CLOUD COMPUTING PRACTICAL ASSIGNMENT NO:12

Launch the RDS Instance(AWS) and connect.

Prepare a Screen shots file and write down the steps.

Make a single Word or PDF file.

Do the following tasks

1) Use Amazon RDS to create a MySQL DB Instance

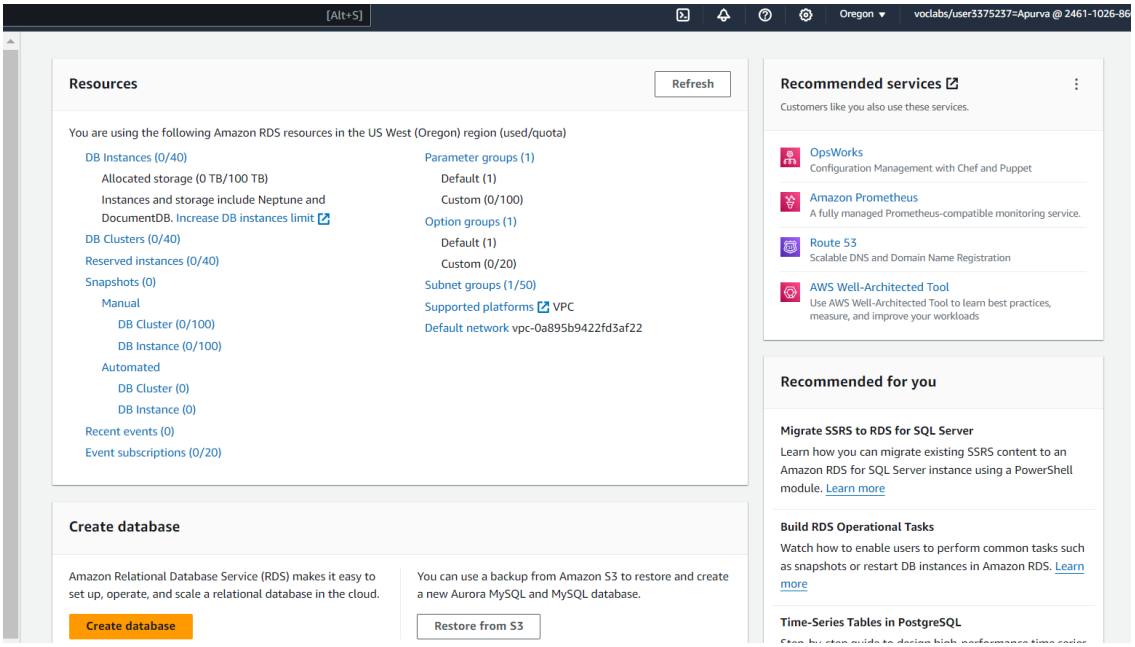
Once the database instance creation is complete and the status changes to available, you can connect to a database on the DB instance using any standard SQL client. Download MySQL Workbench, which is a popular SQL client.

connect to the database you created using MySQL Workbench.

2)launch an EC2 instance, launch an RDS instance, and connect RDS from the EC2 instance.

Step 1: Create an Amazon RDS MySQL DB Instance

1.Log in to AWS Management Console and navigate to RDS.



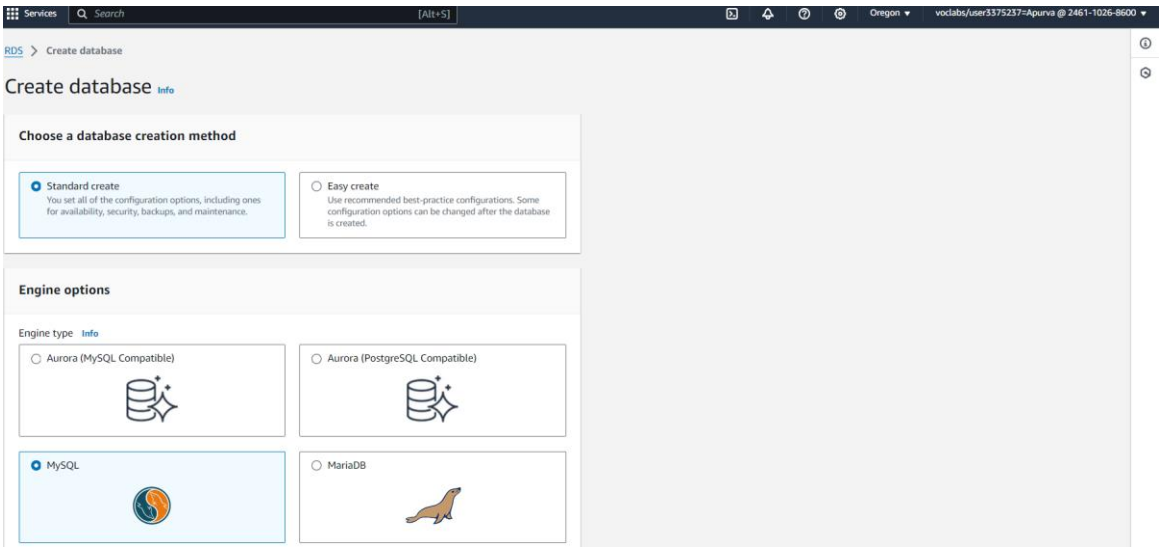
2. On the RDS Dashboard, click Create database.

3. In the Engine options:

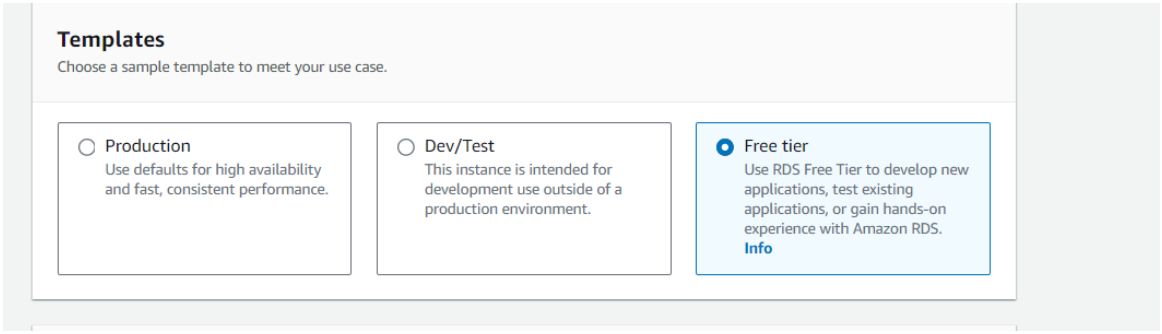
- Select MySQL.

