Google Discussions

EXAM PROFESSIONAL DATA ENGINEER TOPIC 1 QUESTION 154 DISCUSSION

Actual exam question from Google's Professional Data Engineer
Question #: 154
Topic #: 1
[All Professional Data Engineer Questions]

You plan to deploy Cloud SQL using MySQL. You need to ensure high availability in the event of a zone failure. What should you do?

A. Create a Cloud SQL instance in one zone, and create a failover replica in another zone within the same region.

B. Create a Cloud SQL instance in one zone, and create a read replica in another zone within the same region.

C. Create a Cloud SQL instance in one zone, and configure an external read replica in a zone in a different region.

D. Create a Cloud SQL instance in a region, and configure automatic backup to a Cloud Storage bucket in the same region.

Show Suggested Answer

by madhu1171 at *March 15, 2020, 7:17 p.m.*

Comments

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madhu1171 Highly Voted 4 years, 7 months ago
A should be correct answer
upvoted 32 times

tycho 2 years, 10 months ago

yes A is correct, whe creating ne cloud sql instance there is an option
"Multiple zones (Highly available)
Automatic failover to another zone within your selected region. Recommended for production instances. Increases cost."

upvoted 5 times

[Removed] Highly Voted 4 years, 7 months ago

Correct: A

https://cloud.google.com/sql/docs/mysql/high-availability

upvoted 14 times

mothkuri Most Recent 8 months ago

Answer : A
Question is about high availability in the event of zone failure. So create Fail over replica in another zone in same region.

upvoted 2 times

MaxNRG 10 months, 2 weeks ago

Selected Answer: A

A (failover replicas) as this is an old question:

In a legacy HA configuration, a Cloud SQL for MySQL instance uses a failover replica to add high availability to the instance. This functionality isn't available in Google Cloud console.

The new configuration doesn't use failover replicas. Instead, it uses Google's regional persistent disks, which synchronously replicate data at the block-level between two zones in a region.
https://cloud.google.com/sql/docs/mysql/configure-legacy-ha

upvoted 6 times

pss111423 11 months, 2 weeks ago

Option A is good fro leagacy soultion
Note: Cloud SQL plans to discontinue support for legacy HA instances in the future and will soon be announcing a date to do so. Currently, legacy HA instances are still covered by the Cloud SQL SLA. We recommend you upgrade your existing legacy HA instances to regional persistent disk HA instances and create new instances using regional persistent disk HA as soon as possible
Option C makes more sense in this regrard

upvoted 1 times

emmylou 11 months, 3 weeks ago

A - Although it is legacy and will be deprecated. The correct answer is not an option--
"The legacy configuration for high availability used a failover replica instance. The new configuration does not use a failover replica. Instead, it uses Google's regional persistent disks, which synchronously replicate data at the block level between two zones in a region."

upvoted 1 times

barnac1es 1 year, 1 month ago

Selected Answer: A

Failover Replica: By creating a failover replica in another zone within the same region, you establish a high-availability configuration. The failover replica is kept in sync with the primary instance, and it can quickly take over in case of a failure of the primary instance.

Same Region: Placing the failover replica in the same region ensures minimal latency and data consistency. In the event of a zone failure, the failover can happen within the same region, reducing potential downtime.

Zone Resilience: Google Cloud's regional design ensures that zones within a region are independent of each other, which adds resilience to zone failures.

Automatic Failover: In case of a primary instance failure, Cloud SQL will automatically promote the failover replica to become the new primary instance, minimizing downtime.

upvoted 2 times

samstar4180 1 year, 2 months ago

Per latest Google cloud document, B is the correct answer.

upvoted 1 times

wan2three 1 year, 3 months ago

Selected Answer: B

Cross-region read replicas
Cross-region replication lets you create a read replica in a different region from the primary instance. You create a cross-region read replica the same way as you create an in-region replica.

Cross-region replicas:

Improve read performance by making replicas available closer to your application's region.
Provide additional disaster recovery capability to guard against a regional failure.
Let you migrate data from one region to another.
https://cloud.google.com/sql/docs/mysql/replication#cross-region-read-replicas:~:text=memory%20(OOM)%20events.-,Cross%2Dregion%20read%20replicas,Let%20you%20migrate%20data%20from%20one%20region%20to%20another.,-See%20Promoting%20replicas

upvoted 3 times

MoeHaydar 1 year, 3 months ago

Selected Answer: B

The legacy process for adding high availability to MySQL instances uses a failover replica. The legacy functionality isn't available in the Google Cloud console. See Legacy configuration: Creating a new instance configured for high availability or Legacy configuration: Configuring an existing instance for high availability.

upvoted 2 times

KK0202 1 year, 4 months ago

Selected Answer: B

The correct answer is most probably B as this his scenario has an update(As of July 2023). Failover replicas are not available anymore. Same region different zone read replicas are used in case of a failover or if primary zone is not available

upvoted 4 times

MBRSDG 1 year, 5 months ago

Selected Answer: B

The answer is B, the failover replica is a legacy feature.
See here: https://cloud.google.com/sql/docs/mysql/high-availability#legacy_mysql_high_availability_option

upvoted 2 times

forepick 1 year, 5 months ago

Read replica isn't an alternative to the standby instance

upvoted 1 times

vaga1 1 year, 5 months ago

Selected Answer: A

read replica (B) and external read replica (C) doesn't make sense here, since we potentially need all the functionalities. Using Cloud SQL in a region combined with Cloud Storage backup may not be the best choice (D) thinking about compliance reasons starting from what has been asked, it seems also "too much" compared with A that fullfills the request with simpler actions. Also, compliance is required at the regional level, so then A fits.

upvoted 3 times

wjtb 1 year, 7 months ago

Failover replica's are a legacy feature. This question is outdated: https://cloud.google.com/sql/docs/mysql/configure-ha

upvoted 6 times

musumusu 1 year, 8 months ago

Answer A, key words to remember, High Scale use extra read replica. High availablity use extra failure replica. Both should be in different zone but in same region.

upvoted 2 times

desertlotus1211 1 year, 9 months ago

Answer is B: https://cloud.google.com/sql/docs/mysql/replication#read-replicas

'As a best practice, put read replicas in a different zone than the primary instance when you use HA on your primary instance'

upvoted 2 times

desertlotus1211 1 year, 9 months ago

The questions asks to ensure high availability in the event of a zone failure

upvoted 1 times

zellck 1 year, 11 months ago

Selected Answer: A

A is the answer.

https://cloud.google.com/sql/docs/mysql/high-availability#HA-configuration
The HA configuration provides data redundancy. A Cloud SQL instance configured for HA is also called a regional instance and has a primary and secondary zone within the configured region. Within a regional instance, the configuration is made up of a primary instance and a standby instance. Through synchronous replication to each zone's persistent disk, all writes made to the primary instance are replicated to disks in both zones before a transaction is reported as committed. In the event of an instance or zone failure, the standby instance becomes the new primary instance. Users are then rerouted to the new

of an instance or zone failure, the standby instance becomes the new primary instance. Users are then rerouted to the new primary instance. This process is called a failover.

upvoted 2 times

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