Experiment No 9

Student Name: Bhavya Gupta
Branch: BE CSE (IS)
Semester: 5th
Subject:ADBMS

UID: 23BIS70147
Section/Group: 23AIT-KRG(2A)
Date of Performance:24-Oct-2025
Subject Code: 23-CSP-333

Aim:

To create and connect a PostgreSQL database instance on Amazon RDS (Relational Database Service)

Objective:

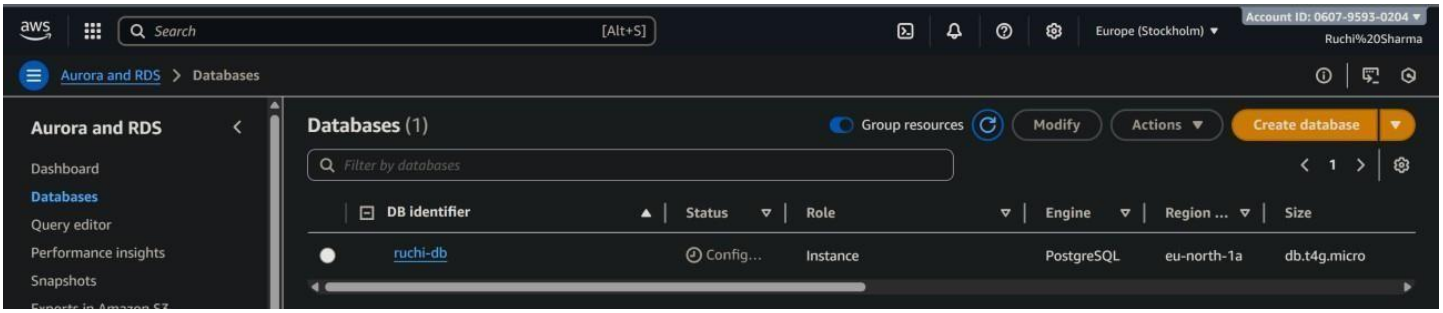
- To understand the steps involved in launching a database instance using Amazon RDS.
- To configure a database for public access and connect it with a local client (pgAdmin).
- To perform basic SQL operations (CREATE, INSERT, SELECT).

Tools / Software

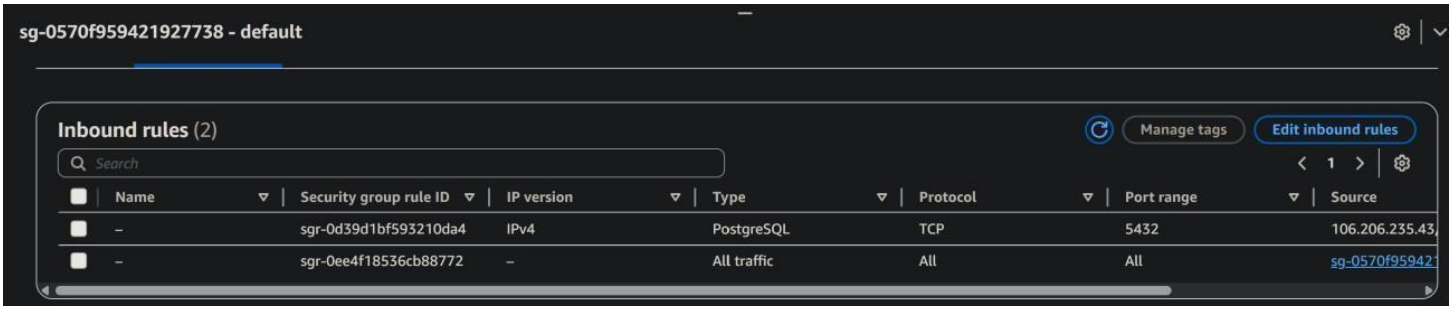
- Amazon Web Services (AWS)
- PostgreSQL
- pgAdmin 4
- RDS (Relational Database Service)

Program:

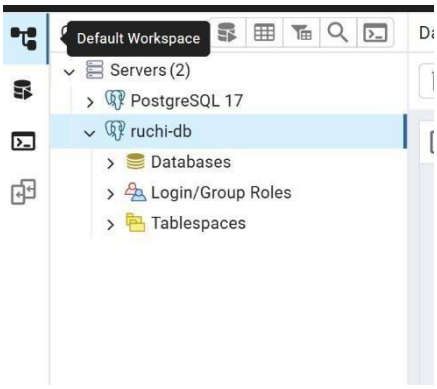
1. **Step 1: Create and Configure Database Instance**
   - Login to AWS Console → RDS → Create database, select Standard create and PostgreSQL under the Free Tier template.
   - Set DB identifier: ruchi-db, Username: postgre, choose db.t3.micro, 20 GB gp2 storage, and enable Public access.
   - Click Create database and wait until the status shows Available in the RDS dashboard.



2. **Step 2: Configure Security Group (Allow Local Access Only)**
   - In AWS Console → go to RDS → Databases → click your DB (ruchi-db).
   - Open the Connectivity & Security tab.
   - Under VPC security groups, click the linked group name (it opens EC2 security groups).
   - Click Edit inbound rules → Add rule
   - Type: PostgreSQL
   - Protocol: TCP
   - Port: 5432
   - Source: My IP
   - Click Save rules.



Step 3: Connect Database Using pgAdmin



- Open pgAdmin 4 on your local system.
- Right-click Servers → Create → Server.
- Under the General tab, enter the name: postgre.
- Under the Connection tab, fill in the following details:
- Host name/address: ruchi- db.xxxxxxx.rds.amazonaws.com
- Port: 5432
- Username: postgre
- Check Save password.
- Click Save to connect your RDS PostgreSQL database**.**

5. Learning Outcomes:

- Understand the procedure to provision and configure a PostgreSQL instance using AWS RDS.
- Configure security groups and network access controls for secure database connectivity.
- Establish a remote database connection using pgAdmin and verify successful access.