4. In the Database creation method, choose Standard create.

5. In the Version, select your preferred MySQL version.



6. In Templates, select Free Tier if applicable.

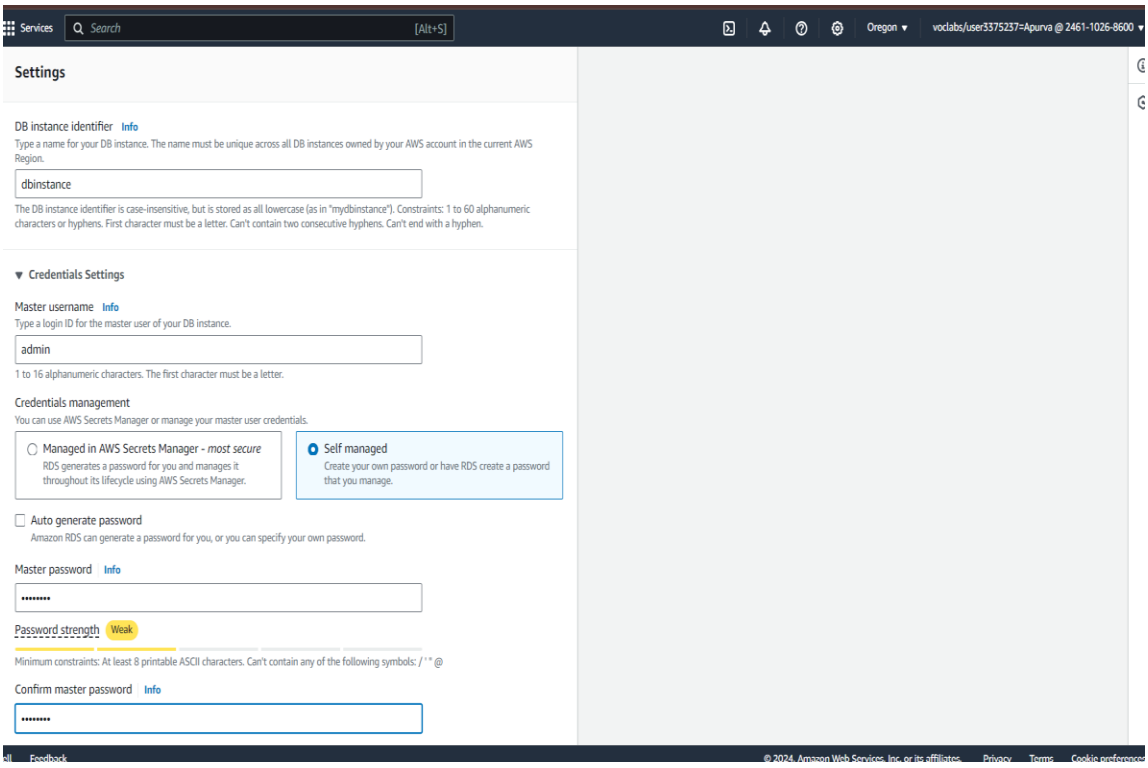


7. Settings:

- Set DB instance identifier (e.g., `dbinstance`).

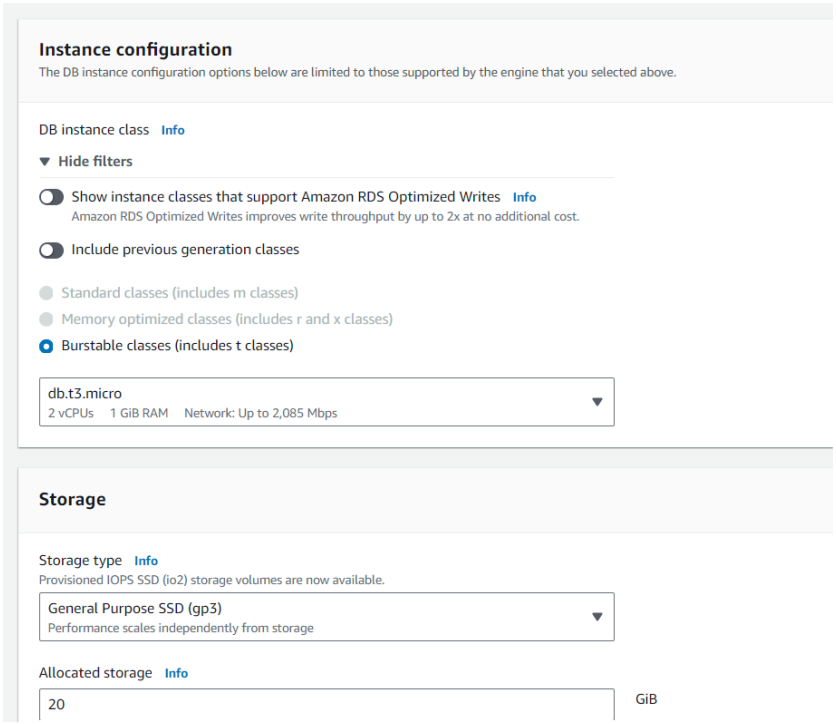
- Set Master username (e.g., `admin`).

- Set Master password and Confirm password.



