

## AWS-Certified-Database-Specialty Dumps

### AWS Certified Database - Specialty

<https://www.certleader.com/AWS-Certified-Database-Specialty-dumps.html>



**NEW QUESTION 1**

A database professional is tasked with the task of migrating 25 GB of data files from an on-premises storage system to an Amazon Neptune database. Which method of data loading is the FASTEST?

- A. Upload the data to Amazon S3 and use the Loader command to load the data from Amazon S3 into the Neptune database.
- B. Write a utility to read the data from the on-premises storage and run INSERT statements in a loop to load the data into the Neptune database.
- C. Use the AWS CLI to load the data directly from the on-premises storage into the Neptune database.
- D. Use AWS DataSync to load the data directly from the on-premises storage into the Neptune database.

**Answer:** A

**Explanation:**

- \* 1. Copy the data files to an Amazon Simple Storage Service (Amazon S3) bucket.
- \* 2. Create an IAM role with Read and List access to the bucket.
- \* 3. Create an Amazon S3 VPC endpoint.
- \* 4. Start the Neptune loader by sending a request via HTTP to the Neptune DB instance.
- \* 5. The Neptune DB instance assumes the IAM role to load the data from the bucket.

**NEW QUESTION 2**

A huge gaming firm is developing a centralized method for storing the status of various online games' user sessions. The workload requires low-latency key-value storage and will consist of an equal number of reads and writes. Across the games' geographically dispersed user base, data should be written to the AWS Region nearest to the user. The design should reduce the burden associated with managing data replication across Regions. Which solution satisfies these criteria?

- A. Amazon RDS for MySQL with multi-Region read replicas
- B. Amazon Aurora global database
- C. Amazon RDS for Oracle with GoldenGate
- D. Amazon DynamoDB global tables

**Answer:** D

**Explanation:**

[https://aws.amazon.com/dynamodb/?nc1=h\\_ls](https://aws.amazon.com/dynamodb/?nc1=h_ls)

**NEW QUESTION 3**

A Database Specialist is performing a proof of concept with Amazon Aurora using a small instance to confirm a simple database behavior. When loading a large dataset and creating the index, the Database Specialist encounters the following error message from Aurora: ERROR: cloud not write block 7507718 of temporary file: No space left on device What is the cause of this error and what should the Database Specialist do to resolve this issue?

- A. The scaling of Aurora storage cannot catch up with the data loadin
- B. The Database Specialist needs to modify the workload to load the data slowly.
- C. The scaling of Aurora storage cannot catch up with the data loadin
- D. The Database Specialist needs to enable Aurora storage scaling.
- E. The local storage used to store temporary tables is ful
- F. The Database Specialist needs to scale up the instance.
- G. The local storage used to store temporary tables is ful
- H. The Database Specialist needs to enable localstorage scaling.

**Answer:** C

**NEW QUESTION 4**

An AWS CloudFormation stack that included an Amazon RDS DB instance was accidentally deleted and recent data was lost. A Database Specialist needs to add RDS settings to the CloudFormation template to reduce the chance of accidental instance data loss in the future. Which settings will meet this requirement? (Choose 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:** ACF

**NEW QUESTION 5**

A company is using 5 TB Amazon RDS DB instances and needs to maintain 5 years of monthly database backups for compliance purposes. A Database Administrator must provide Auditors with data within 24 hours. Which solution will meet these requirements and is the MOST operationally efficient?

- A. Create an AWS Lambda function to run on the first day of every month to take a manual RDS snapshot. Move the snapshot to the company's Amazon S3 bucket.
- B. Create an AWS Lambda function to run on the first day of every month to take a manual RDS snapshot.
- C. Create an RDS snapshot schedule from the AWS Management Console to take a snapshot every 30days.
- D. Create an AWS Lambda function to run on the first day of every month to create an automated RDS snapshot.

**Answer:** A

**Explanation:**

Unlike automated backups, manual snapshots aren't subject to the backup retention period. Snapshots don't expire. For very long-term backups of MariaDB, MySQL, and PostgreSQL data, we recommend exporting snapshot data to Amazon S3. If the major version of your DB engine is no longer supported, you can't restore to that version from a snapshot. [https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_CreateSnapshot.html](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_CreateSnapshot.html)

**NEW QUESTION 6**

A banking company recently launched an Amazon RDS for MySQL DB instance as part of a proof-of-concept project. A database specialist has configured automated database snapshots. As a part of routine testing, the database specialist noticed one day that the automated database snapshot was not created. Which of the following are possible reasons why the snapshot was not created? (Choose two.)

