

Vendor: Google

Exam

Code: PROFESSIONAL-CLOUD-DATABASE-

ENGINEER

Exam Name:Google Cloud Certified - Professional Cloud Database Engineer

Version: Demo

QUESTION 1

You are managing a small Cloud SQL instance for developers to do testing. The instance is not critical and has a recovery point objective (RPO) of several days. You want to minimize ongoing costs for this instance. What should you do?

- A. Take no backups, and turn off transaction log retention.
- B. Take one manual backup per day, and turn off transaction log retention.
- C. Turn on automated backup, and turn off transaction log retention.
- D. Turn on automated backup, and turn on transaction log retention.

Correct Answer: B

QUESTION 2

Your organization has an existing app that just went viral. The app uses a Cloud SQL for MySQL backend database that is experiencing slow disk performance while using hard disk drives (HDDs). You need to improve performance and

reduce disk I/O wait times.

What should you do?

- A. Export the data from the existing instance, and import the data into a new instance with solid-state drives (SSDs).
- B. Edit the instance to change the storage type from HDD to SSD.
- C. Create a high availability (HA) failover instance with SSDs, and perform a failover to the new instance.
- D. Create a read replica of the instance with SSDs, and perform a failover to the new instance

Correct Answer: C

QUESTION 3

Your company uses Cloud Spanner for a mission-critical inventory management system that is globally available. You recently loaded stock keeping unit (SKU) and product catalog data from a company acquisition and observed hot-spots in the Cloud Spanner database. You want to follow Google-recommended schema design practices to avoid performance degradation. What should you do? (Choose two.)

- A. Use an auto-incrementing value as the primary key.
- B. Normalize the data model.
- C. Promote low-cardinality attributes in multi-attribute primary keys.
- D. Promote high-cardinality attributes in multi-attribute primary keys.
- E. Use bit-reverse sequential value as the primary key.

Correct Answer: AD

QUESTION 4

You work in the logistics department. Your data analysis team needs daily extracts from Cloud SQL for MySQL to train a machine learning model. The model will be used to optimize next-day routes. You need to export the data in CSV format. You want to follow Google-recommended practices. What should you do?

A. Use Cloud Scheduler to trigger a Cloud Function that will run a select * from table(s) query to call the cloudsql.instances.export API.

- B. Use Cloud Scheduler to trigger a Cloud Function through Pub/Sub to call the cloudsql.instances.export API.
- C. Use Cloud Composer to orchestrate an export by calling the cloudsql.instances.export API.
- D. Use Cloud Composer to execute a select * from table(s) query and export results.

Correct Answer: A

QUESTION 5

You work for a financial services company that wants to use fully managed database services. Traffic volume for your consumer services products has increased annually at a constant rate with occasional spikes around holidays. You frequently need to upgrade the capacity of your database. You want to use Cloud Spanner and include an automated method to increase your hardware capacity to support a higher level of concurrency. What should you do?

- A. Use linear scaling to implement the Autoscaler-based architecture
- B. Use direct scaling to implement the Autoscaler-based architecture.
- C. Upgrade the Cloud Spanner instance on a periodic basis during the scheduled maintenance window.
- D. Set up alerts that are triggered when Cloud Spanner utilization metrics breach the threshold, and then schedule an upgrade during the scheduled maintenance window.

Correct Answer: C

QUESTION 6

You are managing a Cloud SQL for MySQL environment in Google Cloud. You have deployed a primary instance in Zone A and a read replica instance in Zone B, both in the same region. You are notified that the replica instance in Zone B was unavailable for 10 minutes. You need to ensure that the read replica instance is still working. What should you do?

- A. Use the Google Cloud Console or gcloud CLI to manually create a new clone database.
- B. Use the Google Cloud Console or gcloud CLI to manually create a new failover replica from backup.
- C. Verify that the new replica is created automatically.
- D. Start the original primary instance and resume replication.

Correct Answer: B

QUESTION 7

Your organization operates in a highly regulated industry. Separation of concerns (SoC) and security principle of least privilege (PoLP) are critical. The operations team consists of:

Person A is a database administrator.

Person B is an analyst who generates metric reports.

Application C is responsible for automatic backups.

You need to assign roles to team members for Cloud Spanner. Which roles should you assign?

A. roles/spanner.databaseAdmin for Person A roles/spanner.databaseReader for Person B roles/spanner.backupWriter for Application C

B. roles/spanner.databaseAdmin for Person A roles/spanner.databaseReader for Person B roles/spanner.backupAdmin for Application C

C. roles/spanner.databaseAdmin for Person A roles/spanner.databaseUser for Person B roles/spanner databaseReader for Application C

D. roles/spanner.databaseAdmin for Person A roles/spanner.databaseUser for Person B roles/spanner.backupWriter for Application C

Correct Answer: B

QUESTION 8

Your company uses Bigtable for a user-facing application that displays a low-latency real-time dashboard. You need to recommend the optimal storage type for this read-intensive database. What should you do?

A. Recommend solid-state drives (SSD).

- B. Recommend splitting the Bigtable instance into two instances in order to load balance the concurrent reads.
- C. Recommend hard disk drives (HDD).
- D. Recommend mixed storage types.

Correct Answer: B

QUESTION 9

You host an application in Google Cloud. The application is located in a single region and uses Cloud SQL for transactional data. Most of your users are located in the same time zone and expect the application to be available 7 days a week, from 6 AM to 10 PM. You want to ensure regular maintenance updates to your Cloud SQL instance

without creating downtime for your users. What should you do?

A. Configure a maintenance window during a period when no users will be on the system. Control the order of update by setting non-production instances to earlier and production instances to later.

B. Create your database with one primary node and one read replica in the region.

C. Enable maintenance notifications for users, and reschedule maintenance activities to a specific time after notifications have been sent.

D. Configure your Cloud SQL instance with high availability enabled.

Correct Answer: A

QUESTION 10

You are configuring a brand new PostgreSQL database instance in Cloud SQL. Your application team wants to have an optimal and highly available environment with automatic failover to avoid any unplanned outage. What should you do?

A. Create one regional Cloud SQL instance with a read replica in another region.

B. Create one regional Cloud SQL instance in one zone with a standby instance in another zone in the same region.

C. Create two read-write Cloud SQL instances in two different zones with a standby instance in another region.

D. Create two read-write Cloud SQL instances in two different regions with a standby instance in another zone.

Correct Answer: C

QUESTION 11

You are designing a database strategy for a new web application in one region. You need to minimize write latency. What should you do?

A. Use Cloud SQL with cross-region replicas.

B. Use high availability (HA) Cloud SQL with multiple zones.

C. Use zonal Cloud SQL without high availability (HA).

D. Use Cloud Spanner in a regional configuration.

Correct Answer: A

QUESTION 12

Your digital-native business runs its database workloads on Cloud SQL. Your website must be globally accessible 24/7. You need to prepare your Cloud SQL instance for high availability (HA). You want to follow Google-recommended practices. What should you do? (Choose two.)

A. Set up manual backups.

- B. Create a PostgreSQL database on-premises as the HA option.
- C. Configure single zone availability for automated backups.
- D. Enable point-in-time recovery.
- E. Schedule automated backups.

Correct Answer: BD