

DBS-C01 Dumps

AWS Certified Database - Specialty

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NEW QUESTION 1

A company's applications store data in Amazon Aurora MySQL DB clusters. The company has separate AWS accounts for its production, test, and development environments. To test new functionality in the test environment, the company's development team requires a copy of the production database four times a day. Which solution meets this requirement with the MOST operational efficiency?

- A. Take a manual snapshot in the production account
- B. Share the snapshot with the test account
- C. Restore the database from the snapshot.
- D. Take a manual snapshot in the production account
- E. Export the snapshot to Amazon S3. Copy the snapshot to an S3 bucket in the test account
- F. Restore the database from the snapshot.
- G. Share the Aurora DB cluster with the test account
- H. Create a snapshot of the production database in the test account
- I. Restore the database from the snapshot.
- J. Share the Aurora DB cluster with the test account
- K. Create a clone of the production database in the test account.

Answer: D

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Aurora.Managing.Clone.html>

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Aurora.Managing.Clone.html#Aurora.Managing.Clone>

NEW QUESTION 2

An ecommerce company uses Amazon DynamoDB as the backend for its payments system. A new regulation requires the company to log all data access requests for financial audits. For this purpose, the company plans to use AWS logging and save logs to Amazon S3. How can a database specialist activate logging on the database?

- A. Use AWS CloudTrail to monitor DynamoDB control-plane operation
- B. Create a DynamoDB stream to monitor data-plane operation
- C. Pass the stream to Amazon Kinesis Data Stream
- D. Use that stream as a source for Amazon Kinesis Data Firehose to store the data in an Amazon S3 bucket.
- E. Use AWS CloudTrail to monitor DynamoDB data-plane operation
- F. Create a DynamoDB stream to monitor control-plane operation
- G. Pass the stream to Amazon Kinesis Data Stream
- H. Use that stream as a source for Amazon Kinesis Data Firehose to store the data in an Amazon S3 bucket.
- I. Create two trails in AWS CloudTrail
- J. Use Trail1 to monitor DynamoDB control-plane operation
- K. Use Trail2 to monitor DynamoDB data-plane operations.
- L. Use AWS CloudTrail to monitor DynamoDB data-plane and control-plane operations.

Answer: D

Explanation:

<https://aws.amazon.com/about-aws/whats-new/2021/04/you-now-can-use-aws-cloudtrail-to-log-amazon-dynamo>

NEW QUESTION 3

An application reads and writes data to an Amazon RDS for MySQL DB instance. A new reporting dashboard needs read-only access to the database. When the application and reports are both under heavy load, the database experiences performance degradation. A database specialist needs to improve the database performance.

What should the database specialist do to meet these requirements?

- A. Create a read replica of the DB instance
- B. Configure the reports to connect to the replication instance endpoint.
- C. Create a read replica of the DB instance
- D. Configure the application and reports to connect to the cluster endpoint.
- E. Enable Multi-AZ deployment
- F. Configure the reports to connect to the standby replica.
- G. Enable Multi-AZ deployment
- H. Configure the application and reports to connect to the cluster endpoint.

Answer: A

Explanation:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ReadRepl.html

NEW QUESTION 4

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

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

Answer: AD

Explanation:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_WorkingWithAutomatedBackups.html

NEW QUESTION 5

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

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

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

Answer: A

Explanation:

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

NEW QUESTION 6

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 feature
- 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 master
- H. Delete the replicas at the end of the development cycle.
- I. Use Aurora Serverless
- J. Restore current Aurora snapshot and deploy to a serverless cluster for each development group
- 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](https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-serverless.html#aurora-serverless-us)

NEW QUESTION 7

A company is due for renewing its database license. The company wants to migrate its 80 TB transactional database system from on-premises to the AWS Cloud. The migration should incur the least possible downtime on the downstream database applications. The company's network infrastructure has limited network bandwidth that is shared with other applications.

Which solution should a database specialist use for a timely migration?

- A. Perform a full backup of the source database to AWS Snowball Edge appliances and ship them to be loaded to Amazon S3. Use AWS DMS to migrate change data capture (CDC) data from the source database to Amazon S3. Use a second AWS DMS task to migrate all the S3 data to the target database.
- B. Perform a full backup of the source database to AWS Snowball Edge appliances and ship them to be loaded to Amazon S3. Periodically perform incremental backups of the source database to be shipped in another Snowball Edge appliance to handle syncing change data capture (CDC) data from the source to the target database.
- C. Use AWS DMS to migrate the full load of the source database over a VPN tunnel using the internet for its primary connection
- D. Allow AWS DMS to handle syncing change data capture (CDC) data from the source to the target database.
- E. Use the AWS Schema Conversion Tool (AWS SCT) to migrate the full load of the source database over a VPN tunnel using the internet for its primary connection
- F. Allow AWS SCT to handle syncing change data capture (CDC) data from the source to the target database.

Answer: A

Explanation:

https://docs.aws.amazon.com/dms/latest/userguide/CHAP_Target.S3.html Using Amazon S3 as a target for AWS Database Migration Service

NEW QUESTION 8

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

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

NEW QUESTION 9

A global digital advertising company captures browsing metadata to contextually display relevant images, pages, and links to targeted users. A single page load can generate multiple events that need to be stored individually. The maximum size of an event is 200 KB and the average size is 10 KB. Each page load must query the user's browsing history to provide targeting recommendations. The advertising company expects over 1 billion page visits per day from users in the United States, Europe, Hong Kong, and India. The structure of the metadata varies depending on the event. Additionally, the browsing metadata must be written and read with very low latency to ensure a good viewing experience for the users.

Which database solution meets these requirements?

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

Answer: C

NEW QUESTION 10

A database specialist has been entrusted by an ecommerce firm with designing a reporting dashboard that visualizes crucial business KPIs derived from the company's primary production database running on Amazon Aurora. The dashboard should be able to read data within 100 milliseconds after an update.

The Database Specialist must conduct an audit of the Aurora DB cluster's present setup and provide a cost-effective alternative. The solution must support the unexpected read demand generated by the reporting dashboard without impairing the DB cluster's write availability and performance.

Which solution satisfies these criteria?

- A. Turn on the serverless option in the DB cluster so it can automatically scale based on demand.
- B. Provision a clone of the existing DB cluster for the new Application team.
- C. Create a separate DB cluster for the new workload, refresh from the source DB cluster, and set up ongoing replication using AWS DMS change data capture (CDC).
- D. Add an automatic scaling policy to the DB cluster to add Aurora Replicas to the cluster based on CPU consumption.

Answer: D

NEW QUESTION 10

An ecommerce company uses a backend application that stores data in an Amazon DynamoDB table. The backend application runs in a private subnet in a VPC and must connect to this table.

The company must minimize any network latency that results from network connectivity issues, even during periods of heavy application usage. A database administrator also needs the ability to use a private connection to connect to the DynamoDB table from the application.

Which solution will meet these requirements?

- A. Use network ACLs to ensure that any outgoing or incoming connections to any port except DynamoDB are deactivate
- B. Encrypt API calls by using TLS.
- C. Create a VPC endpoint for DynamoDB in the application's VP
- D. Use the VPC endpoint to access the table.
- E. Create an AWS Lambda function that has access to DynamoD
- F. Restrict outgoing access only to this Lambda function from the application.
- G. Use a VPN to route all communication to DynamoDB through the company's own corporate network infrastructure.

Answer: B

Explanation:

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/vpc-endpoints-dynamodb.html>

NEW QUESTION 12

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 16

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

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 18

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 full
- F. The Database Specialist needs to scale up the instance.
- G. The local storage used to store temporary tables is full
- H. The Database Specialist needs to enable local storage scaling.

Answer: C

NEW QUESTION 19

A gaming company is developing a new mobile game and decides to store the data for each user in Amazon DynamoDB. To make the registration process as easy as possible, users can log in with their existing Facebook or Amazon accounts. The company expects more than 10,000 users.

How should a database specialist implement access control with the LEAST operational effort?

- A. Use web identity federation on the mobile app and AWS STS with an attached IAM role to get temporary credentials to access DynamoDB.
- B. Use web identity federation on the mobile app and create individual IAM users with credentials to access DynamoDB.
- C. Use a self-developed user management system on the mobile app that lets users access the data from DynamoDB through an API.
- D. Use a single IAM user on the mobile app to access DynamoDB.

Answer: A

NEW QUESTION 21

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

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

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

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

Answer: B

Explanation:

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

NEW QUESTION 26

A company uses Microsoft SQL Server on Amazon RDS in a Multi-AZ deployment as the database engine for its application. The company was recently acquired by another company. A database specialist must rename the database to follow a new naming standard.

Which combination of steps should the database specialist take to rename the database? (Choose two.)

- A. Turn off automatic snapshots for the DB instance

- B. Rename the database with the rdsadmin.dbo.rds_modify_db_name stored procedur
- C. Turn on the automatic snapshots.
- D. Turn off Multi-AZ for the DB instanc
- E. Rename the database with the rdsadmin.dbo.rds_modify_db_name stored procedur
- F. Turn on Multi-AZ Mirroring.
- G. Delete all existing snapshots for the DB instanc
- H. Use the rdsadmin.dbo.rds_modify_db_name stored procedure.
- I. Update the application with the new database connection string.
- J. Update the DNS record for the DB instance.

