

## Experiment - 9

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**Branch:** BE-CSE

**Section/Group:** KRG\_2B

**Semester:** 5<sup>th</sup>

**Date of Performance:** 27/10/25

**Subject Name:** Advanced Database and Management System

**Subject Code:** 23CSP-333

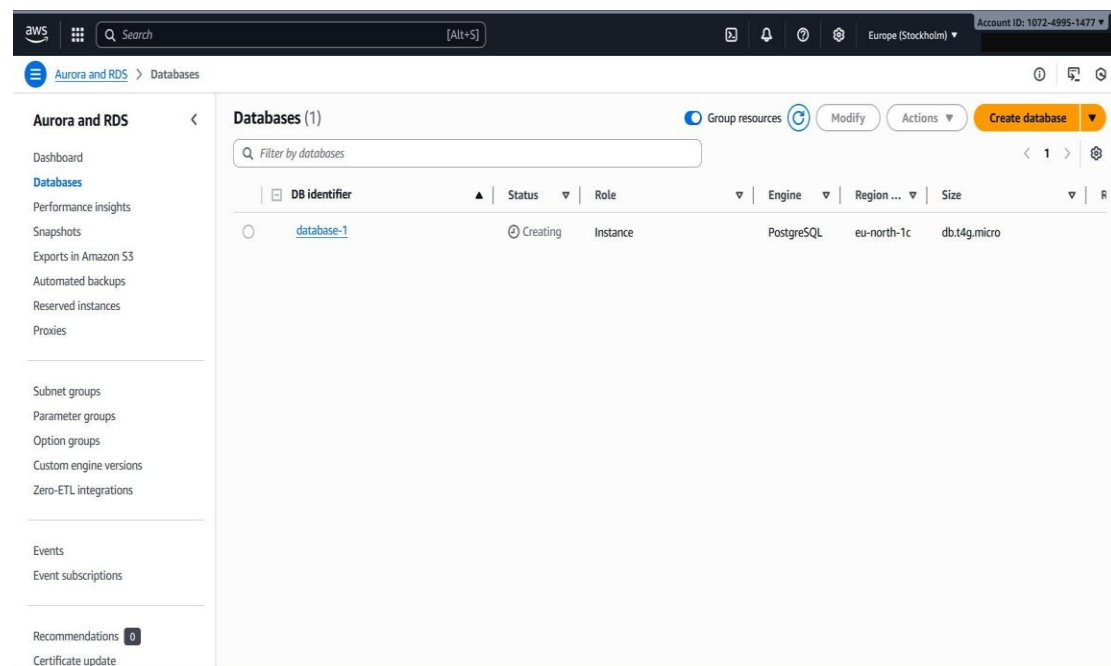
### 1. Aim

To create, configure, and connect an Amazon RDS PostgreSQL database instance on AWS, and verify successful database operations using a client tool.

### 2. Objectives:

1. To understand the concept of managed relational database services in AWS (Amazon RDS).
2. To create a PostgreSQL database instance using AWS RDS.
3. To configure DB parameters such as instance size, storage, authentication, and security groups.
4. To connect the RDS instance from a PostgreSQL client (e.g., pgAdmin/psql).
5. To execute basic SQL queries to validate connectivity and database functionality.

### 3. AWS RDS OPERATIONS AND OUTPUTS -





EC2 > Instances > Launch an instance

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-0b93c6695518cd4cc

VPC: vpc-0d98d3e2dd9e74b9a

Compare security group rules

Configure storage

Info

Advanced

1x 30 GiB gp3 Root volume, 3000 IOPS, Not encrypted

Add new volume

The selected AMI contains instance store volumes, however the instance does not allow any instance store volumes. None of the instance store volumes from the AMI will be accessible from the instance

Click refresh to view backup information

The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

0 x File systems

Edit

▼ Summary

Number of instances 

Info

1

Software Image (AMI)  
Microsoft Windows Server 2025 ...[read more](#)  
ami-0d0faec5b121e8bca

Virtual server type (instance type)  
t3.micro

Firewall (security group)  
default

Storage (volumes)  
1 volume(s) - 30 GiB

Cancel

Launch instance

Preview code

CloudShell

Feedback

Console Mobile App

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Aurora and RDS > Databases > database-1