- A. A copy of the RDS automated snapshot for this DB instance is in progress within the same AWS Region.
- B. A copy of the RDS automated snapshot for this DB instance is in progress in a different AWS Region.
- C. The RDS maintenance window is not configured.
- D. The RDS DB instance is in the STORAGE\_FULL state.
- E. RDS event notifications have not been enabled.

**Answer:** AD

**Explanation:**

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

**NEW QUESTION 7**

A business maintains a SQL Server database on-premises. Active Directory authentication is used to provide users access to the database. The organization transferred their database successfully to Amazon RDS for SQL Server. The organization, however, has reservations regarding user authentication in the AWS Cloud environment.

Which authentication solution should a database professional provide?

- A. Deploy Active Directory Federation Services (AD FS) on premises and configure it with an on-premises Active Director
- B. Set up delegation between the on- premises AD FS and AWS Security Token Service (AWS STS) to map user identities to a role using theAmazonRDSDirectoryServiceAccess managed IAM policy.
- C. Establish a forest trust between the on-premises Active Directory and AWS Directory Service for Microsoft Active Director
- D. Use AWS SSO to configure an Active Directory user delegated to access the databases in RDS for SQL Server.
- E. Use Active Directory Connector to redirect directory requests to the company's on-premises Active Directory without caching any information in the clou
- F. Use the RDS master user credentials to connect to the DB instance and configure SQL Server logins and users from the Active Directory users and groups.
- G. Establish a forest trust between the on-premises Active Directory and AWS Directory Service for Microsoft Active Director
- H. Ensure RDS for SQL Server is using mixed mode authenticatio
- I. Use the RDS master user credentials to connect to the DB instance and configure SQL Server logins and users from the Active Directory users and groups.

**Answer:** D

**Explanation:**

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

**NEW QUESTION 8**

Recently, an ecommerce business transferred one of its SQL Server databases to an Amazon RDS for SQL Server Enterprise Edition database instance. The corporation anticipates an increase in read traffic as a result of an approaching sale. To accommodate the projected read load, a database professional must establish a read replica of the database instance.

Which procedures should the database professional do prior to establishing the read replica? (Select two.)

- A. Identify a potential downtime window and stop the application calls to the source DB instance.
- B. Ensure that automatic backups are enabled for the source DB instance.
- C. Ensure that the source DB instance is a Multi-AZ deployment with Always ON Availability Groups.
- D. Ensure that the source DB instance is a Multi-AZ deployment with SQL Server Database Mirroring(DBM).
- E. Modify the read replica parameter group setting and set the value to 1.

**Answer:** BC

**Explanation:**

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/SQLServer.ReadReplicas.html>

**NEW QUESTION 9**

A company's ecommerce website uses Amazon DynamoDB for purchase orders. Each order is made up of a Customer ID and an Order ID. The DynamoDB table uses the Customer ID as the partition key and the Order ID as the sort key.

To meet a new requirement, the company also wants the ability to query the table by using a third attribute named Invoice ID. Queries using the Invoice ID must be strongly consistent. A database specialist must provide this capability with optimal performance and minimal overhead.

What should the database administrator do to meet these requirements?

- A. Add a global secondary index on Invoice ID to the existing table.
- B. Add a local secondary index on Invoice ID to the existing table.
- C. Recreate the table by using the latest snapshot while adding a local secondary index on Invoice ID.
- D. Use the partition key and a FilterExpression parameter with a filter on Invoice ID for all queries.

**Answer:** C

**Explanation:**

as Local secondary index can only be created while creating the Dynamodb table. and query needs to use third attribute on top of primary and sort key, so Local Secondary index has primary and sort key as well as the third attribute. Global secondary index can be created without primary and sort key

**NEW QUESTION 10**

A company runs online transaction processing (OLTP) workloads on an Amazon RDS for PostgreSQL Multi-AZ DB instance. Tests were run on the database after work hours, which generated additional database logs. The free storage of the RDS DB instance is low due to these additional logs. What should the company do to address this space constraint issue?