8. In the DB instance size, choose `db.t2.micro` (Free Tier eligible).

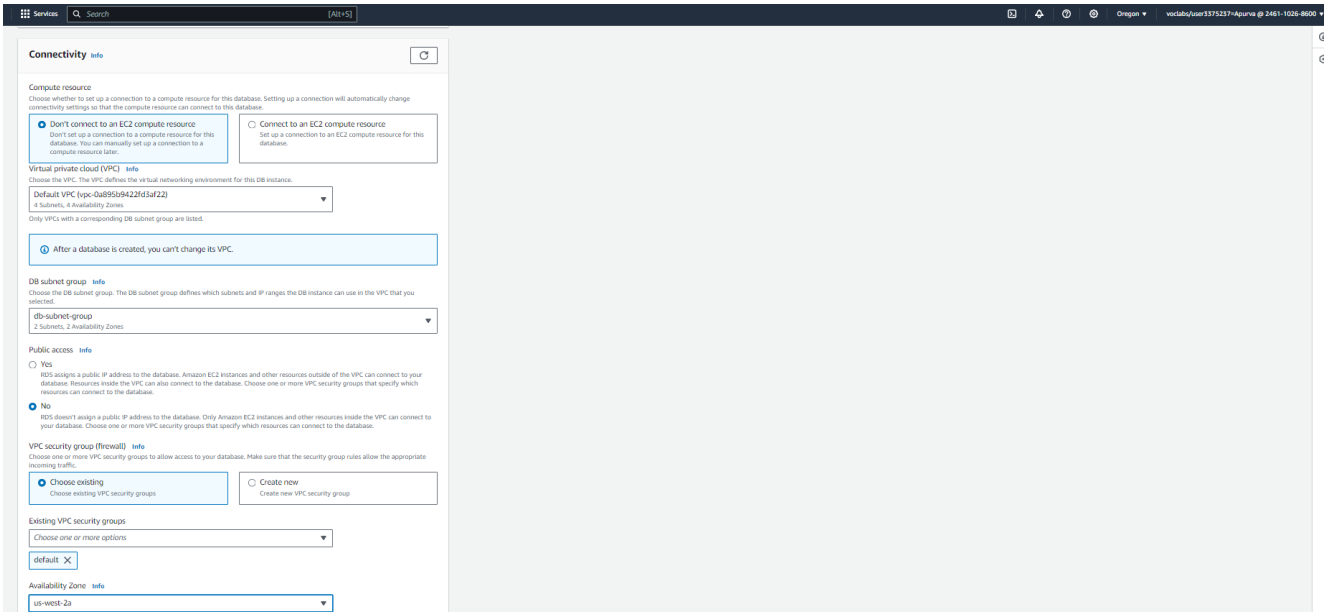
9. In Storage, leave the default settings (e.g., 20 GB of SSD storage).



Step 2: Configure Connectivity

1. In Connectivity:

- Select the VPC where your EC2 instance will be launched.



- Set Publicly Accessible to Yes if you want to connect externally.

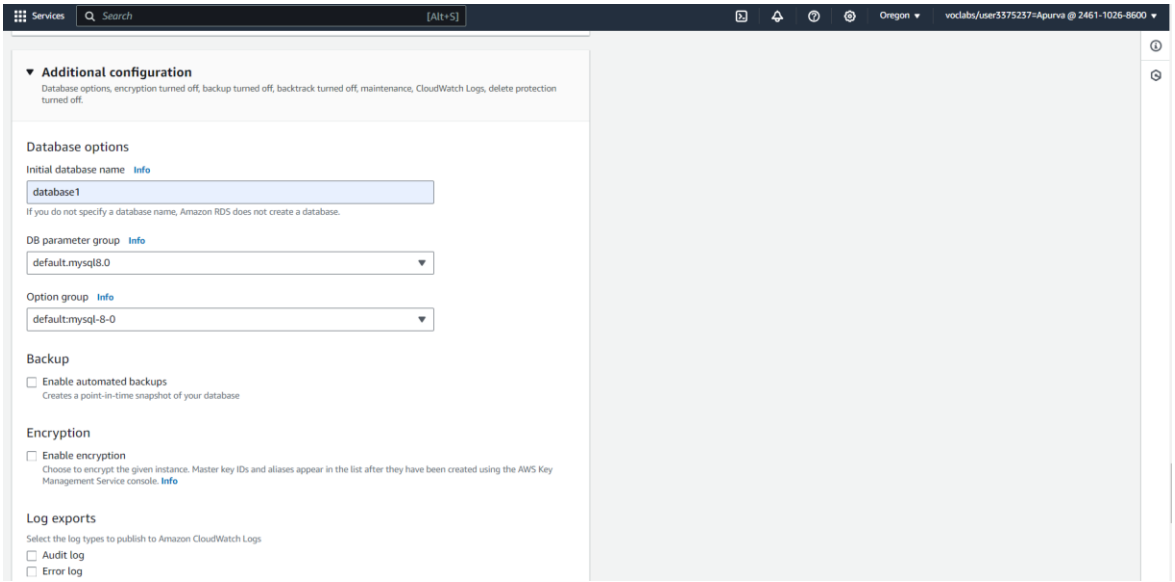
- Choose your existing VPC security group or create a new one allowing inbound MySQL traffic on port `3306`.

Step 3: Disable Backup and Maintenance Preferences

1. Disable Backups:

- Scroll down to the Additional configuration section.

- In the Backup section, uncheck Enable automatic backups.

