events event to export the data to Amazon S3 daily using AWS Data Pipeline and then truncate the Amazon DynamoDB table.

**Answer:** C

**Explanation:**

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

**NEW QUESTION 10**

A Database Specialist migrated an existing production MySQL database from on-premises to an Amazon RDS for MySQL DB instance. However, after the migration, the database needed to be encrypted at rest using AWS KMS. Due to the size of the database, reloading, the data into an encrypted database would be too time-consuming, so it is not an option.

How should the Database Specialist satisfy this new requirement?

- A. Create a snapshot of the unencrypted RDS DB instance
- B. Create an encrypted copy of the unencrypted snapshot
- C. Restore the encrypted snapshot copy.
- D. Modify the RDS DB instance
- E. Enable the AWS KMS encryption option that leverages the AWS CLI.
- F. Restore an unencrypted snapshot into a MySQL RDS DB instance that is encrypted.
- G. Create an encrypted read replica of the RDS DB instance
- H. Promote it the master.

**Answer:** A

**Explanation:**

"However, because you can encrypt a copy of an unencrypted DB snapshot, you can effectively add encryption to an unencrypted DB instance. That is, you can create a snapshot of your DB instance, and then create an encrypted copy of that snapshot. You can then restore a DB instance from the encrypted snapshot, and thus you have an encrypted copy of your original DB instance. For more information, see Copying a Snapshot."

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Overview.Encryption.html>

**NEW QUESTION 15**

A database professional is developing an application that will respond to single-instance requests. The program will query large amounts of client data and offer end users with results.

These reports may include a variety of fields. The database specialist want to enable users to query the database using any of the fields offered.

During peak periods, the database's traffic volume will be significant yet changeable. However, the database will see little activity over the rest of the day.

Which approach will be the most cost-effective in meeting these requirements?

- A. Amazon DynamoDB with provisioned capacity mode and auto scaling
- B. Amazon DynamoDB with on-demand capacity mode
- C. Amazon Aurora with auto scaling enabled
- D. Amazon Aurora in a serverless mode

**Answer:** D

**Explanation:**

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Limits.html#limits-items>

**NEW QUESTION 19**

The Development team recently executed a database script containing several data definition language (DDL) and data manipulation language (DML) statements on an Amazon Aurora MySQL DB cluster. The release accidentally deleted thousands of rows from an important table and broke some application functionality. This was discovered 4 hours after the release. Upon investigation, a Database Specialist tracked the issue to a DELETE command in the script with an incorrect WHERE clause filtering the wrong set of rows.

The Aurora DB cluster has Backtrack enabled with an 8-hour backtrack window. The Database Administrator also took a manual snapshot of the DB cluster before the release started. The database needs to be returned to the correct state as quickly as possible to resume full application functionality. Data loss must be minimal. How can the Database Specialist accomplish this?

- A. Quickly rewind the DB cluster to a point in time before the release using Backtrack.
- B. Perform a point-in-time recovery (PITR) of the DB cluster to a time before the release and copy the deleted rows from the restored database to the original database.
- C. Restore the DB cluster using the manual backup snapshot created before the release and change the application configuration settings to point to the new DB cluster.
- D. Create a clone of the DB cluster with Backtrack enable
- E. Rewind the cloned cluster to a point in time before the release
- F. Copy deleted rows from the clone to the original database.

**Answer:** A

#### NEW QUESTION 23

A company has two separate AWS accounts: one for the business unit and another for corporate analytics. The company wants to replicate the business unit data stored in Amazon RDS for MySQL in us-east-1 to its corporate analytics Amazon Redshift environment in us-west-1. The company wants to use AWS DMS with Amazon RDS as the source endpoint and Amazon Redshift as the target endpoint. Which action will allow AWS DMS to perform the replication?

- A. Configure the AWS DMS replication instance in the same account and Region as Amazon Redshift.
- B. Configure the AWS DMS replication instance in the same account as Amazon Redshift and in the same Region as Amazon RDS.
- C. Configure the AWS DMS replication instance in its own account and in the same Region as Amazon Redshift.
- D. Configure the AWS DMS replication instance in the same account and Region as Amazon RDS.

