Experiment 9

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Branch: CSE **Section/Group: KRG-2-B**
Semester: 5th **Date of Performance: 3/11/2025**
Subject Name: ADBMS **Subject Code: 23CSP-333**

1. Aim:

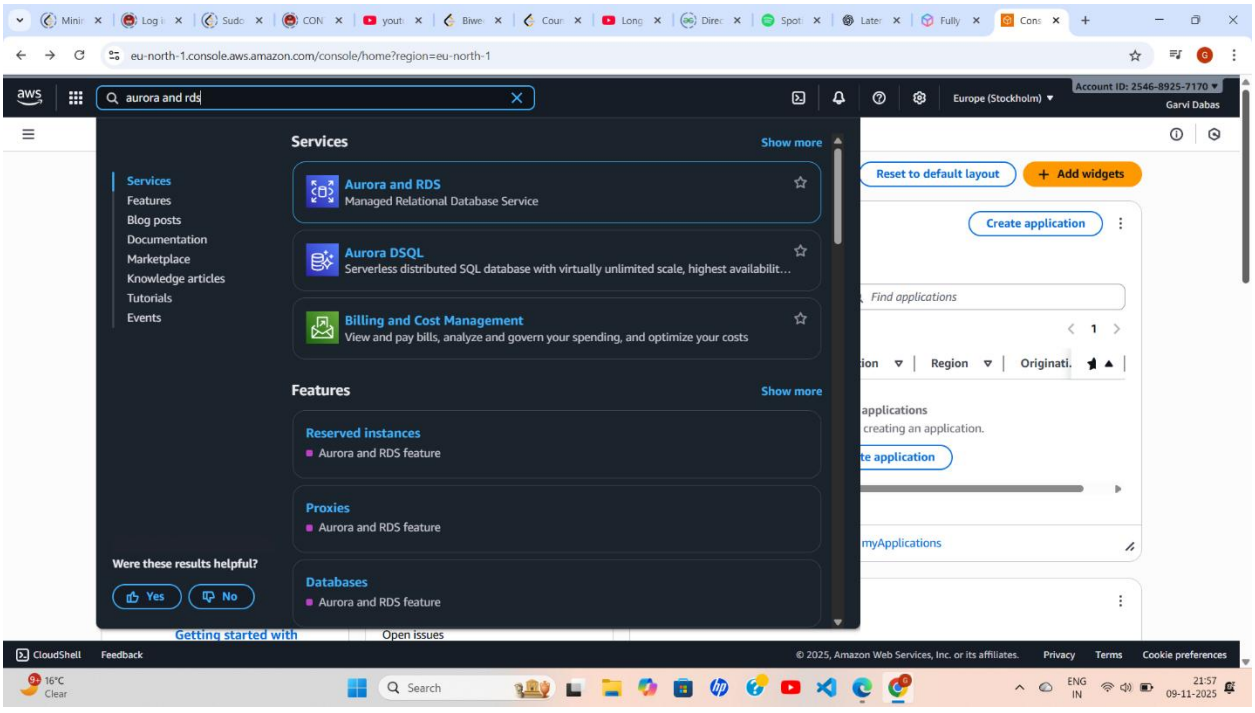
To understand and implement **Amazon Web Services Relational Database Service (AWS RDS)** by creating and configuring a **database instance**, managing **security groups**.

2. Objectives:

- To study the concept of **cloud-based relational databases** and their advantages over on-premises and EC2-hosted databases.
- To learn the step-by-step process of creating a database instance using AWS RDS.
- To understand the differences between 2-tier and 3-tier architectures and the placement of databases in cloud environments.

