



**Amazon**

## **Exam Questions AWS-Certified-Database-Specialty**

AWS Certified Database - Specialty

#### NEW QUESTION 1

A company with branch offices in Portland, New York, and Singapore has a three-tier web application that leverages a shared database. The database runs on Amazon RDS for MySQL and is hosted in the us-west-2 Region. The application has a distributed front end deployed in the us-west-2, ap-southeast-1, and us-east-2 Regions.

This front end is used as a dashboard for Sales Managers in each branch office to see current sales statistics. There are complaints that the dashboard performs more slowly in the Singapore location than it does in Portland or New York. A solution is needed to provide consistent performance for all users in each location. Which set of actions will meet these requirements?

- A. Take a snapshot of the instance in the us-west-2 Region
- B. Create a new instance from the snapshot in the ap-southeast-1 Region
- C. Reconfigure the ap-southeast-1 front-end dashboard to access this instance.
- D. Create an RDS read replica in the ap-southeast-1 Region from the primary RDS DB instance in the us-west-2 Region
- E. Reconfigure the ap-southeast-1 front-end dashboard to access this instance.
- F. Create a new RDS instance in the ap-southeast-1 Region
- G. Use AWS DMS and change data capture (CDC) to update the new instance in the ap-southeast-1 Region
- H. Reconfigure the ap-southeast-1 front-end dashboard to access this instance.
- I. Create an RDS read replica in the us-west-2 Region where the primary instance reside
- J. Create a read replica in the ap-southeast-1 Region from the read replica located on the us-west-2 Region
- K. Reconfigure the ap-southeast-1 front-end dashboard to access this instance.

**Answer:** B

#### Explanation:

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

"Amazon RDS Read Replicas provide enhanced performance and durability for RDS database (DB) instances.

They make it easy to elastically scale out beyond the capacity constraints of a single DB instance for read-heavy database workloads. You can create one or more replicas of a given source DB Instance and serve high-volume application read traffic from multiple copies of your data, thereby increasing aggregate read throughput. "

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

#### NEW QUESTION 2

A company uses Amazon Aurora for secure financial transactions. The data must always be encrypted at rest and in transit to meet compliance requirements. Which combination of actions should a database specialist take to meet these requirements? (Choose two.)

- A. Create an Aurora Replica with encryption enabled using AWS Key Management Service (AWS KMS). Then promote the replica to master.
- B. Use SSL/TLS to secure the in-transit connection between the financial application and the Aurora DB cluster.
- C. Modify the existing Aurora DB cluster and enable encryption using an AWS Key Management Service (AWS KMS) encryption key
- D. Apply the changes immediately.
- E. Take a snapshot of the Aurora DB cluster and encrypt the snapshot using an AWS Key Management Service (AWS KMS) encryption key
- F. Restore the snapshot to a new DB cluster and update the financial application database endpoints.
- G. Use AWS Key Management Service (AWS KMS) to secure the in-transit connection between the financial application and the Aurora DB cluster.

**Answer:** AB

#### Explanation:

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

#### NEW QUESTION 3

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 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 AWS
- B. Leverage AWS SCT and apply the converted schema to Amazon Redshift
- 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 Redshift
- E. Start an AWS DMS task with two AWS Snowball Edge devices to copy data from on-premises to Amazon S3 with AWS KMS encryption
- F. Use AWS DMS to finish copying data to Amazon Redshift.
- G. Leverage AWS SCT and apply the converted schema to Amazon Redshift
- 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 encryption

- 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

A company has a 20 TB production Amazon Aurora DB cluster. The company runs a large batch job overnight to load data into the Aurora DB cluster. To ensure the company's development team has the most up-to-date data for testing, a copy of the DB cluster must be available in the shortest possible time after the batch job completes.

How should this be accomplished?

- A. Use the AWS CLI to schedule a manual snapshot of the DB cluste
- B. Restore the snapshot to a new DB cluster using the AWS CLI.
- C. Create a dump file from the DB cluste
- D. Load the dump file into a new DB cluster.
- E. Schedule a job to create a clone of the DB cluster at the end of the overnight batch process.
- F. Set up a new daily AWS DMS task that will use cloning and change data capture (CDC) on the DB cluster to copy the data to a new DB cluste
- G. Set up a time for the AWS DMS stream to stop when the new cluster is current.

**Answer:** C

#### NEW QUESTION 7

A gaming company has implemented a leaderboard in AWS using a Sorted Set data structure within Amazon ElastiCache for Redis. The ElastiCache cluster has been deployed with cluster mode disabled and has a replication group deployed with two additional replicas. The company is planning for a worldwide gaming event and is anticipating a higher write load than what the current cluster can handle.

Which method should a Database Specialist use to scale the ElastiCache cluster ahead of the upcoming event?

- A. Enable cluster mode on the existing ElastiCache cluster and configure separate shards for the Sorted Set across all nodes in the cluster.
- B. Increase the size of the ElastiCache cluster nodes to a larger instance size.
- C. Create an additional ElastiCache cluster and load-balance traffic between the two clusters.
- D. Use the EXPIRE command and set a higher time to live (TTL) after each call to increment a given key.

**Answer:** B

#### NEW QUESTION 8

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 9

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 10

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 10

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 15

A company has a production environment running on Amazon RDS for SQL Server with an in-house web application as the front end. During the last application maintenance window, new functionality was added to the web application to enhance the reporting capabilities for management. Since the update, the application is slow to respond to some reporting queries.  
How should the company identify the source of the problem?

