

# RDS Demo

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## Create RDS Instance - MySQL

- Use the Easy Create option
- Engine: MySQL
- DB instance size: free or dev/test
- DB cluster identifier: <enter dbname ... >
- Master username, and password
- Create Database

## Install MySQL client on EC2 or local machine

1. Open a terminal window.
2. Install the MySQL Community repository:

```
sudo wget https://dev.mysql.com/get/mysql80-community-release-el9-1.noarch.rpm
sudo ls -lrt
```

3. Install the MySQL server:

```
sudo dnf install mysql80-community-release-el9-1.noarch.rpm
dnf repolist enabled | grep "mysql.*-community.*"
sudo dnf install mysql-community-server
```

4. Start the MySQL server:

```
sudo systemctl start mysqld
sudo mysql -V
```

5. Access MySQL server

```
mysql -h <MySQL instance endpoint> -P<portnumber> -u admin -p
```

## Connecting to DB from laptop terminal

Example:

```
sudo mysql -h mysql-instance1.123456789012.us-east-1.rds.amazonaws.com -P  
3306 -u mymasteruser -p
```

## Connecton Troubleshooting

1. Publicly accessible to yes (usually not recommended )
2. Security Group: Inbound rule, MySQL , 0.0.0.0/0

## Connecting to DB instance from MySQL Workbench

- From Database menue select Manage Connections
- Creat New Connection
- Hostname : "RDS instance Endpoint"
- Port : "port number"
- username and password
- Test connection

## MySQL Example:

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1. Create a database:

```
CREATE DATABASE example_db;
```

2. Use the newly created database:

```
USE example_db;
```

3. Create a table:

```
CREATE TABLE records (  
  id INT PRIMARY KEY AUTO_INCREMENT,  
  name VARCHAR(50),  
  age INT,  
  city VARCHAR(50)  
);
```

4. Insert 20 records into the table:

```
INSERT INTO records (name, age, city) VALUES  
('John Doe', 25, 'New York'),  
('Jane Smith', 30, 'Los Angeles'),
```

```
('Michael Johnson', 40, 'Chicago'),  
( 'Emily Davis', 28, 'San Francisco'),  
( 'David Wilson', 35, 'Miami'),  
( 'Sarah Thompson', 32, 'Seattle'),  
( 'Robert Anderson', 27, 'Boston'),  
( 'Jennifer Martin', 33, 'Houston'),  
( 'Christopher Lee', 29, 'Dallas'),  
( 'Amanda Wright', 31, 'Austin'),  
( 'Daniel Taylor', 26, 'Denver'),  
( 'Olivia White', 34, 'Phoenix'),  
( 'Matthew Brown', 29, 'Philadelphia'),  
( 'Emma Taylor', 27, 'Washington, D.C.'),  
( 'James Clark', 30, 'San Diego'),  
( 'Sophia Allen', 36, 'Atlanta'),  
( 'Joseph Hill', 28, 'Nashville'),  
( 'Mia Green', 33, 'Portland'),  
( 'William Turner', 31, 'Las Vegas'),  
( 'Grace Cooper', 35, 'New Orleans');
```

5. Read all the data from the table:

```
SELECT * FROM records;
```