Assignment and Exam Content

Cloud SQL

Always Delete your Cloud Resources to Avoid $$ Charges.

Cloud SQL Lab

Cloud SQL Lab Contains – Three major areas below to say complete Lab ☺

A Launch Cloud SQL(MYSQL) Instance

Understand basic concepts – Locations, Performance Read/ Write IOPS etc

B Cloud SQL Advanced Concepts

High Availability , Read Replica , Binary Logging

3 Exam Tips

Always Delete your Cloud Resources to Avoid $$ Charges.

A

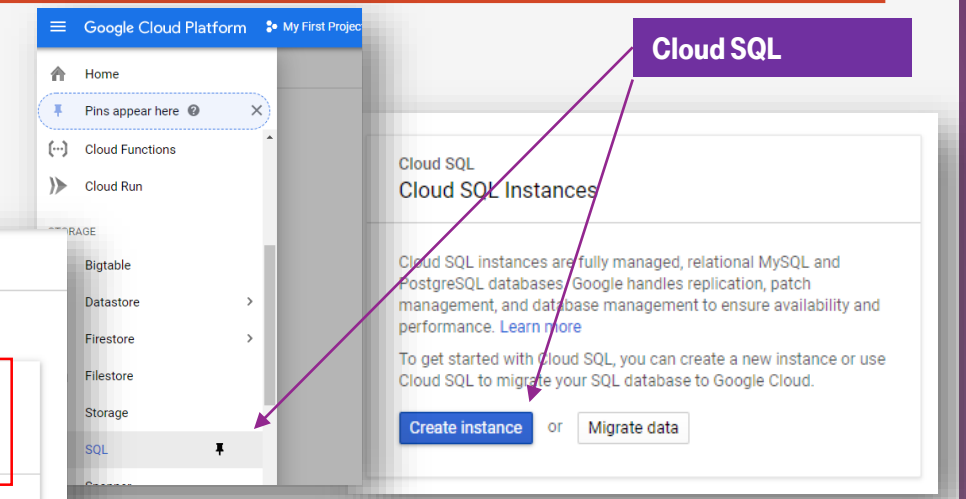
Create Cloud SQL Instance

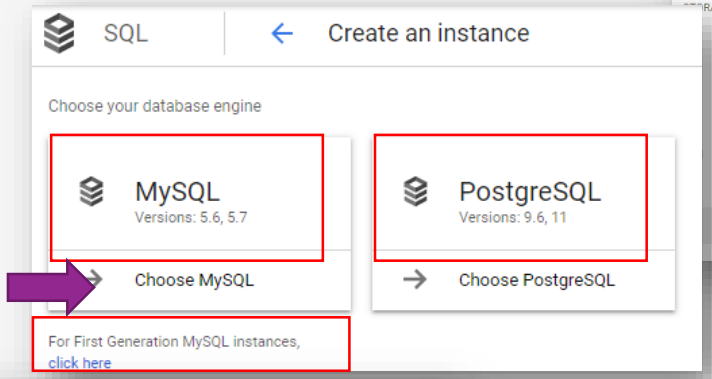
Create SQL Instance
- Create Instance with default configurations
- Add Instance HA , read Replica etc

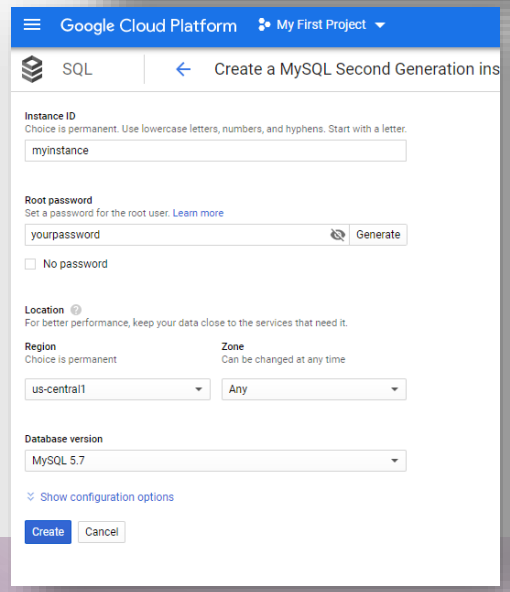
Create Instance advanced Configurations
- Provide custom configurations

Maintenance
- Add read replica, Delete master , Trigger failover

1 Go To -> STORAGE -> SQL -> Click on Create Instance







2
1. MYSQL 2nd Generation
2. PostgreSQL
3. MYSQL 1st Generation

- Choose MySQL for this workshop.