- A. Install and configure Amazon CloudWatch Application Insights for Microsoft .NET and Microsoft SQL Serve
- B. Use a CloudWatch dashboard to identify the root cause.
- C. Enable RDS Performance Insights and determine which query is creating the proble
- D. Request changes to the query to address the problem.
- E. Use AWS X-Ray deployed with Amazon RDS to track query system traces.
- F. Create a support request and work with AWS Support to identify the source of the issue.

**Answer: B**

#### Explanation:

Amazon RDS Performance Insights is a database performance tuning and monitoring feature that helps you quickly assess the load on your database, and determine when and where to take action. Performance Insights allows non-experts to detect performance problems with an easy-to-understand dashboard that visualizes database load. <https://aws.amazon.com/rds/performance-insights/>

#### NEW QUESTION 18

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 19**

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 20**

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 24**

The Security team for a finance company was notified of an internal security breach that happened 3 weeks ago. A Database Specialist must start producing audit logs out of the production Amazon Aurora PostgreSQL cluster for the Security team to use for monitoring and alerting. The Security team is required to perform real-time alerting and monitoring outside the Aurora DB cluster and wants to have the cluster push encrypted files to the chosen solution. Which approach will meet these requirements?

- A. Use `pg_audit` to generate audit logs and send the logs to the Security team.
- B. Use AWS CloudTrail to audit the DB cluster and the Security team will get data from Amazon S3.
- C. Set up database activity streams and connect the data stream from Amazon Kinesis to consumer applications.
- D. Turn on verbose logging and set up a schedule for the logs to be dumped out for the Security team.

**Answer:** C

**Explanation:**

<https://aws.amazon.com/about-aws/whats-new/2019/05/amazon-aurora-with-postgresql-compatibility-supports-> "Database Activity Streams for Amazon Aurora with PostgreSQL compatibility provides a near real-time data stream of the database activity in your relational database to help you monitor activity. When integrated with third party database activity monitoring tools, Database Activity Streams can monitor and audit database activity to provide safeguards for your database and help meet compliance and regulatory requirements."

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

**NEW QUESTION 27**

The Amazon CloudWatch metric for `FreeLocalStorage` on an Amazon Aurora MySQL DB instance shows that the amount of local storage is below 10 MB. A database engineer must increase the local storage available in the Aurora DB instance. How should the database engineer meet this requirement?

- A. Modify the DB instance to use an instance class that provides more local SSD storage.
- B. Modify the Aurora DB cluster to enable automatic volume resizing.
- C. Increase the local storage by upgrading the database engine version.
- D. Modify the DB instance and configure the required storage volume in the configuration section.

**Answer:** A

**Explanation:**

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Aurora.AuroraMySQL.Monitoring.Metrics>. Unlike for other DB engines, for Aurora DB instances this metric reports the amount of storage available to each DB instance. This value depends on the DB instance class (for pricing information, see the Amazon RDS product page). You can increase the amount of free storage space for an instance by choosing a larger DB instance class for your instance."

#### NEW QUESTION 31

A company has an on-premises system that tracks various database operations that occur over the lifetime of a database, including database shutdown, deletion, creation, and backup.

The company recently moved two databases to Amazon RDS and is looking at a solution that would satisfy these requirements. The data could be used by other systems within the company.

Which solution will meet these requirements with minimal effort?

- A. Create an Amazon Cloudwatch Events rule with the operations that need to be tracked on Amazon RD
- B. Create an AWS Lambda function to act on these rules and write the output to the tracking systems.
- C. Create an AWS Lambda function to trigger on AWS CloudTrail API call
- D. Filter on specific RDS API calls and write the output to the tracking systems.
- E. Create RDS event subscription
- F. Have the tracking systems subscribe to specific RDS event system notifications.
- G. Write RDS logs to Amazon Kinesis Data Firehos
- H. Create an AWS Lambda function to act on these rules and write the output to the tracking systems.

**Answer:** C

#### NEW QUESTION 34

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 instanc
- 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 enable
- D. Restore the unencrypted snapshot to this DB instance.
- E. Create a snapshot of the unencrypted DB instanc
- F. Create an encrypted copy of the snapsho
- G. Restore the DB instance from the encrypted snapshot.
- H. Temporarily shut down the unencrypted DB instanc
- 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 35

A database professional maintains a fleet of Amazon RDS database instances that are configured to utilize the default database parameter group. A database expert must connect a custom parameter group with certain database instances.

When will the instances be allocated to this new parameter group once the database specialist performs this change?

- A. Instantaneously after the change is made to the parameter group
- B. In the next scheduled maintenance window of the DB instances
- C. After the DB instances are manually rebooted
- D. Within 24 hours after the change is made to the parameter group

**Answer:** C

#### Explanation:

When you associate a new DB parameter group with a DB instance, the modified static and dynamic parameters are applied only after the DB instance is rebooted.

#### NEW QUESTION 38

A company needs a data warehouse solution that keeps data in a consistent, highly structured format. The company requires fast responses for end-user queries when looking at data from the current year, and users must have access to the full 15-year dataset, when needed. This solution also needs to handle a fluctuating number incoming queries. Storage costs for the 100 TB of data must be kept low.

Which solution meets these requirements?