3. Hands-On Steps:

1. **Step 1:** Log in to AWS Console
2. **Step 2:** Create a Database Instance on AWS RDS
    a. From the AWS Management Console, search for RDS in the search bar.
    b. Click RDS → then click Create database.
    c. Choose Standard Create for full configuration control.
    d. Select Engine type → *PostgreSQL* (or MySQL as per requirement).
    e. Choose Free Tier if available.
    f. Under Settings, enter:
    g. DB instance identifier (e.g., *garvi-postgres-db*)
    h. Master username (e.g., *admin*)
    i. Master password (and confirm it)
    j. Under Connectivity, choose:
    k. VPC (Default)
    l. Public access: Yes
    m. Create new or select an existing security group
    n. Click Create Database.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aurora and rds
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Services
Show more
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Features
Blog posts
Documentation
Marketplace
Knowledge articles
Tutorials
Events
Aurora and RDS
Managed Relational Database Service
Aurora DSQL
Serverless distributed SQL database with virtually unlimited scale, highest availabilit...
Billing and Cost Management
View and pay bills, analyze and govern your spending, and optimize your costs
Features
Show more
Reserved instances
Aurora and RDS feature
Proxies
Aurora and RDS feature
Databases
Aurora and RDS feature
Were these results helpful?
Yes
No
Reset to default layout
+ Add widgets
Create application
Find applications
Region
creating an application.
myApplications
Getting started with
Open issues
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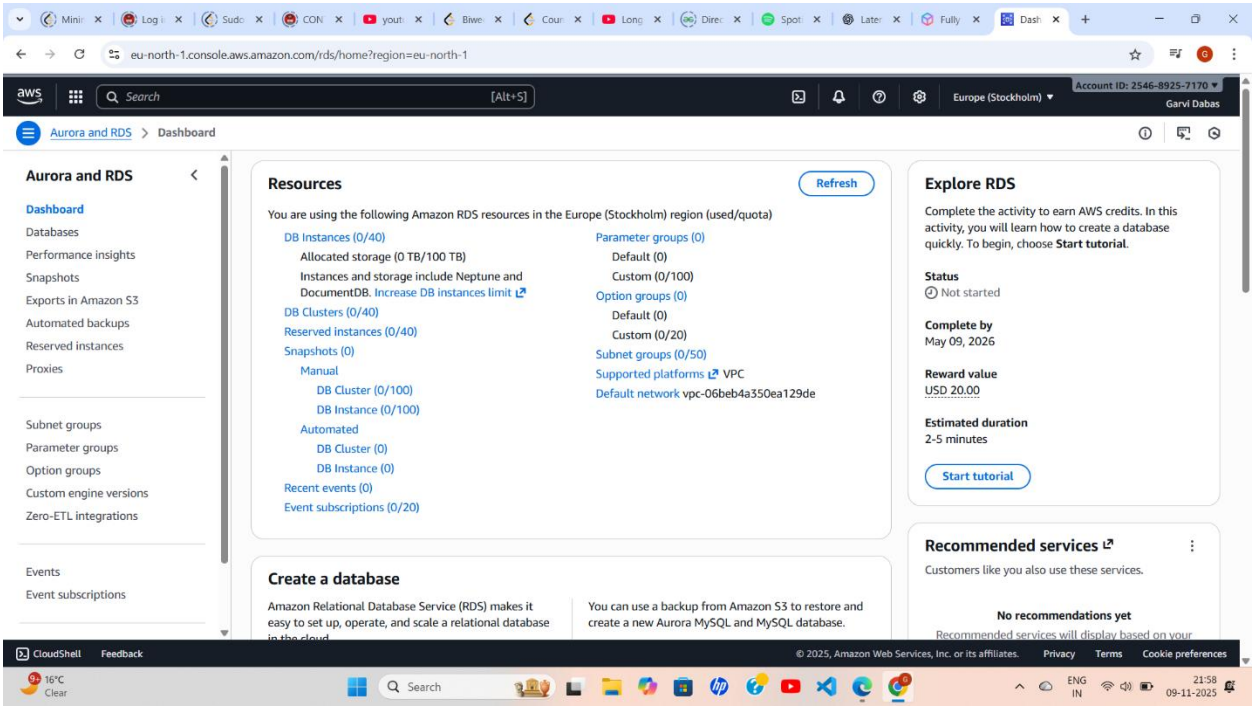
eu-north-1.console.aws.amazon.com/rds/home?region=eu-north-1
Search
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Europe (Stockholm)
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Aurora and RDS > Dashboard
Aurora and RDS
Dashboard
Databases
Performance insights
Snapshots
Exports in Amazon S3
Automated backups
Reserved instances
Proxies
Subnet groups
Parameter groups
Option groups
Custom engine versions
Zero-ETL integrations
Events
Event subscriptions
Resources
Refresh
You are using the following Amazon RDS resources in the Europe (Stockholm) region (used/quota)
DB Instances (0/40)
Allocated storage (0 TB/100 TB)
Instances and storage include Neptune and DocumentDB. Increase DB instances limit
DB Clusters (0/40)
Reserved instances (0/40)
Snapshots (0)
Manual
DB Cluster (0/100)
DB Instance (0/100)
Automated
DB Cluster (0)
DB Instance (0)
Recent events (0)
Event subscriptions (0/20)
Parameter groups (0)
Default (0)
Custom (0/100)
Option groups (0)
Default (0)
Custom (0/20)
Subnet groups (0/50)
Supported platforms VPC
Default network vpc-06beb4a350ea129de
Explore RDS
Complete the activity to earn AWS credits. In this activity, you will learn how to create a database quickly. To begin, choose Start tutorial.