- Type : Name of instance
- Your Password
- Select Region and Zone.
- And Database version – Click Create.

Congratulations - Your instance is created now ..

Cloud SQL is RDBMS in GCP and you can launch MySQL and PostgreSQL instances.

MYSQL 1st Generations instance also can be created if required.

Using can SSH to Virtual Machine where Cloud SQL instance is running.

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Check the status of instance – once its created – Click on instance and explore multiple options

Explore Overview : Dashboard for all information about your instance. Like IP, connection name etc.

Explore Connections : See networks options – Currently not configured to any network so that you can connect this instance.

Choose your default network and give IP to 0.0.0.0/0 – Open to all – or instance IP

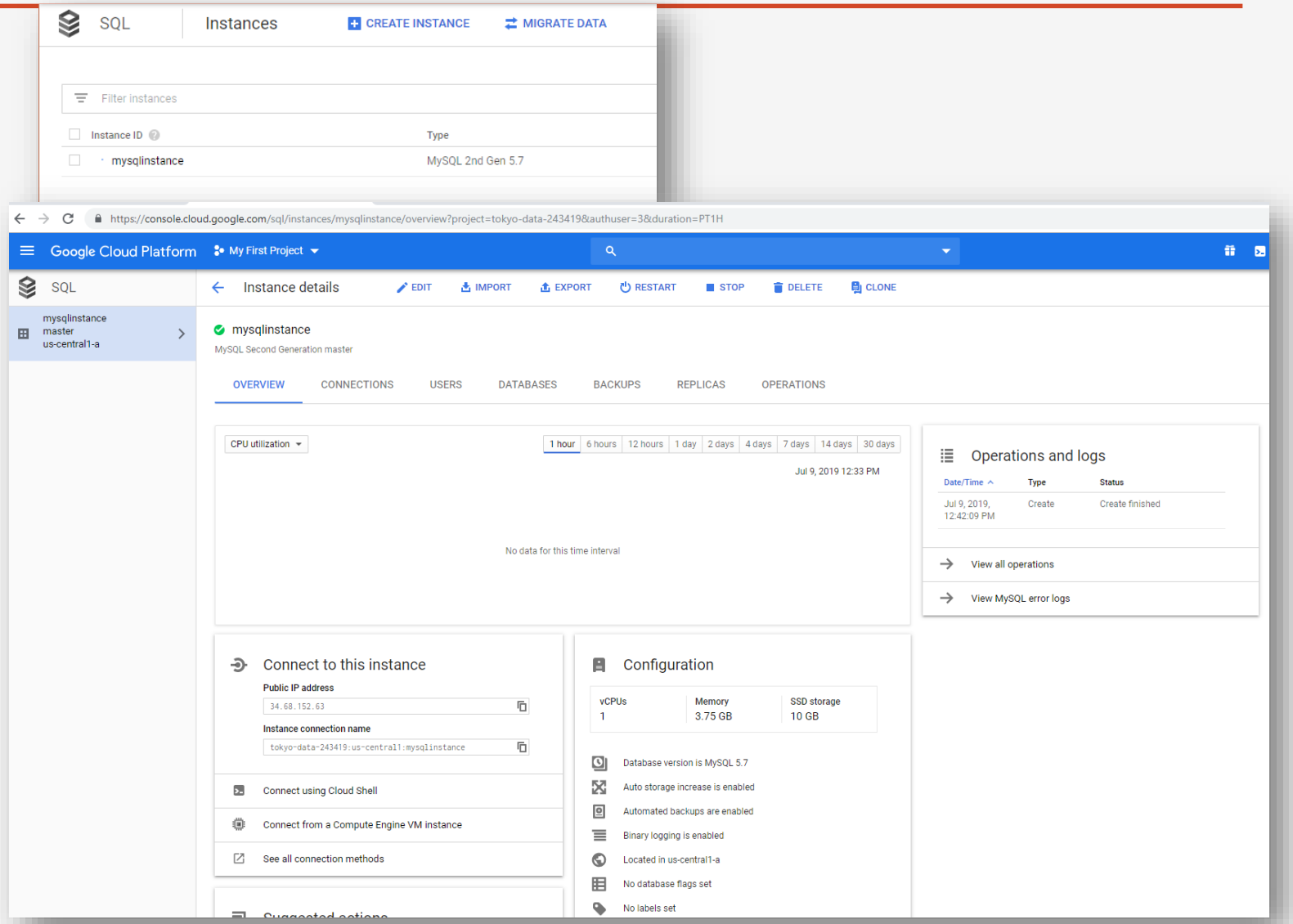
Check other options like SSL certificates etc.