**Answer:** A

#### Explanation:

[https://docs.aws.amazon.com/dms/latest/userguide/CHAP\\_Target.Redshift.html](https://docs.aws.amazon.com/dms/latest/userguide/CHAP_Target.Redshift.html)

#### NEW QUESTION 28

A company is running an Amazon RDS for PostgreSQL DB instance and wants to migrate it to an Amazon Aurora PostgreSQL DB cluster. The current database is 1 TB in size. The migration needs to have minimal downtime. What is the FASTEST way to accomplish this?

- A. Create an Aurora PostgreSQL DB cluster
- B. Set up replication from the source RDS for PostgreSQL DB instance using AWS DMS to the target DB cluster.
- C. Use the pg\_dump and pg\_restore utilities to extract and restore the RDS for PostgreSQL DB instance to the Aurora PostgreSQL DB cluster.
- D. Create a database snapshot of the RDS for PostgreSQL DB instance and use this snapshot to create the Aurora PostgreSQL DB cluster.
- E. Migrate data from the RDS for PostgreSQL DB instance to an Aurora PostgreSQL DB cluster using an Aurora Replic
- F. Promote the replica during the cutover.

**Answer:** D

#### Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraPostgreSQL.Migrating.html> Migrating data from an RDS PostgreSQL DB instance to an Aurora PostgreSQL DB cluster by using an Aurora read replica. <https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraPostgreSQL.Migrating.html#Aurora>  
<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraPostgreSQL.Migrating.html#Aurora>

#### NEW QUESTION 30

A database specialist at a large multi-national financial company is in charge of designing the disaster recovery strategy for a highly available application that is in development. The application uses an Amazon DynamoDB table as its data store. The application requires a recovery time objective (RTO) of 1 minute and a recovery point objective (RPO) of 2 minutes.

Which operationally efficient disaster recovery strategy should the database specialist recommend for the DynamoDB table?

- A. Create a DynamoDB stream that is processed by an AWS Lambda function that copies the data to a DynamoDB table in another Region.
- B. Use a DynamoDB global table replica in another Region
- C. Enable point-in-time recovery for both tables.
- D. Use a DynamoDB Accelerator table in another Region
- E. Enable point-in-time recovery for the table.
- F. Create an AWS Backup plan and assign the DynamoDB table as a resource.

**Answer:** C

#### NEW QUESTION 35

A company wants to migrate its existing on-premises Oracle database to Amazon Aurora PostgreSQL. The migration must be completed with minimal downtime using AWS DMS. A Database Specialist must validate that the data was migrated accurately from the source to the target before the cutover. The migration must have minimal impact on the performance of the source database.

Which approach will MOST effectively meet these requirements?

- A. Use the AWS Schema Conversion Tool (AWS SCT) to convert source Oracle database schemas to the target Aurora DB cluster
- B. Verify the datatype of the columns.
- C. Use the table metrics of the AWS DMS task created for migrating the data to verify the statistics for the tables being migrated and to verify that the data definition language (DDL) statements are completed.
- D. Enable the AWS Schema Conversion Tool (AWS SCT) premigration validation and review the premigration checklist to make sure there are no issues with the conversion.
- E. Enable AWS DMS data validation on the task so the AWS DMS task compares the source and target records, and reports any mismatches.

**Answer:** D

**Explanation:**

"To ensure that your data was migrated accurately from the source to the target, we highly recommend that you use data validation."  
[https://docs.aws.amazon.com/dms/latest/userguide/CHAP\\_BestPractices.html](https://docs.aws.amazon.com/dms/latest/userguide/CHAP_BestPractices.html)

**NEW QUESTION 39**

A major organization maintains a number of Amazon DB clusters. Each of these clusters is configured differently to meet certain needs. These configurations may be classified into wider groups based on the team and use case.

A database administrator wishes to streamline the process of storing and updating these settings. Additionally, the database administrator want to guarantee that changes to certain configuration categories are automatically implemented to all instances as necessary.

Which AWS service or functionality will assist in automating and achieving this goal?

- A. AWS Systems Manager Parameter Store
- B. DB parameter group
- C. AWS Config
- D. AWS Secrets Manager

**Answer:** B

**Explanation:**

Database parameters specify how the database is configured. For example, database parameters can specify the amount of resources, such as memory, to allocate to a database.