Answer: BD

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Appendix.SQLServer.CommonDBATasks.Renami>

NEW QUESTION 30

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

NEW QUESTION 34

A database specialist is designing an enterprise application for a large company. The application uses Amazon DynamoDB with DynamoDB Accelerator (DAX). The database specialist observes that most of the queries are not found in the DAX cache and that they still require DynamoDB table reads. What should the database specialist review first to improve the utility of DAX?

- A. The DynamoDB ConsumedReadCapacityUnits metric
- B. The trust relationship to perform the DynamoDB API calls
- C. The DAX cluster's TTL setting
- D. The validity of customer-specified AWS Key Management Service (AWS KMS) keys for DAX encryption at rest

Answer: C

Explanation:

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/DAX.cluster-management.html#DAX.clu>

NEW QUESTION 35

A bike rental company operates an application to track its bikes. The application receives location and condition data from bike sensors. The application also receives rental transaction data from the associated mobile app. The application uses Amazon DynamoDB as its database layer. The company has configured DynamoDB with provisioned capacity set to 20% above the expected peak load of the application. On an average day, DynamoDB used 22 billion read capacity units (RCUs) and 60 billion write capacity units (WCUs). The application is running well. Usage changes smoothly over the course of the day and is generally shaped like a bell curve. The timing and magnitude of peaks vary based on the weather and season, but the general shape is consistent. Which solution will provide the MOST cost optimization of the DynamoDB database layer?

- A. Change the DynamoDB tables to use on-demand capacity.
- B. Use AWS Auto Scaling and configure time-based scaling.
- C. Enable DynamoDB capacity-based auto scaling.
- D. Enable DynamoDB Accelerator (DAX).

Answer: C

Explanation:

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

NEW QUESTION 39

A company's Security department established new requirements that state internal users must connect to an existing Amazon RDS for SQL Server DB instance using their corporate Active Directory (AD) credentials. A Database Specialist must make the modifications needed to fulfill this requirement. Which combination of actions should the Database Specialist take? (Choose three.)

- A. Disable Transparent Data Encryption (TDE) on the RDS SQL Server DB instance.
- B. Modify the RDS SQL Server DB instance to use the directory for Windows authenticatio

- C. Create appropriate new logins.
- D. Use the AWS Management Console to create an AWS Managed Microsoft A
- E. Create a trust relationship with the corporate AD.
- F. Stop the RDS SQL Server DB instance, modify it to use the directory for Windows authentication, and start it again.
- G. Create appropriate new logins.
- H. Use the AWS Management Console to create an AD Connecto
- I. Create a trust relationship with the corporate AD.
- J. Configure the AWS Managed Microsoft AD domain controller Security Group.

Answer: BCF

Explanation:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_SQLServerWinAuth.html

NEW QUESTION 44

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

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

A Database Specialist decides to implement a DynamoDB table. Each player has a unique user_id and each game has a unique game_id.

Which choice of keys is recommended for the DynamoDB table?

- A. Create a global secondary index with game_id as the partition key
- B. Create a global secondary index with user_id as the partition key
- C. Create a composite primary key with game_id as the partition key and user_id as the sort key
- D. Create a composite primary key with user_id as the partition key and game_id as the sort key

Answer: D

Explanation:

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

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

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

NEW QUESTION 47

A company is deploying a solution in Amazon Aurora by migrating from an on-premises system. The IT department has established an AWS Direct Connect link from the company's data center. The company's Database Specialist has selected the option to require SSL/TLS for connectivity to prevent plaintext data from being set over the network. The migration appears to be working successfully, and the data can be queried from a desktop machine.

Two Data Analysts have been asked to query and validate the data in the new Aurora DB cluster. Both Analysts are unable to connect to Aurora. Their user names and passwords have been verified as valid and the Database Specialist can connect to the DB cluster using their accounts. The Database Specialist also verified that the security group configuration allows network from all corporate IP addresses.

What should the Database Specialist do to correct the Data Analysts' inability to connect?

- A. Restart the DB cluster to apply the SSL change.
- B. Instruct the Data Analysts to download the root certificate and use the SSL certificate on the connection string to connect.
- C. Add explicit mappings between the Data Analysts' IP addresses and the instance in the security group assigned to the DB cluster.
- D. Modify the Data Analysts' local client firewall to allow network traffic to AWS.

Answer: B

Explanation:

- To connect using SSL:
- Provide the SSLTrust certificate (can be downloaded from AWS)
- Provide SSL options when connecting to database
- Not using SSL on a DB that enforces SSL would result in error <https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/ssl-certificate-rotation-aurora-postgresql.ht>

NEW QUESTION 52

An AWS CloudFormation stack that included an Amazon RDS DB instance was accidentally deleted and recent data was lost. A Database Specialist needs to add RDS settings to the CloudFormation template to reduce the chance of accidental instance data loss in the future.

Which settings will meet this requirement? (Choose three.)

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

Answer: ACF

NEW QUESTION 57

A Database Specialist is creating a new Amazon Neptune DB cluster, and is attempting to load data from Amazon S3 into the Neptune DB cluster using the Neptune bulk loader API. The Database Specialist receives the following error:

"Unable to connect to s3 endpoint. Provided source = s3://mybucket/graphdata/ and region = us-east-1. Please verify your S3 configuration."

Which combination of actions should the Database Specialist take to troubleshoot the problem? (Choose two.)

- A. Check that Amazon S3 has an IAM role granting read access to Neptune

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

Answer: BD

NEW QUESTION 59

A software-as-a-service (SaaS) company is using an Amazon Aurora Serverless DB cluster for its production MySQL database. The DB cluster has general logs and slow query logs enabled. A database engineer must use the most operationally efficient solution with minimal resource utilization to retain the logs and facilitate interactive search and analysis.

Which solution meets these requirements?

- A. Use an AWS Lambda function to ship database logs to an Amazon S3 bucket
- B. Use Amazon Athena and Amazon QuickSight to search and analyze the logs.
- C. Download the logs from the DB cluster and store them in Amazon S3 by using manual script
- D. Use Amazon Athena and Amazon QuickSight to search and analyze the logs.
- E. Use an AWS Lambda function to ship database logs to an Amazon S3 bucket
- F. Use Amazon Elasticsearch Service (Amazon ES) and Kibana to search and analyze the logs.
- G. Use Amazon CloudWatch Logs Insights to search and analyze the logs when the logs are automatically uploaded by the DB cluster.

Answer: D

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/aurora-serverless-logs-enable-view/>
<https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/AnalyzingLogData.html>

NEW QUESTION 62

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 63

A company has a heterogeneous six-node production Amazon Aurora DB cluster that handles online transaction processing (OLTP) for the core business and OLAP reports for the human resources department. To match compute resources to the use case, the company has decided to have the reporting workload for the human resources department be directed to two small nodes in the Aurora DB cluster, while every other workload goes to four large nodes in the same DB cluster. Which option would ensure that the correct nodes are always available for the appropriate workload while meeting these requirements?

- A. Use the writer endpoint for OLTP and the reader endpoint for the OLAP reporting workload.
- B. Use automatic scaling for the Aurora Replica to have the appropriate number of replicas for the desired workload.
- C. Create additional readers to cater to the different scenarios.
- D. Use custom endpoints to satisfy the different workloads.

Answer: D

Explanation:

<https://aws.amazon.com/about-aws/whats-new/2018/11/amazon-aurora-simplifies-workload-management-with-c> You can now create custom endpoints for Amazon Aurora databases. This allows you to distribute and load balance workloads across different sets of database instances in your Aurora cluster. For example, you may provision a set of Aurora Replicas to use an instance type with higher memory capacity in order to run an analytics workload. A custom endpoint can then help you route the analytics workload to these appropriately-configured instances, while keeping other instances in your cluster isolated from this workload. As you add or remove instances from the custom endpoint to match your workload, the endpoint helps spread the load around.

NEW QUESTION 68

A retail company with its main office in New York and another office in Tokyo plans to build a database solution on AWS. The company's main workload consists of a mission-critical application that updates its application data in a data store. The team at the Tokyo office is building dashboards with complex analytical queries using the application data. The dashboards will be used to make buying decisions, so they need to have access to the application data in less than 1 second. Which solution meets these requirements?

- A. Use an Amazon RDS DB instance deployed in the us-east-1 Region with a read replica instance in the ap-northeast-1 Region
- B. Create an Amazon ElastiCache cluster in the ap-northeast-1 Region to cache application data from the replica to generate the dashboards.
- C. Use an Amazon DynamoDB global table in the us-east-1 Region with replication into the ap-northeast-1 Region
- D. Use Amazon QuickSight for displaying dashboard results.
- E. Use an Amazon RDS for MySQL DB instance deployed in the us-east-1 Region with a read replica instance in the ap-northeast-1 Region
- F. Have the dashboard application read from the read replica.
- G. Use an Amazon Aurora global database
- H. Deploy the writer instance in the us-east-1 Region and the replica in the ap-northeast-1 Region
- I. Have the dashboard application read from the replica in the ap-northeast-1 Region.

