



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

## Experiment 9

**Student Name:** Souradeep Banerjee

**UID:** 23BAI70654

**Branch:** BE-AIT-CSE

**Section/Group:** 23AIT-KRG-G2

**Semester:** 5th

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**Subject Name:** ADBMS

**Subject Code:** 23CSP-333

1. **AIM:** Amazon Web Service RDS.

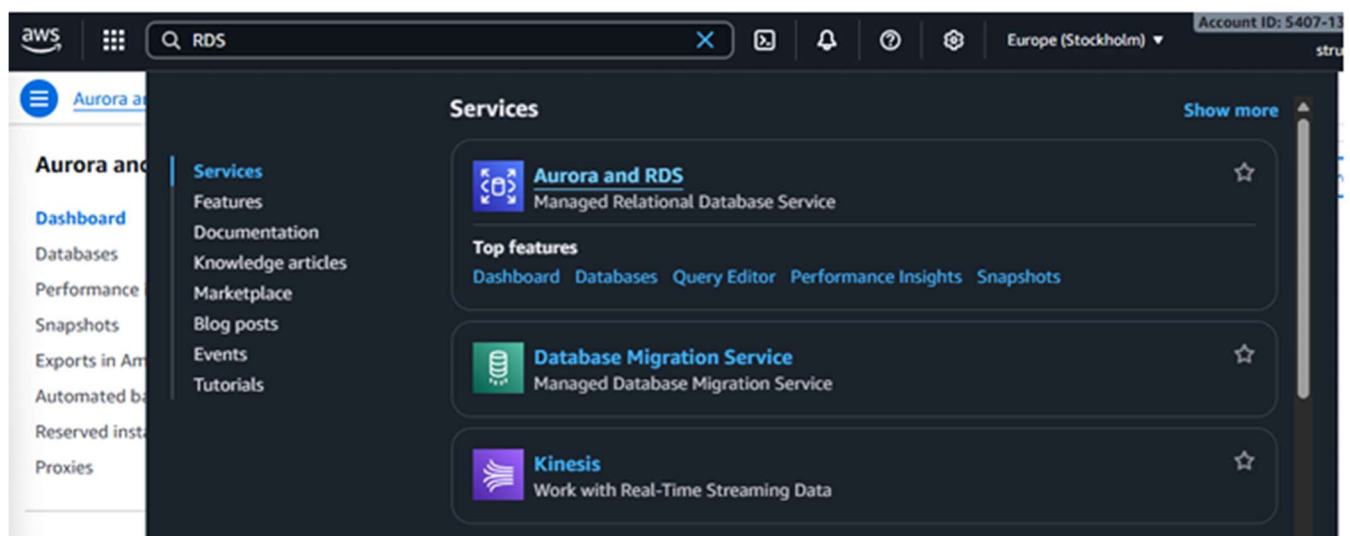
2. **Tools Used:** pgAdmin4

3. **Experiment:**

- overview of AWS RDS
- creation of database instance on AWS RDS
- security groups
- connecting local pgadmin to cloud rd.

4. **Solution:**

1. Go to aws homepage -> click on sign in-> enter user name with email address.
2. After sign-in -> go to search bar -> search for rds -> hit enter



#### 4. Click on create database

aws

Search

[Alt+S]

Europe (Stockholm)

Account ID: 5407-1396-0939

strugmac-2224

Aurora and RDS

Databases

Create database

Create database

Info

Free plan has access to limited features and resources

The free plan limits the features and resources that are available for RDS and Aurora databases. Upgrade your account plan to remove all limitations. [Learn more](#)

Upgrade plan

Choose a database creation method

☐ Standard create

You set all of the configuration options, including ones for availability, security, backups, and maintenance.

☒ Easy create

Use recommended best-practice configurations. Some configuration options can be changed after the database is created.

Configuration

Engine type

Info

☐ Aurora (MySQL Compatible)



☐ Aurora (PostgreSQL Compatible)



☒ PostgreSQL☐ MariaDB☐ Microsoft SQL Server☐ MySQL☐ Oracle

DB instance size

☐ Production

db.r7g.xlarge

4 vCPUs

32 GiB RAM

400 GiB

1.946 USD/hour

☐ Dev/Test

db.r7g.large

2 vCPUs

16 GiB RAM

200 GiB

0.278 USD/hour

☒ Free tier

db.t4g.micro

2 vCPUs

1 GiB RAM

20 GiB

0.019 USD/hour

DB instance identifier

Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.

strugmac-DB

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 63 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

Master username

Info

Type a login ID for the master user of your DB instance.

admin

1 to 16 alphanumeric characters. The first character must be a letter.