**NEW QUESTION 44**

An worldwide gaming company's development team is experimenting with using Amazon DynamoDB to store in-game events for three mobile titles. Maximum concurrent users for the most popular game is 500,000, while the least popular game is 10,000. The typical event is 20 KB in size, while the average user session generates one event each second. Each event is assigned a millisecond time stamp and a globally unique identification.

The lead developer generated a single DynamoDB database with the following structure for the events:

Partition key: game name  
Sort key: event identifier  
Local secondary index: player identifier  
Event time

In a small-scale development setting, the tests were successful. When the application was deployed to production, however, new events were not being added to the database, and the logs indicated DynamoDB failures with the `ItemCollectionSizeLimitExceededException` issue code.

Which design modification should a database professional offer to the development team?

- A. Use the player identifier as the partition ke
- B. Use the event time as the sort ke
- C. Add a global secondary index with the game name as the partition key and the event time as the sort key.
- D. Create two table
- E. Use the game name as the partition key in both table
- F. Use the event time as the sort key for the first tabl
- G. Use the player identifier as the sort key for the second table.
- H. Replace the sort key with a compound value consisting of the player identifier collated with the event time, separated by a das
- I. Add a local secondary index with the player identifier as the sort key.
- J. Create one table for each gam
- K. Use the player identifier as the partition ke
- L. Use the event time as the sort key.

**Answer:** D

**NEW QUESTION 49**

Recently, a gaming firm purchased a popular iOS game that is especially popular during the Christmas season. The business has opted to include a leaderboard into the game, which will be powered by Amazon DynamoDB. The application's load is likely to increase significantly throughout the Christmas season.

Which solution satisfies these criteria at the lowest possible cost?

- A. DynamoDB Streams
- B. DynamoDB with DynamoDB Accelerator
- C. DynamoDB with on-demand capacity mode
- D. DynamoDB with provisioned capacity mode with Auto Scaling

**Answer:** D

**Explanation:**

"On-demand is ideal for bursty, new, or unpredictable workloads whose traffic can spike in seconds or minutes"  
vs.

'DynamoDB released auto scaling to make it easier for you to manage capacity efficiently, and auto scaling continues to help DynamoDB users lower the cost of workloads that have a predictable traffic pattern.'

<https://aws.amazon.com/blogs/database/amazon-dynamodb-auto-scaling-performance-and-cost-optimization-at>

**NEW QUESTION 54**

A Database Specialist is creating Amazon DynamoDB tables, Amazon CloudWatch alarms, and associated infrastructure for an Application team using a development AWS account. The team wants a deployment method that will standardize the core solution components while managing environment-specific settings separately, and wants to minimize rework due to configuration errors.

Which process should the Database Specialist recommend to meet these requirements?

- A. Organize common and environmental-specific parameters hierarchically in the AWS Systems Manager Parameter Store, then reference the parameters dynamically from an AWS CloudFormation template
- B. Deploy the CloudFormation stack using the environment name as a parameter.
- C. Create a parameterized AWS CloudFormation template that builds the required object
- D. Keep separate environment parameter files in separate Amazon S3 bucket
- E. Provide an AWS CLI command that deploys the CloudFormation stack directly referencing the appropriate parameter bucket.
- F. Create a parameterized AWS CloudFormation template that builds the required object
- G. Import the template into the CloudFormation interface in the AWS Management Console
- H. Make the required changes to the parameters and deploy the CloudFormation stack.
- I. Create an AWS Lambda function that builds the required objects using an AWS SD
- J. Set the required parameter values in a test event in the Lambda console for each environment that the Application team can modify, as needed
- K. Deploy the infrastructure by triggering the test event in the console.

**Answer:** A

**Explanation:**

<https://aws.amazon.com/blogs/mt/integrating-aws-cloudformation-with-aws-systems-manager-parameter-store/>

**NEW QUESTION 56**

A large company has a variety of Amazon DB clusters. Each of these clusters has various configurations that adhere to various requirements. Depending on the team and use case, these configurations can be organized into broader categories.

A database administrator wants to make the process of storing and modifying these parameters more systematic. The database administrator also wants to ensure that changes to individual categories of configurations are automatically applied to all instances when required.