- A. Log in to the host and run the `rm $PGDATA/pg_logs/*` command
- B. Modify the `rds.log_retention_period` parameter to 1440 and wait up to 24 hours for database logs to be deleted
- C. Create a ticket with AWS Support to have the logs deleted
- D. Run the `SELECT rds_rotate_error_log()` stored procedure to rotate the logs

**Answer: B**

**Explanation:**

To set the retention period for system logs, use the `rds.log_retention_period` parameter. You can find `rds.log_retention_period` in the DB parameter group associated with your DB instance. The unit for this parameter is minutes. For example, a setting of 1,440 retains logs for one day. The default value is 4,320 (three days). The maximum value is 10,080 (seven days).

[https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/USER\\_LogAccess.Concepts.PostgreSQL.ht](https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/USER_LogAccess.Concepts.PostgreSQL.ht)

**NEW QUESTION 10**

A company is developing a new web application. An AWS CloudFormation template was created as a part of the build process. Recently, a change was made to an `AWS::RDS::DBInstance` resource in the template. The `CharacterSetName` property was changed to allow the application to process international text. A change set was generated using the new template, which indicated that the existing DB instance should be replaced during an upgrade.

What should a database specialist do to prevent data loss during the stack upgrade?

- A. Create a snapshot of the DB instance
- B. Modify the template to add the `DBSnapshotIdentifier` property with the ID of the DB snapshot
- C. Update the stack.
- D. Modify the stack policy using the `aws cloudformation update-stack` command and the `set-stack-policy` command, then make the DB resource protected.
- E. Create a snapshot of the DB instance
- F. Update the stack
- G. Restore the database to a new instance.
- H. Deactivate any applications that are using the DB instance
- I. Create a snapshot of the DB instance. Modify the template to add the `DBSnapshotIdentifier` property with the ID of the DB snapshot
- J. Update the stack and reactivate the applications.

**Answer: D**

**Explanation:**

To preserve your data, perform the following procedure:

- \* 1. Deactivate any applications that are using the DB instance so that there's no activity on the DB instance.
- \* 2. Create a snapshot of the DB instance. For more information about creating DB snapshots
- \* 3. If you want to restore your instance using a DB snapshot, modify the updated template with your DB instance changes and add the `DBSnapshotIdentifier` property with the ID of the DB snapshot that you want to use
- \* 4. Update the stack.

**NEW QUESTION 15**

A media company is using Amazon RDS for PostgreSQL to store user data. The RDS DB instance currently has a publicly accessible setting enabled and is hosted in a public subnet. Following a recent AWS Well-Architected Framework review, a Database Specialist was given new security requirements. Only certain on-premises corporate network IPs should connect to the DB instance. Connectivity is allowed from the corporate network only. Which combination of steps does the Database Specialist need to take to meet these new requirements? (Choose three.)

- A. Modify the `pg_hba.conf` file
- B. Add the required corporate network IPs and remove the unwanted IPs.
- C. Modify the associated security group
- D. Add the required corporate network IPs and remove the unwanted IPs.
- E. Move the DB instance to a private subnet using AWS DMS.
- F. Enable VPC peering between the application host running on the corporate network and the VPC associated with the DB instance.
- G. Disable the publicly accessible setting.
- H. Connect to the DB instance using private IPs and a VPN.

**Answer: BEF**

**Explanation:**

[https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_VPC.WorkingWithRDSInstanceinaVPC.ht](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_VPC.WorkingWithRDSInstanceinaVPC.ht)

**NEW QUESTION 18**

A company is running an Amazon RDS for MySQL Multi-AZ DB instance for a business-critical workload. RDS encryption for the DB instance is disabled. A recent security audit concluded that all business-critical applications must encrypt data at rest. The company has asked its database specialist to formulate a plan to accomplish this for the DB instance.

Which process should the database specialist recommend?

- A. Create an encrypted snapshot of the unencrypted DB instance
- B. Copy the encrypted snapshot to Amazon S3. Restore the DB instance from the encrypted snapshot using Amazon S3.
- C. Create a new RDS for MySQL DB instance with encryption enabled
- D. Restore the unencrypted snapshot to this DB instance.
- E. Create a snapshot of the unencrypted DB instance
- F. Create an encrypted copy of the snapshot
- G. Restore the DB instance from the encrypted snapshot.
- H. Temporarily shut down the unencrypted DB instance



- I. Enable AWS KMS encryption in the AWS Management Console using an AWS managed CM
- J. Restart the DB instance in an encrypted state.

