Experiment 9

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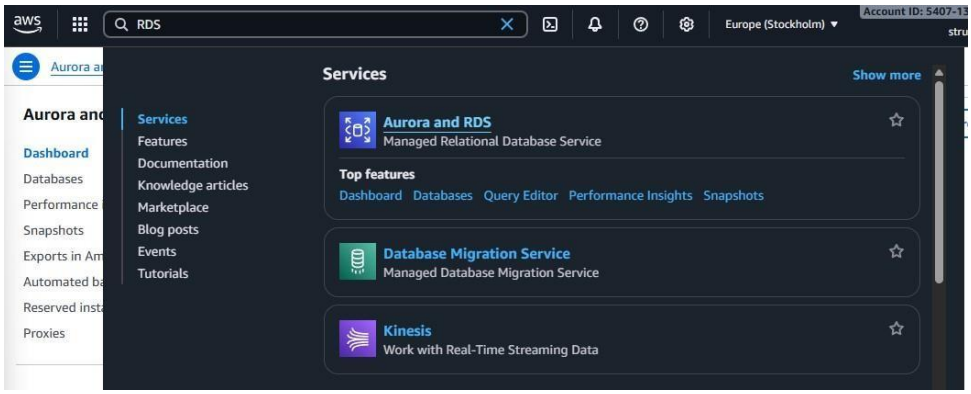
Branch: CSE **Section/Group: KRG 3_A**
Semester: 5th **Date of Performance:30/10/2025**
Subject Name: ADBMS **Subject Code: 23CSP-333**

1. Aim:

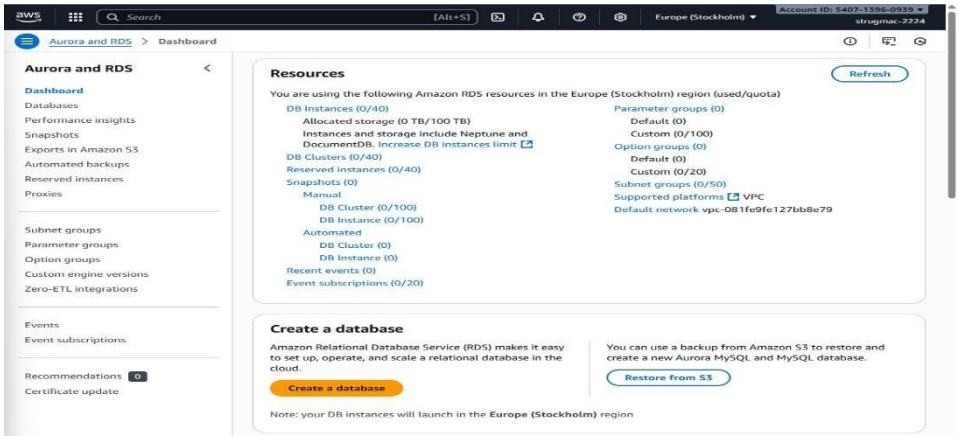
AWS RDS

- OVERVIEW OF AWS RDS
- CREATION OF DATABASE INSTANCE ON AWS RDS
- SECURITY GROUPS
- CONNECTING LOCAL PGADMIN TO CLOUD RDS