Credentials management

You can use AWS Secrets Manager or manage your master user credentials.

☐ Managed in AWS Secrets Manager - most secure

RDS generates a password for you and manages it throughout its lifecycle using AWS Secrets Manager.

☒ Self managed

Create your own password or have RDS create a password that you manage.

☐ Auto generate password

Amazon RDS can generate a password for you, or you can specify your own password.

Master password

Info

\*\*\*\*\*

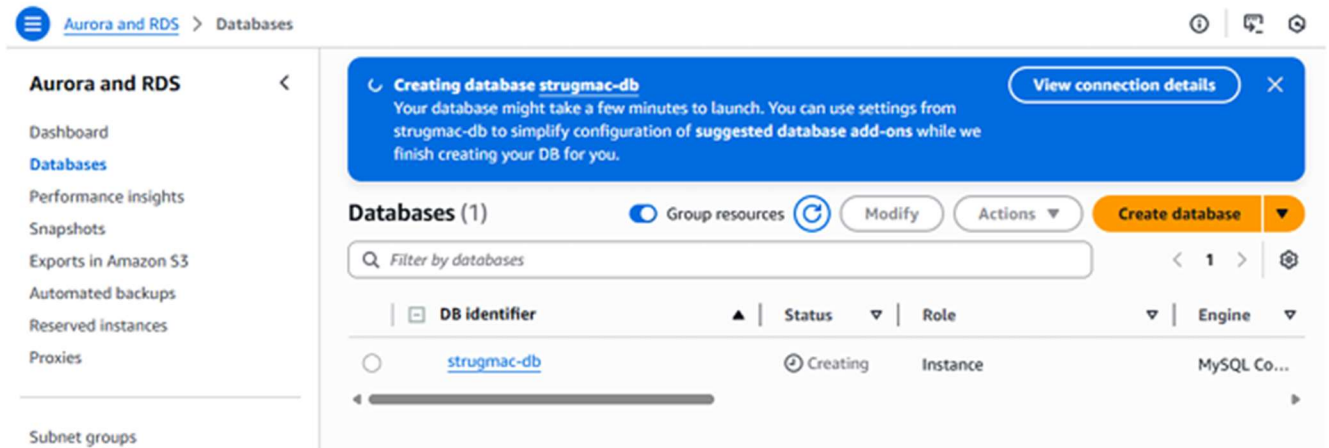
Password strength **Very strong**

Minimum constraints: At least 8 printable ASCII characters. Can't contain any of the following symbols: / \* @