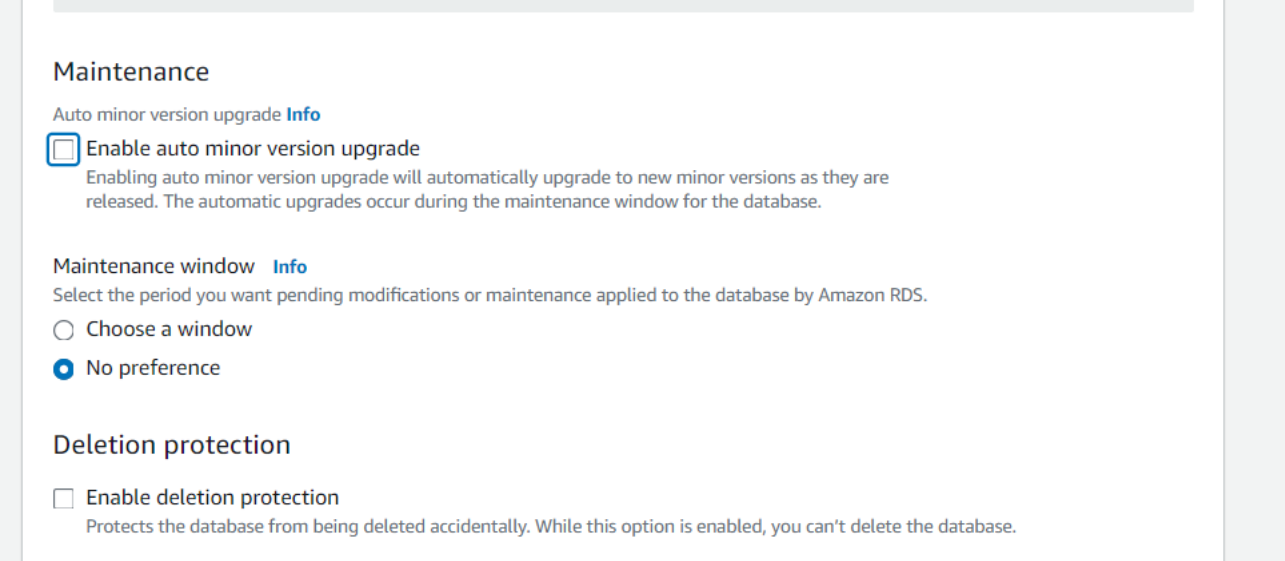


2. Disable Maintenance:

- In the Maintenance section, uncheck Enable auto minor version upgrade.

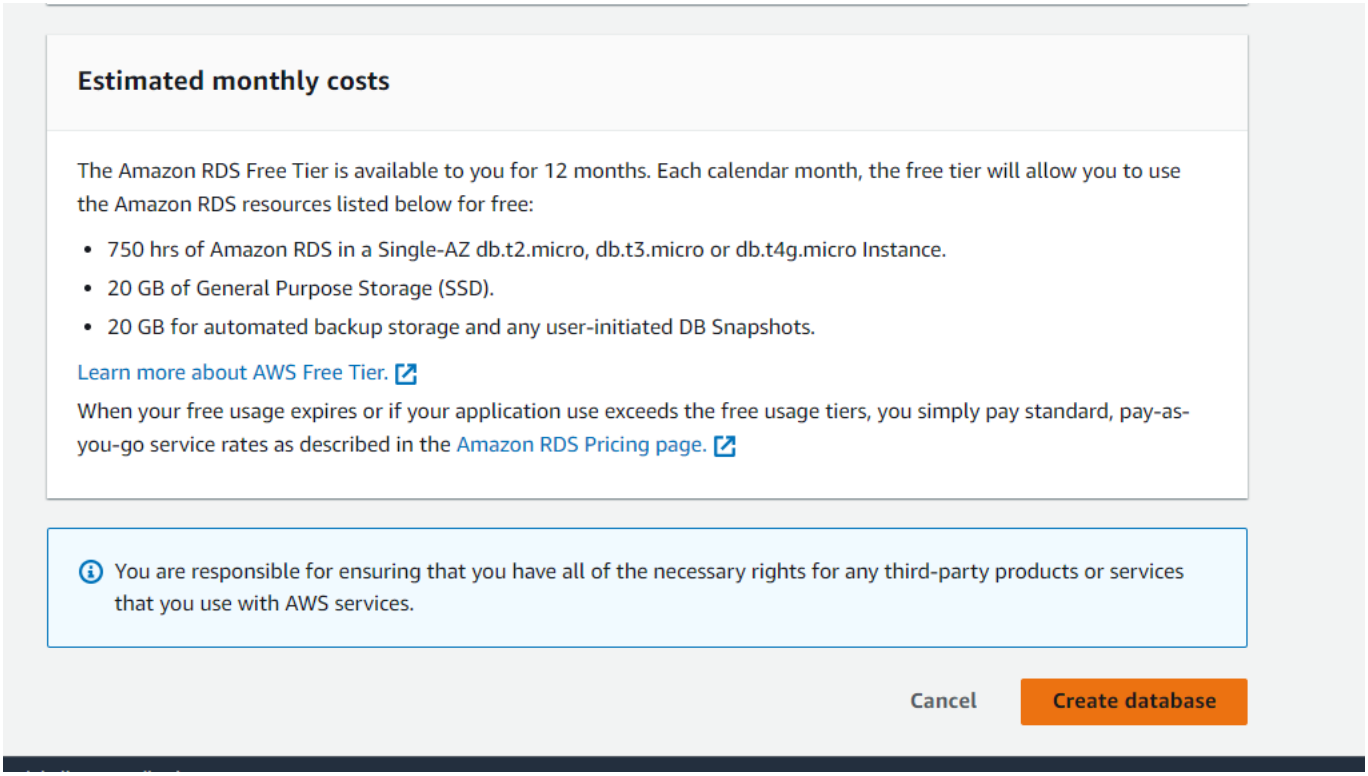
3. Disable Performance Insights:

- In the Monitoring section, uncheck Enable Performance Insights.

