D Y PATIL INTERNATIONAL UNIVERSITY
AKURDI PUNE

School of Computer Science, Engineering and Applications(SCSEA)
B.C.A. TY (CCSA)
Subject : Advanced Cloud Computing (P)

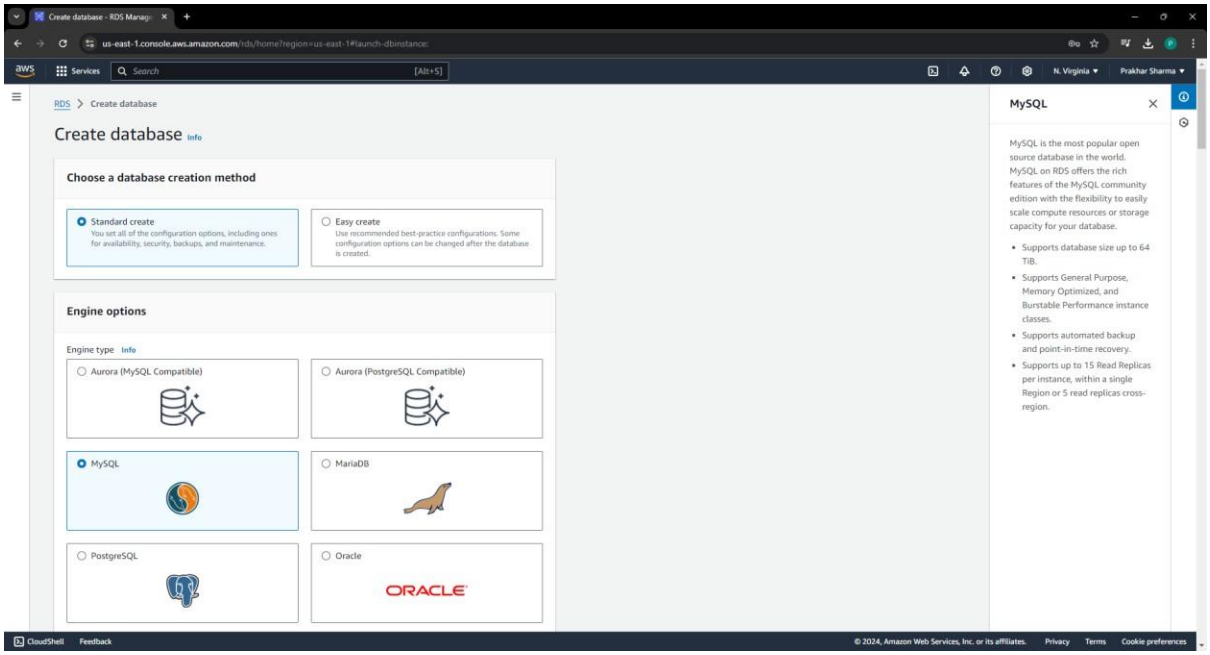
Name of the Student: Prakhar Anil Sharma **PRN:** 20220801121

Title of Practical: AWS RDS Setup & Insertion of Data

Step 1: Create a Database in RDS

1. **Go to the RDS Service**
   - In your AWS Management Console, search for and go to the **RDS** service.
2. **Click on Create Database**
   - Click on the **Create database** button.
3. **Choose a Database Creation Method**
   - Select **Standard create** in the 'Choose a database creation method' section.
4. **Select Engine Type**

   In the 'Engine Options' section, choose **MySQL**.

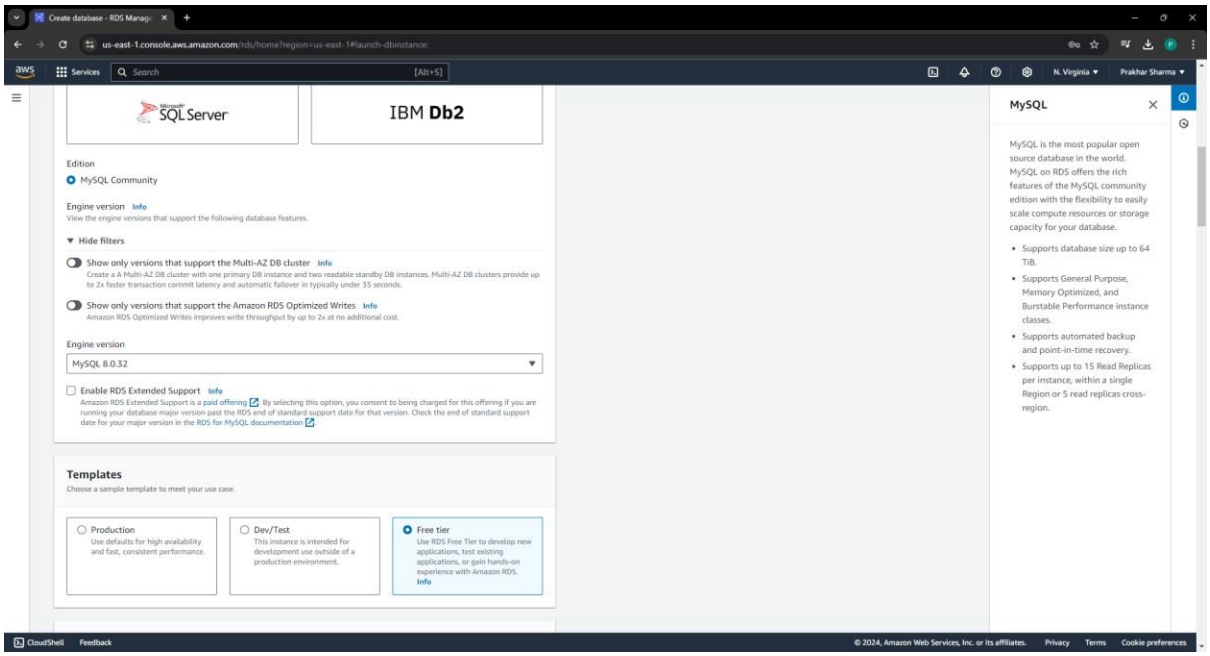


5. **Select Engine Version**

- **In the Engine Version Dropdown Option, select MySQL 8.0.32.**

6. Select Free Tier Template

- In the 'Templates' section, select **Free Tier**.



7. Enter DB Instance Identifier and Credentials

- In the 'Settings' section, enter the **DB instance identifier** (name for your RDS instance) and the **credentials** (username and password) for the root user.