Explore Users : Try creating users with/without IP address.

Explore Database: Try creating database of your own name.

Explorer Backups: Try Creating backup or configure automatic backup.

Explorer Replicas : Try Creating Read Replica and failover Replicas



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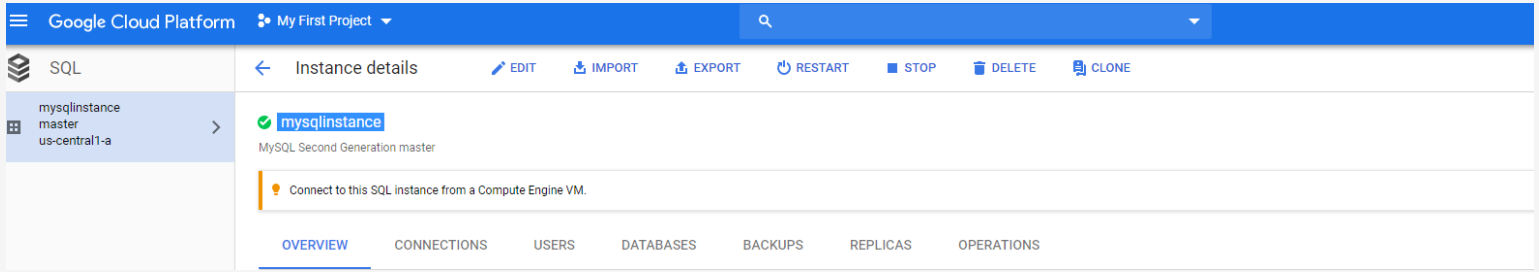

Try exploring other instance level options

Instance Edit : You can edit database instance

You can change Zone of Instance.

You can change instance configuration - Add More CPUs, or Memory , Size of Storage

Try to change Size of Disk and watch how disk throughput changes.

Try to add Labels to instance.

Observe : What you can change and what you can not.

Instance Import : You can import external MYSQL data files

Instance Export : export existing database into files.

Instance CLONE : Try to clone instance.

