

[Google Discussions](#)

Exam Professional Data Engineer All Questions

View all questions & answers for the Professional Data Engineer exam

[Go to Exam](#)

EXAM PROFESSIONAL DATA ENGINEER TOPIC 1 QUESTION 132 DISCUSSION

Actual exam question from Google's Professional Data Engineer

Question #: 132

Topic #: 1

[\[All Professional Data Engineer Questions\]](#)

Your United States-based company has created an application for assessing and responding to user actions. The primary table's data volume grows by 250,000 records per second. Many third parties use your application's APIs to build the functionality into their own frontend applications. Your application's APIs should comply with the following requirements:

- ⇒ Single global endpoint
- ⇒ ANSI SQL support
- ⇒ Consistent access to the most up-to-date data

What should you do?

- A. Implement BigQuery with no region selected for storage or processing.
- B. Implement Cloud Spanner with the leader in North America and read-only replicas in Asia and Europe.
- C. Implement Cloud SQL for PostgreSQL with the master in North America and read replicas in Asia and Europe.
- D. Implement Bigtable with the primary cluster in North America and secondary clusters in Asia and Europe.

[Show Suggested Answer](#)

by [deleted] at *March 22, 2020, 10:15 a.m.*

Comments

Type your comment...

[Submit](#)

  **[Removed]** Highly Voted  3 years, 7 months ago

Answer: B

Description: All the criteria meets for Spanner

   upvoted 26 times

  **sumanshu** Highly Voted  2 years, 4 months ago

A - BigQuery with NO Region ? (Looks wrong)

B - Spanner (SQL support and Scalable and have replicas) - Looks correct

C - SQL (can't store so many records) (wrong)

D - Bigtable - NO SQL (wrong)

Vote for B

   upvoted 24 times

  **vaga1** Most Recent  4 months, 4 weeks ago

Selected Answer: B

A - NO - BigQuery with must have a selected regional or multi-regional file storage

B - YES - Spanner is specifically designed for this high and consistent throughput

C - NO - I am not sure about what many said in this discussion as Cloud SQL can store this amount of records if u have just a few columns. Anyway, for sure Spanner is better and it is a GCP product.

D - Bigtable - it's a NoSQL solution, no ANSI

   upvoted 3 times

  **AzureDP900** 10 months, 1 week ago

B is the answer

   upvoted 1 times

  **zellick** 11 months ago

Selected Answer: B

B is the answer.

   upvoted 1 times

  **Remi2021** 1 year, 1 month ago

Selected Answer: B

Guys, read documentation well. A is wrong, BigQuery has Maximum rows per request (50,000).

<https://cloud.google.com/bigquery/quotas>


It is B

   upvoted 4 times

  **JamesKarianis** 1 year, 3 months ago

Selected Answer: B

Spanner is globally available and meets all the requirements

   upvoted 2 times

  **devric** 1 year, 7 months ago

Selected Answer: A

Correct is A. There's no sense to having read replicas outside of US considering than the company is US based.

If you generate a dataset without specifying the Data Location it's gonna be stored in "US Multiregion" by default

   upvoted 2 times

  **MaxNRG** 1 year, 10 months ago

Selected Answer: B

B: Cloud Spanner is the first scalable, enterprise-grade, globally-distributed, and strongly consistent database service built for the cloud specifically to combine the benefits of relational database structure with non-relational horizontal scale.



<https://cloud.google.com/spanner/>

Cloud Spanner is a fully managed, mission-critical, relational database service that offers transactional consistency at global scale, schemas, SQL (ANSI 2011 with extensions), and automatic, synchronous replication for high availability.

<https://cloud.google.com/spanner/docs/>

<https://cloud.google.com/spanner/docs/instances#available-configurations-multi-region>

   upvoted 6 times

  **Tanmoyk** 3 years, 1 month ago

B is correct, Bigquery cannot support 250K data ingestion/second , as ANSI SQL support is required , no other options left except Spanner.

   unvoted 8 times

- 🗄️ **haroldbenites** 3 years, 2 months ago
B is correct
👍 🔄 🚩 upvoted 2 times
- 🗄️ **Archy** 3 years, 3 months ago
B, as Cloud Spanner has three types of replicas: read-write replicas, read-only replicas, and witness replicas.
👍 🔄 🚩 upvoted 6 times
- 🗄️ **VishalB** 3 years, 3 months ago
Correct Answer : C
Explanation:-
B -> This option is incorrect, as we do not have option to configure read-replica in Cloud Spanner, Multi-region instance configurations use a combination of all three types' read-write replicas, read-only replicas, and witness replicas
C -> This is correct option, In Cloud Sql we have option to create a master node for read-write replicas and read-only replicas in other regions
D -> This option is incorrect, as Bigtable do not support ANSI SQL
👍 🔄 🚩 upvoted 2 times
- 🗄️ **saurabh1805** 3 years, 2 months ago
but bigquery does so why not A?
👍 🔄 🚩 upvoted 1 times
- 🗄️ **[Removed]** 2 years, 6 months ago
The requirement is for transactional application serving customers , not analytical so BQ is ruled out.
👍 🔄 🚩 upvoted 1 times
- 🗄️ **WizzardLlama** 2 years, 9 months ago
You can't create a BigQuery instance without region selected.
I'm wondering about these read replicas, why read only replicas? It seems arbitrary, as the question does not state that API should be read-only, so there's no reason why those should be read-only replicas...
👍 🔄 🚩 upvoted 3 times
- 🗄️ **mAbreu** 3 years, 1 month ago
wrong, cloud spanner can have read-only replicas
<https://cloud.google.com/spanner/docs/replication?hl=pt-br>
👍 🔄 🚩 upvoted 3 times
- 🗄️ **norwayping** 3 years, 4 months ago
I was wrong Bigtable doesn't support ANSI SQL. B instead
👍 🔄 🚩 upvoted 2 times
- 🗄️ **norwayping** 3 years, 4 months ago
I think it is D. There is limitation of QPS of Cloud Spanner of 2000 qps,
<https://cloud.google.com/spanner/docs/instances#multi-region-performance>
👍 🔄 🚩 upvoted 2 times
- 🗄️ **Rajokkiyam** 3 years, 7 months ago
Answer B
👍 🔄 🚩 upvoted 4 times
- 🗄️ **[Removed]** 3 years, 7 months ago
Answer : B
👍 🔄 🚩 upvoted 7 times



Platform

> Home

> Examtopics PRO

> All Exams

> Training Courses