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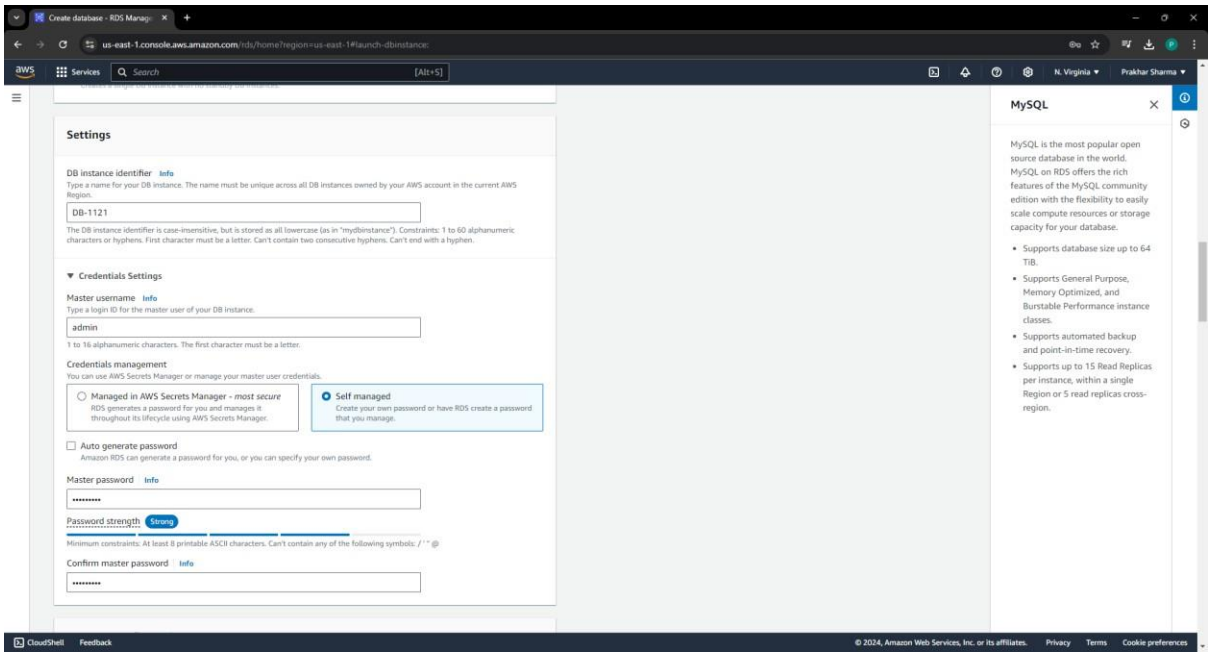

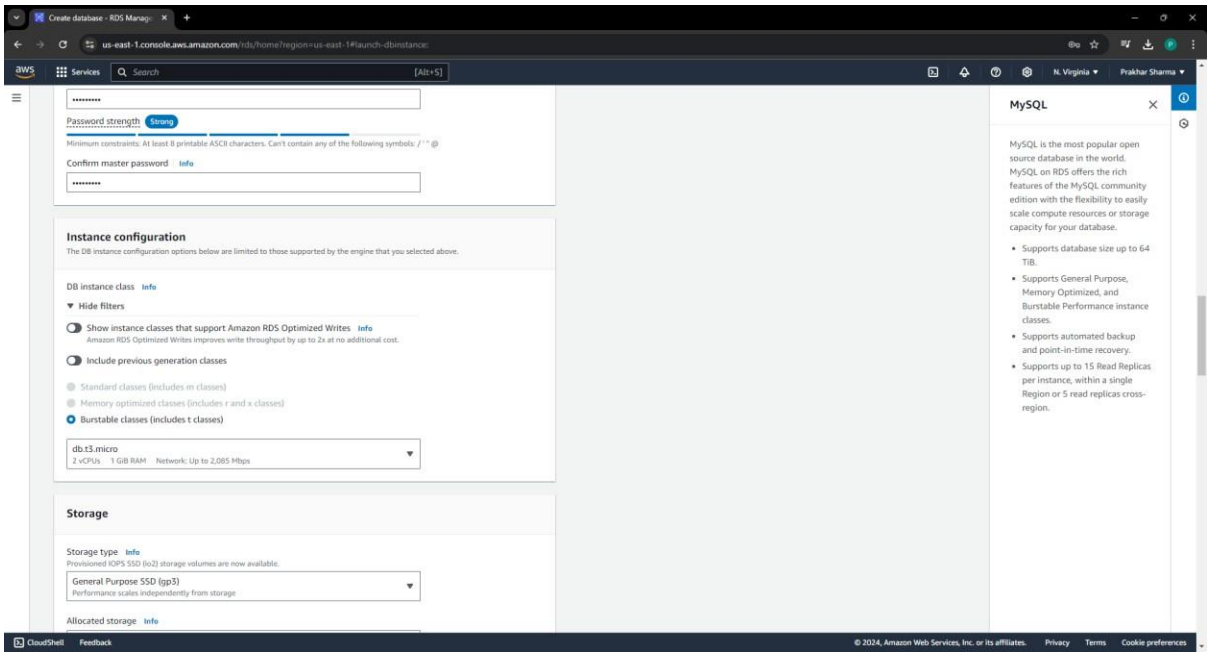

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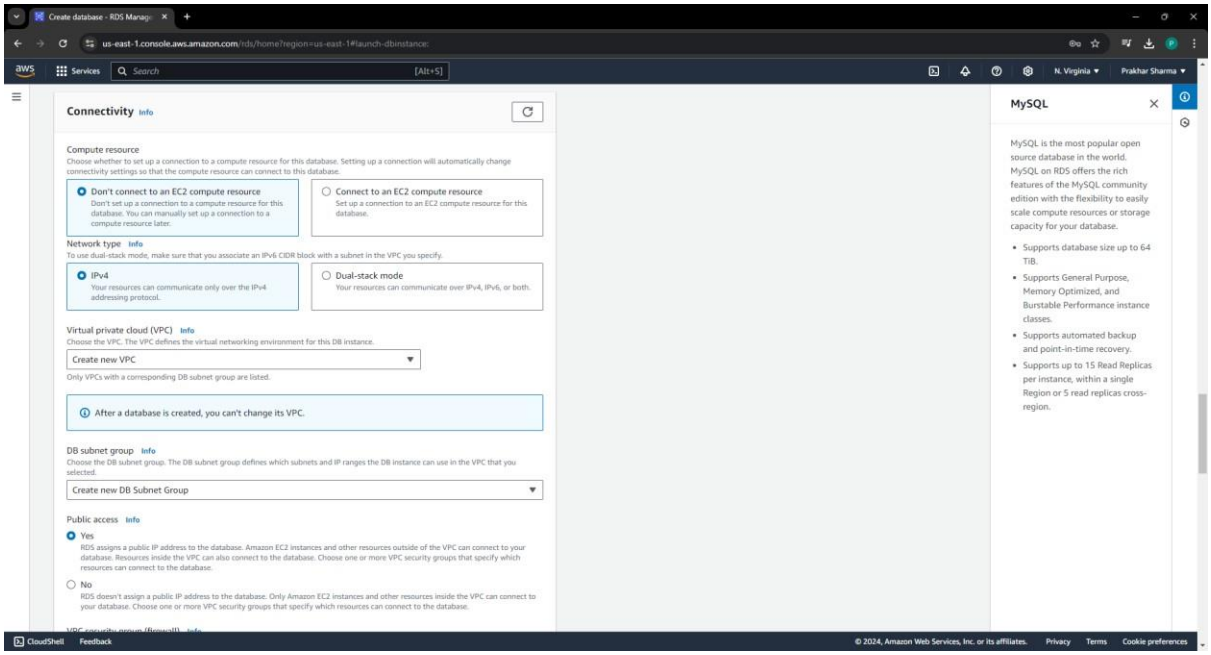
8.Configure Connectivity