**Answer:** C

**Explanation:**

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

**NEW QUESTION 19**

An online gaming company is planning to launch a new game with Amazon DynamoDB as its data store. The database should be designated to support the following use cases:

Update scores in real time whenever a player is playing the game. Retrieve a player's score details for a specific game session.

A Database Specialist decides to implement a DynamoDB table. Each player has a unique user\_id and each game has a unique game\_id.

Which choice of keys is recommended for the DynamoDB table?

- A. Create a global secondary index with game\_id as the partition key
- B. Create a global secondary index with user\_id as the partition key
- C. Create a composite primary key with game\_id as the partition key and user\_id as the sort key
- D. Create a composite primary key with user\_id as the partition key and game\_id as the sort key

**Answer:** D

**Explanation:**

<https://aws.amazon.com/blogs/database/amazon-dynamodb-gaming-use-cases-and-design-patterns/> "EA uses the user ID as the partition key and primary key (a 1:1 modeling pattern)."

<https://aws.amazon.com/blogs/database/choosing-the-right-dynamodb-partition-key/>

"Partition key and sort key: Referred to as a composite primary key, this type of key is composed of two attributes. The first attribute is the partition key, and the second attribute is the sort key."

**NEW QUESTION 22**

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 23**

A company is releasing a new mobile game featuring a team play mode. As a group of mobile device users play together, an item containing their statuses is updated in an Amazon DynamoDB table. Periodically, the other users' devices read the latest statuses of their teammates from the table using the BatchGetItem operation.

Prior to launch, some testers submitted bug reports claiming that the status data they were seeing in the game was not up-to-date. The developers are unable to replicate this issue and have asked a database specialist for a recommendation.

Which recommendation would resolve this issue?

- A. Ensure the DynamoDB table is configured to be always consistent.
- B. Ensure the BatchGetItem operation is called with the ConsistentRead parameter set to false.
- C. Enable a stream on the DynamoDB table and subscribe each device to the stream to ensure all devices receive up-to-date status information.
- D. Ensure the BatchGetItem operation is called with the ConsistentRead parameter set to true.

**Answer:** D

**Explanation:**

[https://docs.aws.amazon.com/ja\\_jp/amazondynamodb/latest/developerguide/API\\_BatchGetItem\\_v20111205.htm](https://docs.aws.amazon.com/ja_jp/amazondynamodb/latest/developerguide/API_BatchGetItem_v20111205.htm) By default, BatchGetItem performs eventually consistent reads on every table in the request. If you want strongly consistent reads instead, you can set ConsistentRead to true for any or all tables.

**NEW QUESTION 27**

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 32

A company is migrating its on-premises database workloads to the AWS Cloud. A database specialist performing the move has chosen AWS DMS to migrate an Oracle database with a large table to Amazon RDS. The database specialist notices that AWS DMS is taking significant time to migrate the data. Which actions would improve the data migration speed? (Choose three.)

- A. Create multiple AWS DMS tasks to migrate the large table.
- B. Configure the AWS DMS replication instance with Multi-AZ.
- C. Increase the capacity of the AWS DMS replication server.
- D. Establish an AWS Direct Connect connection between the on-premises data center and AWS.
- E. Enable an Amazon RDS Multi-AZ configuration.
- F. Enable full large binary object (LOB) mode to migrate all LOB data for all large tables.

**Answer:** CDE

#### NEW QUESTION 33

A Database Specialist modified an existing parameter group currently associated with a production Amazon RDS for SQL Server Multi-AZ DB instance. The change is associated with a static parameter type, which controls the number of user connections allowed on the most critical RDS SQL Server DB instance for the company. This change has been approved for a specific maintenance window to help minimize the impact on users. How should the Database Specialist apply the parameter group change for the DB instance?

- A. Select the option to apply the change immediately
- B. Allow the preconfigured RDS maintenance window for the given DB instance to control when the change is applied
- C. Apply the change manually by rebooting the DB instance during the approved maintenance window
- D. Reboot the secondary Multi-AZ DB instance

**Answer:** C

#### Explanation:

[https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_WorkingWithParamGroups.html#USER\\_W](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_WorkingWithParamGroups.html#USER_W)

#### NEW QUESTION 36

A company's database specialist disabled TLS on an Amazon DocumentDB cluster to perform benchmarking tests. A few days after this change was implemented, a database specialist trainee accidentally deleted multiple tables. The database specialist restored the database from available snapshots. An hour after restoring the cluster, the database specialist is still unable to connect to the new cluster endpoint. What should the database specialist do to connect to the new, restored Amazon DocumentDB cluster?