- A. Leverage an Amazon Redshift data warehouse solution using a dense storage instance type while keeping all the data on local Amazon Redshift storag
- B. Provision enough instances to support high demand.
- C. Leverage an Amazon Redshift data warehouse solution using a dense storage instance to store the most recent dat
- D. Keep historical data on Amazon S3 and access it using the Amazon Redshift Spectrum laye
- E. Provision enough instances to support high demand.
- F. Leverage an Amazon Redshift data warehouse solution using a dense storage instance to store the most recent dat
- G. Keep historical data on Amazon S3 and access it using the Amazon Redshift Spectrum laye
- H. Enable Amazon Redshift Concurrency Scaling.
- I. Leverage an Amazon Redshift data warehouse solution using a dense storage instance to store the most recent dat
- J. Keep historical data on Amazon S3 and access it using the Amazon Redshift Spectrum laye
- K. Leverage Amazon Redshift elastic resize.

**Answer:** C

**Explanation:**

<https://docs.aws.amazon.com/redshift/latest/dg/concurrency-scaling.html>

"With the Concurrency Scaling feature, you can support virtually unlimited concurrent users and concurrent queries, with consistently fast query performance. When concurrency scaling is enabled, Amazon Redshift automatically adds additional cluster capacity when you need it to process an increase in concurrent read queries. Write operations continue as normal on your main cluster. Users always see the most current data, whether the queries run on the main cluster or on a concurrency scaling cluster. You're charged for concurrency scaling clusters only for the time they're in use. For more information about pricing, see Amazon Redshift pricing. You manage which queries are sent to the concurrency scaling cluster by configuring WLM queues. When you enable concurrency scaling for a queue, eligible queries are sent to the concurrency scaling cluster instead of waiting in line."

**NEW QUESTION 42**

A retail company is about to migrate its online and mobile store to AWS. The company's CEO has strategic plans to grow the brand globally. A Database Specialist has been challenged to provide predictable read and write database performance with minimal operational overhead. What should the Database Specialist do to meet these requirements?

- A. Use Amazon DynamoDB global tables to synchronize transactions
- B. Use Amazon EMR to copy the orders table data across Regions
- C. Use Amazon Aurora Global Database to synchronize all transactions
- D. Use Amazon DynamoDB Streams to replicate all DynamoDB transactions and sync them

**Answer:** A

**Explanation:**

<https://aws.amazon.com/dynamodb/features/>

With global tables, your globally distributed applications can access data locally in the selected regions to get single-digit millisecond read and write performance. Not Aurora Global Database, as per this link: [https://aws.amazon.com/rds/aurora/global-database/?nc1=h\\_ls](https://aws.amazon.com/rds/aurora/global-database/?nc1=h_ls) . Aurora Global Database lets you easily scale database reads across the world and place your applications close to your users.

**NEW QUESTION 43**

A database expert is responsible for building a highly available online transaction processing (OLTP) solution that makes use of Amazon RDS for MySQL production databases. Disaster recovery criteria include a cross-regional deployment and an RPO and RTO of 5 and 30 minutes, respectively. What should the database professional do to ensure that the database meets the criteria for high availability and disaster recovery?

- A. Use a Multi-AZ deployment in each Region.
- B. Use read replica deployments in all Availability Zones of the secondary Region.
- C. Use Multi-AZ and read replica deployments within a Region.
- D. Use Multi-AZ and deploy a read replica in a secondary Region.

**Answer:** D

**NEW QUESTION 44**

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 49**

A financial institution uses AWS to host its online application. Amazon RDS for MySQL is used to host the application's database, which includes automatic backups.

The program has corrupted the database logically, resulting in the application being unresponsive. The exact moment the corruption occurred has been determined, and it occurred within the backup retention period.

How should a database professional restore a database to its previous state prior to corruption?

- A. Use the point-in-time restore capability to restore the DB instance to the specified time
- B. No changes to the application connection string are required.
- C. Use the point-in-time restore capability to restore the DB instance to the specified time
- D. Change the application connection string to the new, restored DB instance.
- E. Restore using the latest automated backup
- F. Change the application connection string to the new, restored DB instance.
- G. Restore using the appropriate automated backup
- H. No changes to the application connection string are required.

**Answer:** B

**Explanation:**

When you perform a restore operation to a point in time or from a DB Snapshot, a new DB Instance is created with a new endpoint (the old DB Instance can be deleted if so desired). This is done to enable you to create multiple DB Instances from a specific DB Snapshot or point in time."



#### NEW QUESTION 52

A company is running a two-tier ecommerce application in one AWS account. The web server is deployed using an Amazon RDS for MySQL Multi-AZ DB instance. A Developer mistakenly deleted the database in the production environment. The database has been restored, but this resulted in hours of downtime and lost revenue.

Which combination of changes in existing IAM policies should a Database Specialist make to prevent an error like this from happening in the future? (Choose three.)

- A. Grant least privilege to groups, users, and roles
- B. Allow all users to restore a database from a backup that will reduce the overall downtime to restore the database
- C. Enable multi-factor authentication for sensitive operations to access sensitive resources and API operations
- D. Use policy conditions to restrict access to selective IP addresses
- E. Use AccessList Controls policy type to restrict users for database instance deletion
- F. Enable AWS CloudTrail logging and Enhanced Monitoring

**Answer:** ACD

#### Explanation:

<https://aws.amazon.com/blogs/database/using-iam-multifactor-authentication-with-amazon-rds/>

[https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/security\\_iam\\_id-based-policy.html](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/security_iam_id-based-policy.html)[https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/security\\_iam\\_id-based-policy.html](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/security_iam_id-based-policy.html)

#### NEW QUESTION 56

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 59

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 64

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 key
- B. Use the event time as the sort key
- 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 tables
- E. Use the game name as the partition key in both tables
- F. Use the event time as the sort key for the first table
- 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 dash
- I. Add a local secondary index with the player identifier as the sort key.
- J. Create one table for each game
- K. Use the player identifier as the partition key



L. Use the event time as the sort key.

**Answer:** D

#### NEW QUESTION 65

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 67

An Amazon RDS EBS-optimized instance with Provisioned IOPS (PIOPS) storage is using less than half of its allocated IOPS over the course of several hours under constant load. The RDS instance exhibits multi-second read and write latency, and uses all of its maximum bandwidth for read throughput, yet the instance uses less than half of its CPU and RAM resources.