- In the 'Connectivity' section, select **Public Access** as **Yes**, and choosethe **default VPC**.



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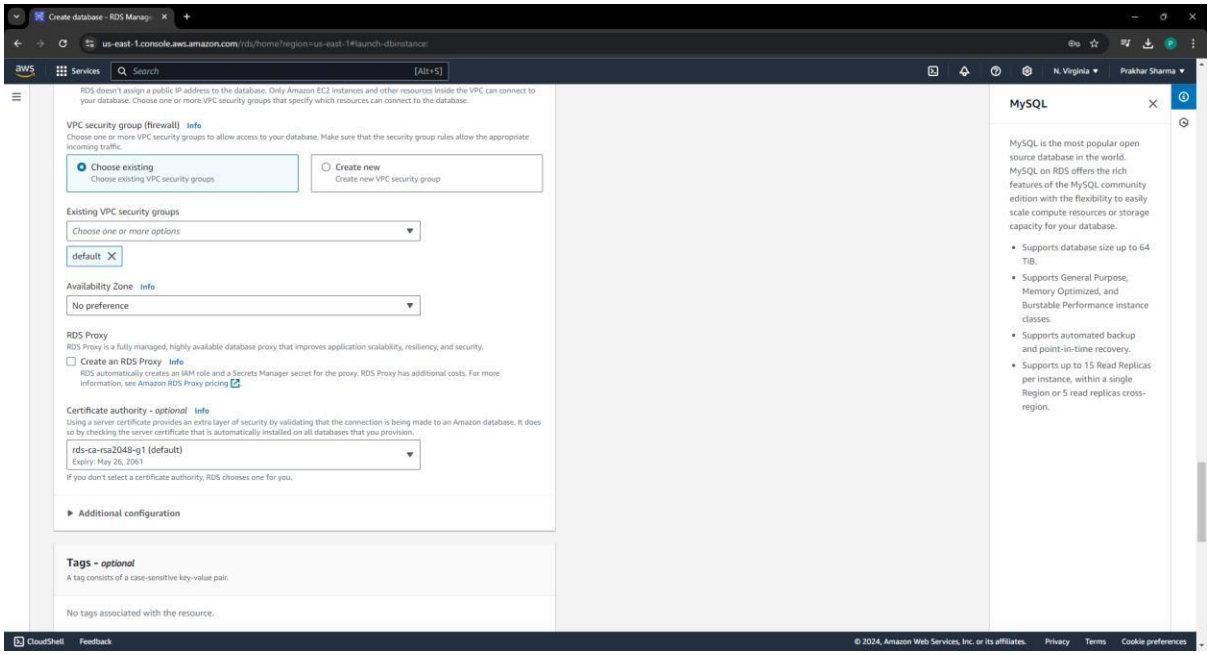

9.Create the Database

- Scroll down and click on **Create Database**.
- Wait for the database to be created successfully.

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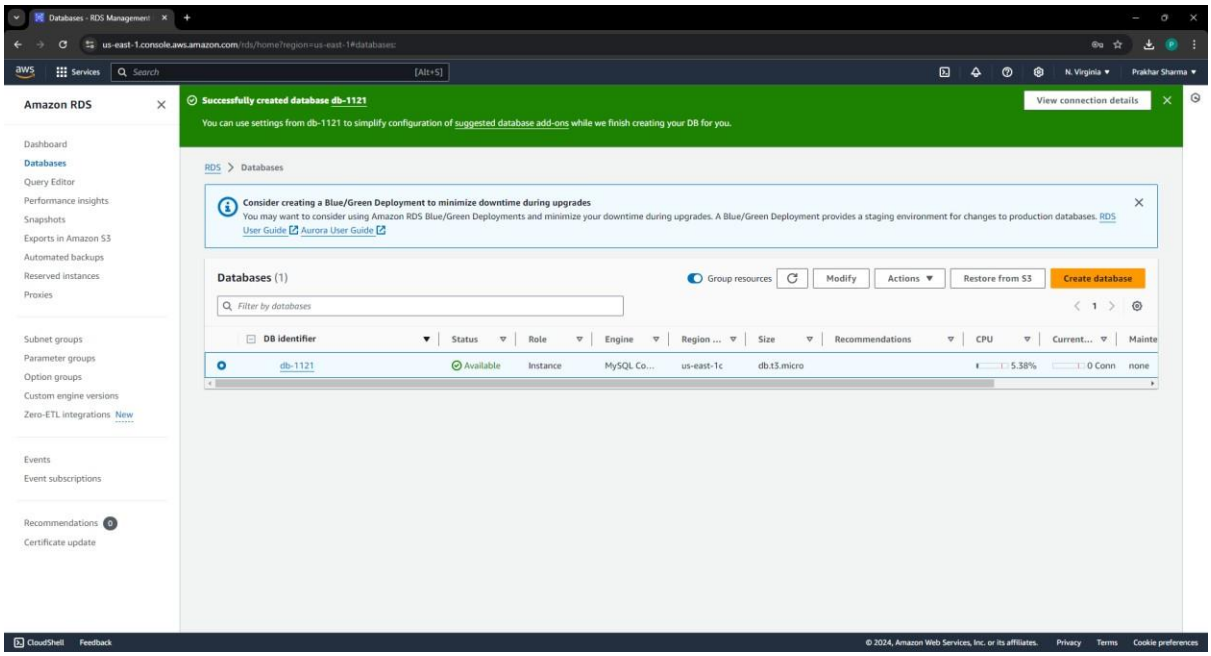


Step 2: Create a Security Group

1. **Search for Security Groups**
   - After creating the database, search for **Security Groups** in the AWS Management Console.