- A. Change the restored cluster's parameter group to the original cluster's custom parameter group.
- B. Change the restored cluster's parameter group to the Amazon DocumentDB default parameter group.
- C. Configure the interface VPC endpoint and associate the new Amazon DocumentDB cluster.
- D. Run the syncInstances command in AWS DataSync.

**Answer:** A

#### Explanation:

You can't modify the parameter settings of the default parameter groups. You can use a DB parameter group to act as a container for engine configuration values that are applied to one or more DB instances. If you create a DB instance without specifying a DB parameter group, the DB instance uses a default DB parameter group. Each default DB parameter group contains database engine defaults and Amazon RDS system defaults. You can't modify the parameter settings of a default parameter group. Instead, you create your own parameter group where you choose your own parameter settings. Not all DB engine parameters can be changed in a parameter group that you create.

#### NEW QUESTION 39

An electric utility company wants to store power plant sensor data in an Amazon DynamoDB table. The utility company has over 100 power plants and each power plant has over 200 sensors that send data every 2 seconds. The sensor data includes time with milliseconds precision, a value, and a fault attribute if the sensor is malfunctioning. Power plants are identified by a globally unique identifier. Sensors are identified by a unique identifier within each power plant. A database specialist needs to design the table to support an efficient method of finding all faulty sensors within a given power plant. Which schema should the database specialist use when creating the DynamoDB table to achieve the fastest query time when looking for faulty sensors?

- A. Use the plant identifier as the partition key and the measurement time as the sort ke
- B. Create a global secondary index (GSI) with the plant identifier as the partition key and the fault attribute as the sort key.
- C. Create a composite of the plant identifier and sensor identifier as the partition ke
- D. Use the measurement time as the sort ke
- E. Create a local secondary index (LSI) on the fault attribute.

- F. Create a composite of the plant identifier and sensor identifier as the partition key
- G. Use the measurement time as the sort key
- H. Create a global secondary index (GSI) with the plant identifier as the partition key and the fault attribute as the sort key.
- I. Use the plant identifier as the partition key and the sensor identifier as the sort key
- J. Create a local secondary index (LSI) on the fault attribute.

**Answer:** D

**Explanation:**

Plant id as partition key and Sensor id as a sort key. Fault can be identified quickly using the local secondary index and associated plant and sensor can be identified easily.

**NEW QUESTION 42**

Amazon Aurora MySQL is being used by an ecommerce business to migrate its main application database. The firm is now doing OLTP stress testing using concurrent database connections. A database professional detected sluggish performance for several particular write operations during the first round of testing. Examining the Amazon CloudWatch stats for the Aurora DB cluster revealed a CPU usage of 90%. Which actions should the database professional take to determine the main cause of excessive CPU use and sluggish performance most effectively? (Select two.)

- A. Enable Enhanced Monitoring at less than 30 seconds of granularity to review the operating system metrics before the next round of tests.
- B. Review the VolumeBytesUsed metric in CloudWatch to see if there is a spike in write I/O.
- C. Review Amazon RDS Performance Insights to identify the top SQL statements and wait events.
- D. Review Amazon RDS API calls in AWS CloudTrail to identify long-running queries.
- E. Enable Advance Auditing to log QUERY events in Amazon CloudWatch before the next round of tests.

**Answer:** AC

**Explanation:**

<https://aws.amazon.com/premiumsupport/knowledge-center/rds-instance-high-cpu/> <https://aws.amazon.com/premiumsupport/knowledge-center/rds-mysql-slow-query/>

**NEW QUESTION 43**

A Database Specialist is troubleshooting an application connection failure on an Amazon Aurora DB cluster with multiple Aurora Replicas that had been running with no issues for the past 2 months. The connection failure lasted for 5 minutes and corrected itself after that. The Database Specialist reviewed the Amazon RDS events and determined a failover event occurred at that time. The failover process took around 15 seconds to complete. What is the MOST likely cause of the 5-minute connection outage?