Answer: D

Explanation:

<https://aws.amazon.com/blogs/database/aurora-postgresql-disaster-recovery-solutions-using-amazon-aurora-glob>

NEW QUESTION 73

A company has an application that uses an Amazon DynamoDB table as its data store. During normal business days, the throughput requirements from the application are uniform and consist of 5 standard write calls per second to the DynamoDB table. Each write call has 2 KB of data. For 1 hour each day, the company runs an additional automated job on the DynamoDB table that makes 20 write requests per second. No other application writes to the DynamoDB table. The DynamoDB table does not have to meet any additional capacity requirements. How should a database specialist configure the DynamoDB table's capacity to meet these requirements MOST cost-effectively?

- A. Use DynamoDB provisioned capacity with 5 WCUs and auto scaling.
- B. Use DynamoDB provisioned capacity with 5 WCUs and a write-through cache that DynamoDB Accelerator (DAX) provides.
- C. Use DynamoDB provisioned capacity with 10 WCUs and auto scaling.
- D. Use DynamoDB provisioned capacity with 10 WCUs and no auto scaling.

Answer: C

Explanation:

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/HowItWorks.ReadWriteCapacityMode.h>

NEW QUESTION 75

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 79

A company conducted a security audit of its AWS infrastructure. The audit identified that data was not encrypted in transit between application servers and a MySQL database that is hosted in Amazon RDS. After the audit, the company updated the application to use an encrypted connection. To prevent this problem from occurring again, the company's database team needs to configure the database to require in-transit encryption for all connections. Which solution will meet this requirement?

- A. Update the parameter group in use by the DB instance, and set the `require_secure_transport` parameter to ON.
- B. Connect to the database, and use `ALTER USER` to enable the `REQUIRE SSL` option on the database user.
- C. Update the security group in use by the DB instance, and remove port 80 to prevent unencrypted connections from being established.
- D. Update the DB instance, and enable the `Require Transport Layer Security` option.

Answer: A

Explanation:

<https://aws.amazon.com/about-aws/whats-new/2022/08/amazon-rds-mysql-supports-ssl-tls-connections/>

NEW QUESTION 83

A financial services company runs an on-premises MySQL database for a critical application. The company is dissatisfied with its current database disaster recovery (DR) solution. The application experiences a significant amount of downtime whenever the database fails over to its DR facility. The application also experiences slower response times when reports are processed on the same database. To minimize the downtime in DR situations, the company has decided to migrate the database to AWS. The company requires a solution that is highly available and the most cost-effective. Which solution meets these requirements?

- A. Create an Amazon RDS for MySQL Multi-AZ DB instance and configure a read replica in a different Availability Zone
- B. Configure the application to reference the replica instance endpoint and report queries to reference the primary DB instance endpoint.
- C. Create an Amazon RDS for MySQL Multi-AZ DB instance and configure a read replica in a different Availability Zone
- D. Configure the application to reference the primary DB instance endpoint and report queries to reference the replica instance endpoint.
- E. Create an Amazon Aurora DB cluster and configure an Aurora Replica in a different Availability Zone. Configure the application to reference the cluster endpoint and report queries to reference the reader endpoint.
- F. Create an Amazon Aurora DB cluster and configure an Aurora Replica in a different Availability Zone. Configure the application to reference the primary DB instance endpoint and report queries to reference the replica instance endpoint.

Answer: C

Explanation:

<https://aws.amazon.com/about-aws/whats-new/2016/09/reader-end-point-for-amazon-aurora/>

NEW QUESTION 85

A company uses the Amazon DynamoDB table `contractDB` in `us-east-1` for its contract system with the following schema: `orderID` (primary key) `timestamp` (sort key) `contract` (map) `createdBy` (string) `customerEmail` (string)

After a problem in production, the operations team has asked a database specialist to provide an IAM policy to read items from the database to debug the

application. In addition, the developer is not allowed to access the value of the customerEmail field to stay compliant. Which IAM policy should the database specialist use to achieve these requirements?

A)

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "IAMPolicy",
      "Effect": "Allow",
      "Action": [
        "dynamodb: Query"
      ],
      "Resource": [
        "arn:aws:dynamodb:us-east-1:123456789012:table/contractDB"
      ],
      "Condition": {
        "ForAllValues:StringLike": {
          "dynamodb:Attributes": [
            "orderID",
            "timestamp",
            "contract",
            "createdBy"
          ]
        },
        "StringEquals": {
          "dynamodb:Select": "SPECIFIC_ATTRIBUTES"
        }
      }
    }
  ]
}
```

B)

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "IAMPolicy",
      "Effect": "Allow",
      "Action": [
        "dynamodb: Query"
      ],
      "Resource": [
        "arn:aws:dynamodb:us-east-1:123456789012:table/contractDB"
      ],
      "Condition": {
        "ForAllValues:StringLike": {
          "dynamodb:Attributes": [
            "customerEmail"
          ]
        },
        "StringEquals": {
          "dynamodb:Select": "SPECIFIC_ATTRIBUTES"
        }
      }
    }
  ]
}
```

C)

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "IAMPolicy",
      "Effect": "Deny",
      "Action": [
        "dynamodb: Query"
      ],
      "Resource": [
        "arn:aws:dynamodb:us-east-1:123456789012:table/contractDB"
      ],
      "Condition": {
        "ForAllValues:StringLike": {
          "dynamodb:Attributes": [
            "customerEmail"
          ]
        },
        "StringEquals": {
          "dynamodb:Select": "SPECIFIC_ATTRIBUTES"
        }
      }
    }
  ]
}
```

D)

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "IAMPolicy",
      "Effect": "Deny",
      "Action": [
        "dynamodb: Query"
      ],
      "Resource": [
        "arn:aws:dynamodb:us-east-1:123456789012:table/contractDB"
      ],
      "Condition": {
        "ForAllValues:StringLike": {
          "dynamodb:Attributes": [
            "orderId",
            "timestamp",
            "contract",
            "createdBy"
          ]
        },
        "StringEquals": {
          "dynamodb:Select": "SPECIFIC_ATTRIBUTES"
        }
      }
    }
  ]
}
```

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

Answer: A

NEW QUESTION 90

Application developers have reported that an application is running slower as more users are added. The application database is running on an Amazon Aurora DB cluster with an Aurora Replica. The application is written to take advantage of read scaling through reader endpoints. A database specialist looks at the performance metrics of the database and determines that, as new users were added to the database, the primary instance CPU utilization steadily increased while the Aurora Replica CPU utilization remained steady.

How can the database specialist improve database performance while ensuring minimal downtime?

- A. Modify the Aurora DB cluster to add more replicas until the overall load stabilize
- B. Then, reduce the number of replicas once the application meets service level objectives.
- C. Modify the primary instance to a larger instance size that offers more CPU capacity.
- D. Modify a replica to a larger instance size that has more CPU capacity
- E. Then, promote the modified replica.
- F. Restore the Aurora DB cluster to one that has an instance size with more CPU capacity
- G. Then, swap the names of the old and new DB clusters.

Answer: C

NEW QUESTION 91

A company is using Amazon Aurora PostgreSQL for the backend of its application. The system users are complaining that the responses are slow. A database specialist has determined that the queries to Aurora take longer during peak times. With the Amazon RDS Performance Insights dashboard, the load in the chart for average active sessions is often above the line that denotes maximum CPU usage and the wait state shows that most wait events are IO:XACommit.

What should the company do to resolve these performance issues?

- A. Add an Aurora Replica to scale the read traffic.
- B. Scale up the DB instance class.
- C. Modify applications to commit transactions in batches.
- D. Modify applications to avoid conflicts by taking locks.

Answer: C

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraPostgreSQL.Reference.html> <https://blog.dbi-services.com/aws-aurora-xactsync-batch-commit/>

NEW QUESTION 94

Recently, a financial institution created a portfolio management service. The application's backend is powered by Amazon Aurora, which supports MySQL. The firm demands a response time of five minutes and a response time of five minutes. A database professional must create a disaster recovery system that is both efficient and has a low replication latency.

How should the database professional tackle these requirements?

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

Answer: B

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-global-database-disaster-recovery.html> <https://aws.amazon.com/blogs/database/how-to-choose-the-best-disaster-recovery-option-for-your-amazon-aurora/> <https://aws.amazon.com/about-aws/whats-new/2019/11/aurora-supports-in-place-conversion-to-global-database/>

NEW QUESTION 95

Amazon DynamoDB global tables are being used by a business to power an online gaming game. The game is played by gamers from all around the globe. As the game became popular, the amount of queries to DynamoDB substantially rose. Recently, gamers have complained about the game's condition being inconsistent between nations. A database professional notices that the ReplicationLatency metric for many replica tables is set to an abnormally high value.

Which strategy will resolve the issue?