Status
Not started
Complete by
May 09, 2026
Reward value
USD 20.00
Estimated duration
2-5 minutes
Start tutorial
Recommended services
Customers like you also use these services.
No recommendations yet
Create a database
Amazon Relational Database Service (RDS) makes it easy to set up, operate, and scale a relational database in the cloud.
You can use a backup from Amazon S3 to restore and create a new Aurora MySQL and MySQL database.
CloudShell
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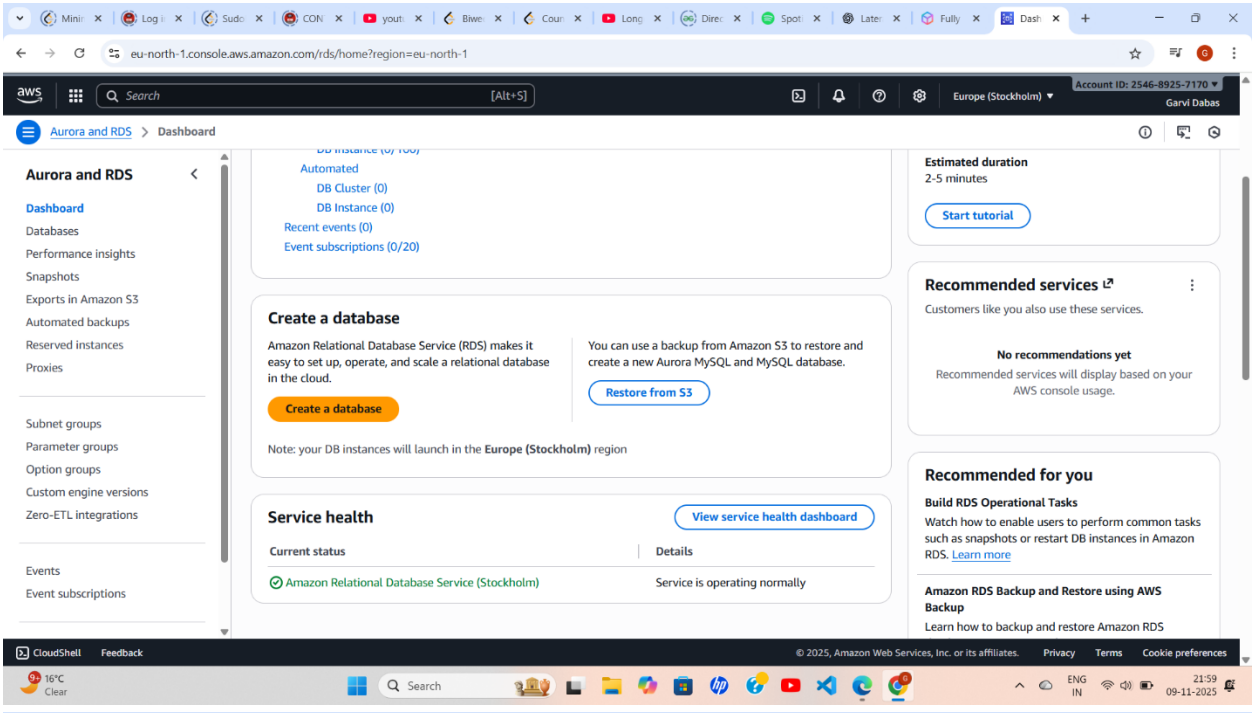
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Aurora and RDS > Dashboard
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Exports in Amazon S3
Automated backups
Reserved instances
Proxies
Subnet groups
Parameter groups
Option groups
Custom engine versions
Zero-ETL integrations
Events
Event subscriptions
Automated
DB Cluster (0)
DB Instance (0)
Recent events (0)
Event subscriptions (0/20)
Create a database
Amazon Relational Database Service (RDS) makes it easy to set up, operate, and scale a relational database in the cloud.