2. Create a Security Group

   Click on the Create Security Group button.

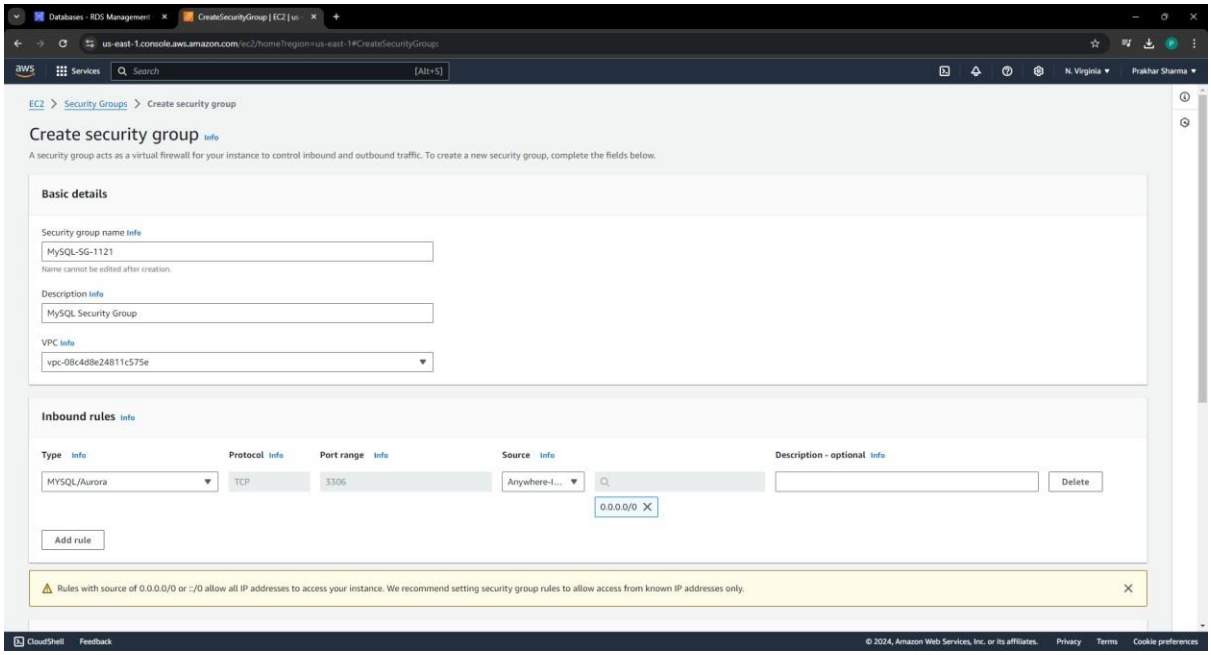
3. Enter Basic Details

   In the 'Basic Details' section, enter the Security Group Name and Description.

4. Add Inbound Rule

- In the 'Inbound Rule' section, click on **Add Rule**.
- Select **Type** as **MYSQL/AURORA** and **Source** as **Anywhere IPv4** from their

respective dropdowns.



5. Create the Security Group

- Click on **Create Security Group**.

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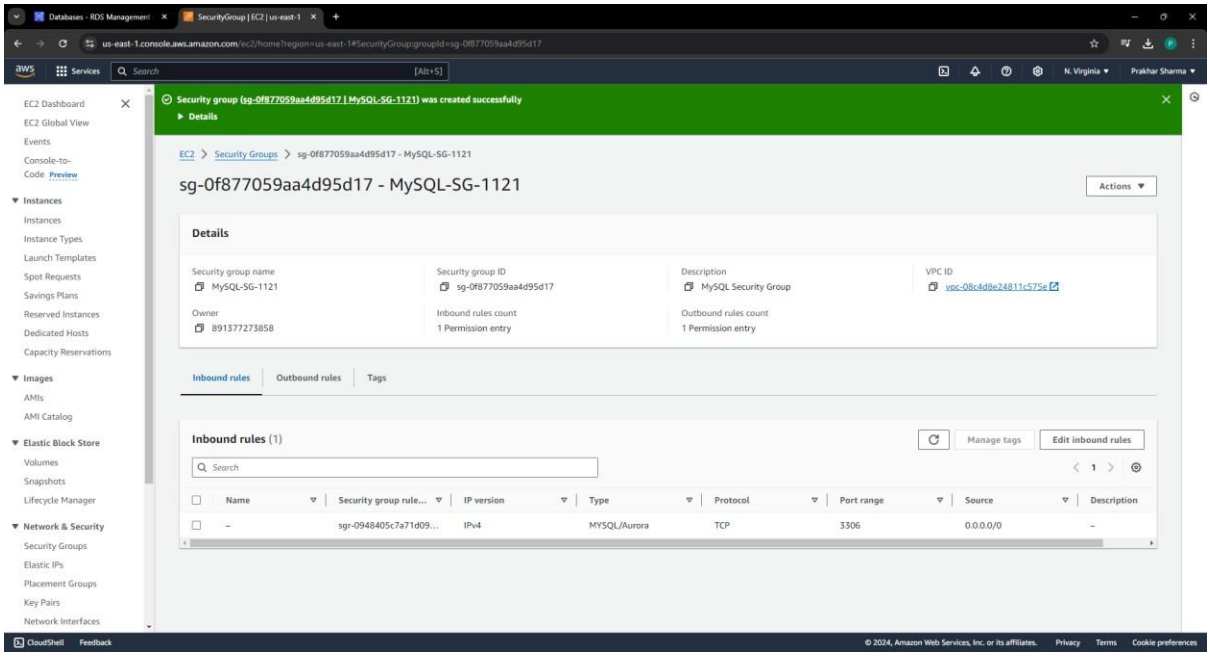

Step 3: Modify RDS to Use the Security Group

1. **Select Your Database**
   - Go back to the **database** you just created.
   - Select the database and click on the **Modify** button.