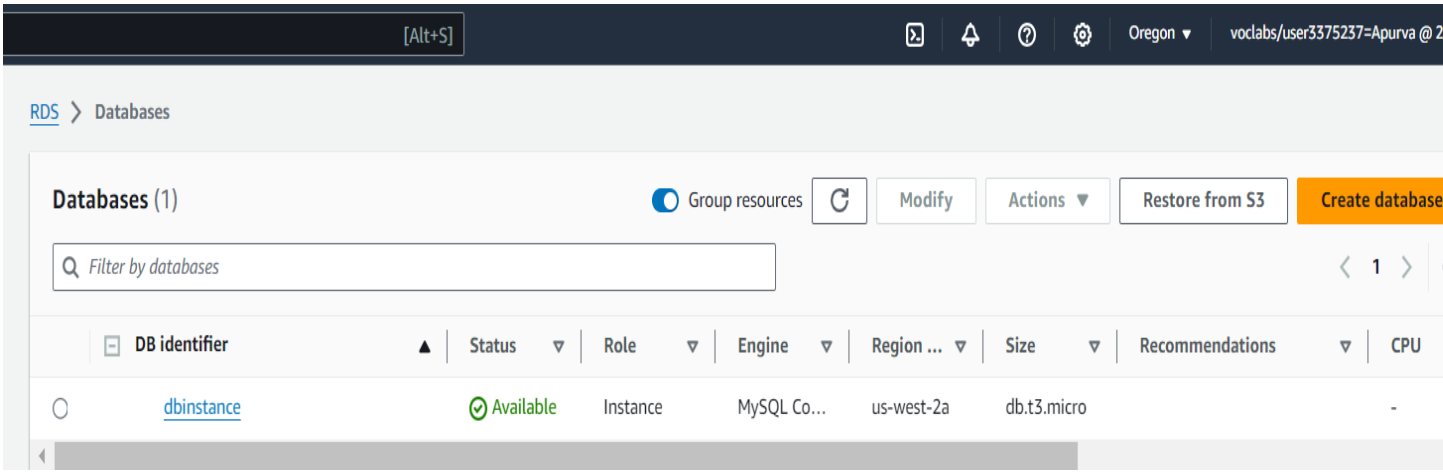


Step 4: Create the Database

1. Click Create database to finish creating your RDS instance.



2. Wait for the instance to become available. Note down the Endpoint (RDS URL) and Port(usually `3306`).

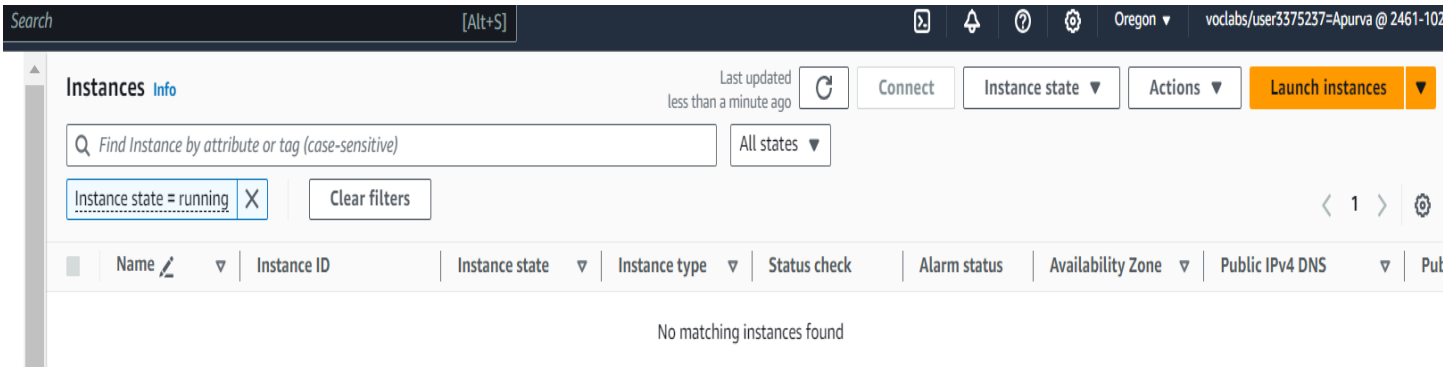


Part 2: Launching an EC2 Instance and Connecting to the RDS Instance Using `mariadb105`

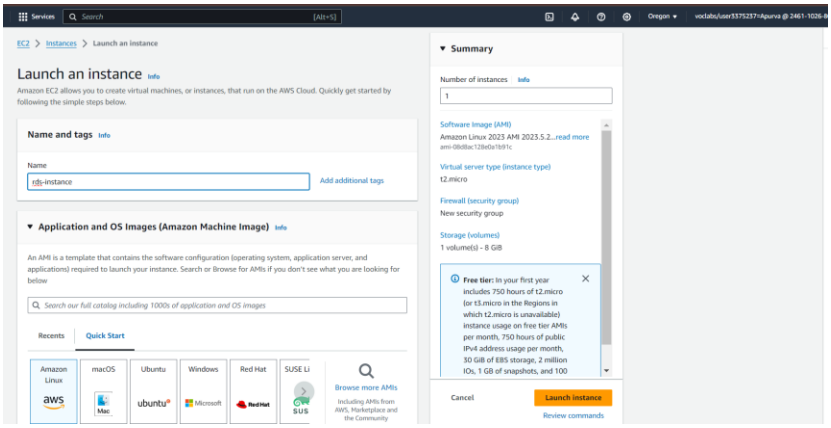
Step 1: Launch an EC2 Instance

1.Go to AWS console, In EC2 service click on to launch instance.

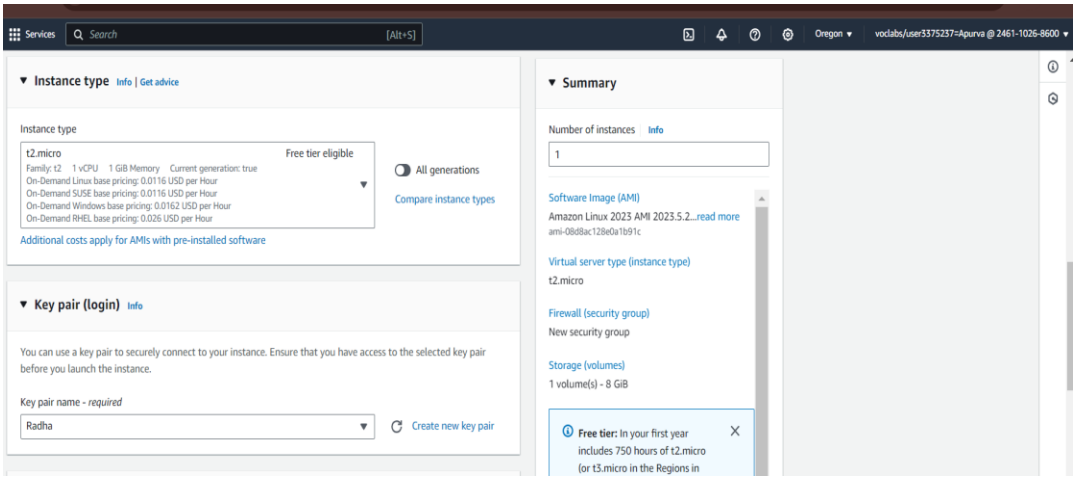
2. Click Launch Instance.