- A. After a database crash, Aurora needed to replay the redo log from the last database checkpoint
- B. The client-side application is caching the DNS data and its TTL is set too high
- C. After failover, the Aurora DB cluster needs time to warm up before accepting client connections
- D. There were no active Aurora Replicas in the Aurora DB cluster

**Answer:** B

**Explanation:**

When your application tries to establish a connection after a failover, the new Aurora PostgreSQL writer will be a previous reader, which can be found using the Aurora read only endpoint before DNS updates have fully propagated. Setting the java DNS TTL to a low value helps cycle between reader nodes on subsequent connection attempts.

Amazon Aurora is designed to recover from a crash almost instantaneously and continue to serve your application data. Unlike other databases, after a crash Amazon Aurora does not need to replay the redo log from the last database checkpoint before making the database available for operations. Amazon Aurora performs crash recovery asynchronously on parallel threads, so your database is open and available immediately after a crash. Because the storage is organized in many small segments, each with its own redo log, the underlying storage can replay redo records on demand in parallel and asynchronously as part of a disk read after a crash. This approach reduces database restart times to less than 60 seconds in most cases

**NEW QUESTION 47**

A business's production databases are housed on a 3 TB Amazon Aurora MySQL DB cluster. The database cluster is installed in the region us-east-1. For disaster recovery (DR) requirements, the company's database expert needs to fast deploy the DB cluster in another AWS Region to handle the production load with an RTO of less than two hours.

Which approach is the MOST OPERATIONALLY EFFECTIVE in meeting these requirements?

- A. Implement an AWS Lambda function to take a snapshot of the production DB cluster every 2 hours, and copy that snapshot to an Amazon S3 bucket in the DR Region
- B. Restore the snapshot to an appropriately sized DB cluster in the DR Region.
- C. Add a cross-Region read replica in the DR Region with the same instance type as the current primary instance
- D. If the read replica in the DR Region needs to be used for production, promote the read replica to become a standalone DB cluster.
- E. Create a smaller DB cluster in the DR Region
- F. Configure an AWS Database Migration Service (AWS DMS) task with change data capture (CDC) enabled to replicate data from the current production DB cluster to the DB cluster in the DR Region.
- G. Create an Aurora global database that spans two Region
- H. Use AWS Database Migration Service (AWS DMS) to migrate the existing database to the new global database.

**Answer:** B

**Explanation:**

RTO is 2 hours. With 3 TB database, cross-region replica is a better option

**NEW QUESTION 48**

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 52

A company is going to use an Amazon Aurora PostgreSQL DB cluster for an application backend. The DB cluster contains some tables with sensitive data. A Database Specialist needs to control the access privileges at the table level. How can the Database Specialist meet these requirements?

- A. Use AWS IAM database authentication and restrict access to the tables using an IAM policy.
- B. Configure the rules in a NACL to restrict outbound traffic from the Aurora DB cluster.
- C. Execute GRANT and REVOKE commands that restrict access to the tables containing sensitive data.
- D. Define access privileges to the tables containing sensitive data in the pg\_hba.conf file.

**Answer:** C

#### NEW QUESTION 54

An internet advertising firm stores its data in an Amazon DynamoDb table. Amazon DynamoDB Streams are enabled on the table, and one of the keys has a global secondary index. The table is encrypted using a customer-managed AWS Key Management Service (AWS KMS) key. The firm has chosen to grow worldwide and want to duplicate the database using DynamoDB global tables in a new AWS Region. An administrator observes the following upon review:

No role with the dynamodb:CreateGlobalTable permission exists in the account.  
An empty table with the same name exists in the new Region where replication is desired.  
A global secondary index with the same partition key but a different sort key exists in the new Region where replication is desired.  
Which settings will prevent you from creating a global table or replica in the new Region? (Select two.)

- A. A global secondary index with the same partition key but a different sort key exists in the new Region where replication is desired.
- B. An empty table with the same name exists in the Region where replication is desired.
- C. No role with the dynamodb:CreateGlobalTable permission exists in the account.
- D. DynamoDB Streams is enabled for the table.
- E. The table is encrypted using a KMS customer managed key.

**Answer:** AB

#### NEW QUESTION 58

A business is transferring a database from one AWS Region to another using an Amazon RDS for SQL Server DB instance. The organization wishes to keep database downtime to a minimum throughout the transfer. Which migration strategy should the organization use for this cross-regional move?