Which AWS service or feature will help automate and achieve this objective?

- A. AWS Systems Manager Parameter Store
- B. DB parameter group
- C. AWS Config
- D. AWS Secrets Manager

**Answer:** B

**NEW QUESTION 61**

A large ecommerce company uses Amazon DynamoDB to handle the transactions on its web portal. Traffic patterns throughout the year are usually stable; however, a large event is planned. The company knows that traffic will increase by up to 10 times the normal load over the 3-day event. When sale prices are published during the event, traffic will spike rapidly.

How should a Database Specialist ensure DynamoDB can handle the increased traffic?

- A. Ensure the table is always provisioned to meet peak needs
- B. Allow burst capacity to handle the additional load
- C. Set an AWS Application Auto Scaling policy for the table to handle the increase in traffic
- D. Preprovision additional capacity for the known peaks and then reduce the capacity after the event

**Answer:** D

**Explanation:**

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/bp-partition-key-design.html#bp-partition> "DynamoDB provides some flexibility in your per-partition throughput provisioning by providing burst capacity. Whenever you're not fully using a partition's throughput, DynamoDB reserves a portion of that unused capacity for later bursts of throughput to handle usage spikes. DynamoDB currently retains up to 5 minutes (300 seconds) of unused read and write capacity. During an occasional burst of read or write activity, these extra capacity units can be consumed quickly—even faster than the per-second provisioned throughput capacity that you've defined for your table. DynamoDB can also consume burst capacity for background maintenance and other tasks without prior notice. Note that these burst capacity details might change in the future."

**NEW QUESTION 66**

For the first time, a database professional is establishing a test graph database on Amazon Neptune. The database expert must input millions of rows of test observations from an Amazon S3.csv file. The database professional uploaded the data to the Neptune DB instance through a series of API calls.

Which sequence of actions enables the database professional to upload the data most quickly? (Select three.)

- A. Ensure Amazon Cognito returns the proper AWS STS tokens to authenticate the Neptune DB instance to the S3 bucket hosting the CSV file.
- B. Ensure the vertices and edges are specified in different .csv files with proper header column formatting.
- C. Use AWS DMS to move data from Amazon S3 to the Neptune Loader.
- D. Curl the S3 URI while inside the Neptune DB instance and then run the addVertex or addEdge commands.
- E. Ensure an IAM role for the Neptune DB instance is configured with the appropriate permissions to allow access to the file in the S3 bucket.
- F. Create an S3 VPC endpoint and issue an HTTP POST to the database's loader endpoint.

**Answer:** BEF

**Explanation:**

<https://docs.aws.amazon.com/neptune/latest/userguide/bulk-load-optimize.html>

**NEW QUESTION 71**

A business uses Amazon EC2 instances in VPC A to serve an internal file-sharing application. This application is supported by an Amazon ElastiCache cluster in VPC B that is peering with VPC A. The corporation migrates the instances of its applications from VPC A to VPC B. The file-sharing application is no longer able to connect to the ElastiCache cluster, as shown by the logs.

What is the best course of action for a database professional to take in order to remedy this issue?

- A. Create a second security group on the EC2 instance
- B. Add an outbound rule to allow traffic from the ElastiCache cluster security group.

- C. Delete the ElastiCache security group
- D. Add an interface VPC endpoint to enable the EC2 instances to connect to the ElastiCache cluster.
- E. Modify the ElastiCache security group by adding outbound rules that allow traffic to VPC CIDR blocks from the ElastiCache cluster.
- F. Modify the ElastiCache security group by adding an inbound rule that allows traffic from the EC2 instances security group to the ElastiCache cluster.

**Answer:** D

**Explanation:**

<https://docs.aws.amazon.com/vpc/latest/peering/vpc-peering-security-groups.html>

**NEW QUESTION 76**

A company has an Amazon RDS Multi-AZ DB instances that is 200 GB in size with an RPO of 6 hours. To meet the company's disaster recovery policies, the database backup needs to be copied into another Region. The company requires the solution to be cost-effective and operationally efficient. What should a Database Specialist do to copy the database backup into a different Region?