3. Choose an Amazon Machine Image (AMI) Amazon Linux AMI.



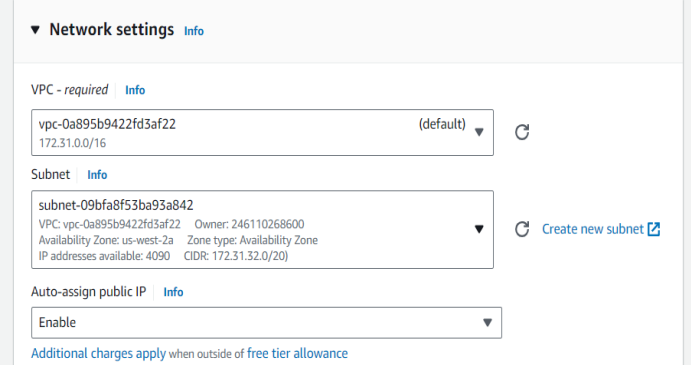
4. Select Instance Type `t2.micro` for Free Tier.



5. Click Next: Configure Instance Details.

- Select the same VPC as your RDS instance.

- Select Auto-assign Public IP to enable access via SSH.

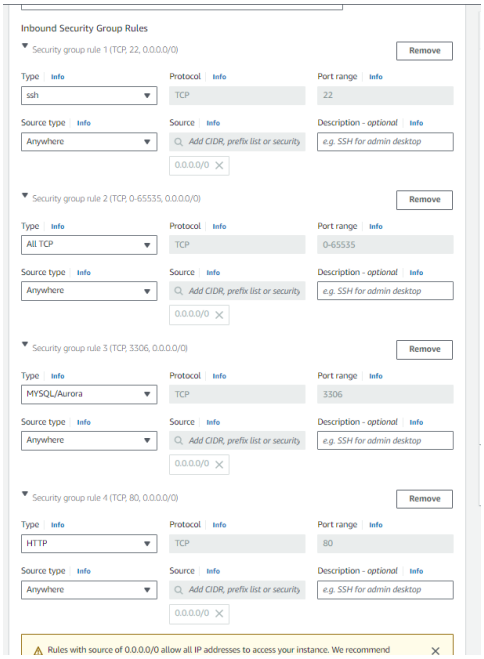


6. Add Storage (default settings are sufficient).

7. Configure Security Group:

- Add a rule to allow SSH access (port `22`) from your IP.

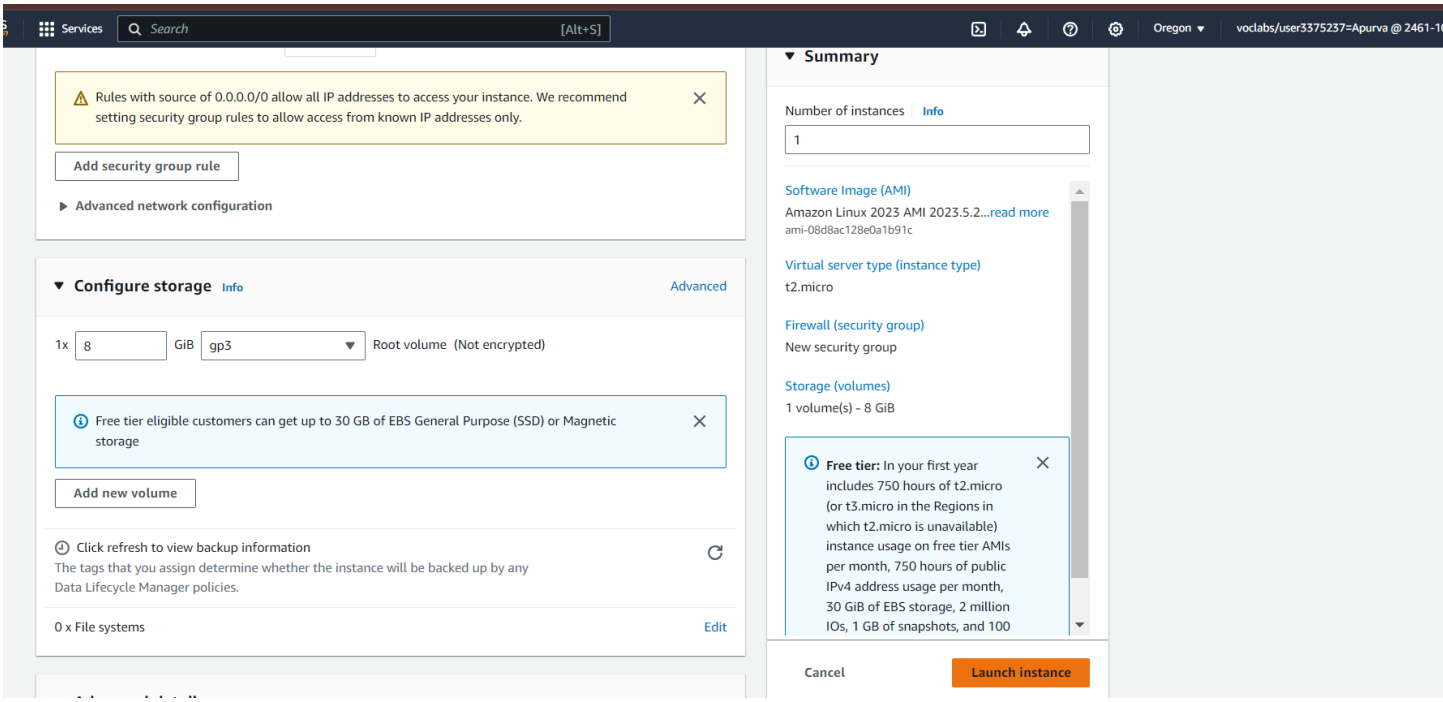
- Add a rule to allow MySQL/Aurora access (port `3306`) from your IP or from anywhere if required