Create a database
You can use a backup from Amazon S3 to restore and create a new Aurora MySQL and MySQL database.
Restore from S3
Note: your DB instances will launch in the Europe (Stockholm) region
Service health
View service health dashboard
Current status
Details
Amazon Relational Database Service (Stockholm)
Service is operating normally
Estimated duration
2-5 minutes
Start tutorial
Recommended services
Customers like you also use these services.
No recommendations yet
Recommended services will display based on your AWS console usage.
Recommended for you
Build RDS Operational Tasks
Watch how to enable users to perform common tasks such as snapshots or restart DB instances in Amazon RDS. Learn more
Amazon RDS Backup and Restore using AWS Backup
Learn how to backup and restore Amazon RDS
CloudShell
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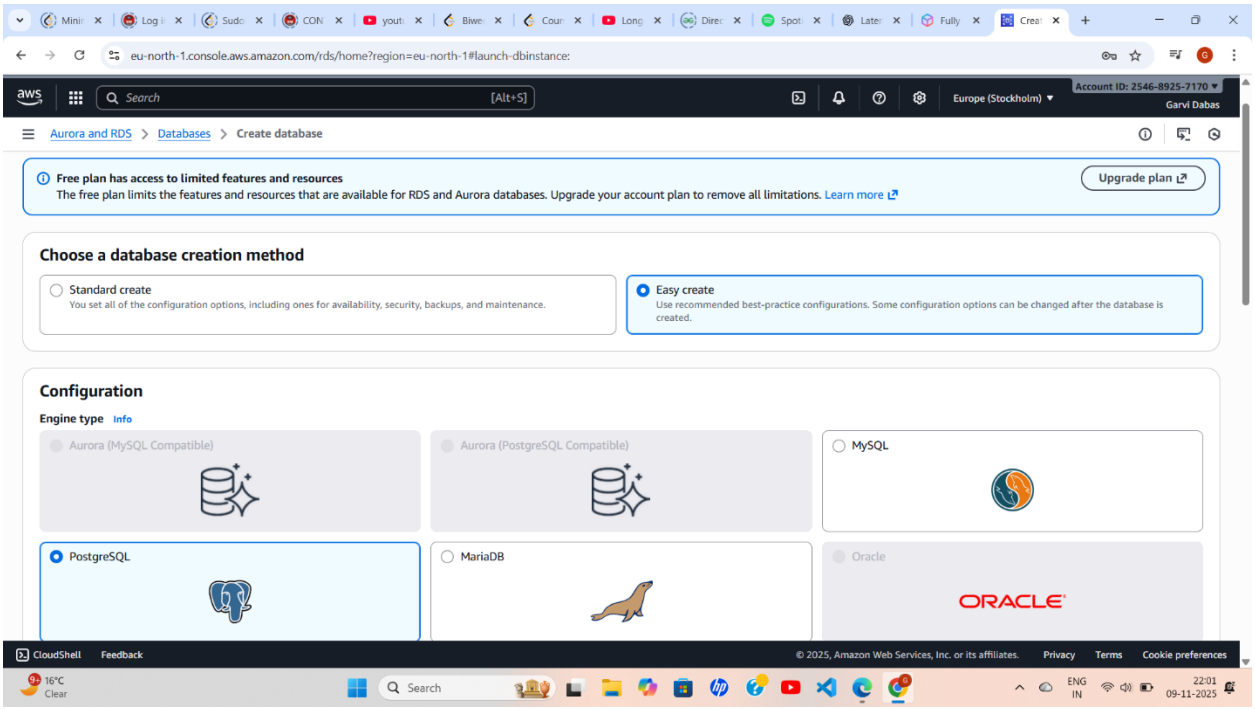
eu-north-1.console.aws.amazon.com/rds/home?region=eu-north-1#launch-dbinstance:
Search
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Europe (Stockholm)
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Aurora and RDS > Databases > Create database
Free plan has access to limited features and 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
ORACLE
CloudShell
Feedback
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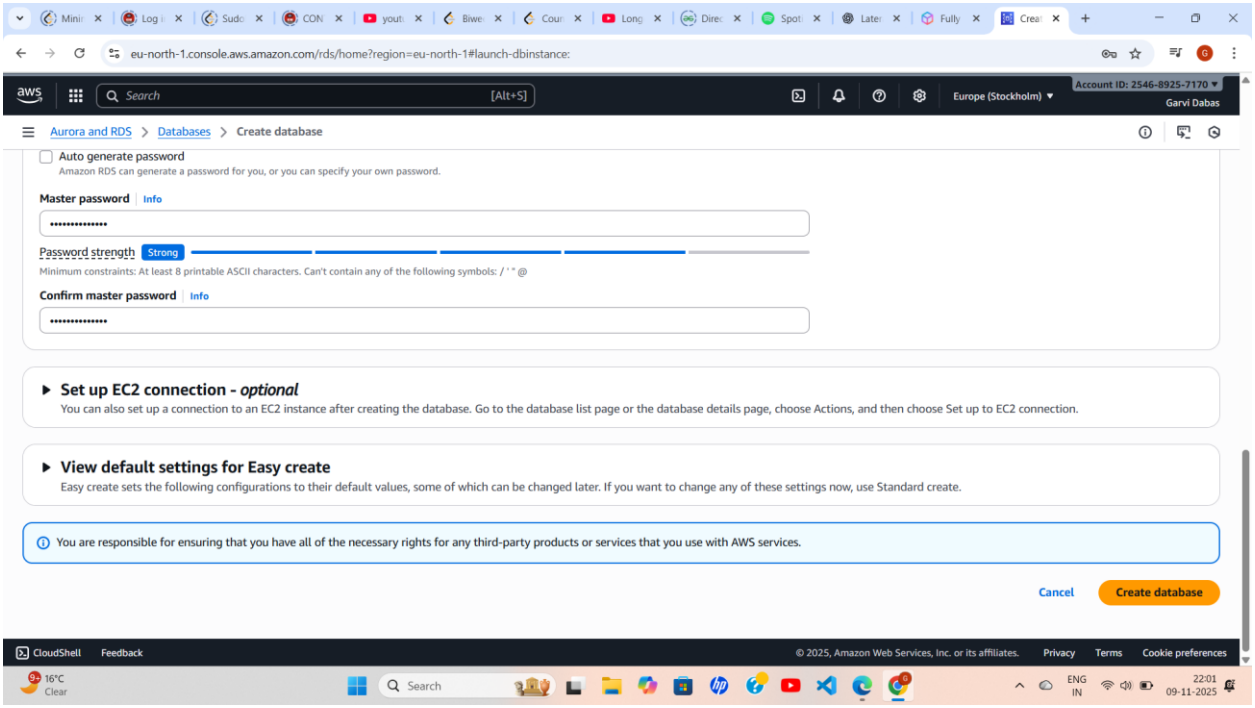
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Search [Alt+S]
Europe (Stockholm)
Account ID: 2546-8925-7170
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Aurora and RDS > Databases > Create database
Auto generate password
Amazon RDS can generate a password for you, or you can specify your own password.