What should a Database Specialist do in this situation to increase performance and return latency to sub- second levels?

- A. Increase the size of the DB instance storage
- B. Change the underlying EBS storage type to General Purpose SSD (gp2)
- C. Disable EBS optimization on the DB instance
- D. Change the DB instance to an instance class with a higher maximum bandwidth

**Answer:** D

#### Explanation:

[https://docs.amazonaws.cn/en\\_us/AmazonRDS/latest/UserGuide/CHAP\\_BestPractices.html](https://docs.amazonaws.cn/en_us/AmazonRDS/latest/UserGuide/CHAP_BestPractices.html)

#### NEW QUESTION 69

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 74

A software development company is using Amazon Aurora MySQL DB clusters for several use cases, including development and reporting. These use cases place unpredictable and varying demands on the Aurora DB clusters, and can cause momentary spikes in latency. System users run ad-hoc queries sporadically throughout the week. Cost is a primary concern for the company, and a solution that does not require significant rework is needed.

Which solution meets these requirements?

- A. Create new Aurora Serverless DB clusters for development and reporting, then migrate to these new DB clusters.
- B. Upgrade one of the DB clusters to a larger size, and consolidate development and reporting activities on this larger DB cluster.
- C. Use existing DB clusters and stop/start the databases on a routine basis using scheduling tools.
- D. Change the DB clusters to the burstable instance family.

**Answer:** A

#### Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Concepts.DBInstanceClass.html>

#### NEW QUESTION 76

A company is going through a security audit. The audit team has identified cleartext master user password in the AWS CloudFormation templates for Amazon RDS for MySQL DB instances. The audit team has flagged this as a security risk to the database team.

What should a database specialist do to mitigate this risk?

- A. Change all the databases to use AWS IAM for authentication and remove all the cleartext passwords in CloudFormation templates.
- B. Use an AWS Secrets Manager resource to generate a random password and reference the secret in the CloudFormation template.
- C. Remove the passwords from the CloudFormation templates so Amazon RDS prompts for the password when the database is being created.
- D. Remove the passwords from the CloudFormation template and store them in a separate file

E. Replace the passwords by running CloudFormation using a sed command.

**Answer:** B

**Explanation:**

<https://aws.amazon.com/blogs/infrastructure-and-automation/securing-passwords-in-aws-quick-starts-using-aws>

#### NEW QUESTION 78

A Database Specialist is migrating a 2 TB Amazon RDS for Oracle DB instance to an RDS for PostgreSQL DB instance using AWS DMS. The source RDS Oracle DB instance is in a VPC in the us-east-1 Region. The target RDS for PostgreSQL DB instance is in a VPC in the use-west-2 Region. Where should the AWS DMS replication instance be placed for the MOST optimal performance?

- A. In the same Region and VPC of the source DB instance
- B. In the same Region and VPC as the target DB instance
- C. In the same VPC and Availability Zone as the target DB instance
- D. In the same VPC and Availability Zone as the source DB instance

**Answer:** C

**Explanation:**

[https://docs.aws.amazon.com/dms/latest/userguide/CHAP\\_ReplicationInstance.VPC.html#CHAP\\_ReplicationIn](https://docs.aws.amazon.com/dms/latest/userguide/CHAP_ReplicationInstance.VPC.html#CHAP_ReplicationIn) In fact, all the configurations list on above url prefer the replication instance putting into target vpc region / subnet / az.

[https://docs.aws.amazon.com/dms/latest/sbs/CHAP\\_SQLServer2Aurora.Steps.CreateReplicationInstance.html](https://docs.aws.amazon.com/dms/latest/sbs/CHAP_SQLServer2Aurora.Steps.CreateReplicationInstance.html)

#### NEW QUESTION 80

A startup company is building a new application to allow users to visualize their on-premises and cloud networking components. The company expects billions of components to be stored and requires responses in milliseconds. The application should be able to identify:

- The networks and routes affected if a particular component fails.
- The networks that have redundant routes between them.
- The networks that do not have redundant routes between them.
- The fastest path between two networks.

Which database engine meets these requirements?

- A. Amazon Aurora MySQL
- B. Amazon Neptune
- C. Amazon ElastiCache for Redis
- D. Amazon DynamoDB

**Answer:** B

#### NEW QUESTION 82

A small startup firm wishes to move a 4 TB MySQL database from on-premises to AWS through an Amazon RDS for MySQL DB instance. Which migration approach would result in the LEAST amount of downtime?