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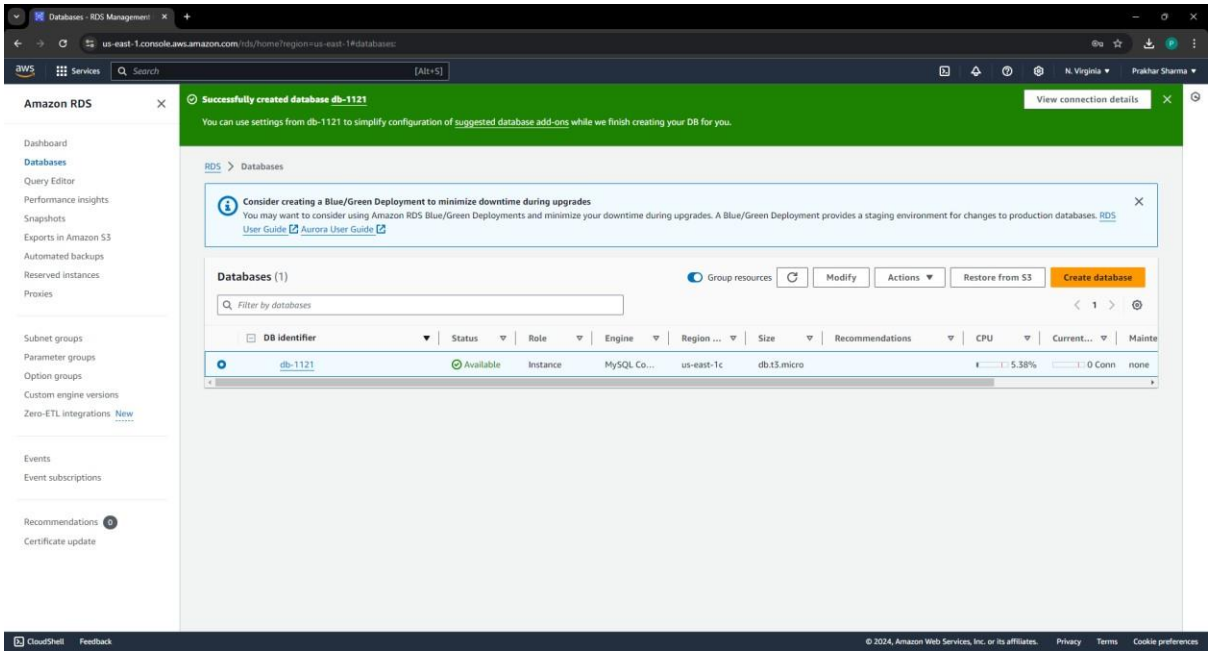

2. Select Security Group

- Scroll down to the 'Connectivity' section and in the **Security Group** field, selectthe **Security Group** you just created.

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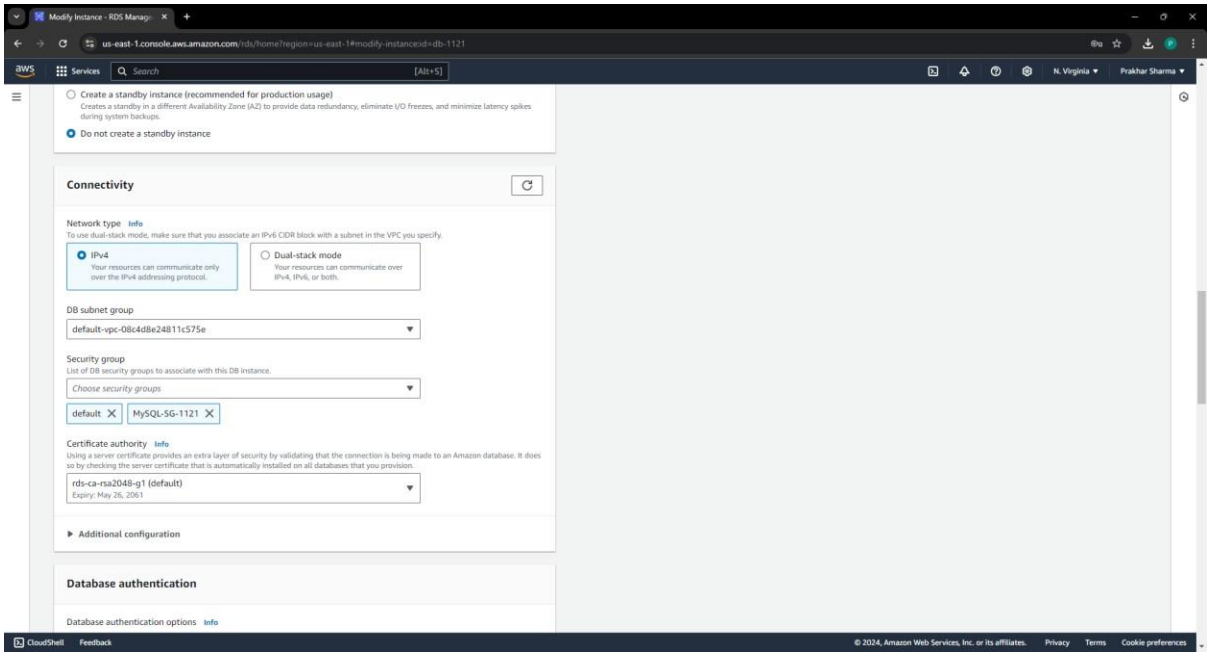

3. Apply Changes

- Click on **Continue**, then in the 'Schedule Modifications' section, select **Apply Immediately** and click on **Modify DB Instance**.

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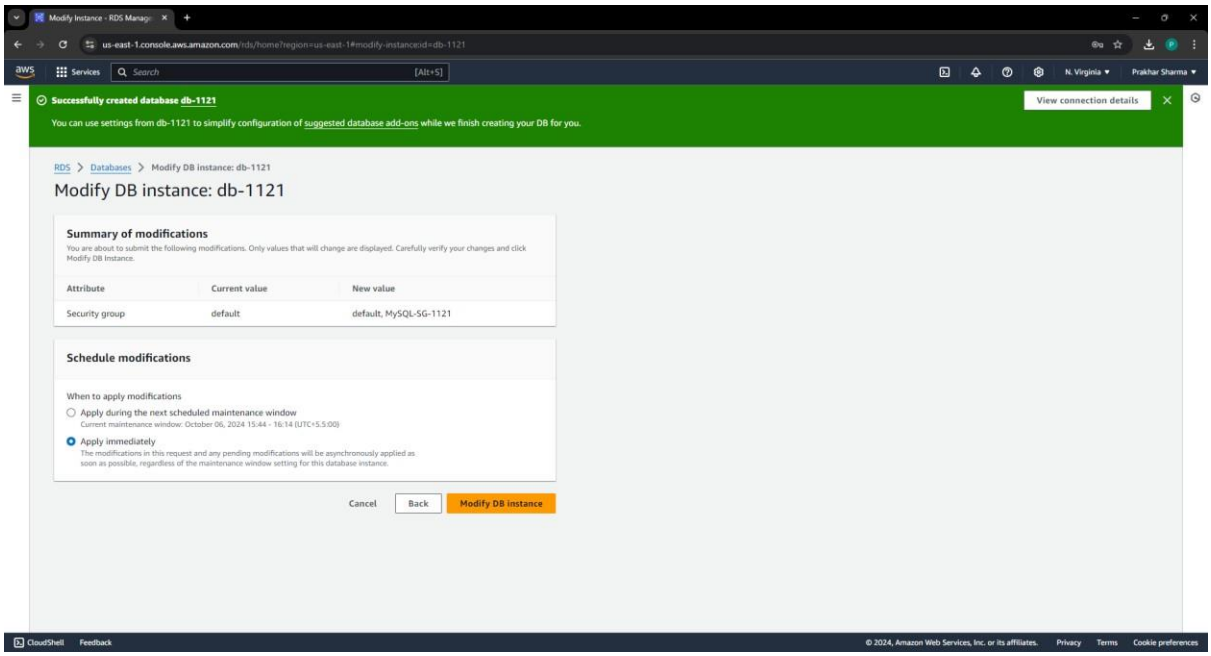