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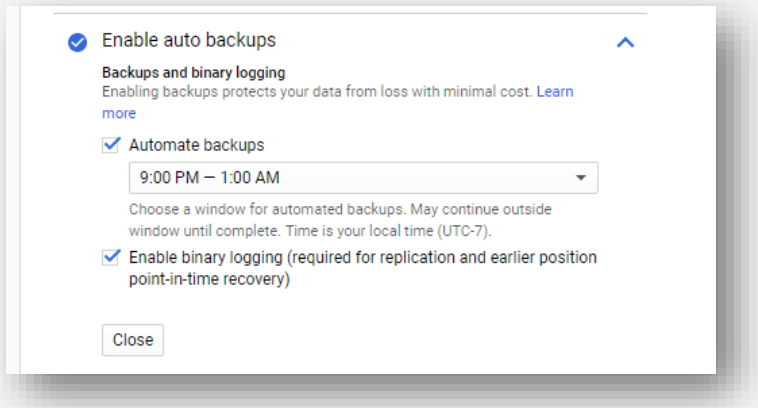
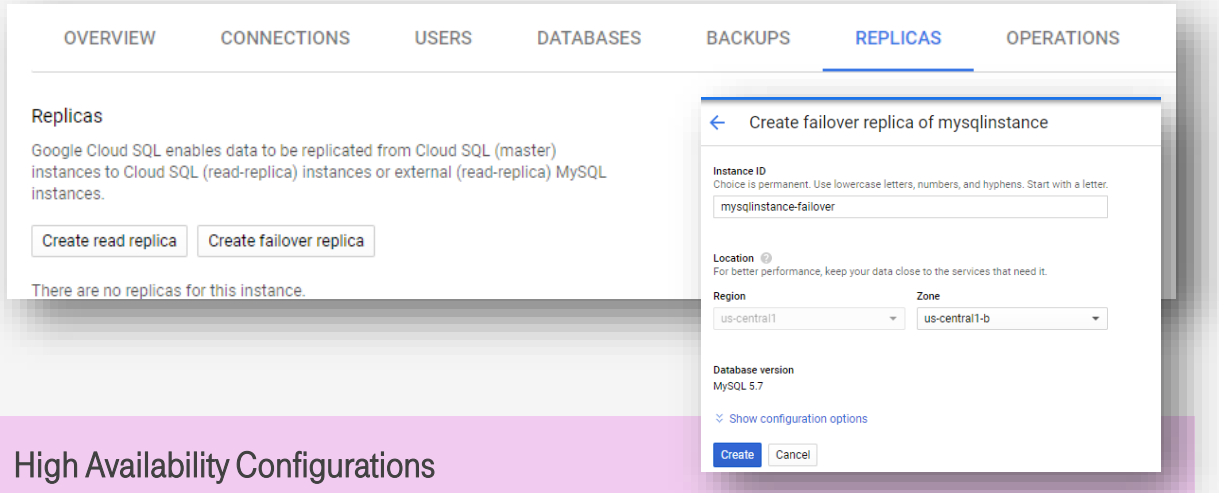


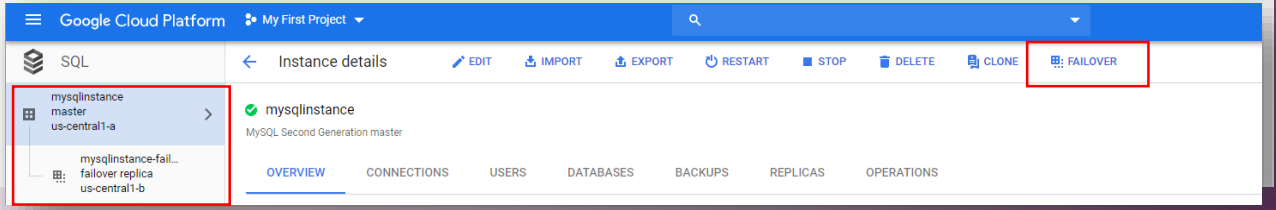


Point in Time recovery

- If you need – point in time recovery for your database. You need to **"Enable binary logging"**
- If you want to understand more on point in time recovery – Please check youtube or google ☺
- As one liner : point in time recovery means – you can recover database on failure (of any kind) without loosing data.

High Availability Configurations

- If you need HA configurations – You can enable it by creating "failover replica"
- If primary instance goes down for any reason – failover replica becomes primary instance seamless without you doing it.
- Synchronizations is taken care by Google without any problems.
- Once you create failover replica – You can see options for failover



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Before Creating next Instance

- Delete Old Instance and Proceed further

Always Delete your Cloud Resources to Avoid $$ Charges.