- A. Use Amazon RDS automated snapshots and use AWS Lambda to copy the snapshot into another Region
- B. Use Amazon RDS automated snapshots every 6 hours and use Amazon S3 cross-Region replication to copy the snapshot into another Region
- C. Create an AWS Lambda function to take an Amazon RDS snapshot every 6 hours and use a second Lambda function to copy the snapshot into another Region
- D. Create a cross-Region read replica for Amazon RDS in another Region and take an automated snapshot of the read replica

**Answer:** C

**Explanation:**

System snapshot can't fulfill 6 hours requirement. You need to control it by script

<https://aws.amazon.com/blogs/database/%C2%AD%C2%AD%C2%ADautomating-cross-region-cross-account>

**NEW QUESTION 80**

AWS CloudFormation stack including an Amazon RDS database instance was mistakenly removed, resulting in the loss of recent data. A Database Specialist must apply RDS parameters to the CloudFormation template in order to minimize the possibility of future inadvertent instance data loss. Which settings will satisfy this criterion? (Select three.)

- A. Set DeletionProtection to True
- B. Set MultiAZ to True
- C. Set TerminationProtection to True
- D. Set DeleteAutomatedBackups to False
- E. Set DeletionPolicy to Delete
- F. Set DeletionPolicy to Retain

**Answer:** ADF

**Explanation:**

A <https://aws.amazon.com/about-aws/whats-new/2018/09/amazon-rds-now-provides-database-deletion-protection/>

D [https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_WorkingWithAutomatedBackups.html](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_WorkingWithAutomatedBackups.html)

F - <https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-attribute-deletionpolicy.html>

**NEW QUESTION 84**

A company is using Amazon RDS for PostgreSQL. The Security team wants all database connection requests to be logged and retained for 180 days. The RDS for PostgreSQL DB instance is currently using the default parameter group. A Database Specialist has identified that setting the log\_connections parameter to 1 will enable connections logging.

Which combination of steps should the Database Specialist take to meet the logging and retention requirements? (Choose two.)

- A. Update the log\_connections parameter in the default parameter group
- B. Create a custom parameter group, update the log\_connections parameter, and associate the parameter with the DB instance
- C. Enable publishing of database engine logs to Amazon CloudWatch Logs and set the event expiration to 180 days
- D. Enable publishing of database engine logs to an Amazon S3 bucket and set the lifecycle policy to 180 days
- E. Connect to the RDS PostgreSQL host and update the log\_connections parameter in the postgresql.conf file

**Answer:** AE

**NEW QUESTION 88**

A Database Specialist is migrating an on-premises Microsoft SQL Server application database to Amazon RDS for PostgreSQL using AWS DMS. The application requires minimal downtime when the RDS DB instance goes live.

What change should the Database Specialist make to enable the migration?

- A. Configure the on-premises application database to act as a source for an AWS DMS full load with ongoing change data capture (CDC)
- B. Configure the AWS DMS replication instance to allow both full load and ongoing change data capture (CDC)
- C. Configure the AWS DMS task to generate full logs to allow for ongoing change data capture (CDC)
- D. Configure the AWS DMS connections to allow two-way communication to allow for ongoing change data capture (CDC)

**Answer:** A

**Explanation:**

"requires minimal downtime when the RDS DB instance goes live" in order to do CDC: "you must first ensure that ARCHIVELOG MODE is on to provide information to LogMiner. AWS DMS uses LogMiner to read information from the archive logs so that AWS DMS can capture changes"

<https://docs.aws.amazon.com/dms/latest/sbs/chap-oracle2postgresql.steps.configureoracle.html> "If you want to capture and apply changes (CDC), then you also need the following privileges."

**NEW QUESTION 90**

A company is running Amazon RDS for MySQL for its workloads. There is downtime when AWS operating system patches are applied during the Amazon RDS-specified maintenance window.

What is the MOST cost-effective action that should be taken to avoid downtime?