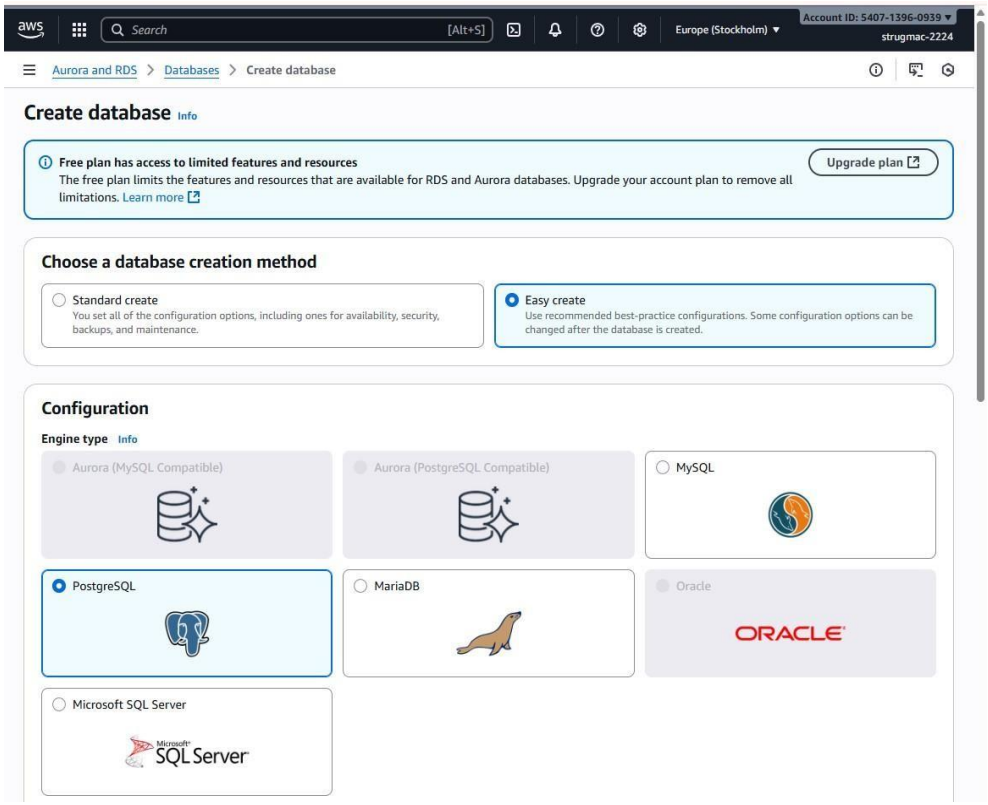
1. GO TO AWS HOMEPAGE -> CLICK ON SIGN IN-> ENTER USER NAME WITH EMAIL ADDRESS.
2. AFTER SIGN-IN -> GO TO SEARCH BAR -> SEARCH FOR RDS -> HIT ENTER



3. HOW TO CREATE MY SQL DATABASE INSTANCE ON AWS RDS?



4. CLICK ON CREATE DATABASE



5. IN THE STANDALONE CREATE, WE CAN SET EVERYTHING FOR OUR DATABASE, THE INCOMING TRAFFIC, IP ADDRESSES TO BE USED, BACKUP ETC.

DB instance size

Production	Dev/Test	Free tier
db.r7g.xlarge	db.r7g.large	db.t4g.micro
4 vCPUs	2 vCPUs	2 vCPUs
32 GiB RAM	16 GiB RAM	1 GiB RAM
400 GiB	200 GiB	20 GiB
1.946 USD/hour	0.278 USD/hour	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: / ' " @