Step 4: Install and Configure MySQL Workbench

1. **Download MySQL Workbench**
   - Go to the MySQL Workbench Website and download the MySQL Workbench.
   - Install it by following the guided setup.
2. **Open MySQL Workbench**
   - After installing, open the **MySQL Workbench**.
3. **Create a New MySQL Connection**
   - In the 'My Connections' section, click the **+** icon to create a new connection.

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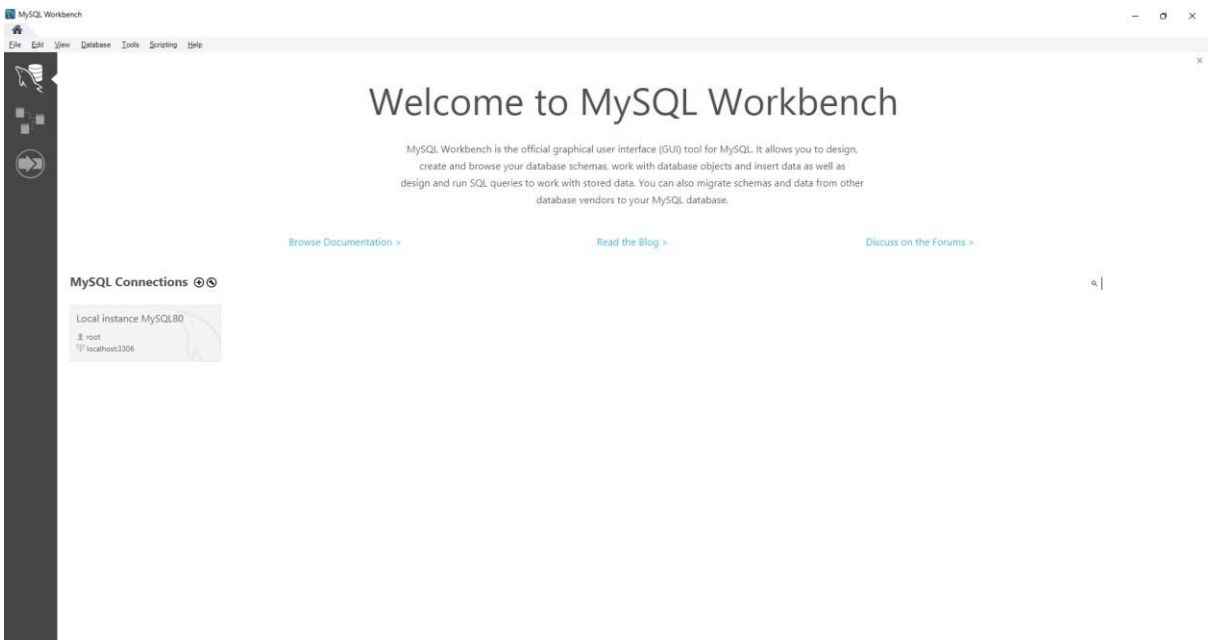

4. Enter Hostname and Credentials

- Go back to your **RDS instance** in the AWS Console, and copy the **endpoint** fromthe 'Connectivity & Security' tab.

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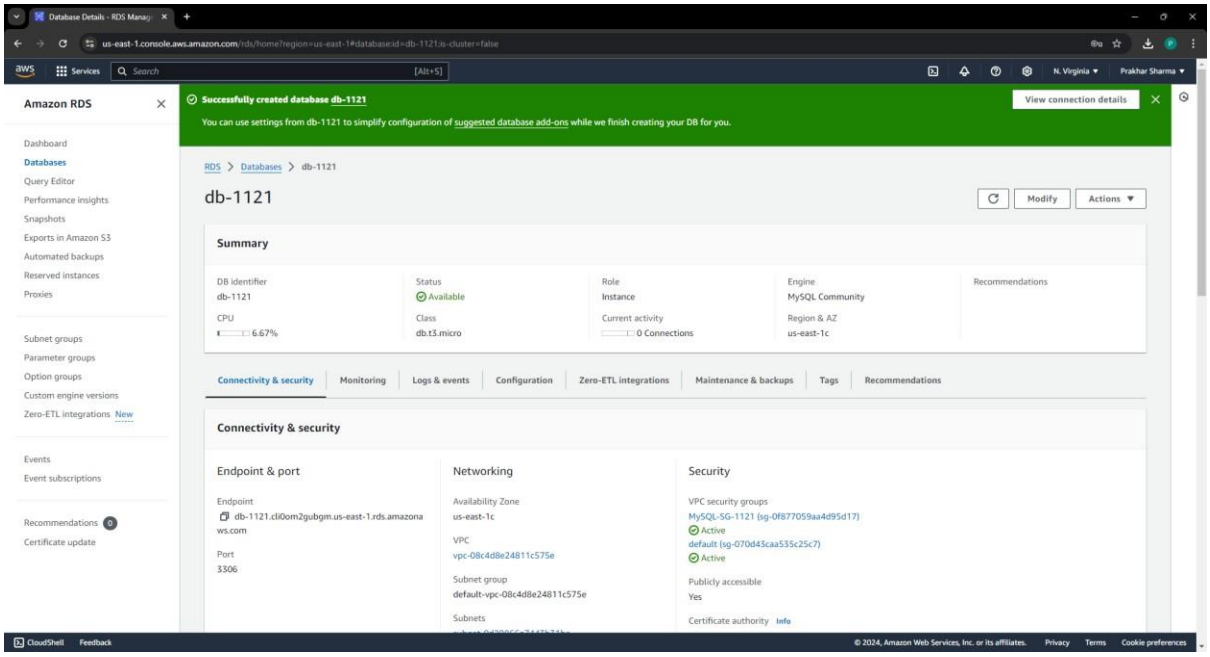

- In MySQL Workbench, paste this endpoint into the **Hostname** field.
- Enter a **Connection Name**, **Master/Root Username**, and click **Store in Vault** toenter your password.