- A. Migrate the workloads from Amazon RDS for MySQL to Amazon DynamoDB
- B. Enable cross-Region read replicas and direct read traffic to then when Amazon RDS is down
- C. Enable a read replicas and direct read traffic to it when Amazon RDS is down
- D. Enable an Amazon RDS for MySQL Multi-AZ configuration

**Answer: D**

**Explanation:**

<https://aws.amazon.com/premiumsupport/knowledge-center/rds-required-maintenance/>

To minimize downtime, modify the Amazon RDS DB instance to a Multi-AZ deployment. For Multi-AZ deployments, OS maintenance is applied to the secondary instance first, then the instance fails over, and then the primary instance is updated. The downtime is during failover. For more information, see Maintenance for Multi-AZ Deployments. <https://aws.amazon.com/rds/faqs/> The availability benefits of Multi-AZ also extend to planned maintenance. For example, with automated backups, I/O activity is no longer suspended on your primary during your preferred backup window, since backups are taken from the standby. In the case of patching or DB instance class scaling, these operations occur first on the standby, prior to automatic fail over. As a result, your availability impact is limited to the time required for automatic failover to complete.

**NEW QUESTION 95**

A company has a production Amazon Aurora Db cluster that serves both online transaction processing (OLTP) transactions and compute-intensive reports. The reports run for 10% of the total cluster uptime while the OLTP transactions run all the time. The company has benchmarked its workload and determined that a six-node Aurora DB cluster is appropriate for the peak workload.

The company is now looking at cutting costs for this DB cluster, but needs to have a sufficient number of nodes in the cluster to support the workload at different times. The workload has not changed since the previous benchmarking exercise.

How can a Database Specialist address these requirements with minimal user involvement?

- A. Split up the DB cluster into two different clusters: one for OLTP and the other for reportin
- B. Monitor and set up replication between the two clusters to keep data consistent.
- C. Review all evaluate the peak combined workloa
- D. Ensure that utilization of the DB cluster node is at an acceptable leve
- E. Adjust the number of instances, if necessary.
- F. Use the stop cluster functionality to stop all the nodes of the DB cluster during times of minimal workloa
- G. The cluster can be restarted again depending on the workload at the time.
- H. Set up automatic scaling on the DB cluste
- I. This will allow the number of reader nodes to adjust automatically to the reporting workload, when needed.

**Answer: D**

**NEW QUESTION 100**

A company developed a new application that is deployed on Amazon EC2 instances behind an Application Load Balancer. The EC2 instances use the security group named sg-application-servers. The company needs a database to store the data from the application and decides to use an Amazon RDS for MySQL DB instance. The DB instance is deployed in private DB subnet.

What is the MOST restrictive configuration for the DB instance security group?

- A. Only allow incoming traffic from the sg-application-servers security group on port 3306.
- B. Only allow incoming traffic from the sg-application-servers security group on port 443.
- C. Only allow incoming traffic from the subnet of the application servers on port 3306.
- D. Only allow incoming traffic from the subnet of the application servers on port 443.

**Answer: A**

**Explanation:**

most restrictive approach is to allow only incoming connections from SG of EC2 instance on port 3306

**NEW QUESTION 104**

A company recently acquired a new business. A database specialist must migrate an unencrypted 12 TB Amazon RDS for MySQL DB instance to a new AWS account. The database specialist needs to minimize the amount of time required to migrate the database.

Which solution meets these requirements?

- A. Create a snapshot of the source DB instance in the source accoun
- B. Share the snapshot with the destination accoun
- C. In the target account, create a DB instance from the snapshot.
- D. Use AWS Resource Access Manager to share the source DB instance with the destination account.Create a DB instance in the destination account using the shared resource.
- E. Create a read replica of the DB instanc
- F. Give the destination account access to the read replic
- G. In the destination account, create a snapshot of the shared read replica and provision a new RDS for MySQL DB instance.
- H. Use mysqldump to back up the source databas
- I. Create an RDS for MySQL DB instance in the destination accoun
- J. Use the mysql command to restore the backup in the destination database.

**Answer: A**

**Explanation:**

Sharing an unencrypted manual DB snapshot enables authorized AWS accounts to directly restore a DB instance from the snapshot instead of taking a copy of it and restoring from that. [https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_ShareSnapshot.html](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ShareSnapshot.html) However Resource Access Manager could not share non-Aurora cluster. <https://docs.aws.amazon.com/ram/latest/userguide/shareable.html>

**NEW QUESTION 109**

A company is building a software as a service application. As part of the new user sign-on workflow, a Python script invokes the CreateTable operation using the Amazon DynamoDB API. After the call returns, the script attempts to call PutItem. Occasionally, the PutItem request fails with a ResourceNotFoundException error, which causes the workflow to fail. The development team has confirmed that the same table name is used in the two API calls. How should a database specialist fix this issue?