- A. Configure all replica tables to use DynamoDB auto scaling.
- B. Configure a DynamoDB Accelerator (DAX) cluster on each of the replicas.
- C. Configure the primary table to use DynamoDB auto scaling and the replica tables to use manually provisioned capacity.
- D. Configure the table-level write throughput limit service quota to a higher value.

Answer: A

Explanation:

https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/V2globaltables_reqs_bestpractices.html

NEW QUESTION 99

A database specialist wants to ensure that an Amazon Aurora DB cluster is always automatically upgraded to the most recent minor version available. Noticing that there is a new minor version available, the database specialist has issued an AWS CLI command to enable automatic minor version updates. The command runs successfully, but checking the Aurora DB cluster indicates that no update to the Aurora version has been made.

What might account for this? (Choose two.)

- A. The new minor version has not yet been designated as preferred and requires a manual upgrade.
- B. Configuring automatic upgrades using the AWS CLI is not supported

- C. This must be enabled expressly using the AWS Management Console.
- D. Applying minor version upgrades requires sufficient free space.
- E. The AWS CLI command did not include an apply-immediately parameter.
- F. Aurora has detected a breaking change in the new minor version and has automatically rejected the upgrade.

Answer: AD

Explanation:

"When Amazon RDS designates a minor engine version as the preferred minor engine version, each database that meets both of the following conditions is upgraded to the minor engine version automatically"

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_UpgradeDBInstance.Upgrading.html

Call the modify-db-instance Amazon CLI command. Specify the name of your DB instance for the --db-instance-identifier option and true for the --auto-minor-version-upgrade option. Optionally, specify the --apply-immediately option to immediately enable this setting for your DB instance. Run a separate modify-db-instance command for each DB instance in the cluster.

https://docs.amazonaws.cn/en_us/AmazonRDS/latest/AuroraUserGuide/AuroraMySQL.Updates.Patching.html#

NEW QUESTION 102

A database specialist needs to delete user data and sensor data 1 year after it was loaded in an Amazon DynamoDB table. TTL is enabled on one of the attributes. The database specialist monitors TTL rates on the Amazon CloudWatch metrics for the table and observes that items are not being deleted as expected.

What is the MOST likely reason that the items are not being deleted?

- A. The TTL attribute's value is set as a Number data type.
- B. The TTL attribute's value is set as a Binary data type.
- C. The TTL attribute's value is a timestamp in the Unix epoch time format in seconds.
- D. The TTL attribute's value is set with an expiration of 1 year.

Answer: B

Explanation:

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/TTL.html#time-to-live-ttl-before-you-sta>

NEW QUESTION 104

A company wants to improve its ecommerce website on AWS. A database specialist decides to add Amazon ElastiCache for Redis in the implementation stack to ease the workload off the database and shorten the website response times. The database specialist must also ensure the ecommerce website is highly available within the company's AWS Region.

How should the database specialist deploy ElastiCache to meet this requirement?

- A. Launch an ElastiCache for Redis cluster using the AWS CLI with the -cluster-enabled switch.
- B. Launch an ElastiCache for Redis cluster and select read replicas in different Availability Zones.
- C. Launch two ElastiCache for Redis clusters in two different Availability Zone
- D. Configure Redis streams to replicate the cache from the primary cluster to another.
- E. Launch an ElastiCache cluster in the primary Availability Zone and restore the cluster's snapshot to a different Availability Zone during disaster recovery.

Answer: B

Explanation:

<https://docs.aws.amazon.com/AmazonElastiCache/latest/red-ug/AutoFailover.html>

You can enable Multi-AZ only on Redis (cluster mode disabled) clusters that have at least one available read replica. Clusters without read replicas do not provide high availability or fault tolerance.

NEW QUESTION 106

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 108

A company has applications running on Amazon EC2 instances in a private subnet with no internet connectivity. The company deployed a new application that uses Amazon DynamoDB, but the application cannot connect to the DynamoDB tables. A developer already checked that all permissions are set correctly. What should a database specialist do to resolve this issue while minimizing access to external resources?

- A. Add a route to an internet gateway in the subnet's route table.

- B. Add a route to a NAT gateway in the subnet's route table.
- C. Assign a new security group to the EC2 instances with an outbound rule to ports 80 and 443.
- D. Create a VPC endpoint for DynamoDB and add a route to the endpoint in the subnet's route table.

Answer: D

Explanation:

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/vpc-endpoints-dynamodb.html>

NEW QUESTION 112

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

Which solution meets these requirements?

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

Answer: A

Explanation:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ShareSnapshot.html

NEW QUESTION 116

A Database Specialist is setting up a new Amazon Aurora DB cluster with one primary instance and three Aurora Replicas for a highly intensive, business-critical application. The Aurora DB cluster has one medium-sized primary instance, one large-sized replica, and two medium-sized replicas. The Database Specialist did not assign a promotion tier to the replicas.

In the event of a primary failure, what will occur?

- A. Aurora will promote an Aurora Replica that is of the same size as the primary instance
- B. Aurora will promote an arbitrary Aurora Replica
- C. Aurora will promote the largest-sized Aurora Replica
- D. Aurora will not promote an Aurora Replica

Answer: C

Explanation:

Priority: If you don't select a value, the default is tier-1. This priority determines the order in which Aurora

https://docs.amazonaws.cn/en_us/AmazonRDS/latest/AuroraUserGuide/aurora-replicas-adding.html

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.

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Aurora.Managing.Backups.html#Aurora.M> 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. <https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Concepts.AuroraHighAvailability.html>

NEW QUESTION 120

A vehicle insurance company needs to choose a highly available database to track vehicle owners and their insurance details. The persisted data should be immutable in the database, including the complete and sequenced history of changes over time with all the owners and insurance transfer details for a vehicle. The data should be easily verifiable for the data lineage of an insurance claim. Which approach meets these requirements with MINIMAL effort?

- A. Create a blockchain to store the insurance detail
- B. Validate the data using a hash function to verify the data lineage of an insurance claim.
- C. Create an Amazon DynamoDB table to store the insurance detail
- D. Validate the data using AWS DMS validation by moving the data to Amazon S3 to verify the data lineage of an insurance claim.
- E. Create an Amazon QLDB ledger to store the insurance detail
- F. Validate the data by choosing the ledger name in the digest request to verify the data lineage of an insurance claim.
- G. Create an Amazon Aurora database to store the insurance detail
- H. Validate the data using AWS DMS validation by moving the data to Amazon S3 to verify the data lineage of an insurance claim.

Answer: C

NEW QUESTION 122

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 AVS 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 AmazonRedshift.
- 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

NEW QUESTION 127

A retail company manages a web application that stores data in an Amazon DynamoDB table. The company is undergoing account consolidation efforts. A database engineer needs to migrate the DynamoDB table from the current AWS account to a new AWS account. Which strategy meets these requirements with the LEAST amount of administrative work?

- A. Use AWS Glue to crawl the data in the DynamoDB table
- B. Create a job using an available blueprint to export the data to Amazon S3. Import the data from the S3 file to a DynamoDB table in the new account.
- C. Create an AWS Lambda function to scan the items of the DynamoDB table in the current account and write to a file in Amazon S3. Create another Lambda function to read the S3 file and restore the items of a DynamoDB table in the new account.
- D. Use AWS Data Pipeline in the current account to export the data from the DynamoDB table to a file in Amazon S3. Use Data Pipeline to import the data from the S3 file to a DynamoDB table in the new account.
- E. Configure Amazon DynamoDB Streams for the DynamoDB table in the current account
- F. Create an AWS Lambda function to read from the stream and write to a file in Amazon S3. Create another Lambda function to read the S3 file and restore the items to a DynamoDB table in the new account.

Answer: C

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/dynamodb-cross-account-migration/> <https://aws.amazon.com/premiumsupport/knowledge-center/data-pipeline-account-access-dynamodb-s3/>

NEW QUESTION 130

A clothing company uses a custom ecommerce application and a PostgreSQL database to sell clothes to thousands of users from multiple countries. The company is migrating its application and database from its on-premises data center to the AWS Cloud. The company has selected Amazon EC2 for the application and Amazon RDS for PostgreSQL for the database. The company requires database passwords to be changed every 60 days. A Database Specialist needs to ensure that the credentials used by the web application to connect to the database are managed securely. Which approach should the Database Specialist take to securely manage the database credentials?

- A. Store the credentials in a text file in an Amazon S3 bucket
- B. Restrict permissions on the bucket to the IAM role associated with the instance profile
- C. Modify the application to download the text file and retrieve the credentials on start up
- D. Update the text file every 60 days.
- E. Configure IAM database authentication for the application to connect to the database
- F. Create an IAM user and map it to a separate database user for each ecommerce user
- G. Require users to update their passwords every 60 days.
- H. Store the credentials in AWS Secrets Manager
- I. Restrict permissions on the secret to only the IAM role associated with the instance profile
- J. Modify the application to retrieve the credentials from Secrets Manager on start up
- K. Configure the rotation interval to 60 days.
- L. Store the credentials in an encrypted text file in the application AMI
- M. Use AWS KMS to store the key for decrypting the text file
- N. Modify the application to decrypt the text file and retrieve the credentials on start up
- O. Update the text file and publish a new AMI every 60 days.