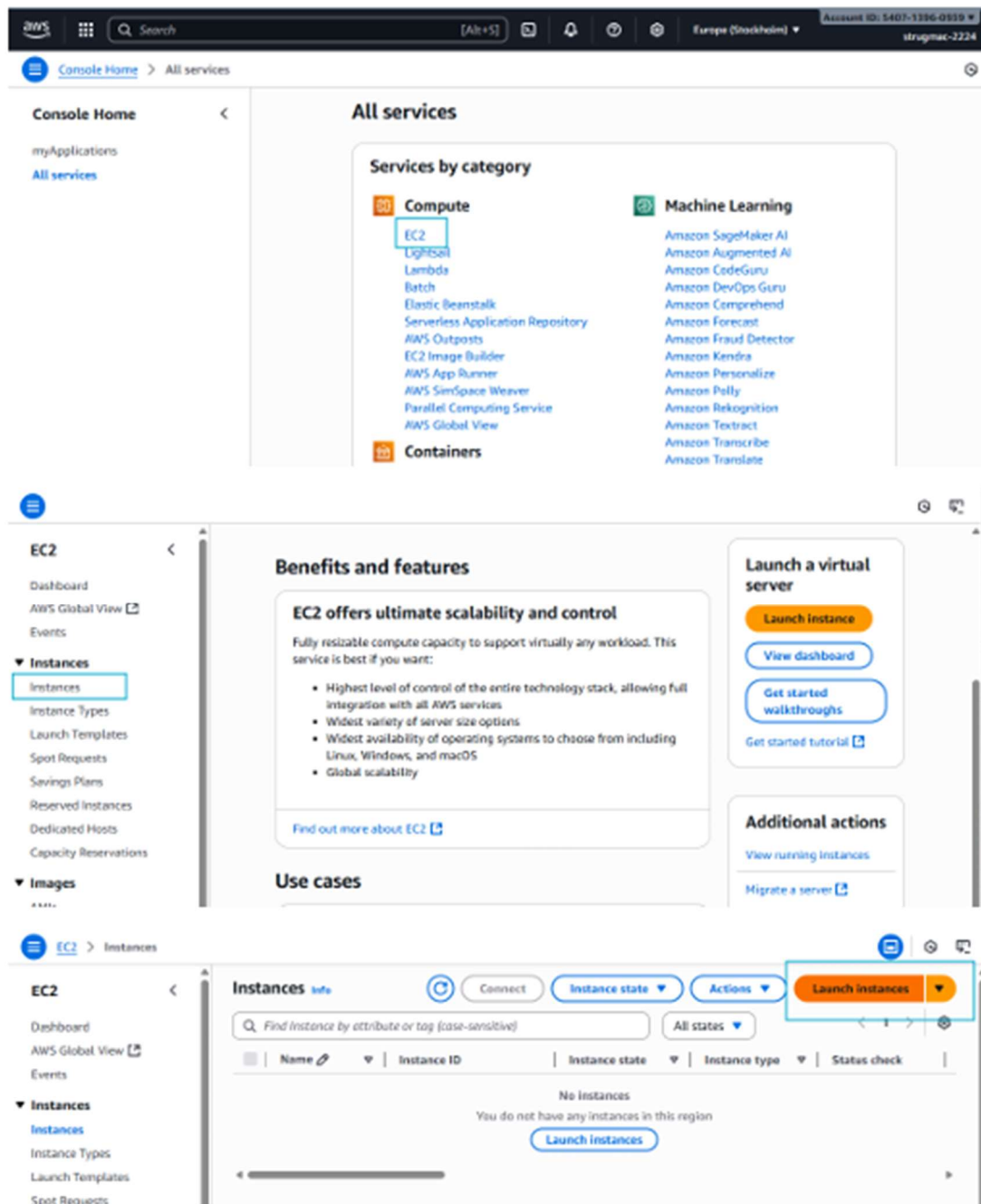
Confirm master password

Info

\*\*\*\*\*



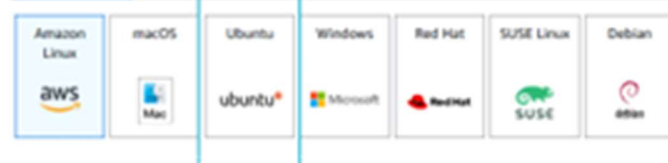
Now this will create a MySQL database to me, and we want to connect to RDS for which we have to launch a server which basically will have MySQL Client installed inside it. For that we have to launch an EC2 instance,



## ▼ Application and OS Images (Amazon Machine Image) [info](#)

An AMI contains the operating system, application server, and applications for your instance. If you don't see a suitable AMI below, use the search field or choose [Browse more AMIs](#).

### Quick Start



[Browse more AMIs](#)  
Including AMIs from  
AWS, Marketplace and  
the Community

## ▼ Key pair (login) [info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

Default value ▼

[Create new key pair](#)

## ▼ Network settings [info](#)

[Edit](#)

Network [info](#)

vpc-081fe9fe127bb8e79

Subnet [info](#)

No preference (Default subnet in any availability zone)

Auto-assign public IP [info](#)

Enable

Firewall (security groups) [info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☐ Create security group

☒ Select existing security group

Common security groups [info](#)

Select security groups

default sg-0e57cb7ab0ff04225 [×](#)  
VPC: vpc-081fe9fe127bb8e79

[Compare security group rules](#)

Security groups that you add or remove here will be added to or removed from all your network interfaces.