- A. Back up the source database using native backup to an Amazon S3 bucket in the same Region
- B. Then restore the backup in the target Region.
- C. Back up the source database using native backup to an Amazon S3 bucket in the same Region
- D. Use Amazon S3 Cross-Region Replication to copy the backup to an S3 bucket in the target Region
- E. Then restore the backup in the target Region.
- F. Configure AWS Database Migration Service (AWS DMS) to replicate data between the source and the target database
- G. Once the replication is in sync, terminate the DMS task.
- H. Add an RDS for SQL Server cross-Region read replica in the target Region
- I. Once the replication is in sync, promote the read replica to master.

**Answer:** C

**Explanation:**

[https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_ReadRepl.XRgn.html](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ReadRepl.XRgn.html)

With Amazon RDS, you can create a MariaDB, MySQL, Oracle, or PostgreSQL read replica in a different AWS Region from the source DB instance. Creating a cross-Region read replica isn't supported for SQL Server on Amazon RDS.



**NEW QUESTION 59**

A manufacturing company's website uses an Amazon Aurora PostgreSQL DB cluster.

Which configurations will result in the LEAST application downtime during a failover? (Choose three.)

- A. Use the provided read and write Aurora endpoints to establish a connection to the Aurora DB cluster.
- B. Create an Amazon CloudWatch alert triggering a restore in another Availability Zone when the primary Aurora DB cluster is unreachable.
- C. Edit and enable Aurora DB cluster cache management in parameter groups.
- D. Set TCP keepalive parameters to a high value.
- E. Set JDBC connection string timeout variables to a low value.
- F. Set Java DNS caching timeouts to a high value.

**Answer:** ABC

**NEW QUESTION 62**

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 66**

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 account
- B. Share the snapshot with the destination account
- 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 instance
- F. Give the destination account access to the read replica
- 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 database
- I. Create an RDS for MySQL DB instance in the destination account
- 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 70**

A company is planning to close for several days. A Database Specialist needs to stop all applications along with the DB instances to ensure employees do not have access to the systems during this time. All databases are running on Amazon RDS for MySQL.

The Database Specialist wrote and executed a script to stop all the DB instances. When reviewing the logs, the Database Specialist found that Amazon RDS DB instances with read replicas did not stop.

How should the Database Specialist edit the script to fix this issue?

- A. Stop the source instances before stopping their read replicas
- B. Delete each read replica before stopping its corresponding source instance
- C. Stop the read replicas before stopping their source instances
- D. Use the AWS CLI to stop each read replica and source instance at the same time

**Answer:** B

**Explanation:**

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

"The following are some limitations to stopping and starting a DB instance: You can't stop a DB instance that has a read replica, or that is a read replica." So if you can't stop a db with a read replica, you have to delete the read replica first to then stop it???

[https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_MySQL.Replication.ReadReplicas.html#U](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_MySQL.Replication.ReadReplicas.html#U)

**NEW QUESTION 73**

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 76

A corporation wishes to move a 1 TB Oracle database from its current location to an Amazon Aurora PostgreSQL DB cluster. The database specialist at the firm noticed that the Oracle database stores 100 GB of large binary objects (LOBs) across many tables. The Oracle database supports LOBs up to 500 MB in size and an average of 350 MB. AWS DMS was picked by the Database Specialist to transfer the data with the most replication instances. How should the database specialist improve the transfer of the database to AWS DMS?

- A. Create a single task using full LOB mode with a LOB chunk size of 500 MB to migrate the data and LOBs together
- B. Create two tasks: task1 with LOB tables using full LOB mode with a LOB chunk size of 500 MB and task2 without LOBs
- C. Create two tasks: task1 with LOB tables using limited LOB mode with a maximum LOB size of 500 MB and task 2 without LOBs
- D. Create a single task using limited LOB mode with a maximum LOB size of 500 MB to migrate data and LOBs together

**Answer:** C

**Explanation:**

[https://docs.aws.amazon.com/dms/latest/userguide/CHAP\\_BestPractices.html#CHAP\\_BestPractices.LOBS](https://docs.aws.amazon.com/dms/latest/userguide/CHAP_BestPractices.html#CHAP_BestPractices.LOBS), "AWS DMS migrates LOB data in two phases: 1.