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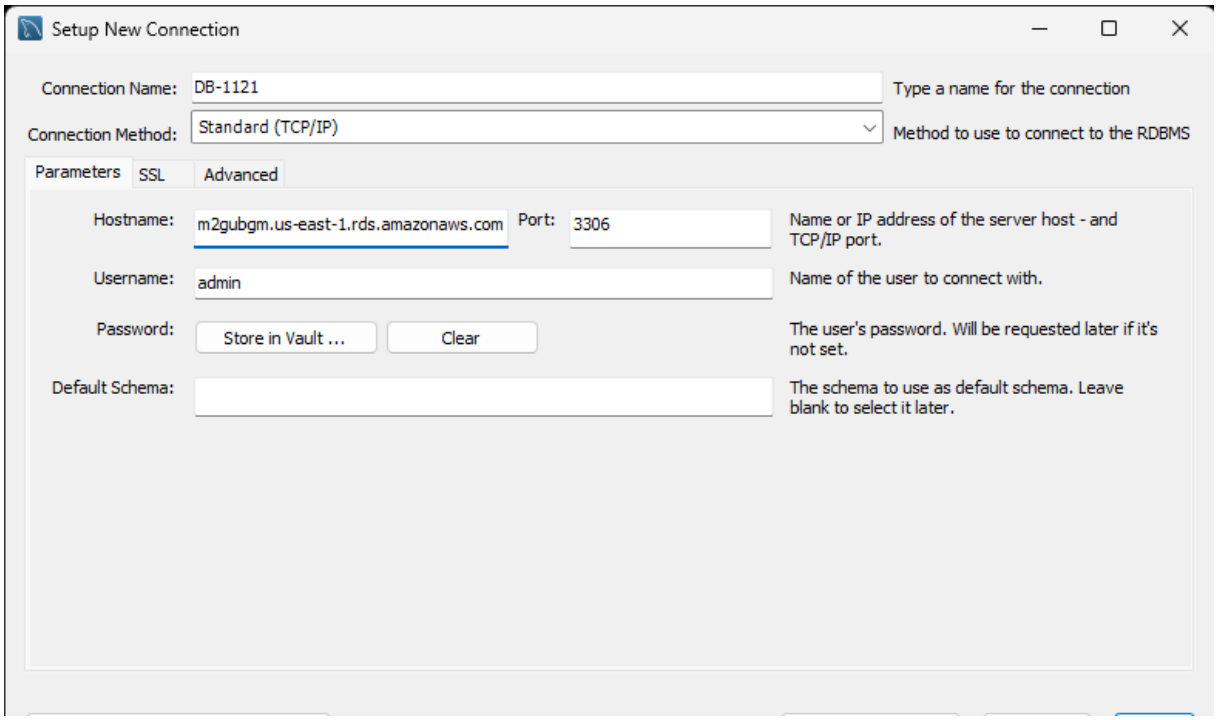
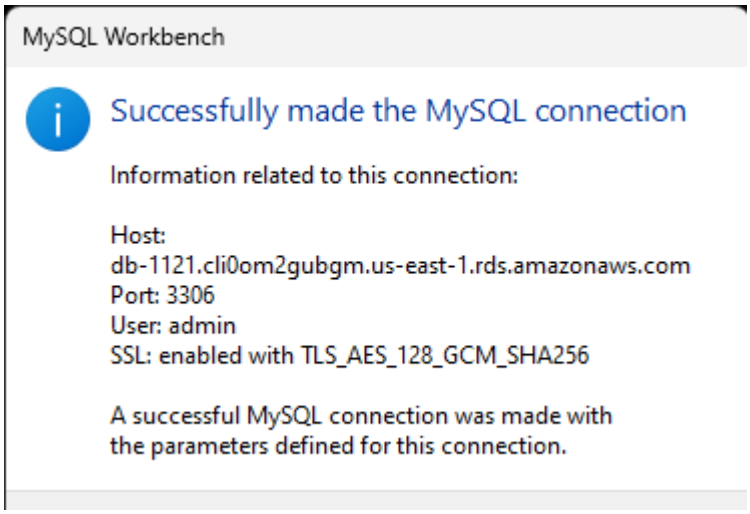


5. Test Connection

- Click on the **Test Connection** button. If successful, you will see a message like:



Click **OK** to close the popup, and then click **OK** again to create the connection.

6. Open the Connection

- Click on the new connection to open it.

Step 5: Create Database and Table in MySQL Workbench

1. **Create Database and Table**
    - In the **Query 1** tab, enter the following SQL commands:

```
CREATE DATABASE student;
USE student;
CREATE TABLE students (
  id INT PRIMARY KEY
  AUTO_INCREMENT,name
  VARCHAR(255) NOT NULL,
  number VARCHAR(20),
  email VARCHAR(255) UNIQUE NOT NULL
);
```

Click the **Yellow lightning button** to execute the code. You should see a successmessage.