Master password | Info
Password strength Strong
Minimum constraints: At least 8 printable ASCII characters. Can't contain any of the following symbols: / ' " @
Confirm master password | Info
Set up EC2 connection - optional
You can also set up a connection to an EC2 instance after creating the database. Go to the database list page or the database details page, choose Actions, and then choose Set up to EC2 connection.
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.
You are responsible for ensuring that you have all of the necessary rights for any third-party products or services that you use with AWS services.
Cancel
Create database
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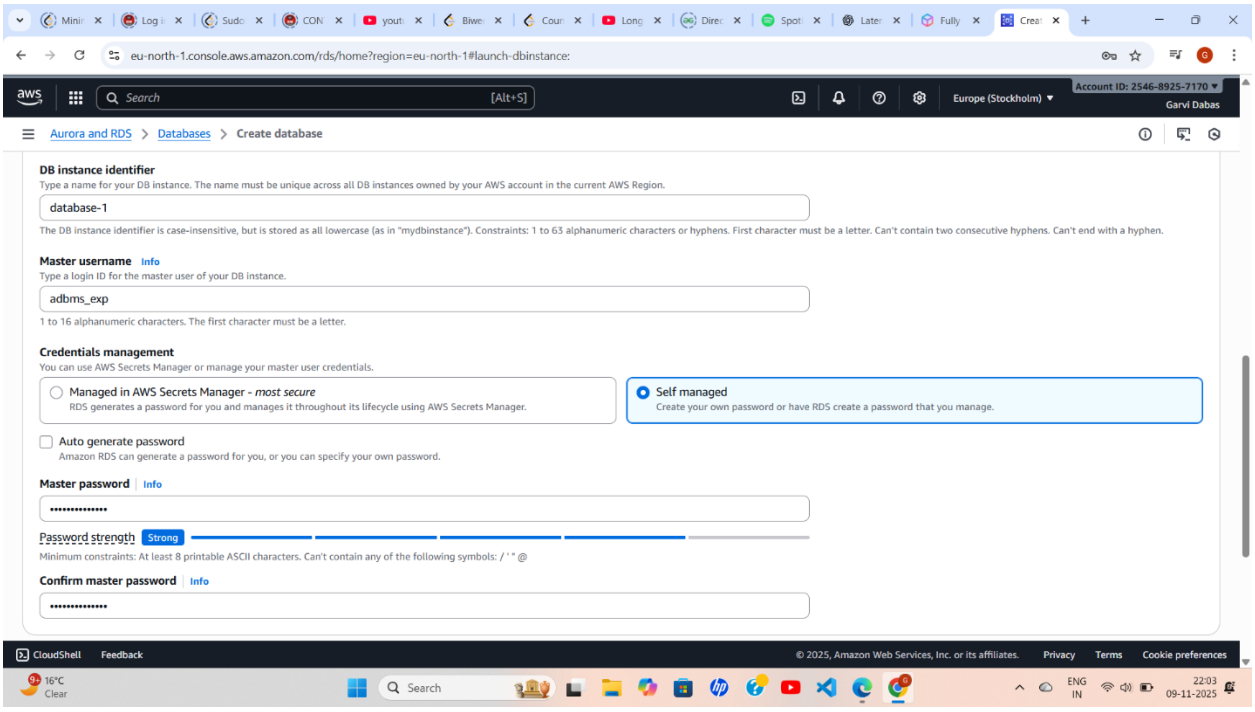
eu-north-1.console.aws.amazon.com/rds/home?region=eu-north-1#launch-dbinstance:
Search [Alt+S]
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Aurora and RDS > Databases > Create database
DB instance identifier
Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.
database-1
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.
adbms_exp
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 Strong
Minimum constraints: At least 8 printable ASCII characters. Can't contain any of the following symbols: / ' " @
Confirm master password | Info
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3. **Step 3:** View the RDS Instance
   a. Wait for the status to change from Creating → Available.
   b. Copy the Endpoint (e.g., mydbinstance.abcdef123456.us-east-1.rds.amazonaws.com) — you'll use it to connect.