- A. Add an allow statement for the dynamodb:PutItem action in a policy attached to the role used by the application creating the table.
- B. Set the StreamEnabled property of the StreamSpecification parameter to true, then call PutItem.
- C. Change the application to call DescribeTable periodically until the TableStatus is ACTIVE, then call PutItem.
- D. Add a ConditionExpression parameter in the PutItem request.

**Answer: C**

**Explanation:**

[https://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API\\_DescribeTable.html](https://docs.aws.amazon.com/amazondynamodb/latest/APIReference/API_DescribeTable.html)

**NEW QUESTION 110**

A Database Specialist must create a read replica to isolate read-only queries for an Amazon RDS for MySQL DB instance. Immediately after creating the read replica, users that query it report slow response times. What could be causing these slow response times?

- A. New volumes created from snapshots load lazily in the background
- B. Long-running statements on the master
- C. Insufficient resources on the master
- D. Overload of a single replication thread by excessive writes on the master

**Answer: A**

**Explanation:**

snapshot is lazy loaded If the volume is accessed where the data is not loaded, the application accessing the volume encounters a higher latency than normal while the data gets loaded

<https://aws.amazon.com/about-aws/whats-new/2019/11/amazon-ebs-fast-snapshot-restore-eliminates-need-for-p>

**NEW QUESTION 114**

A stock market analysis firm maintains two locations: one in the us-east-1 Region and another in the eu-west-2 Region. The business want to build an AWS database solution capable of providing rapid and accurate updates.

Dashboards with advanced analytical queries are used to present data in the eu-west-2 office. Because the corporation will use these dashboards to make purchasing choices, they must have less than a second to obtain application data.

Which solution satisfies these criteria and gives the MOST CURRENT dashboard?

- A. Deploy an Amazon RDS DB instance in us-east-1 with a read replica instance in eu-west-2. Create an Amazon ElastiCache cluster in eu-west-2 to cache data from the read replica to generate the dashboards.
- B. Use an Amazon DynamoDB global table in us-east-1 with replication into eu-west-2. Use multi-active replication to ensure that updates are quickly propagated to eu-west-2.
- C. Use an Amazon Aurora global databas
- D. Deploy the primary DB cluster in us-east-1. Deploy the secondary DB cluster in eu-west-2. Configure the dashboard application to read from the secondary cluster.
- E. Deploy an Amazon RDS for MySQL DB instance in us-east-1 with a read replica instance in eu-west-2. Configure the dashboard application to read from the read replica.

**Answer: C**

**Explanation:**

Amazon Aurora global databases span multiple AWS Regions, enabling low latency global reads and providing fast recovery from the rare outage that might affect an entire AWS Region. An Aurora global database has a primary DB cluster in one Region, and up to five secondary DB clusters in different Regions.

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-global-database.html>

**NEW QUESTION 115**

A Database Specialist needs to speed up any failover that might occur on an Amazon Aurora PostgreSQL DB cluster. The Aurora DB cluster currently includes the primary instance and three Aurora Replicas.

How can the Database Specialist ensure that failovers occur with the least amount of downtime for the application?

- A. Set the TCP keepalive parameters low
- B. Call the AWS CLI failover-db-cluster command
- C. Enable Enhanced Monitoring on the DB cluster
- D. Start a database activity stream on the DB cluster

**Answer: A**

**Explanation:**

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraPostgreSQL.BestPractices.html#Aur>

**NEW QUESTION 116**

A database specialist must create nightly backups of an Amazon DynamoDB table in a mission-critical workload as part of a disaster recovery strategy. Which backup methodology should the database specialist use to MINIMIZE management overhead?

- A. Install the AWS CLI on an Amazon EC2 instanc
- B. Write a CLI command that creates a backup of the DynamoDB tabl
- C. Create a scheduled job or task that executes the command on a nightly basis.