AWS DMS creates a new row in the target table and

populates the row with all data except the associated LOB value. 2.AWS DMS updates the row in the target table with the LOB data." This means that we would need two tasks, one per phase and use limited LOB mode for best performance.

#### NEW QUESTION 81

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 85

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 88

A Database Specialist is constructing a new Amazon Neptune DB cluster and tries to load data from Amazon S3 using the Neptune bulk loader API. The Database Specialist is confronted with the following error message:

€Unable to establish a connection to the s3 endpoint. The source URL is s3:/mybucket/graphdata/ and the region code is us-east-1. Kindly confirm your Configuration S3.

Which of the following activities should the Database Specialist take to resolve the issue? (Select two.)

- A. Check that Amazon S3 has an IAM role granting read access to Neptune
- B. Check that an Amazon S3 VPC endpoint exists
- C. Check that a Neptune VPC endpoint exists
- D. Check that Amazon EC2 has an IAM role granting read access to Amazon S3
- E. Check that Neptune has an IAM role granting read access to Amazon S3

**Answer:** BE

**Explanation:**

<https://docs.aws.amazon.com/neptune/latest/userguide/bulk-load-tutorial-IAM.html> <https://docs.aws.amazon.com/neptune/latest/userguide/bulk-load-data.html>  
“An IAM role for the Neptune DB instance to assume that has an IAM policy that allows access to the data files in the S3 bucket. The policy must grant Read and List permissions.” “An Amazon S3 VPC endpoint. For more information, see the Creating an Amazon S3 VPC Endpoint section.”

**NEW QUESTION 91**

A company uses an Amazon RDS for PostgreSQL DB instance for its customer relationship management (CRM) system. New compliance requirements specify that the database must be encrypted at rest. Which action will meet these requirements?

- A. Create an encrypted copy of manual snapshot of the DB instance
- B. Restore a new DB instance from the encrypted snapshot.
- C. Modify the DB instance and enable encryption.
- D. Restore a DB instance from the most recent automated snapshot and enable encryption.
- E. Create an encrypted read replica of the DB instance
- F. Promote the read replica to a standalone instance.

**Answer:** A

**Explanation:**

<https://docs.aws.amazon.com/prescriptive-guidance/latest/patterns/encrypt-an-existing-amazon-rds-for-postgresq> You can enable encryption for an Amazon RDS DB instance when you create it, but not after it's created. However, you can add encryption to an unencrypted DB instance by creating a snapshot of your DB instance, and then creating an encrypted copy of that snapshot. You can then restore a DB instance from the encrypted snapshot to get an encrypted copy of your original DB instance. The pattern uses AWS Database Migration Service (AWS DMS) to migrate data and AWS Key Management Service (AWS KMS) for encryption.

**NEW QUESTION 95**

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.xxxxxxxxxx.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 97**

A financial organization must ensure that the most current 90 days of MySQL database backups are accessible. Amazon RDS for MySQL DB instances are used to host all MySQL databases. A database expert must create a solution that satisfies the criteria for backup retention with the least amount of development work feasible. Which strategy should the database administrator take?

- A. Use AWS Backup to build a backup plan for the required retention period
- B. Assign the DB instances to the backup plan.
- C. Modify the DB instances to enable the automated backup option
- D. Select the required backup retention period.
- E. Automate a daily cron job on an Amazon EC2 instance to create MySQL dumps, transfer to Amazon S3, and implement an S3 Lifecycle policy to meet the retention requirement.
- F. Use AWS Lambda to schedule a daily manual snapshot of the DB instance
- G. Delete snapshots that exceed the retention requirement.

**Answer:** A

**Explanation:**

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

**NEW QUESTION 102**

A large gaming company is creating a centralized solution to store player session state for multiple online games. The workload required key-value storage with low latency and will be an equal mix of reads and writes. Data should be written into the AWS Region closest to the user across the games' geographically distributed user base. The architecture should minimize the amount of overhead required to manage the replication of data between Regions. Which solution meets these requirements?

- A. Amazon RDS for MySQL with multi-Region read replicas
- B. Amazon Aurora global database
- C. Amazon RDS for Oracle with GoldenGate
- D. Amazon DynamoDB global tables

**Answer:** A

**NEW QUESTION 103**

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 107**

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