

# Amazon Cloud RDS

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# Database Instance: Initial Setup

- Choose a database creation method: Standard create
- Engine Type: MySQL; Version: MySQL 8.0.27 (you can also choose the version in your laptop)
- Template: Free Tier
- DB instance: db.t2.micro (or any other within the Free Tier)
- DB instance identifier: <any-name>
- Master username: <user-name> (Note this to be used later)
- Master password: <password> (Note this to be used later)
- Storage: 20GB (Disable autoscaling)
- Public access: Yes
- VPC security group: Create a new group
  - New VPC security group name: <any-name> (*can pick any name*)

# Using the MySQL on the Cloud

- Install MySQL server and client locally.
- Connect to the cloud:
  - `mysql -h <host-address> -P 3306 -u <user-name> -p`  
<host-address> can be found under “Endpoint” on clicking the database instance just created.  
The <user-name> and <password> are the ones you provided before while instance creation.
- Create a database:
  - `create database <your-db>;`
- Change the database:
  - `use <your-db>;`
- Load the schema files (dss.ddl and dss.ri) provided in the assignment:
  - `SOURCE <file-name>;`  
You may need to provide full path and change access permissions.
- Load the data for scaling-factor=0.1 into the tables by:
  - `LOAD DATA LOCAL INFILE <file-name> INTO TABLE <table-name> COLUMNS TERMINATED BY '|';`  
The keyword LOCAL here specifies that the file to be loaded is available locally on your system rather than on the cloud.  
Note the integrity constraints on various tables. They determine a specific order in which the tables are to be loaded.

# Using the MySQL on the Cloud contd.

- After loading the data, run the queries provided:
  - Eg.: SOURCE 1.sql
- Note the runtimes of the queries.
- Repeat the same exercise with scaling-factor=1.
- Repeat both the exercises on local system.