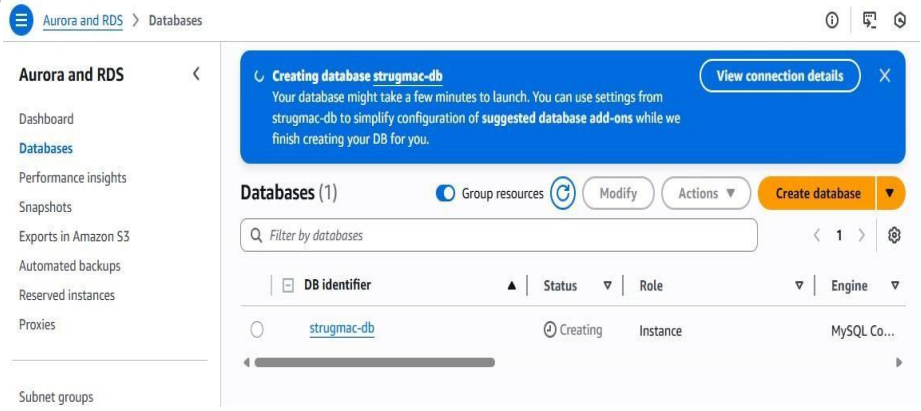
Confirm master password Info

••••••••••••••••

View default settings for Easy create

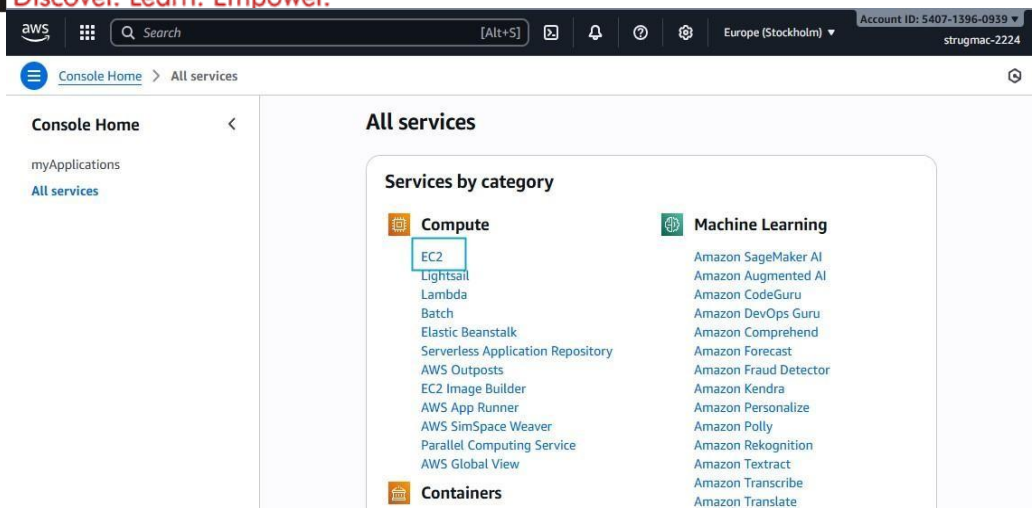
Easy create sets the following configurations to their default values, some of which can be changed later. If you want to change any of these settings now, use Standard create.

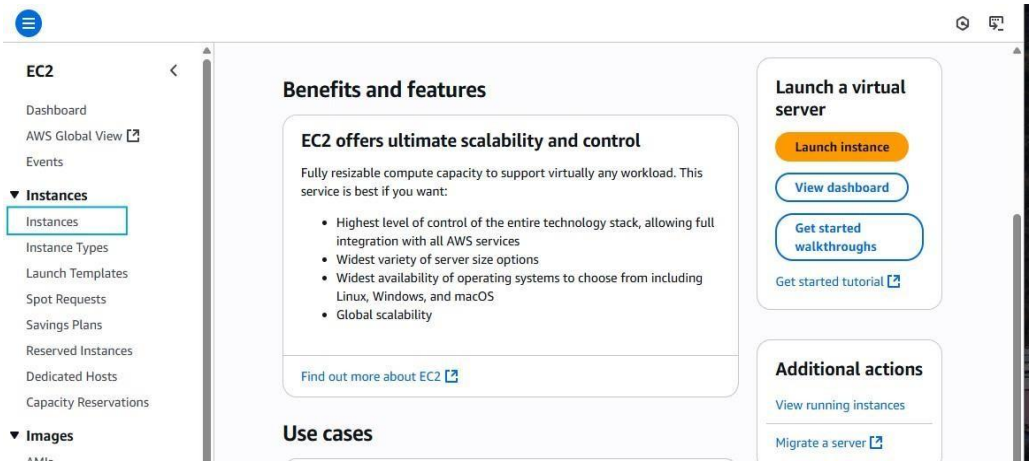
Configuration	Value	Editable after database is created
Encryption	Enabled	No
VPC	Default VPC (vpc-081fe9fe127bb8e79)	No
Multi-AZ	No	Yes
Option group	default:mysql-8-0	Yes
Subnet group	Create new DB Subnet Group	Yes
Automatic backups	Enabled	Yes
VPC security group	default	Yes
Publicly accessible	No	Yes
Database port	3306	Yes
DB instance identifier	strugmac-DB	Yes
DB engine version	8.0.42	Yes
DB parameter group	default.mysql8.0	Yes
Monitoring type	Database Insights - Standard	Yes
Performance insights	Not enabled	Yes
Monitoring	Enabled	Yes
Maintenance	Auto minor version upgrade enabled	Yes