- A. Deploy a new RDS for MySQL DB instance and configure it for access from the on-premises data center
- B. Use the mysqldump utility to create an initial snapshot from the on-premises MySQL server, and copy it to an Amazon S3 bucket
- C. Import the snapshot into the DB instance utilizing the MySQL utilities running on an Amazon EC2 instance
- D. Immediately point the application to the DB instance.
- E. Deploy a new Amazon EC2 instance, install the MySQL software on the EC2 instance, and configure networking for access from the on-premises data center
- F. Use the mysqldump utility to create a snapshot of the on-premises MySQL server
- G. Copy the snapshot into the EC2 instance and restore it into the EC2 MySQL instance
- H. Use AWS DMS to migrate data into a new RDS for MySQL DB instance
- I. Point the application to the DB instance.
- J. Deploy a new Amazon EC2 instance, install the MySQL software on the EC2 instance, and configure networking for access from the on-premises data center
- K. Use the mysqldump utility to create a snapshot of the on-premises MySQL server
- L. Copy the snapshot into an Amazon S3 bucket and import the snapshot into a new RDS for MySQL DB instance using the MySQL utilities running on an EC2 instance
- M. Point the application to the DB instance.
- N. Deploy a new RDS for MySQL DB instance and configure it for access from the on-premises data center
- O. Use the mysqldump utility to create an initial snapshot from the on-premises MySQL server, and copy it to an Amazon S3 bucket
- P. Import the snapshot into the DB instance using the MySQL utilities running on an Amazon EC2 instance
- Q. Establish replication into the new DB instance using MySQL replication
- R. Stop application access to the on-premises MySQL server and let the remaining transactions replicate over
- S. Point the application to the DB instance.

**Answer:** D

**Explanation:**

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/MySQL.Procedural.Importing.NonRDSRepl.html>

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/MySQL.Procedural.Importing.External.Repl.html>

#### NEW QUESTION 87

A database specialist needs to configure an Amazon RDS for MySQL DB instance to close non-interactive connections that are inactive after 900 seconds. What should the database specialist do to accomplish this task?

- A. Create a custom DB parameter group and set the wait\_timeout parameter value to 900. Associate the DB instance with the custom parameter group.
- B. Connect to the MySQL database and run the SET SESSION wait\_timeout=900 command.
- C. Edit the my.cnf file and set the wait\_timeout parameter value to 900. Restart the DB instance.

D. Modify the default DB parameter group and set the wait\_timeout parameter value to 900.

**Answer:** A

**Explanation:**

[https://aws.amazon.com/fr/blogs/database/best-practices-for-configuring-parameters-for-amazon-rds-for-mysql-](https://aws.amazon.com/fr/blogs/database/best-practices-for-configuring-parameters-for-amazon-rds-for-mysql/) "You can set parameters globally using a parameter group. Alternatively, you can set them for a particular session using the SET command."

<https://aws.amazon.com/blogs/database/best-practices-for-configuring-parameters-for-amazon-rds-for-mysql-pa>

**NEW QUESTION 90**

An IT consulting company wants to reduce costs when operating its development environment databases. The company's workflow creates multiple Amazon Aurora MySQL DB clusters for each development group. The Aurora DB clusters are only used for 8 hours a day. The DB clusters can then be deleted at the end of the development cycle, which lasts 2 weeks.

Which of the following provides the MOST cost-effective solution?

- A. Use AWS CloudFormation template
- B. Deploy a stack with the DB cluster for each development group. Delete the stack at the end of the development cycle.
- C. Use the Aurora DB cloning featur
- D. Deploy a single development and test Aurora DB instance, and create clone instances for the development group
- E. Delete the clones at the end of the development cycle.
- F. Use Aurora Replica
- G. From the master automatic pause compute capacity option, create replicas for each development group, and promote each replica to maste
- H. Delete the replicas at the end of the development cycle.
- I. Use Aurora Serverles
- J. Restore current Aurora snapshot and deploy to a serverless cluster for each development grou
- K. Enable the option to pause the compute capacity on the cluster and set an appropriate timeout.

**Answer:** B

**Explanation:**

Aurora Serverless is not compatible to all Aurora provisioned engine version. However, you can do clone with most engine version. Meanwhile, I also consider the performance while restoring snapshot to Aurora Serverless.

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-serverless.how-it-works.html#aurora>

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-serverless.html#aurora-serverless.us>

**NEW QUESTION 91**

A company is using an Amazon RDS for MySQL DB instance for its internal applications. A security audit shows that the DB instance is not encrypted at rest. The company's application team needs to encrypt the DB instance.

What should the team do to meet this requirement?

- A. Stop the DB instance and modify it to enable encryptio
- B. Apply this setting immediately without waiting for the next scheduled RDS maintenance window.
- C. Stop the DB instance and create an encrypted snapsho
- D. Restore the encrypted snapshot to a new encrypted DB instanc
- E. Delete the original DB instance, and update the applications to point to the new encrypted DB instance.
- F. Stop the DB instance and create a snapsho
- G. Copy the snapshot into another encrypted snapsho
- H. Restore the encrypted snapshot to a new encrypted DB instanc
- I. Delete the original DB instance, and update the applications to point to the new encrypted DB instance.
- J. Create an encrypted read replica of the DB instanc
- K. Promote the read replica to maste
- L. Delete the original DB instance, and update the applications to point to the new encrypted DB instance.

**Answer:** C

**NEW QUESTION 93**

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 ke
- G. Use the measurement time as the sort ke
- 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 ke
- 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 94

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 99

A company uses Amazon DynamoDB as the data store for its ecommerce website. The website receives little to no traffic at night, and the majority of the traffic occurs during the day. The traffic growth during peak hours is gradual and predictable on a daily basis, but it can be orders of magnitude higher than during off-peak hours.

The company initially provisioned capacity based on its average volume during the day without accounting for the variability in traffic patterns. However, the website is experiencing a significant amount of throttling during peak hours. The company wants to reduce the amount of throttling while minimizing costs. What should a database specialist do to meet these requirements?

- A. Use reserved capacity
- B. Set it to the capacity levels required for peak daytime throughput.
- C. Use provisioned capacity
- D. Set it to the capacity levels required for peak daytime throughput.
- E. Use provisioned capacity
- F. Create an AWS Application Auto Scaling policy to update capacity based on consumption.
- G. Use on-demand capacity.

