



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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## Experiment 9

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**Semester:** 5  
**Subject name:** ADBMS

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**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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Databases (1)

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

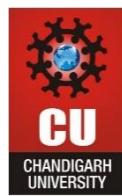
## Step 2: Configure Security Group (Allow Local Access Only)

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.

| 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.