Answer: C

NEW QUESTION 132

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

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

Answer: D

Explanation:

"To ensure that your data was migrated accurately from the source to the target, we highly recommend that you use data validation."

https://docs.aws.amazon.com/dms/latest/userguide/CHAP_BestPractices.html

NEW QUESTION 134

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 137

A manufacturing company has an inventory system that stores information in an Amazon Aurora MySQL DB cluster. The database tables are partitioned. The database size has grown to 3 TB. Users run one-time queries by using a SQL client. Queries that use an equijoin to join large tables are taking a long time to run. Which action will improve query performance with the LEAST operational effort?

- A. Migrate the database to a new Amazon Redshift data warehouse.
- B. Enable hash joins on the database by setting the variable `optimizer_switch` to `hash_join=on`.
- C. Take a snapshot of the DB cluster.
- D. Create a new DB instance by using the snapshot, and enable parallel query mode.
- E. Add an Aurora read replica.

Answer: B

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraMySQL.BestPractices.html>

NEW QUESTION 140

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 145

A company is using a Single-AZ Amazon RDS for MySQL DB instance for development. The DB instance is experiencing slow performance when queries are executed. Amazon CloudWatch metrics indicate that the instance requires more I/O capacity. Which actions can a database specialist perform to resolve this issue? (Choose two.)

- A. Restart the application tool used to execute queries.
- B. Change to a database instance class with higher throughput.
- C. Convert from Single-AZ to Multi-AZ.
- D. Increase the I/O parameter in Amazon RDS Enhanced Monitoring.
- E. Convert from General Purpose to Provisioned IOPS (PIOPS).

Answer: BE

Explanation:

<https://aws.amazon.com/blogs/database/best-storage-practices-for-running-production-workloads-on-hosted-data>

"If you find the pattern of IOPS usage consistently going beyond more than 16,000, you should modify the DB instance and change the storage type from `gp2` to `io1`."

NEW QUESTION 149

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 153

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 158

A company is using an Amazon ElastiCache for Redis cluster to host its online shopping website. Shoppers receive the following error when the website's application queries the cluster:

```
OOM command not allowed when used memory > 'maxmemory'
```

Which solutions will resolve this memory issues with the LEAST amount of effort? (Choose three.)

- A. Reduce the TTL value for keys on the node.
- B. Choose a larger node type.
- C. Test different values in the parameter group for the maxmemory-policy parameter to find the ideal value to use.
- D. Increase the number of nodes.
- E. Monitor the EngineCPUUtilization Amazon CloudWatch metri
- F. Create an AWS Lambda function to delete keys on nodes when a threshold is reached.
- G. Increase the TTL value for keys on the node.

Answer: ABC

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/oom-command-not-allowed-redis/>

NEW QUESTION 160

A company with 500,000 employees needs to supply its employee list to an application used by human resources. Every 30 minutes, the data is exported using the LDAP service to load into a new Amazon DynamoDB table. The data model has a base table with Employee ID for the partition key and a global secondary index with Organization ID as the partition key.

While importing the data, a database specialist receives ProvisionedThroughputExceededException errors.

After increasing the provisioned write capacity units

(WCUs) to 50,000, the specialist receives the same errors. Amazon CloudWatch metrics show a consumption of 1,500 WCUs.

What should the database specialist do to address the issue?

- A. Change the data model to avoid hot partitions in the global secondary index.
- B. Enable auto scaling for the table to automatically increase write capacity during bulk imports.
- C. Modify the table to use on-demand capacity instead of provisioned capacity.
- D. Increase the number of retries on the bulk loading application.

Answer: A

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/dynamodb-table-throttled/>

NEW QUESTION 162

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

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

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

Answer: C

NEW QUESTION 167

A large retail company recently migrated its three-tier ecommerce applications to AWS. The company's backend database is hosted on Amazon Aurora PostgreSQL. During peak times, users complain about longer page load times. A database specialist reviewed Amazon RDS Performance Insights and found a spike in IO:XactSync wait events. The SQL attached to the wait events are all single INSERT statements.

How should this issue be resolved?

- A. Modify the application to commit transactions in batches

- B. Add a new Aurora Replica to the Aurora DB cluster.
- C. Add an Amazon ElastiCache for Redis cluster and change the application to write through.
- D. Change the Aurora DB cluster storage to Provisioned IOPS (PIOPS).

Answer: A

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraPostgreSQL.Reference.html> "This wait most often arises when there is a very high rate of commit activity on the system. You can sometimes alleviate this wait by modifying applications to commit transactions in batches. "
<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/apg-waits.xactsync.html>

NEW QUESTION 168

A ride-hailing application uses an Amazon RDS for MySQL DB instance as persistent storage for bookings. This application is very popular and the company expects a tenfold increase in the user base in next few months. The application experiences more traffic during the morning and evening hours. This application has two parts:

- > An in-house booking component that accepts online bookings that directly correspond to simultaneous requests from users.
 - > A third-party customer relationship management (CRM) component used by customer care representatives. The CRM uses queries to access booking data.
- A database specialist needs to design a cost-effective database solution to handle this workload. Which solution meets these requirements?

- A. Use Amazon ElastiCache for Redis to accept the booking
- B. Associate an AWS Lambda function to capture changes and push the booking data to the RDS for MySQL DB instance used by the CRM.
- C. Use Amazon DynamoDB to accept the booking
- D. Enable DynamoDB Streams and associate an AWS Lambda function to capture changes and push the booking data to an Amazon SQS queue
- E. This triggers another Lambda function that pulls data from Amazon SQS and writes it to the RDS for MySQL DB instance used by the CRM.
- F. Use Amazon ElastiCache for Redis to accept the booking
- G. Associate an AWS Lambda function to capture changes and push the booking data to an Amazon Redshift database used by the CRM.
- H. Use Amazon DynamoDB to accept the booking
- I. Enable DynamoDB Streams and associate an AWS Lambda function to capture changes and push the booking data to Amazon Athena, which is used by the CRM.

Answer: D

NEW QUESTION 171

A large financial services company requires that all data be encrypted in transit. A Developer is attempting to connect to an Amazon RDS DB instance using the company VPC for the first time with credentials provided by a Database Specialist. Other members of the Development team can connect, but this user is consistently receiving an error indicating a communications link failure. The Developer asked the Database Specialist to reset the password a number of times, but the error persists.

Which step should be taken to troubleshoot this issue?

- A. Ensure that the database option group for the RDS DB instance allows ingress from the Developer machine's IP address
- B. Ensure that the RDS DB instance's subnet group includes a public subnet to allow the Developer to connect
- C. Ensure that the RDS DB instance has not reached its maximum connections limit
- D. Ensure that the connection is using SSL and is addressing the port where the RDS DB instance is listening for encrypted connections

Answer: D

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/SQLServer.Concepts.General.SSL.Using.html>

NEW QUESTION 176

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 Server
- B. Use a CloudWatch dashboard to identify the root cause.
- C. Enable RDS Performance Insights and determine which query is creating the problem
- 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 177

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

- A. Create a new attribute in each table to track the expiration time and create an AWS Glue transformation to delete entries more than 2 days old.
- B. Create a new attribute in each table to track the expiration time and enable DynamoDB Streams on each table.
- C. Create a new attribute in each table to track the expiration time and enable time to live (TTL) on each table.

D. Create an Amazon CloudWatch Events event to export the data to Amazon S3 daily using AWS Data Pipeline and then truncate the Amazon DynamoDB table.

Answer: C

Explanation:

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

NEW QUESTION 178

A company has multiple applications serving data from a secure on-premises database. The company is migrating all applications and databases to the AWS Cloud. The IT Risk and Compliance department requires that auditing be enabled on all secure databases to capture all log ins, log outs, failed logins, permission changes, and database schema changes. A Database Specialist has recommended Amazon Aurora MySQL as the migration target, and leveraging the Advanced Auditing feature in Aurora.

Which events need to be specified in the Advanced Auditing configuration to satisfy the minimum auditing requirements? (Choose three.)

- A. CONNECT
- B. QUERY_DCL
- C. QUERY_DDL
- D. QUERY_DML
- E. TABLE
- F. QUERY

Answer: ABC

Explanation:

Connect - logins / DCL - authorizations (grant, revoke), DDL - schema updates

NEW QUESTION 182

An ecommerce company is using Amazon DynamoDB as the backend for its order-processing application.

The steady increase in the number of orders is resulting in increased DynamoDB costs. Order verification and reporting perform many repeated GetItem functions that pull similar datasets, and this read activity is contributing to the increased costs. The company wants to control these costs without significant development efforts.

How should a Database Specialist address these requirements?