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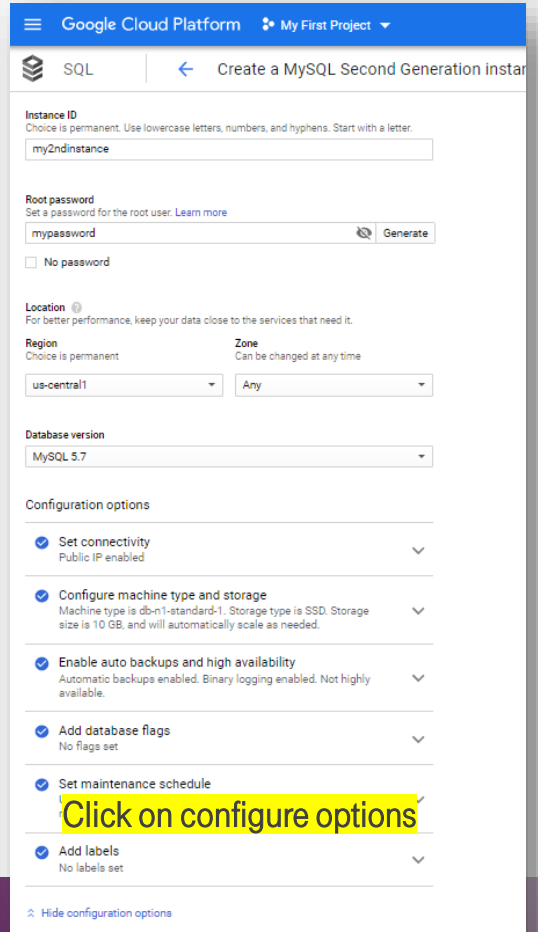
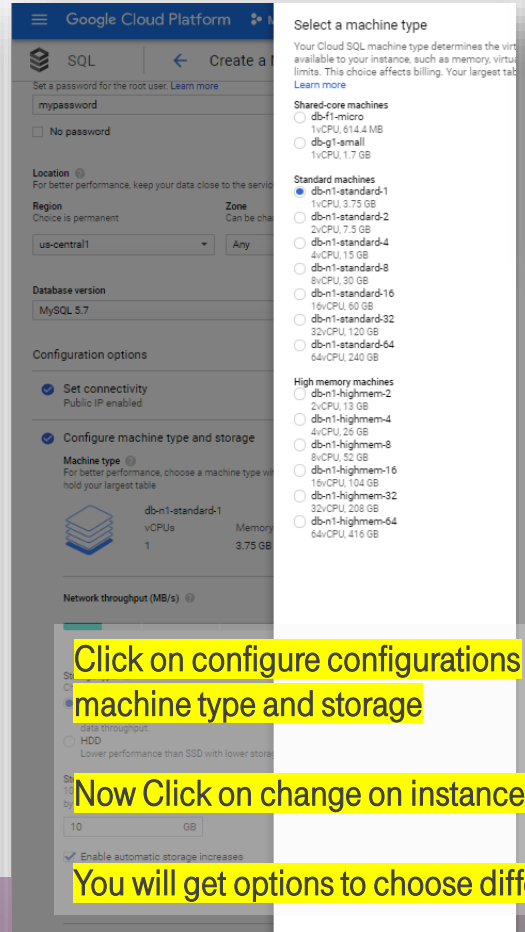
Create SQL Instance with advanced Configurations

Now go to create instance – Choose following options and create instance



Click on configure options



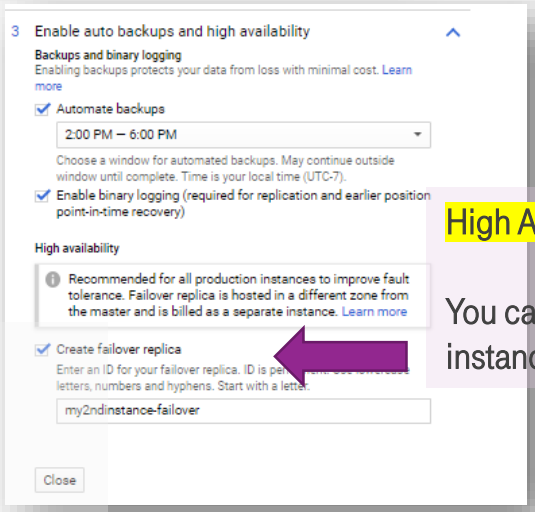
Click on configure configurations machine type and storage

Now Click on change on instance

You will get options to choose different instances

Disk Performance

Try changing Type of disk and Size of Disk and see how
Throughput changes
This means disk performance is dependent on Size as well as type of disk



High Availability and Read Replica

You can configure read replica at the time of instance creation.

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Before proceeding further

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Cloud SQL : Try Yourself

1. Create PostgreSQL instance and explore different options

2. Create 1st generations Mysql instance and see what options are available (should be limited)

3. **Exam Tips**

High Availability , Read Replica , Binary Logging , Connection – Very Important for Exam.

End of Cloud SQL Assignment