## ▼ Summary

Number of instances [info](#)

1

Software image (AMI)

Canonical, Ubuntu, 24.04, amd64...[read more](#)  
ami-0a7716e3f5916d190c

Virtual server type (instance type)

t3.micro

Firewall (security group)

default

Storage (volumes)

1 volume(s) - 8 GiB

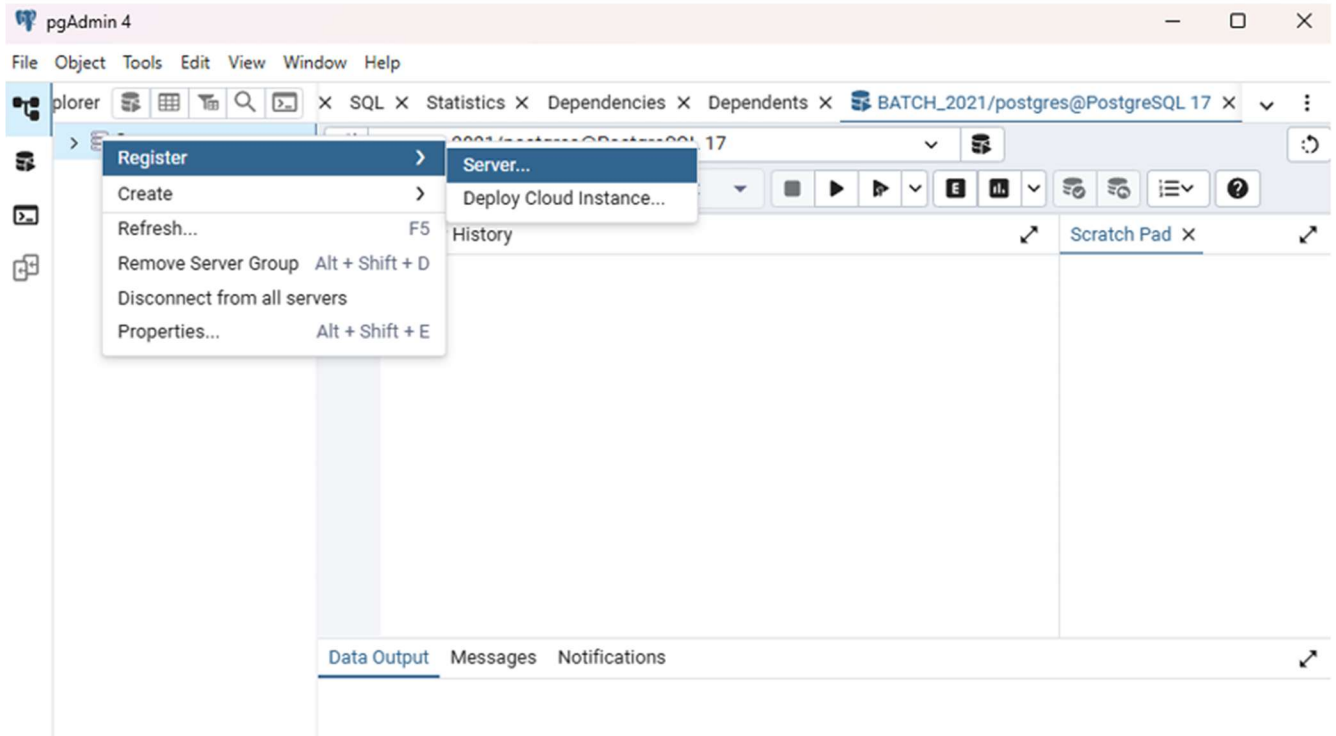
[Cancel](#)

[Launch instance](#)