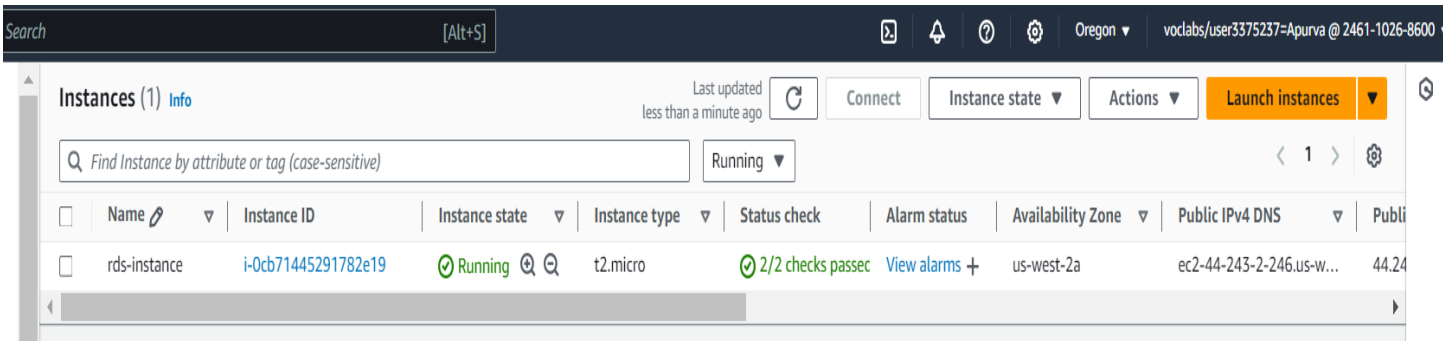


8. Click Review and Launch.

9. Select an existing key pair or create a new key pair for SSH access.

10. Click Launch.





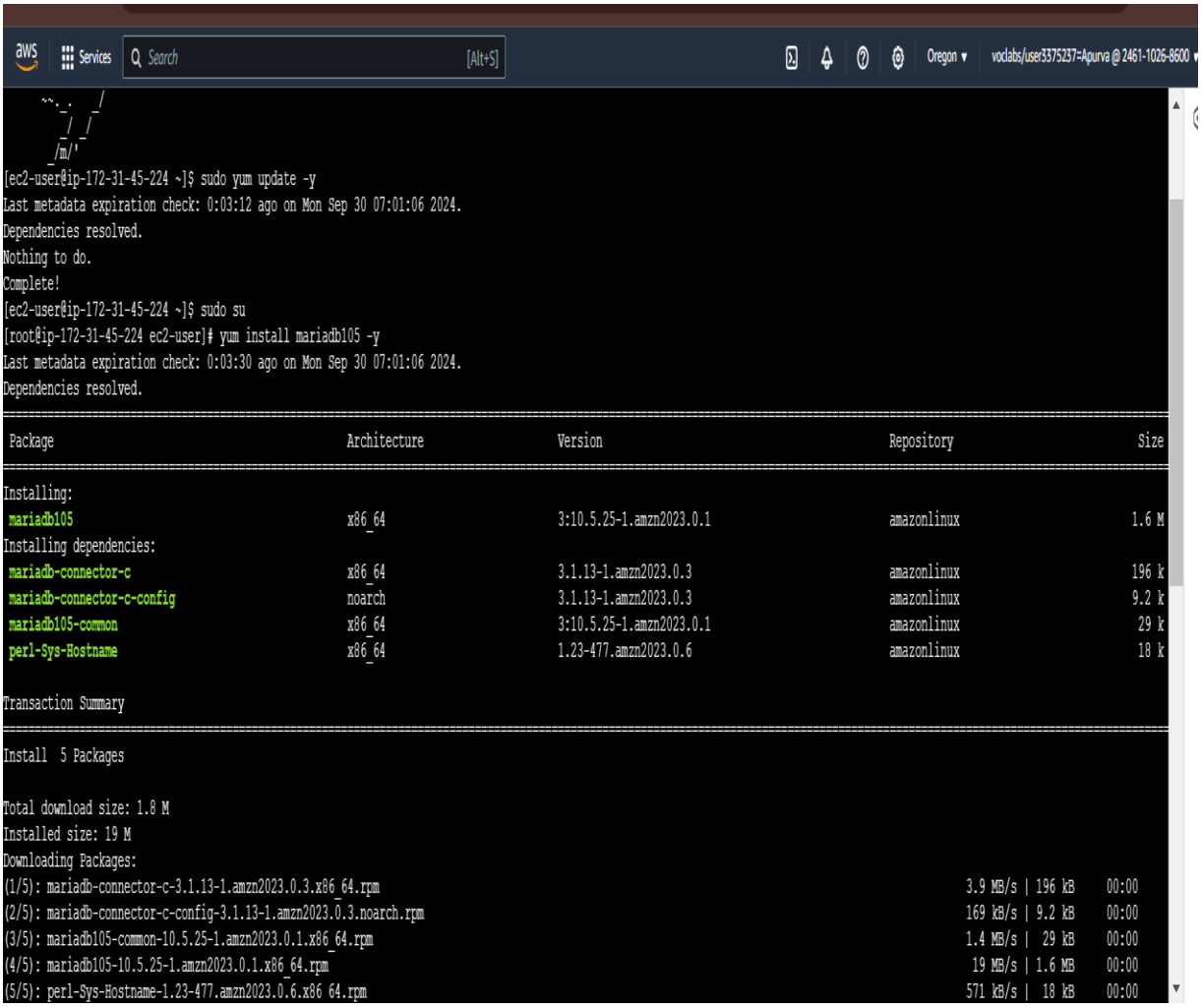
Step 2: Install `mariadb105` on EC2 Instance