- A. Use AWS DMS to migrate data from DynamoDB to Amazon DocumentDB
- B. Use Amazon DynamoDB Streams and Amazon Kinesis Data Firehose to push the data into Amazon Redshift
- C. Use an Amazon ElastiCache for Redis in front of DynamoDB to boost read performance
- D. Use DynamoDB Accelerator to offload the reads

Answer: D

Explanation:

https://docs.amazonaws.cn/en_us/amazondynamodb/latest/developerguide/DAX.html

"Applications that are read-intensive, but are also cost-sensitive. With DynamoDB, you provision the number of reads per second that your application requires. If read activity increases, you can increase your tables' provisioned read throughput (at an additional cost). Or, you can offload the activity from your application to a DAX cluster, and reduce the number of read capacity units that you need to purchase otherwise."

NEW QUESTION 186

A company is using Amazon Aurora MySQL as the database for its retail application on AWS. The company receives a notification of a pending database upgrade and wants to ensure upgrades do not occur before or during the most critical time of year. Company leadership is concerned that an Amazon RDS maintenance window will cause an outage during data ingestion.

Which step can be taken to ensure that the application is not interrupted?

- A. Disable weekly maintenance on the DB cluster.
- B. Clone the DB cluster and migrate it to a new copy of the database.
- C. Choose to defer the upgrade and then find an appropriate down time for patching.
- D. Set up an Aurora Replica and promote it to primary at the time of patching.

Answer: C

NEW QUESTION 190

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

Answer: D

Explanation:

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

NEW QUESTION 194

A company is migrating a mission-critical 2-TB Oracle database from on premises to Amazon Aurora. The cost for the database migration must be kept to a minimum, and both the on-premises Oracle database and the Aurora DB cluster must remain open for write traffic until the company is ready to completely cut over to Aurora.

Which combination of actions should a database specialist take to accomplish this migration as quickly as possible? (Choose two.)

- A. Use the AWS Schema Conversion Tool (AWS SCT) to convert the source database schem
- B. Then restore the converted schema to the target Aurora DB cluster.
- C. Use Oracle's Data Pump tool to export a copy of the source database schema and manually edit the schema in a text editor to make it compatible with Aurora.
- D. Create an AWS DMS task to migrate data from the Oracle database to the Aurora DB cluste
- E. Select the migration type to replicate ongoing changes to keep the source and target databases in sync until the company is ready to move all user traffic to the Aurora DB cluster.
- F. Create an AWS DMS task to migrate data from the Oracle database to the Aurora DB cluste
- G. Once the initial load is complete, create an AWS Kinesis Data Firehose stream to perform change data capture (CDC) until the company is ready to move all user traffic to the Aurora DB cluster.
- H. Create an AWS Glue job and related resources to migrate data from the Oracle database to the Aurora DB cluste
- I. Once the initial load is complete, create an AWS DMS task to perform change data capture (CDC) until the company is ready to move all user traffic to the Aurora DB cluster.

Answer: AC

NEW QUESTION 199

A business is transferring its on-premises database workloads to the Amazon Web Services (AWS) Cloud. A database professional migrating an Oracle database with a huge table to Amazon RDS has picked AWS DMS. The database professional observes that AWS DMS is consuming considerable time migrating the data. Which activities would increase the pace of data migration? (Select 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: ACD

Explanation:

https://docs.aws.amazon.com/dms/latest/userguide/CHAP_Tasks.LOBSupport.html

NEW QUESTION 204

A company is using an Amazon Aurora MySQL database with Performance Insights enabled. A database specialist is checking Performance Insights and observes an alert message that starts with the following phrase:

`Performance Insights is unable to collect SQL Digest statistics on new queries`!

Which action will resolve this alert message?

- A. Truncate the events_statements_summary_by_digest table.
- B. Change the AWS Key Management Service (AWS KMS) key that is used to enable Performance Insights.
- C. Set the value for the performance_schema parameter in the parameter group to 1.
- D. Disable and reenable Performance Insights to be effective in the next maintenance window.

Answer: A

Explanation:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_PerfInsights.UsingDashboard.AnalyzeDBL

NEW QUESTION 208

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 212

A company is developing a multi-tier web application hosted on AWS using Amazon Aurora as the database. The application needs to be deployed to production and other non-production environments. A Database Specialist needs to specify different MasterUsername and MasterUserPassword properties in the AWS CloudFormation templates used for automated deployment. The CloudFormation templates are version controlled in the company's code repository. The company

also needs to meet compliance requirement by routinely rotating its database master password for production. What is most secure solution to store the master password?

- A. Store the master password in a parameter file in each environment
- B. Reference the environment-specific parameter file in the CloudFormation template.
- C. Encrypt the master password using an AWS KMS key
- D. Store the encrypted master password in the CloudFormation template.
- E. Use the secretsmanager dynamic reference to retrieve the master password stored in AWS Secrets Manager and enable automatic rotation.
- F. Use the ssm dynamic reference to retrieve the master password stored in the AWS Systems Manager Parameter Store and enable automatic rotation.

Answer: C

Explanation:

"By using the secure string support in CloudFormation with dynamic references you can better maintain your infrastructure as code. You'll be able to avoid hard coding passwords into your templates and you can keep these runtime configuration parameters separated from your code. Moreover, when properly used, secure strings will help keep your development and production code as similar as possible, while continuing to make your infrastructure code suitable for continuous deployment pipelines."

<https://aws.amazon.com/blogs/mt/using-aws-systems-manager-parameter-store-secure-string-parameters-in-aws> <https://aws.amazon.com/blogs/security/how-to-use-aws-secrets-manager-rotate-credentials-amazon-rds-database>

NEW QUESTION 217

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

- A. Install the AWS CLI on an Amazon EC2 instance
- B. Write a CLI command that creates a backup of the DynamoDB table
- C. Create a scheduled job or task that executes the command on a nightly basis.
- D. Create an AWS Lambda function that creates a backup of the DynamoDB table
- E. Create an Amazon CloudWatch Events rule that executes the Lambda function on a nightly basis.
- F. Create a backup plan using AWS Backup, specify a backup frequency of every 24 hours, and give the plan a nightly backup window.
- G. Configure DynamoDB backup and restore for an on-demand backup frequency of every 24 hours.

Answer: C

Explanation:

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/CreateBackup.html#:~:text=If%20you%2>
https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/backuprestore_HowItWorks.html

NEW QUESTION 219

A company's database specialist is building an Amazon RDS for Microsoft SQL Server DB instance to store hundreds of records in CSV format. A customer service tool uploads the records to an Amazon S3 bucket.

An employee who previously worked at the company already created a custom stored procedure to map the necessary CSV fields to the database tables. The database specialist needs to implement a solution that reuses this previous work and minimizes operational overhead.

Which solution will meet these requirements?

- A. Create an Amazon S3 event to invoke an AWS Lambda function
- B. Configure the Lambda function to parse the .csv file and use a SQL client library to run INSERT statements to load the data into the tables.
- C. Write a custom .NET app that is hosted on Amazon EC2. Configure the .NET app to load the .csv file and call the custom stored procedure to insert the data into the tables.
- D. Download the .csv file from Amazon S3 to the RDS D drive by using an AWS msdb stored procedure. Call the custom stored procedure to insert the data from the RDS D drive into the tables.
- E. Create an Amazon S3 event to invoke AWS Step Functions to parse the .csv file and call the custom stored procedure to insert the data into the tables.

Answer: C

Explanation:

Step 1: Download S3 Files

Amazon RDS for SQL Server comes with several custom stored procedures and functions. These are located in the msdb database. The stored procedure to download files from S3 is "rds_download_from_s3". The syntax for this stored procedure is shown here:

```
exec msdb.dbo.rds_download_from_s3
@s3_arn_of_file='arn:aws:s3:::<bucket_name>/<file_name>',
@rds_file_path='D:\S3\<custom_folder_name>\<file_name>',
@overwrite_file=1;
```

NEW QUESTION 220

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 224

A company runs a customer relationship management (CRM) system that is hosted on-premises with a MySQL database as the backend. A custom stored procedure is used to send email notifications to another system when data is inserted into a table. The company has noticed that the performance of the CRM system has decreased due to database reporting applications used by various teams. The company requires an AWS solution that would reduce maintenance, improve performance, and accommodate the email notification feature.

Which AWS solution meets these requirements?

- A. Use MySQL running on an Amazon EC2 instance with Auto Scaling to accommodate the reporting application
- B. Configure a stored procedure and an AWS Lambda function that uses Amazon SES to send email notifications to the other system.
- C. Use Amazon Aurora MySQL in a multi-master cluster to accommodate the reporting applications. Configure Amazon RDS event subscriptions to publish a message to an Amazon SNS topic and subscribe the other system's email address to the topic.
- D. Use MySQL running on an Amazon EC2 instance with a read replica to accommodate the reporting application
- E. Configure Amazon SES integration to send email notifications to the other system.
- F. Use Amazon Aurora MySQL with a read replica for the reporting application
- G. Configure a stored procedure and an AWS Lambda function to publish a message to an Amazon SNS topic
- H. Subscribe the other system's email address to the topic.

