



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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Experiment 9

Student Name: Jyoti Kumari
Branch: BE-CSE
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Subject name: ADBMS

UID: 23BCS10877
Section/Group: KRG-3B
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1. Aim: To create and connect a PostgreSQL database instance on Amazon RDS (Relational Database Service)

2. 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).

3. Tools / Software:

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

4. Program:

Step 1: Create and Configure Database Instance

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



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Aurora and RDS > Databases

Databases (1)

DB identifier	Status	Role	Engine	Region ...	Size
ruchi-db	Config...	Instance	PostgreSQL	eu-north-1a	db.t4g.micro

Step 2: Configure Security Group (Allow Local Access Only)

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

sg-0570f959421927738 - default

Inbound rules (2)

Name	Security group rule ID	IP version	Type	Protocol	Port range	Source
-	sgr-0d39d1bf593210da4	IPv4	PostgreSQL	TCP	5432	106.206.235.43
-	sgr-0ee4f18536cb88772	-	All traffic	All	All	sg-0570f959421927738

Step 3: Connect database using pgAdmin

1. Open pgAdmin 4 on your local system.
2. Right-click Servers → Create → Server.
3. Under the General tab, enter the name: **postgre**.



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4. Under the Connection tab, fill in the following details:
5. Host name/address: ruchidbxxxxxxxx.rds.amazonaws.com
6. Port: 5432 Username: postgres Check Save password.
7. Click Save to connect your RDS PostgreSQL database.