Aurora and RDS

Dashboard

Databases

Performance insights

Snapshots

Exports in Amazon S3

Automated backups

Reserved instances

Proxies

Subnet groups

Parameter groups

Option groups

Custom engine versions

Zero-ETL integrations

Events

Event subscriptions

Recommendations 0

Certificate update

database-1

Summary

DB identifier  
database-1

CPU  
-

Status  
Available

Class  
db.t4g.micro

Role  
Instance

Current activity

Engine  
PostgreSQL

Region & AZ  
eu-north-1c

Recommendations

Connectivity & security

Monitoring

Logs & events

Configuration

Zero-ETL integrations

Maintenance & backups

Data migration

Connectivity & security

Endpoint & port

Endpoint  
database-1.ct2gocg6qwn7.eu-nor  
t-1.rds.amazonaws.com

Port  
5432

Networking

Availability Zone  
eu-north-1c

VPC  
vpc-0d98d3e2dd9e74b9a

Subnet group  
default-vpc-0d98d3e2dd9e74b9a

Subnets  
subnet-03dc9297ff78716f9  
subnet-0fbbbe207fc38553f

Security

VPC security groups  
default (sg-0b93c6695518cd4cc)  
Active

Publicly accessible  
No

Certificate authority  
rds-ca-rsa2048-g1

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

CloudShell

Feedback

Console Mobile App

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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)

MySQL

PostgreSQL

MariaDB

Oracle

CloudShell

Feedback

Console Mobile App

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Publicly accessible	No	Yes
Database port	5432	Yes
DB instance identifier	database-1	Yes
DB engine version	17.6	Yes
DB parameter group	default.postgres17	Yes
Database Insights -		

AWS

Search

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Aurora and RDS

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Event subscriptions

Recommendations 0

Certificate update

db.t4g.micro

eu-north-1c

Connectivity & security

Monitoring

Logs & events

Configuration

Zero-ETL integrations

Maintenance & backups

Data migration

Connectivity & security

Endpoint & port

Endpoint

database-1.ct2gocg6qwn7.eu-north-1.rds.amazonaws.com

Port

5432

Networking

Availability Zone

eu-north-1c

VPC

vpc-0d98d3e2dd9e74b9a

Subnet group

default-vpc-0d98d3e2dd9e74b9a

Subnets

subnet-03dc9297f78716f9

subnet-0fbbbe207fc38553f

subnet-0f27f6ac656a069d5

Network type

IPv4

Security

VPC security groups

default (sg-0b93c6695518cd4cc)

Active

Publicly accessible

No

Certificate authority

Info

rdc-ca-rsa2048-g1

Certificate authority date

May 25, 2061, 05:29 (UTC+05:30)

DB instance certificate expiration date

November 09, 2026, 17:38 (UTC+05:30)

Connected compute resources (0)

Info

Actions

CloudShell

Feedback

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Servers

Statistics

Dependencies

Dependents

Processes

Preferences

Register - Server

General

Connection

Parameters

SSH Tunnel

Advanced

Post Connection SQL

Tags

Port

5432

Maintenance database

postgres

Username

postgres

Kerberos authentication?

☐

Password

\*\*\*\*\*

Save password?

☐

Role

Unable to connect to server: connection timeout expired

Display

Miscellaneous

File Downloads

User Interface

objects?

Show template databases?

Save password?

Unable to connect to server: connection timeout expired

Search tools

Create PDF

Combine Files

Edit PDF

Request E-signatures

Fill & Sign

Export PDF

Organize Pages

Send for Comments

Comment

Scan & OCR

Protect

More Tools

Convert, edit and e-sign PDF forms & agreements

Free 7-day trial

EC2 > Instances

EC2

Dashboard

AWS Global View

Events

▼ Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Capacity Manager

▼ Images

AMIs

AMI Catalog

▼ Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Instances (1) info

Last updated less than a minute ago

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

All states

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 D
<input type="checkbox"/>	myserver	i-00db5d63e9cd748c6	Running	t3.micro	Initializing	<a href="#">View alarms +</a>	eu-north-1b	ec2-51-20-18:

Select an instance