Answer: D

Explanation:

RDS event subscriptions do not cover "data is inserted into a table" - see

https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/USER_Events.Messages.html We can use stored procedure to invoke Lambda function -

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraMySQL.Integrating.Lambda.html>

NEW QUESTION 225

A global company is developing an application across multiple AWS Regions. The company needs a database solution with low latency in each Region and automatic disaster recovery. The database must be deployed in an active-active configuration with automatic data synchronization between Regions.

Which solution will meet these requirements with the LOWEST latency?

- A. Amazon RDS with cross-Region read replicas
- B. Amazon DynamoDB global tables
- C. Amazon Aurora global database
- D. Amazon Athena and Amazon S3 with S3 Cross Region Replication

Answer: B

NEW QUESTION 227

A company is writing a new survey application to be used with a weekly televised game show. The application will be available for 2 hours each week. The company expects to receive over 500,000 entries every week, with each survey asking 2-3 multiple choice questions of each user. A Database Specialist needs to select a platform that is highly scalable for a large number of concurrent writes to handle the anticipated volume.

Which AWS services should the Database Specialist consider? (Choose two.)

- A. Amazon DynamoDB
- B. Amazon Redshift
- C. Amazon Neptune
- D. Amazon Elasticsearch Service
- E. Amazon ElastiCache

Answer: AE

Explanation:

<https://docs.aws.amazon.com/AmazonElastiCache/latest/mem-ug/Strategies.html#Strategies.WriteThrough> <https://aws.amazon.com/products/databases/real-time-apps-elasticache-for-redis/>

NEW QUESTION 231

A company just migrated to Amazon Aurora PostgreSQL from an on-premises Oracle database. After the migration, the company discovered there is a period of time every day around 3:00 PM where the response time of the application is noticeably slower. The company has narrowed down the cause of this issue to the database and not the application.

Which set of steps should the Database Specialist take to most efficiently find the problematic PostgreSQL query?

- A. Create an Amazon CloudWatch dashboard to show the number of connections, CPU usage, and disk space consumption
- B. Watch these dashboards during the next slow period.
- C. Launch an Amazon EC2 instance, and install and configure an open-source PostgreSQL monitoring tool that will run reports based on the output error logs.
- D. Modify the logging database parameter to log all the queries related to locking in the database and then check the logs after the next slow period for this information.
- E. Enable Amazon RDS Performance Insights on the PostgreSQL database
- F. Use the metrics to identify any queries that are related to spikes in the graph during the next slow period.

Answer: D

NEW QUESTION 232

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

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

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

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

Answer: ACD

NEW QUESTION 237

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

Which authentication solution should a database professional provide?

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

Answer: D

Explanation:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_SQLServerWinAuth.html

NEW QUESTION 240

A company plans to migrate a MySQL-based application from an on-premises environment to AWS. The application performs database joins across several tables and uses indexes for faster query response times. The company needs the database to be highly available with automatic failover.

Which solution on AWS will meet these requirements with the LEAST operational overhead?

- A. Deploy an Amazon RDS DB instance with a read replica.
- B. Deploy an Amazon RDS Multi-AZ DB instance.
- C. Deploy Amazon DynamoDB global tables.
- D. Deploy multiple Amazon RDS DB instance
- E. Use Amazon Route 53 DNS with failover health checks configured.

Answer: B

NEW QUESTION 244

A company has an AWS CloudFormation stack that defines an Amazon RDS DB instance. The company accidentally deletes the stack and loses recent data from the DB instance. A database specialist must change the CloudFormation template for the RDS resource to reduce the chance of accidental data loss from the DB instance in the future.

Which combination of actions should the database specialist take to meet this requirement? (Choose three.)

- A. Set the DeletionProtection property to True.
- B. Set the MultiAZ property to True.
- C. Set the TerminationProtection property to True.
- D. Set the DeleteAutomatedBackups property to False.
- E. Set the DeletionPolicy attribute to No.
- F. Set the DeletionPolicy attribute to Retain.

Answer: ADF

NEW QUESTION 246

A gaming company has recently acquired a successful iOS game, which is particularly popular during the holiday season. The company has decided to add a leaderboard to the game that uses Amazon DynamoDB. The application load is expected to ramp up over the holiday season.

Which solution will meet these requirements at the lowest 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: C

NEW QUESTION 247

A company has a quarterly customer survey. The survey uses an Amazon EC2 instance that is hosted in a public subnet to host a customer survey website. The company uses an Amazon RDS DB instance that is hosted in a private subnet in the same VPC to store the survey results.

The company takes a snapshot of the DB instance after a survey is complete, deletes the DB instance, and then restores the DB instance from the snapshot when the survey needs to be conducted again. A database specialist discovers that the customer survey website times out when it attempts to establish a connection to the restored DB instance.

What is the root cause of this problem?

- A. The VPC peering connection has not been configured properly for the EC2 instance to communicate with the DB instance.
- B. The route table of the private subnet that hosts the DB instance does not have a NAT gateway configured for communication with the EC2 instance.
- C. The public subnet that hosts the EC2 instance does not have an internet gateway configured for communication with the DB instance.
- D. The wrong security group was associated with the new DB instance when it was restored from the snapshot.

Answer: D

NEW QUESTION 250

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 . Aurora Global Database lets you easily scale database reads across the world and place your applications close to your users.

NEW QUESTION 252

Amazon Neptune is being used by a corporation as the graph database for one of its products. During an ETL procedure, the company's data science team produced enormous volumes of temporary data by unintentionally. The Neptune DB cluster extended its storage capacity automatically to handle the added data, but the data science team erased the superfluous data.

What should a database professional do to prevent incurring extra expenditures for cluster volume space that is not being used?

- A. Take a snapshot of the cluster volume
- B. Restore the snapshot in another cluster with a smaller volume size.
- C. Use the AWS CLI to turn on automatic resizing of the cluster volume.
- D. Export the cluster data into a new Neptune DB cluster.
- E. Add a Neptune read replica to the cluster
- F. Promote this replica as a new primary DB instance
- G. Reset the storage space of the cluster.

Answer: C

Explanation:

The only way to shrink the storage space used by your DB cluster when you have a large amount of unused allocated space is to export all the data in your graph and then reload it into a new DB cluster. Creating and restoring a snapshot does not reduce the amount of storage allocated for your DB cluster, because a snapshot retains the original image of the cluster's underlying storage.

NEW QUESTION 255

A company hosts an on-premises Microsoft SQL Server Enterprise edition database with Transparent Data Encryption (TDE) enabled. The database is 20 TB in size and includes sparse tables. The company needs to migrate the database to Amazon RDS for SQL Server during a maintenance window that is scheduled for an upcoming weekend. Data-at-rest encryption must be enabled for the target DB instance.

Which combination of steps should the company take to migrate the database to AWS in the MOST operationally efficient manner? (Choose two.)

- A. Use AWS Database Migration Service (AWS DMS) to migrate from the on-premises source database to the RDS for SQL Server target database.
- B. Disable TDE
- C. Create a database backup without encryption
- D. Copy the backup to Amazon S3.
- E. Restore the backup to the RDS for SQL Server DB instance
- F. Enable TDE for the RDS for SQL Server DB instance.
- G. Set up an AWS Snowball Edge device
- H. Copy the database backup to the device
- I. Send the device to AWS
- J. Restore the database from Amazon S3.
- K. Encrypt the data with client-side encryption before transferring the data to Amazon RDS.

Answer: BC

Explanation:

<https://aws.amazon.com/blogs/database/migrate-tde-enabled-sql-server-databases-to-amazon-rds-for-sql-server/>

NEW QUESTION 260

A company has an Amazon RDS Multi-AZ DB instance 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 264

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

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

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

Answer: A

NEW QUESTION 266

A financial services company is developing a shared data service that supports different applications from throughout the company. A Database Specialist designed a solution to leverage Amazon ElastiCache for Redis with cluster mode enabled to enhance performance and scalability. The cluster is configured to listen on port 6379.

Which combination of steps should the Database Specialist take to secure the cache data and protect it from unauthorized access? (Choose three.)

- A. Enable in-transit and at-rest encryption on the ElastiCache cluster.
- B. Ensure that Amazon CloudWatch metrics are configured in the ElastiCache cluster.
- C. Ensure the security group for the ElastiCache cluster allows all inbound traffic from itself and inbound traffic on TCP port 6379 from trusted clients only.
- D. Create an IAM policy to allow the application service roles to access all ElastiCache API actions.
- E. Ensure the security group for the ElastiCache clients authorize inbound TCP port 6379 and port 22 traffic from the trusted ElastiCache cluster's security group.
- F. Ensure the cluster is created with the auth-token parameter and that the parameter is used in all subsequent commands.

Answer: ACF

Explanation:

<https://docs.aws.amazon.com/AmazonElastiCache/latest/red-ug/encryption.html>

NEW QUESTION 271

A company recently migrated its line-of-business (LOB) application to AWS. The application uses an Amazon RDS for SQL Server DB instance as its database engine.

The company must set up cross-Region disaster recovery for the application. The company needs a solution with the lowest possible RPO and RTO.

Which solution will meet these requirements?

