EXAM PROFESSIONAL DATA ENGINEER TOPIC 1 QUESTION 227 DISCUSSION

Actual exam question from Google's Professional Data Engineer
Question #: 227
Topic #: 1
[All Professional Data Engineer Questions]

You stream order data by using a Dataflow pipeline, and write the aggregated result to Memorystore. You provisioned a Memorystore for Redis instance with Basic Tier, 4 GB capacity, which is used by 40 clients for read-only access. You are expecting the number of read-only clients to increase significantly to a few hundred and you need to be able to support the demand. You want to ensure that read and write access availability is not impacted, and any changes you make can be deployed quickly. What should you do?

A. Create a new Memorystore for Redis instance with Standard Tier. Set capacity to 4 GB and read replica to No read replicas (high availability only). Delete the old instance.

B. Create a new Memorystore for Redis instance with Standard Tier. Set capacity to 5 GB and create multiple read replicas. Delete the old instance.

C. Create a new Memorystore for Memcached instance. Set a minimum of three nodes, and memory per node to 4 GB. Modify the Dataflow pipeline and all clients to use the Memcached instance. Delete the old instance.

D. Create multiple new Memorystore for Redis instances with Basic Tier (4 GB capacity). Modify the Dataflow pipeline and new clients to use all instances.

Show Suggested Answer

by e70ea9e at *Dec. 30, 2023, 9:53 a.m.*

Comments

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raaad Highly Voted 1 year, 4 months ago

Selected Answer: B

- Upgrading to the Standard Tier and adding read replicas is an effective way to scale and manage increased read load.
- The additional capacity (5 GB) provides more space for data, and read replicas help distribute the read load across multiple instances.

upvoted 10 times

datapassionate 1 year, 3 months ago

Descrived here:
https://cloud.google.com/memorystore/docs/redis/redis-tiers

upvoted 3 times

SamuelTsch Most Recent 6 months, 1 week ago

Selected Answer: B

I don't like any answer. It seems Option B makes more senses due to read replicas.

upvoted 1 times

e70ea9e 1 year, 4 months ago

Selected Answer: B

Scalability for Read-Only Clients: Read replicas distribute read traffic across multiple instances, significantly enhancing read capacity to support a large number of clients without impacting write performance.
High Availability: Standard Tier ensures high availability with automatic failover, minimizing downtime in case of instance failure.
Minimal Code Changes: Redis clients can seamlessly connect to read replicas without requiring extensive code modifications, enabling a quick deployment.

upvoted 3 times