1. Once the EC2 instance is running, click to connect

2. Update the instance and install

   sudo yum update -y

   sudo yum install mariadb105 -y



Step 3: Connect to RDS from EC2 Using mariadb105

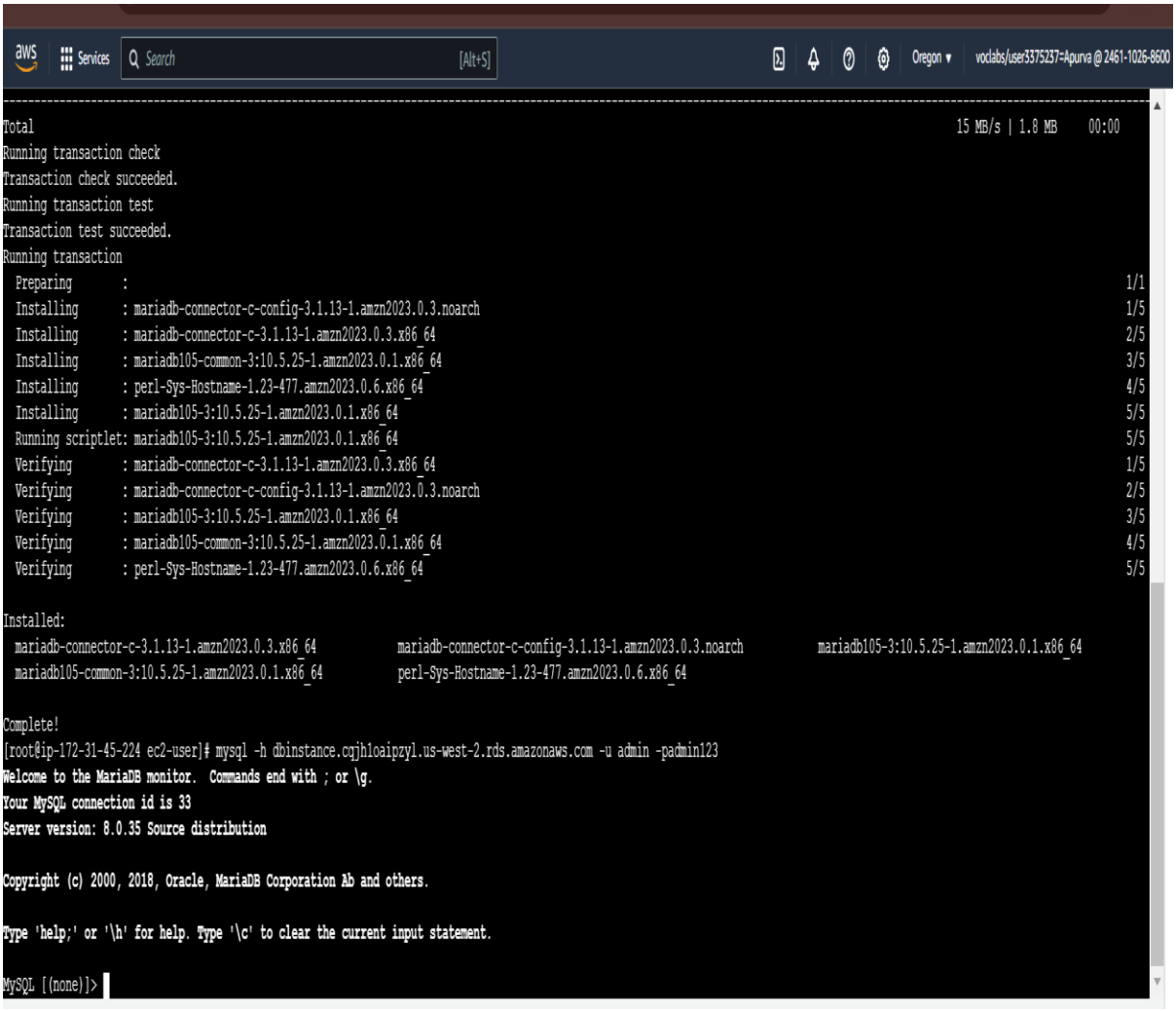
1. Use the `mariadb` client to connect to the RDS MySQL instance:

   mysql -h your-rds-endpoint -u admin -p

   - Replace `your-rds-endpoint` with the endpoint of your RDS instance.

   - Enter the Master password when prompted.

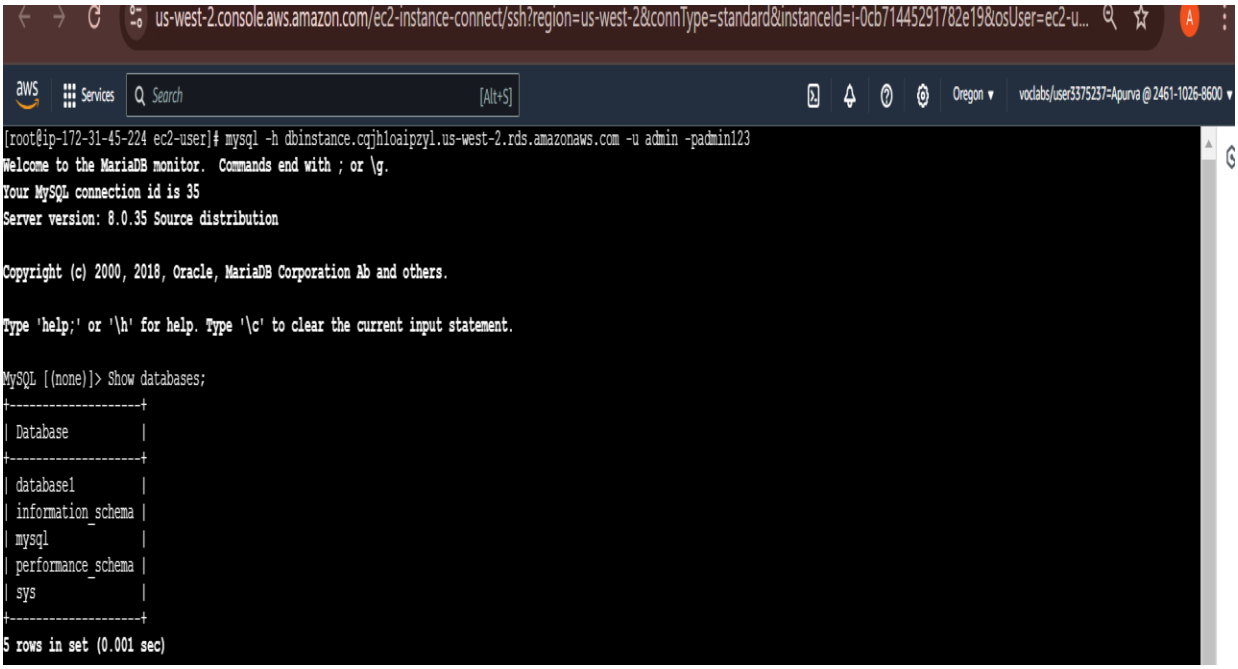
2. You should now be connected to your MySQL RDS instance from the EC2 instance.



Step 4: Verify Connection

1. After connecting, run basic SQL commands to verify the connection:

   SHOW DATABASES;



Create Test Database and Show it.

```
MySQL [(none)]> Create database Test;
Query OK, 1 row affected (0.002 sec)

MySQL [(none)]> show databases;
+--------------------+
| Database           |
+--------------------+
| Test               |
| database1          |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
6 rows in set (0.001 sec)
```