- A. Create a cross-Region read replica of the DB instance
- B. Promote the read replica at the time of failover.
- C. Set up SQL replication from the DB instance to an Amazon EC2 instance in the disaster recovery Region
- D. Promote the EC2 instance as the primary server.
- E. Use AWS Database Migration Service (AWS DMS) for ongoing replication of the DB instance in the disaster recovery Region.
- F. Take manual snapshots of the DB instance in the primary Region
- G. Copy the snapshots to the disaster recovery Region.

Answer: C

Explanation:

<https://aws.amazon.com/blogs/database/cross-region-disaster-recovery-of-amazon-rds-for-sql-server/>

NEW QUESTION 274

An online shopping company has a large inflow of shopping requests daily. As a result, there is a consistent load on the company's Amazon RDS database. A database specialist needs to ensure the database is up and running at all times. The database specialist wants an automatic notification system for issues that may cause database downtime or for configuration changes made to the database.

What should the database specialist do to achieve this? (Choose two.)

- A. Create an Amazon CloudWatch Events event to send a notification using Amazon SNS on every API call logged in AWS CloudTrail.
- B. Subscribe to an RDS event subscription and configure it to use an Amazon SNS topic to send notifications.
- C. Use Amazon SES to send notifications based on configured Amazon CloudWatch Events events.
- D. Configure Amazon CloudWatch alarms on various metrics, such as FreeStorageSpace for the RDS instance.
- E. Enable email notifications for AWS Trusted Advisor.

Answer: BD

NEW QUESTION 275

A pharmaceutical company uses Amazon Quantum Ledger Database (Amazon QLDB) to store its clinical trial data records. The company has an application that runs as AWS Lambda functions. The application is hosted in the private subnet in a VPC.

The application does not have internet access and needs to read some of the clinical data records. The company is concerned that traffic between the QLDB ledger and the VPC could leave the AWS network. The company needs to secure access to the QLDB ledger and allow the VPC traffic to have read-only access. Which security strategy should a database specialist implement to meet these requirements?

- A. Move the QLDB ledger into a private database subnet inside the VP
- B. Run the Lambda functions inside the same VPC in an application private subne
- C. Ensure that the VPC route table allows read-only flow from the application subnet to the database subnet.
- D. Create an AWS PrivateLink VPC endpoint for the QLDB ledge
- E. Attach a VPC policy to the VPC endpoint to allow read-only traffic for the Lambda functions that run inside the VPC.
- F. Add a security group to the QLDB ledger to allow access from the private subnets inside the VPC where the Lambda functions that access the QLDB ledger are running.
- G. Create a VPN connection to ensure pairing of the private subnet where the Lambda functions are running with the private subnet where the QLDB ledger is deployed.

Answer: B

Explanation:

<https://docs.aws.amazon.com/qldb/latest/developerguide/vpc-endpoints.html>

NEW QUESTION 276

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 278

A company maintains several databases using Amazon RDS for MySQL and PostgreSQL. Each RDS database generates log files with retention periods set to their default values. The company has now mandated that database logs be maintained for up to 90 days in a centralized repository to facilitate real-time and after-the-fact analyses.

What should a Database Specialist do to meet these requirements with minimal effort?

- A. Create an AWS Lambda function to pull logs from the RDS databases and consolidate the log files in an Amazon S3 bucket
- B. Set a lifecycle policy to expire the objects after 90 days.
- C. Modify the RDS databases to publish log to Amazon CloudWatch Log
- D. Change the log retention policy for each log group to expire the events after 90 days.
- E. Write a stored procedure in each RDS database to download the logs and consolidate the log files in an Amazon S3 bucket
- F. Set a lifecycle policy to expire the objects after 90 days.
- G. Create an AWS Lambda function to download the logs from the RDS databases and publish the logs to Amazon CloudWatch Log
- H. Change the log retention policy for the log group to expire the events after 90 days.

Answer: B

Explanation:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_LogAccess.html

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_LogAccess.Procedural.UploadtoCloudWat

<https://aws.amazon.com/premiumsupport/knowledge-center/rds-aurora-mysql-logs-cloudwatch/>

https://docs.aws.amazon.com/AmazonCloudWatchLogs/latest/APIReference/API_PutRetentionPolicy.html

NEW QUESTION 281

A company has an AWS CloudFormation template written in JSON that is used to launch new Amazon RDS for MySQL DB instances. The security team has asked a database specialist to ensure that the master password is automatically rotated every 30 days for all new DB instances that are launched using the template.

What is the MOST operationally efficient solution to meet these requirements?

- A. Save the password in an Amazon S3 object
- B. Encrypt the S3 object with an AWS KMS key
- C. Set the KMS key to be rotated every 30 days by setting the EnableKeyRotation property to true
- D. Use a CloudFormation custom resource to read the S3 object to extract the password.
- E. Create an AWS Lambda function to rotate the secret
- F. Modify the CloudFormation template to add an AWS::SecretsManager::RotationSchedule resource
- G. Configure the RotationLambdaARN value and, for the RotationRules property, set the AutomaticallyAfterDays parameter to 30.
- H. Modify the CloudFormation template to use the AWS KMS key as the database password
- I. Configure an Amazon EventBridge rule to invoke the KMS API to rotate the key every 30 days by setting the ScheduleExpression parameter to `*/30/*`.
- J. Integrate the Amazon RDS for MySQL DB instances with AWS IAM and centrally manage the master database user password.

Answer: B

Explanation:

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-resource-secretsmanager-rotationsche>

NEW QUESTION 282

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 283

A company needs to migrate Oracle Database Standard Edition running on an Amazon EC2 instance to an Amazon RDS for Oracle DB instance with Multi-AZ. The database supports an ecommerce website that runs continuously. The company can only provide a maintenance window of up to 5 minutes. Which solution will meet these requirements?

- A. Configure Oracle Real Application Clusters (RAC) on the EC2 instance and the RDS DB instance. Update the connection string to point to the RAC cluster.
- B. Once the EC2 instance and RDS DB instance are in sync, fail over from Amazon EC2 to Amazon RDS.
- C. Export the Oracle database from the EC2 instance using Oracle Data Pump and perform an import into Amazon RDS.
- D. Stop the application for the entire process.
- E. When the import is complete, change the database connection string and then restart the application.
- F. Configure AWS DMS with the EC2 instance as the source and the RDS DB instance as the destination. Stop the application when the replication is in sync, change the database connection string, and then restart the application.
- G. Configure AWS DataSync with the EC2 instance as the source and the RDS DB instance as the destination.
- H. Stop the application when the replication is in sync, change the database connection string, and then restart the application.

Answer: C

NEW QUESTION 288

A company uses Amazon Aurora MySQL as the primary database engine for many of its applications. A database specialist must create a dashboard to provide the company with information about user connections to databases. According to compliance requirements, the company must retain all connection logs for at least 7 years.

Which solution will meet these requirements MOST cost-effectively?

- A. Enable advanced auditing on the Aurora cluster to log CONNECT event.
- B. Export audit logs from Amazon CloudWatch to Amazon S3 by using an AWS Lambda function that is invoked by an Amazon EventBridge (Amazon CloudWatch Events) scheduled event.
- C. Build a dashboard by using Amazon QuickSight.
- D. Capture connection attempts to the Aurora cluster with AWS CloudTrail by using the DescribeEvents API operation.
- E. Create a CloudTrail trail to export connection logs to Amazon S3. Build a dashboard by using Amazon QuickSight.
- F. Start a database activity stream for the Aurora cluster.
- G. Push the activity records to an Amazon Kinesis data stream.
- H. Build a dynamic dashboard by using AWS Lambda.
- I. Publish the DatabaseConnections metric for the Aurora DB instances to Amazon CloudWatch.
- J. Build a dashboard by using CloudWatch dashboards.

Answer: A

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/AuroraMySQL.Auditing.html>

NEW QUESTION 293

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 297

A pharmaceutical company's drug search API is using an Amazon Neptune DB cluster. A bulk uploader process automatically updates the information in the database a few times each week. A few weeks ago during a bulk upload, a database specialist noticed that the database started to respond frequently with a ThrottlingException error. The problem also occurred with subsequent uploads.

The database specialist must create a solution to prevent ThrottlingException errors for the database. The solution must minimize the downtime of the cluster.

Which solution meets these requirements?

- A. Create a read replica that uses a larger instance size than the primary DB instance.
- B. Fail over the primary DB instance to the read replica.
- C. Add a read replica to each Availability Zone.
- D. Use an instance for the read replica that is the same size as the primary DB instance.
- E. Keep the traffic between the API and the database within the Availability Zone.
- F. Create a read replica that uses a larger instance size than the primary DB instance.
- G. Offload the reads from the primary DB instance.
- H. Take the latest backup, and restore it in a DB cluster of a larger size.
- I. Point the application to the newly created DB cluster.

Answer: C

Explanation:

<https://docs.aws.amazon.com/neptune/latest/userguide/manage-console-add-replicas.html>

Neptune replicas connect to the same storage volume as the primary DB instance and support only read operations. Neptune replicas can offload read workloads from the primary DB instance.

NEW QUESTION 300

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