**Answer:** C

#### Explanation:

On-demand mode is a good option if any of the following are true: You create new tables with unknown workloads. You have unpredictable application traffic. You prefer the ease of paying for only what you use. <https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/HowItWorks.ReadWriteCapacityMode.h> Amazon DynamoDB auto scaling uses the AWS Application Auto Scaling service to dynamically adjust provisioned throughput capacity on your behalf <https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/AutoScaling.html>

#### NEW QUESTION 101

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 106

A database specialist is constructing an AWS CloudFormation stack using AWS CloudFormation. The database expert wishes to avoid the stack's Amazon RDS ProductionDatabase resource being accidentally deleted. Which solution will satisfy this criterion?

- A. Create a stack policy to prevent update
- B. Include `Effect` : `ProductionDatabase` and `Resource` `Deny` in the policy.
- C. Create an AWS CloudFormation stack in XML format
- D. Set `xAttribute` as false.
- E. Create an RDS DB instance without the `DeletionPolicy` attribute
- F. Disable termination protection.
- G. Create a stack policy to prevent update
- H. Include `Effect`, `Deny`, and `Resource` `:ProductionDatabase` in the policy.

**Answer:** D

#### Explanation:

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/protect-stack-resources.html> "When you set a stack policy, all resources are protected by default. To allow updates on all resources, we add an Allow statement that allows all actions on all resources. Although the Allow statement specifies all resources, the explicit Deny statement overrides it for the resource with the ProductionDatabase logical ID. This Deny statement prevents all update actions, such as replacement or deletion, on the ProductionDatabase resource."



#### NEW QUESTION 110

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 112

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 115

A company is using an Amazon Aurora PostgreSQL DB cluster with an xlarge primary instance master and two large Aurora Replicas for high availability and read-only workload scaling. A failover event occurs and application performance is poor for several minutes. During this time, application servers in all Availability Zones are healthy and responding normally.

What should the company do to eliminate this application performance issue?

- A. Configure both of the Aurora Replicas to the same instance class as the primary DB instance
- B. Enable cache coherence on the DB cluster, set the primary DB instance failover priority to tier-0, and assign a failover priority of tier-1 to the replicas.
- C. Deploy an AWS Lambda function that calls the DescribeDBInstances action to establish which instance has failed, and then use the PromoteReadReplica operation to promote one Aurora Replica to be the primary DB instance
- D. Configure an Amazon RDS event subscription to send a notification to an Amazon SNS topic to which the Lambda function is subscribed.
- E. Configure one Aurora Replica to have the same instance class as the primary DB instance
- F. Implement Aurora PostgreSQL DB cluster cache management
- G. Set the failover priority to tier-0 for the primary DB instance and one replica with the same instance class
- H. Set the failover priority to tier-1 for the other replicas.
- I. Configure both Aurora Replicas to have the same instance class as the primary DB instance
- J. Implement Aurora PostgreSQL DB cluster cache management
- K. Set the failover priority to tier-0 for the primary DB instance and to tier-1 for the replicas.

**Answer: C**

#### Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraPostgreSQL.cluster-cache-mgmt.htm>

<https://aws.amazon.com/blogs/database/introduction-to-aurora-postgresql-cluster-cache-management/>

"You can customize the order in which your Aurora Replicas are promoted to the primary instance after a failure by assigning each replica a priority. Priorities range from 0 for the first priority to 15 for the last priority. If the primary instance fails, Amazon RDS promotes the Aurora Replica with the better priority to the new primary instance. You can modify the priority of an Aurora Replica at any time. Modifying the priority doesn't trigger a failover. More than one Aurora Replica can share the same priority, resulting in promotion tiers. If two or more Aurora Replicas share the same priority, then Amazon RDS promotes the replica that is largest in size. If two or more Aurora Replicas share the same priority and size, then Amazon RDS promotes an arbitrary replica in the same promotion tier. "

Amazon Aurora with PostgreSQL compatibility now supports cluster cache management, providing a faster path to full performance if there's a failover. With cluster cache management, you designate a specific reader DB instance in your Aurora PostgreSQL cluster as the failover target. Cluster cache management keeps the data in the designated reader's cache synchronized with the data in the read-write instance's cache. If a failover occurs, the designated reader is promoted to be the new read-write instance, and workloads benefit immediately from the data in its cache.

#### NEW QUESTION 118

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 122**

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 125**

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 129**

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 130**

On a single Amazon RDS DB instance, a business hosts a MySQL database for its ecommerce application. Automatically saving application purchases to the database results in high-volume writes. Employees routinely create purchase reports for the company. The organization wants to boost database performance and minimize downtime associated with upgrade patching.

Which technique will satisfy these criteria with the LEAST amount of operational overhead?

- A. Enable a Multi-AZ deployment of the RDS for MySQL DB instance, and enable Memcached in the MySQL option group.
- B. Enable a Multi-AZ deployment of the RDS for MySQL DB instance, and set up replication to a MySQL DB instance running on Amazon EC2.
- C. Enable a Multi-AZ deployment of the RDS for MySQL DB instance, and add a read replica.
- D. Add a read replica and promote it to an Amazon Aurora MySQL DB cluster master
- E. Then enable Amazon Aurora Serverless.

**Answer:** C

**NEW QUESTION 131**

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 132**

A Database Specialist is designing a new database infrastructure for a ride hailing application. The application data includes a ride tracking system that stores GPS coordinates for all rides. Real-time statistics and metadata lookups must be performed with high throughput and microsecond latency. The database should be fault tolerant with minimal operational overhead and development effort.