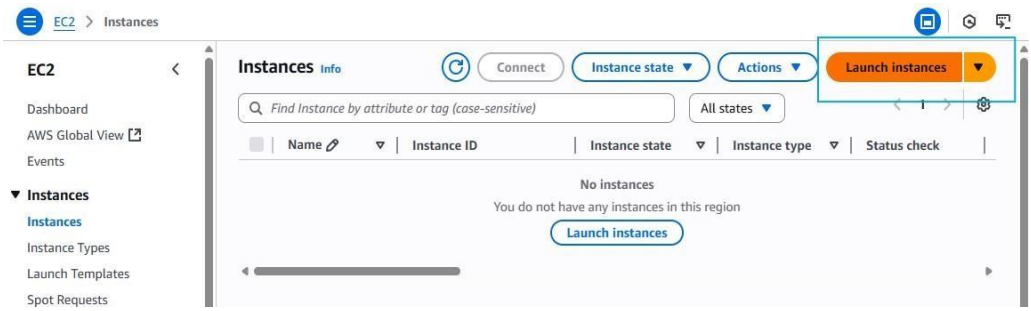


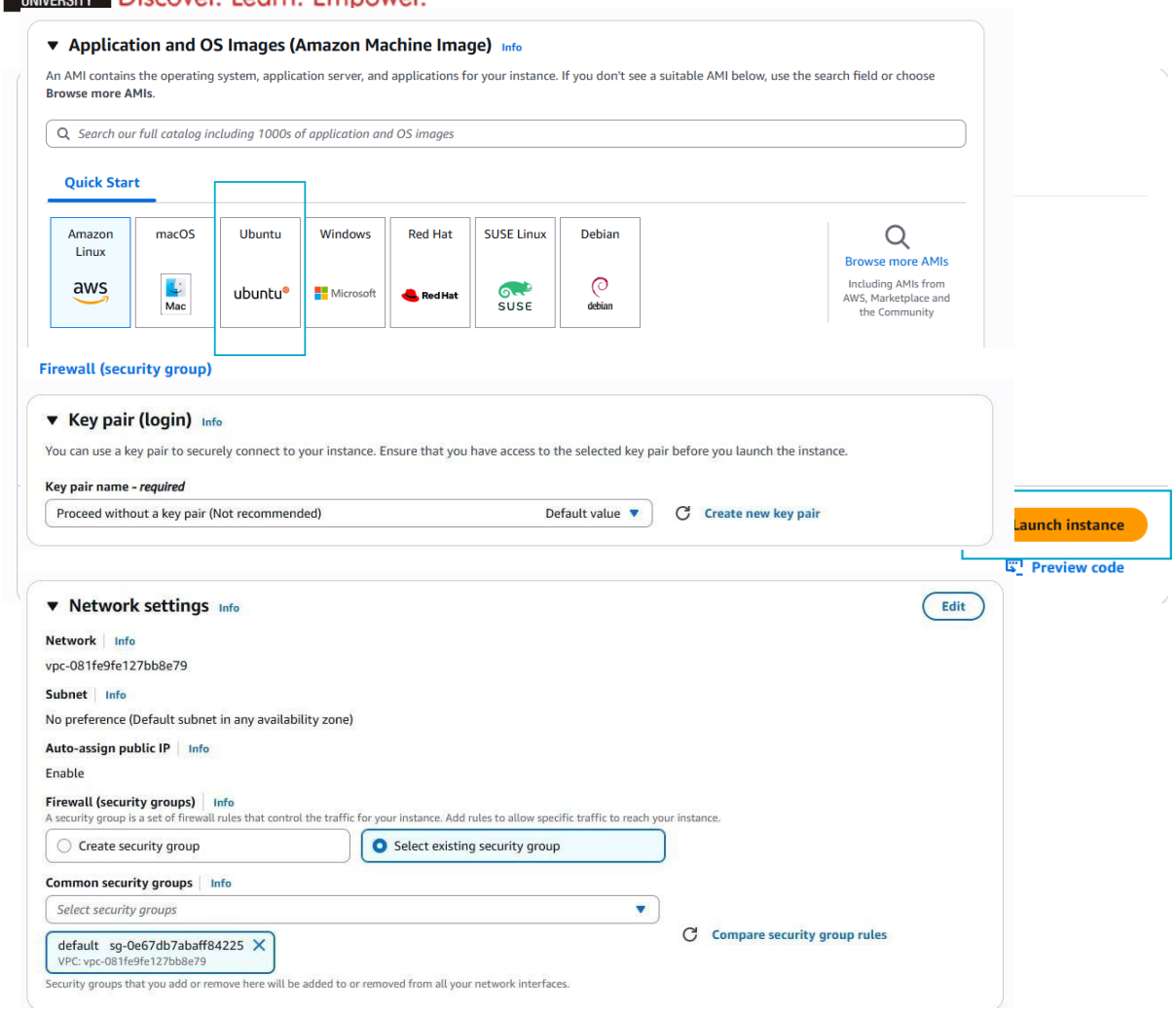
6. Now this will create a MySQL database to me, and we want to connect to RDS for which we have to launch a server which basically will have MySQL Client installed inside it. For that we have to launch an EC2 instance,