- D. Create an AWS Lambda function that creates a backup of the DynamoDB tabl
- E. Create an Amazon CloudWatch Events rule that executes the Lambda function on a nightly basis.
- F. Create a backup plan using AWS Backup, specify a backup frequency of every 24 hours, and give the plan a nightly backup window.
- G. Configure DynamoDB backup and restore for an on-demand backup frequency of every 24 hours.

**Answer:** C

**Explanation:**

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/CreateBackup.html#:~:text=If%20you%2>  
[https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/backuprestore\\_HowItWorks.html](https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/backuprestore_HowItWorks.html)

**NEW QUESTION 118**

A worldwide digital advertising corporation collects browser information in order to provide targeted visitors with contextually relevant pictures, websites, and connections. A single page load may create many events, each of which must be kept separately. A single event may have a maximum size of 200 KB and an average size of 10 KB. Each page load requires a query of the user's browsing history in order to deliver suggestions for targeted advertising. The advertising corporation anticipates daily page views of more than 1 billion from people in the United States, Europe, Hong Kong, and India. The information structure differs according to the event. Additionally, browsing information must be written and read with a very low latency to guarantee that consumers have a positive viewing experience.

Which database solution satisfies these criteria?

- A. Amazon DocumentDB
- B. Amazon RDS Multi-AZ deployment
- C. Amazon DynamoDB global table
- D. Amazon Aurora Global Database

**Answer:** C

**NEW QUESTION 121**

A company has deployed an e-commerce web application in a new AWS account. An Amazon RDS for MySQL Multi-AZ DB instance is part of this deployment with a database-1.xxxxxxxxxxx.us-east-1.rds.amazonaws.com endpoint listening on port 3306. The company's Database Specialist is able to log in to MySQL and run queries from the bastion host using these details.

When users try to utilize the application hosted in the AWS account, they are presented with a generic error message. The application servers are logging a "could not connect to server: Connection times out" error message to Amazon CloudWatch Logs.

What is the cause of this error?

- A. The user name and password the application is using are incorrect.
- B. The security group assigned to the application servers does not have the necessary rules to allow inbound connections from the DB instance.
- C. The security group assigned to the DB instance does not have the necessary rules to allow inbound connections from the application servers.
- D. The user name and password are correct, but the user is not authorized to use the DB instance.

**Answer:** C

**NEW QUESTION 122**

In one AWS account, a business runs a two-tier ecommerce application. An Amazon RDS for MySQL

Multi-AZ database instance serves as the application's backend. A developer removed the database instance in the production environment by accident. Although the organization recovers the database, the incident results in hours of outage and financial loss.

Which combination of adjustments would reduce the likelihood that this error will occur again in the future? (Select three.)

- A. Grant least privilege to groups, IAM users, and roles.
- B. Allow all users to restore a database from a backup.
- C. Enable deletion protection on existing production DB instances.
- D. Use an ACL policy to restrict users from DB instance deletion.
- E. Enable AWS CloudTrail logging and Enhanced Monitoring.

**Answer:** ACD

**NEW QUESTION 124**

An online retail company is planning a multi-day flash sale that must support processing of up to 5,000 orders per second. The number of orders and exact schedule for the sale will vary each day. During the sale, approximately 10,000 concurrent users will look at the deals before buying items. Outside of the sale, the traffic volume is very low. The acceptable performance for read/write queries should be under 25 ms. Order items are about 2 KB in size and have a unique identifier. The company requires the most cost-effective solution that will automatically scale and is highly available.

Which solution meets these requirements?

- A. Amazon DynamoDB with on-demand capacity mode
- B. Amazon Aurora with one writer node and an Aurora Replica with the parallel query feature enabled
- C. Amazon DynamoDB with provisioned capacity mode with 5,000 write capacity units (WCUs) and 10,000 read capacity units (RCUs)
- D. Amazon Aurora with one writer node and two cross-Region Aurora Replicas

**Answer:** A

**Explanation:**

The number of orders and exact schedule for the sale will vary each day. During the sale, approximately 10,000 concurrent users will look at the deals before buying items. Outside of the sale, the traffic volume is very low ==> Setting provisioning DynamoDB fix read 5000/write 10000 with will waste the resource when the traffic is low. It is not cost-effective.

**NEW QUESTION 127**

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