Which solution meets these requirements in the MOST efficient way?

- A. Use Amazon RDS for MySQL as the database and use Amazon ElastiCache
- B. Use Amazon DynamoDB as the database and use DynamoDB Accelerator
- C. Use Amazon Aurora MySQL as the database and use Aurora's buffer cache
- D. Use Amazon DynamoDB as the database and use Amazon API Gateway

**Answer:** B

**Explanation:**

[https://aws.amazon.com/dynamodb/dax/#:~:text=Amazon%20DynamoDB%20Accelerator%20\(DAX\)%20is,mil](https://aws.amazon.com/dynamodb/dax/#:~:text=Amazon%20DynamoDB%20Accelerator%20(DAX)%20is,mil) "Amazon DynamoDB Accelerator (DAX) is a fully managed, highly available, in-memory cache for DynamoDB that delivers up to a 10x performance improvement – from milliseconds to microseconds – even at millions of requests per second. "

**NEW QUESTION 133**

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 136**

To meet new data compliance requirements, a company needs to keep critical data durably stored and readily accessible for 7 years. Data that is more than 1 year old is considered archival data and must automatically be moved out of the Amazon Aurora MySQL DB cluster every week. On average, around 10 GB of new data is added to the database every month. A database specialist must choose the most operationally efficient solution to migrate the archival data to Amazon S3. Which solution meets these requirements?

- A. Create a custom script that exports archival data from the DB cluster to Amazon S3 using a SQL view, then deletes the archival data from the DB cluster
- B. Launch an Amazon EC2 instance with a weekly cron job to execute the custom script.
- C. Configure an AWS Lambda function that exports archival data from the DB cluster to Amazon S3 using a SELECT INTO OUTFILE S3 statement, then deletes the archival data from the DB cluster
- D. Schedule the Lambda function to run weekly using Amazon EventBridge (Amazon CloudWatch Events).
- E. Configure two AWS Lambda functions: one that exports archival data from the DB cluster to Amazon S3 using the mysqldump utility, and another that deletes the archival data from the DB cluster
- F. Schedule both Lambda functions to run weekly using Amazon EventBridge (Amazon CloudWatch Events).
- G. Use AWS Database Migration Service (AWS DMS) to continually export the archival data from the DB cluster to Amazon S3. Configure an AWS Data Pipeline process to run weekly that executes a custom SQL script to delete the archival data from the DB cluster.

**Answer:** B

**Explanation:**

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraMySQL.Integrating.SaveIntoS3.htm>

**NEW QUESTION 140**

A company is looking to move an on-premises IBM Db2 database running AIX on an IBM POWER7 server. Due to escalating support and maintenance costs, the company is exploring the option of moving the workload to an Amazon Aurora PostgreSQL DB cluster.

What is the quickest way for the company to gather data on the migration compatibility?

- A. Perform a logical dump from the Db2 database and restore it to an Aurora DB cluster
- B. Identify the gaps and compatibility of the objects migrated by comparing row counts from source and target tables.
- C. Run AWS DMS from the Db2 database to an Aurora DB cluster
- D. Identify the gaps and compatibility of the objects migrated by comparing the row counts from source and target tables.
- E. Run native PostgreSQL logical replication from the Db2 database to an Aurora DB cluster to evaluate the migration compatibility.
- F. Run the AWS Schema Conversion Tool (AWS SCT) from the Db2 database to an Aurora DB cluster. Create a migration assessment report to evaluate the migration compatibility.

**Answer:** D



#### NEW QUESTION 144

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 147

A Database Specialist needs to define a database migration strategy to migrate an on-premises Oracle database to an Amazon Aurora MySQL DB cluster. The company requires near-zero downtime for the data migration. The solution must also be cost-effective. Which approach should the Database Specialist take?

- A. Dump all the tables from the Oracle database into an Amazon S3 bucket using datapump (expdp). Run data transformations in AWS Glue
- B. Load the data from the S3 bucket to the Aurora DB cluster.
- C. Order an AWS Snowball appliance and copy the Oracle backup to the Snowball appliance
- D. Once the Snowball data is delivered to Amazon S3, create a new Aurora DB cluster
- E. Enable the S3 integration to migrate the data directly from Amazon S3 to Amazon RDS.
- F. Use the AWS Schema Conversion Tool (AWS SCT) to help rewrite database objects to MySQL during the schema migration
- G. Use AWS DMS to perform the full load and change data capture (CDC) tasks.
- H. Use AWS Server Migration Service (AWS SMS) to import the Oracle virtual machine image as an Amazon EC2 instance
- I. Use the Oracle Logical Dump utility to migrate the Oracle data from Amazon EC2 to an Aurora DB cluster.

**Answer:** C

#### Explanation:

<https://aws.amazon.com/blogs/database/migrating-oracle-databases-with-near-zero-downtime-using-aws-dms/>

#### NEW QUESTION 150

A company has an application that uses an Amazon DynamoDB table to store user data. Every morning, a single-threaded process calls the DynamoDB API Scan operation to scan the entire table and generate a critical start-of-day report for management. A successful marketing campaign recently doubled the number of items in the table, and now the process takes too long to run and the report is not generated in time.

A database specialist needs to improve the performance of the process. The database specialist notes that, when the process is running, 15% of the table's provisioned read capacity units (RCUs) are being used.

What should the database specialist do?

- A. Enable auto scaling for the DynamoDB table.
- B. Use four threads and parallel DynamoDB API Scan operations.
- C. Double the table's provisioned RCUs.
- D. Set the Limit and Offset parameters before every call to the API.