7. Launching an EC2 instance


Search [Alt+S]
Europe (Stockholm)
Account ID: 5407-1396-0939
strugmac-2224
Console Home > All services
Console Home
myApplications
All services
All services
Services by category
Compute
EC2
Lightsail
Lambda
Batch
Elastic Beanstalk
Serverless Application Repository
AWS Outposts
EC2 Image Builder
AWS App Runner
AWS SimSpace Weaver
Parallel Computing Service
AWS Global View
Containers
Machine Learning
Amazon SageMaker AI
Amazon Augmented AI
Amazon CodeGuru
Amazon DevOps Guru
Amazon Comprehend
Amazon Forecast
Amazon Fraud Detector
Amazon Kendra
Amazon Personalize
Amazon Polly
Amazon Rekognition
Amazon Textract
Amazon Transcribe
Amazon Translate

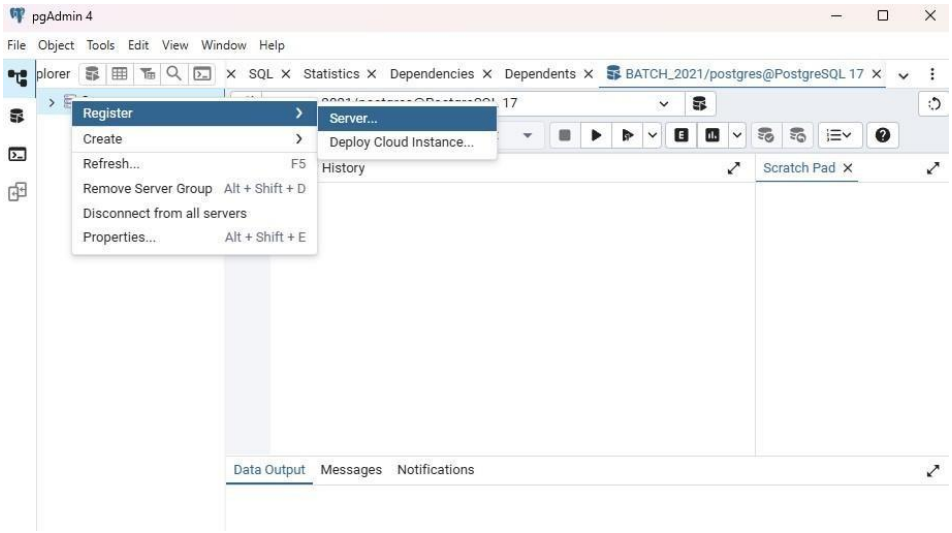

EC2
Dashboard
AWS Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
Benefits and features
EC2 offers ultimate scalability and control
Fully resizable compute capacity to support virtually any workload. This service is best if you want:
Highest level of control of the entire technology stack, allowing full integration with all AWS services
Widest variety of server size options
Widest availability of operating systems to choose from including Linux, Windows, and macOS
Global scalability
Find out more about EC2
Use cases
Launch a virtual server
Launch instance
View dashboard
Get started walkthroughs
Get started tutorial
Additional actions
View running instances
Migrate a server