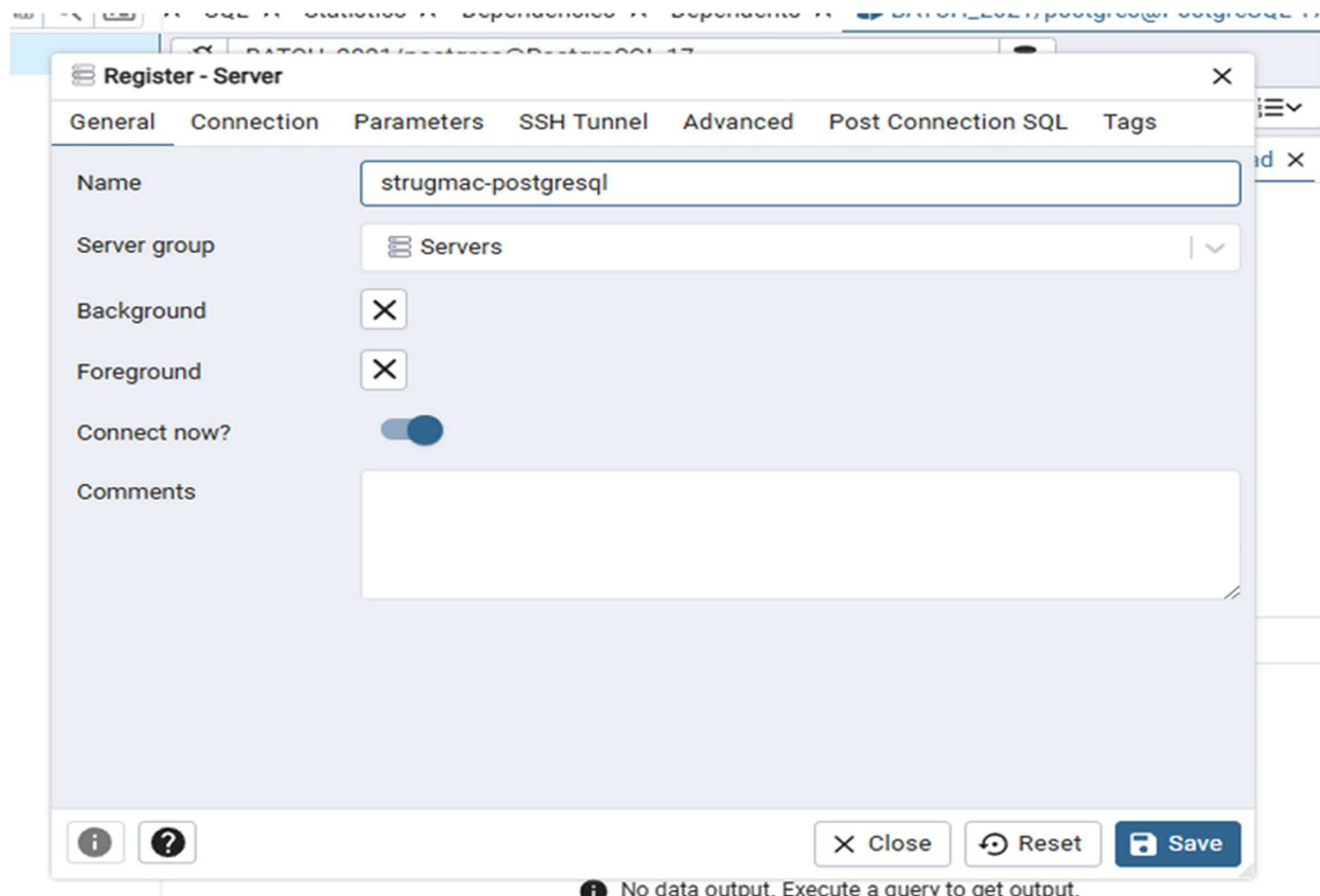
[Preview code](#)

Other option is that we can connect the Postgres AWS RDS to our local machine.

1. Create AWS RDS database for PostgreSQL
2. Connect from PgAdmin.



Copy the API Endpoints from the dashboard of AWS RDS Database instance.





## 5. Output:

### Connectivity & security

#### Endpoint & port

**Endpoint**  
strugmac-postgresq  
l.czqk2qqwqtc0.eu-north  
-1.rds.amazonaws.com

**Port**  
5432

#### Networking

**Availability Zone**  
eu-north-1c

**VPC**  
vpc-081fe9fe127bb8e79

**Subnet group**  
default-vpc-  
081fe9fe127bb8e79

**Subnets**  
subnet-  
00bf0147db6493492  
subnet-  
0aa3f608f07d8cecc  
subnet-  
0f9ee2b6eb9698f78

#### Security

**VPC security groups**  
default (sg-  
0e67db7abaff84225)  
Active

**Publicly accessible**  
No

**Certificate authority**  
Info  
rds-ca-rsa2048-g1

**Certificate authority date**  
May 25, 2061, 03:29  
(UTC+05:30)

### Edit inbound rules

Inbound rules control the incoming traffic that's allowed to reach the instance.

#### Inbound rules

Security group rule ID	Type	Protocol	Port range	Source	Description - optional	
sgr-0d9f21030174e69aa	All traffic	All	All	C...		Delete
-	PostgreSQL	TCP	5432	M...		Delete

Add rule

sg-0e67db7abaff84225

223.181.100.173/32

Cancel

Preview changes

Save rules

## 6. Learning Outcomes:

- Learn't about AWS RDS.
- Learn't how to create a database instance on AWS RDS.
- Learn't how to connect local pgAdmin to Cloud RD.