**Answer:** B

#### Explanation:

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Scan.html#Scan.ParallelScan>

#### NEW QUESTION 153

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 154

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 155

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 159

A company is looking to migrate a 1 TB Oracle database from on-premises to an Amazon Aurora PostgreSQL DB cluster. The company's Database Specialist discovered that the Oracle database is storing 100 GB of large binary objects (LOBs) across multiple tables. The Oracle database has a maximum LOB size of 500 MB with an average LOB size of 350 MB. The Database Specialist has chosen AWS DMS to migrate the data with the largest replication instances.

How should the Database Specialist optimize the database migration using 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**

#### NEW QUESTION 160

A company developed an AWS CloudFormation template used to create all new Amazon DynamoDB tables in its AWS account. The template configures provisioned throughput capacity using hard-coded values. The company wants to change the template so that the tables it creates in the future have independently configurable read and write capacity units assigned.

Which solution will enable this change?

- A. Add values for the rcuCount and wcuCount parameters to the Mappings section of the template. Configure DynamoDB to provision throughput capacity using the stack's mappings.
- B. Add values for two Number parameters, rcuCount and wcuCount, to the templat
- C. Replace the hard-coded values with calls to the Ref intrinsic function, referencing the new parameters.
- D. Add values for the rcuCount and wcuCount parameters as outputs of the templat
- E. Configure DynamoDB to provision throughput capacity using the stack outputs.
- F. Add values for the rcuCount and wcuCount parameters to the Mappings section of the templat
- G. Replace the hard-coded values with calls to the Ref intrinsic function, referencing the new parameters.

**Answer: B**

#### Explanation:

Input parameter and FindInMap You can use an input parameter with the Fn::FindInMap function to refer to a specific value in a map. For example, suppose you have a list of regions and environment types that map to a specific AMI ID. You can select the AMI ID that your stack uses by using an input parameter (EnvironmentType). To determine the region, use the AWS::Region pseudo parameter, which gets the AWS Region in which you create the stack.

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/parameters-section-structure.html>

#### NEW QUESTION 163

A Database Specialist is designing a disaster recovery strategy for a production Amazon DynamoDB table. The table uses provisioned read/write capacity mode, global secondary indexes, and time to live (TTL). The Database Specialist has restored the latest backup to a new table.

To prepare the new table with identical settings, which steps should be performed? (Choose two.)

- A. Re-create global secondary indexes in the new table
- B. Define IAM policies for access to the new table
- C. Define the TTL settings
- D. Encrypt the table from the AWS Management Console or use the update-table command
- E. Set the provisioned read and write capacity

**Answer:** BC

**Explanation:**

The following items need to be reconfigured after restoring the DynamoDB table.

- AutoScaling policy
- IAM policy
- CloudWatch settings
- Tags
- Stream settings
- TTL

[https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/backuprestore\\_HowItWorks.html](https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/backuprestore_HowItWorks.html)

**NEW QUESTION 166**

A business's mission-critical production workload is being operated on a 500 GB Amazon Aurora MySQL DB cluster. A database engineer must migrate the workload without causing data loss to a new Amazon Aurora Serverless MySQL DB cluster.

Which approach will result in the LEAST amount of downtime and the LEAST amount of application impact?

- A. Modify the existing DB cluster and update the Aurora configuration to Serverless.
- B. Create a snapshot of the existing DB cluster and restore it to a new Aurora Serverless DB cluster.
- C. Create an Aurora Serverless replica from the existing DB cluster and promote it to primary when the replica lag is minimal.
- D. Replicate the data between the existing DB cluster and a new Aurora Serverless DB cluster by using AWS Database Migration Service (AWS DMS) with change data capture (CDC) enabled.

**Answer:** D

**Explanation:**

<https://medium.com/@souri29/how-to-migrate-from-amazon-rds-aurora-or-mysql-to-amazon-aurora-serverless>

**NEW QUESTION 170**

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 171**

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 173**

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 177**

A company is running a website on Amazon EC2 instances deployed in multiple Availability Zones (AZs). The site performs a high number of repetitive reads and writes each second on an Amazon RDS for MySQL Multi- AZ DB instance with General Purpose SSD (gp2) storage. After comprehensive testing and analysis, a database specialist discovers that there is high read latency and high CPU utilization on the DB instance.

Which approach should the database specialist to take to resolve this issue without changing the application?

- A. Implementing sharding to distribute the load to multiple RDS for MySQL databases.
- B. Use the same RDS for MySQL instance class with Provisioned IOPS (PIOPS) storage.
- C. Add an RDS for MySQL read replica.
- D. Modify the RDS for MySQL database class to a bigger size and implement Provisioned IOPS (PIOPS).

**Answer:** D

**NEW QUESTION 181**

.....

## Thank You for Trying Our Product

### We offer two products:

1st - We have Practice Tests Software with Actual Exam Questions

2nd - Questions and Answers in PDF Format

### AWS-Certified-Database-Specialty Practice Exam Features:

- \* AWS-Certified-Database-Specialty Questions and Answers Updated Frequently
- \* AWS-Certified-Database-Specialty Practice Questions Verified by Expert Senior Certified Staff
- \* AWS-Certified-Database-Specialty Most Realistic Questions that Guarantee you a Pass on Your First Try
- \* AWS-Certified-Database-Specialty Practice Test Questions in Multiple Choice Formats and Updates for 1 Year

**100% Actual & Verified — Instant Download, Please Click**  
**[Order The AWS-Certified-Database-Specialty Practice Test Here](#)**