EC2 > Instances
EC2
Dashboard
AWS Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Instances Info
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Name
Instance ID
Instance state
Instance type
Status check
No instances
You do not have any instances in this region
Launch instances



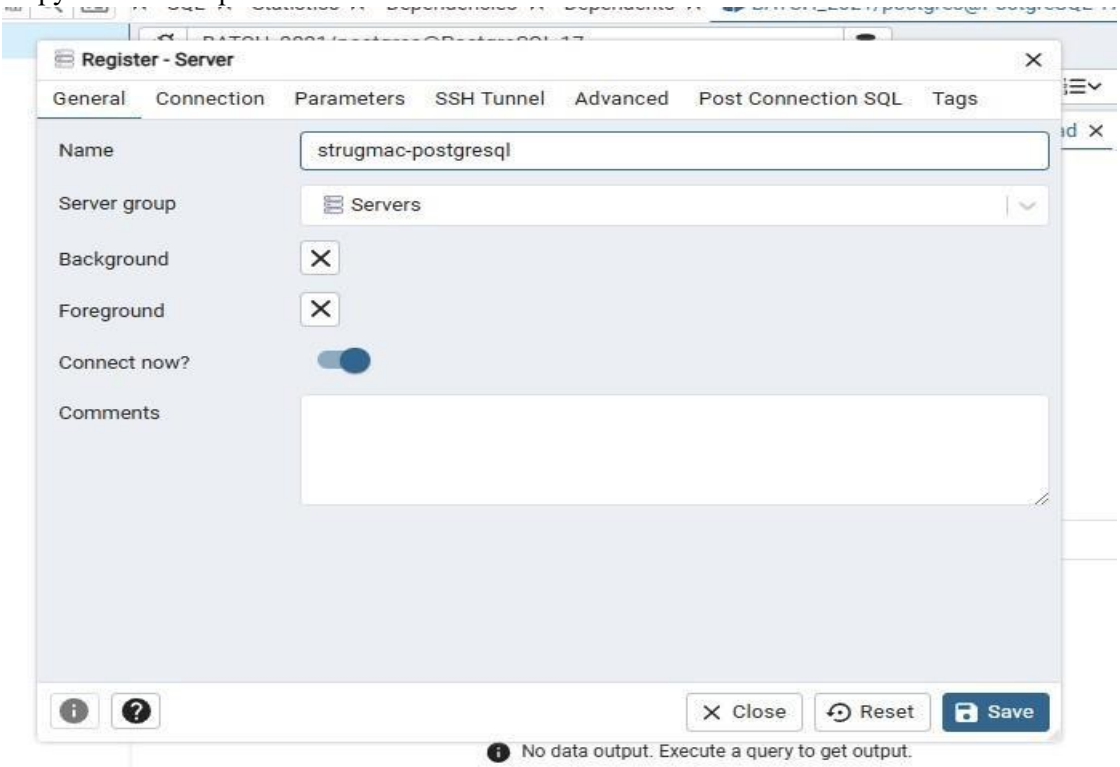
Other option is that we can connect the Postgres AWS RDS to our local machine.