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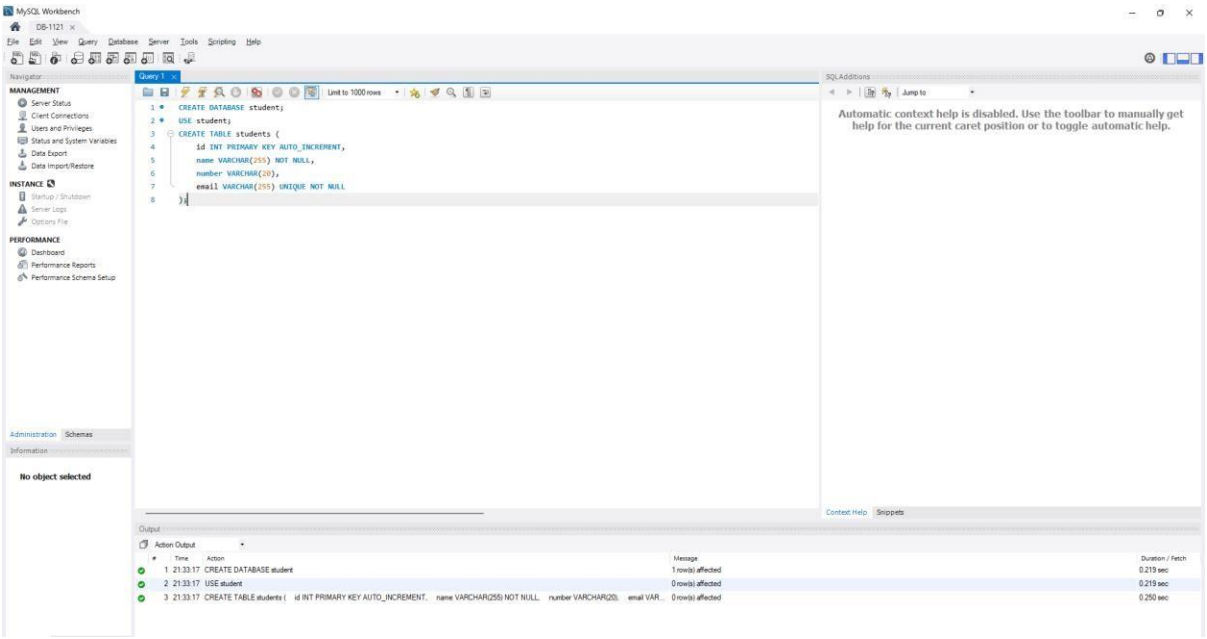
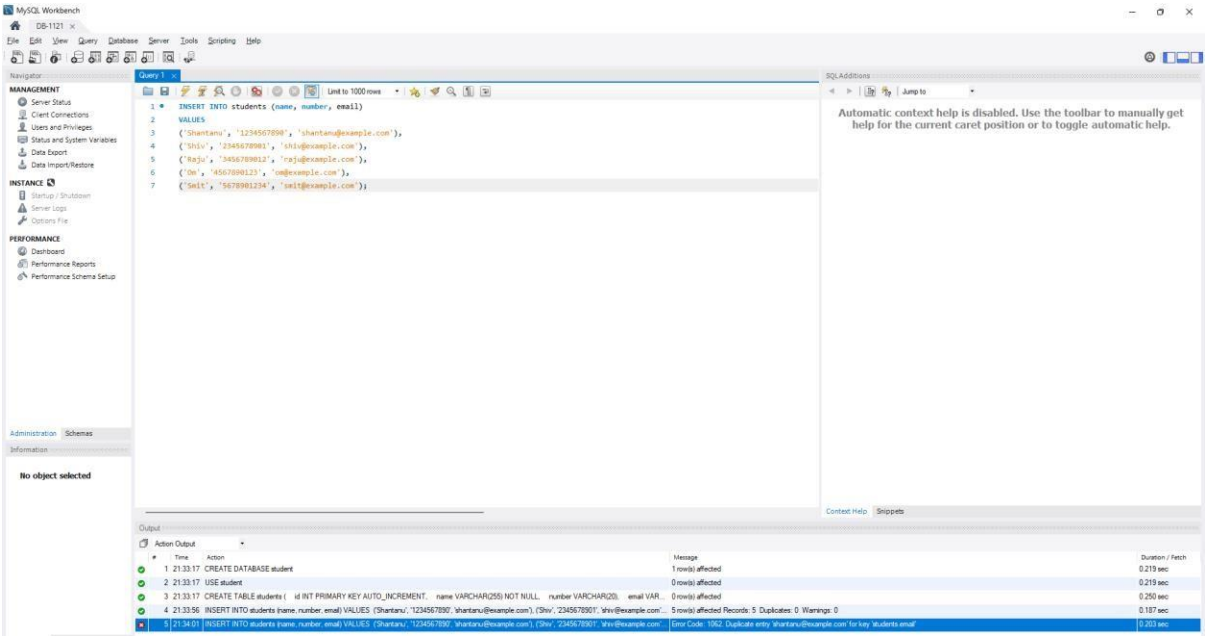


Step 6: Insert Data into Table

1. **Insert Data**
   - Remove the previous command and enter the following SQL command toinsert data into the table:

```
INSERT INTO students (name, number,
email)VALUES
('Shantanu', '1234567890', 'shantanu@example.com'),
('Shiv', '2345678901', 'shiv@example.com'),
('Raju', '3456789012', 'raju@example.com'),
('Om', '4567890123', 'om@example.com'),
('Smit', '5678901234', 'smit@example.com');
```

Hit the **execute** button, and the output will show success.



Step 7: View Data from the Table

1. **View Data**
    - Remove the old commands, and enter the following SQL command to view the data:

```
SELECT * FROM students;
```

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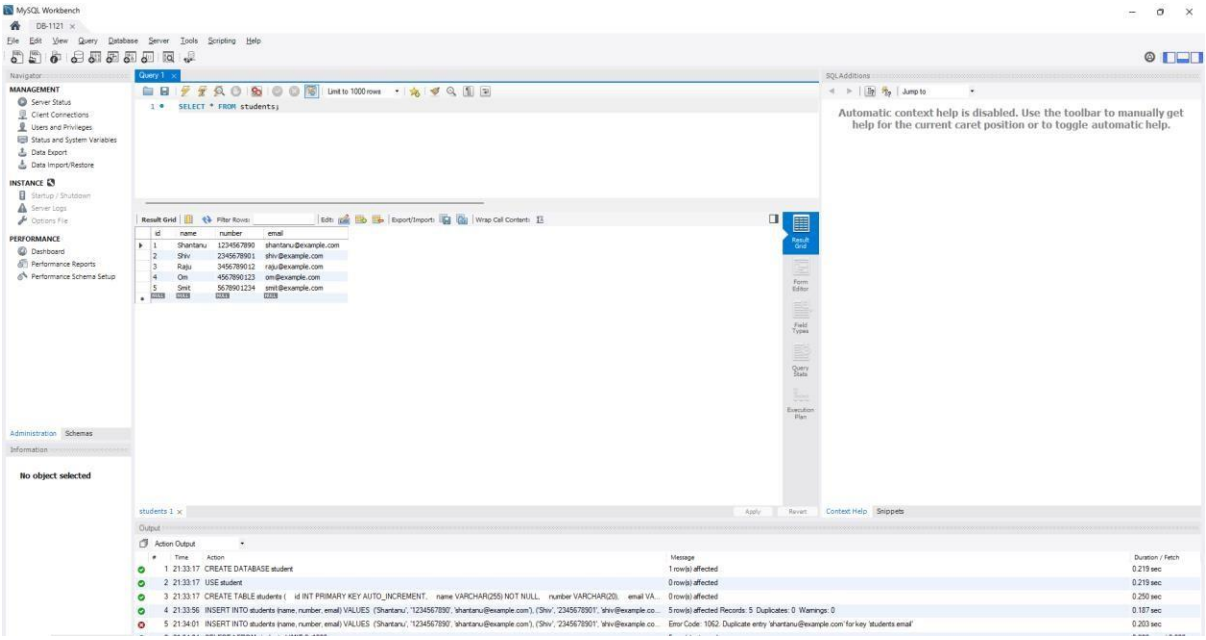

Conclusion:

You have successfully created an RDS instance, connected it using MySQL Workbench,created a database and table, inserted data, and displayed it.