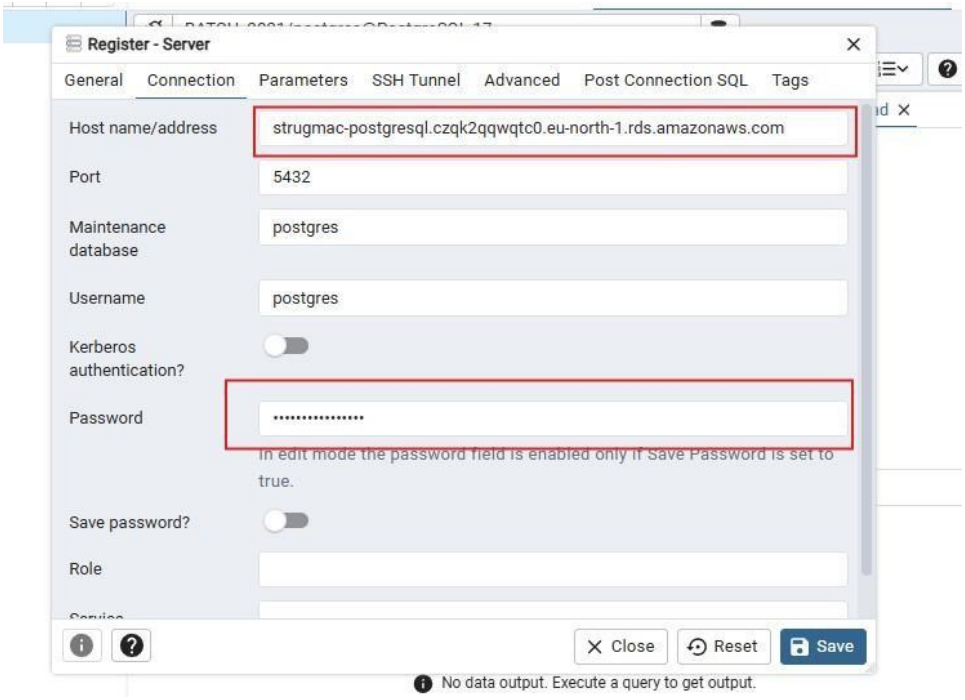
1. Create AWS RDS database for PostgresSQL 2.



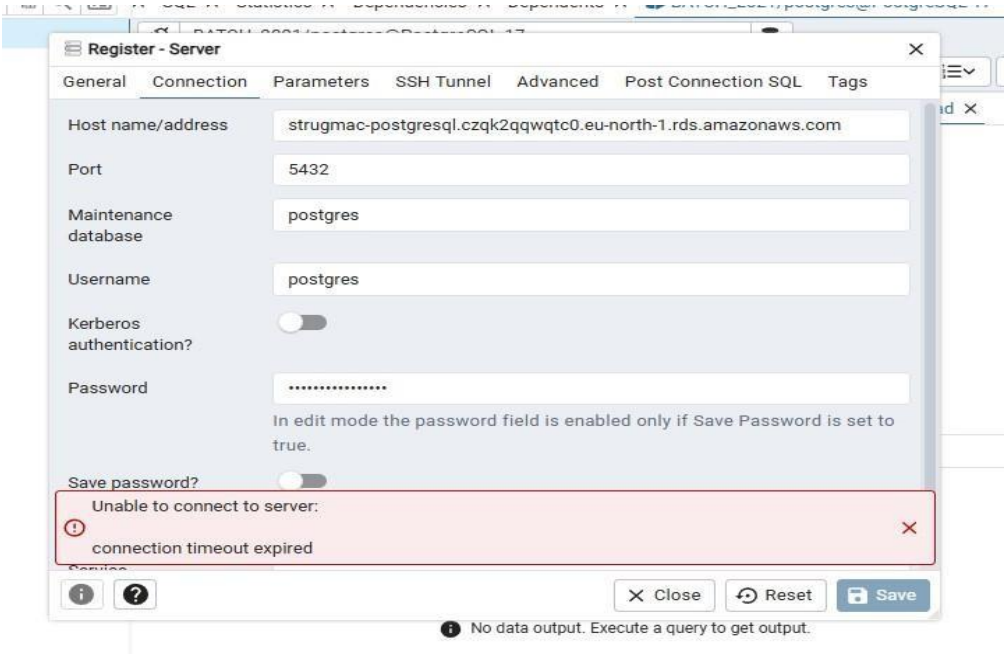
2. Connect from PgAdmin.

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





4. Click on Save



5. Might give this error as this DB instance is not available locally.

6. Change the INBOUND RULES of DB Instance from the AWS Console