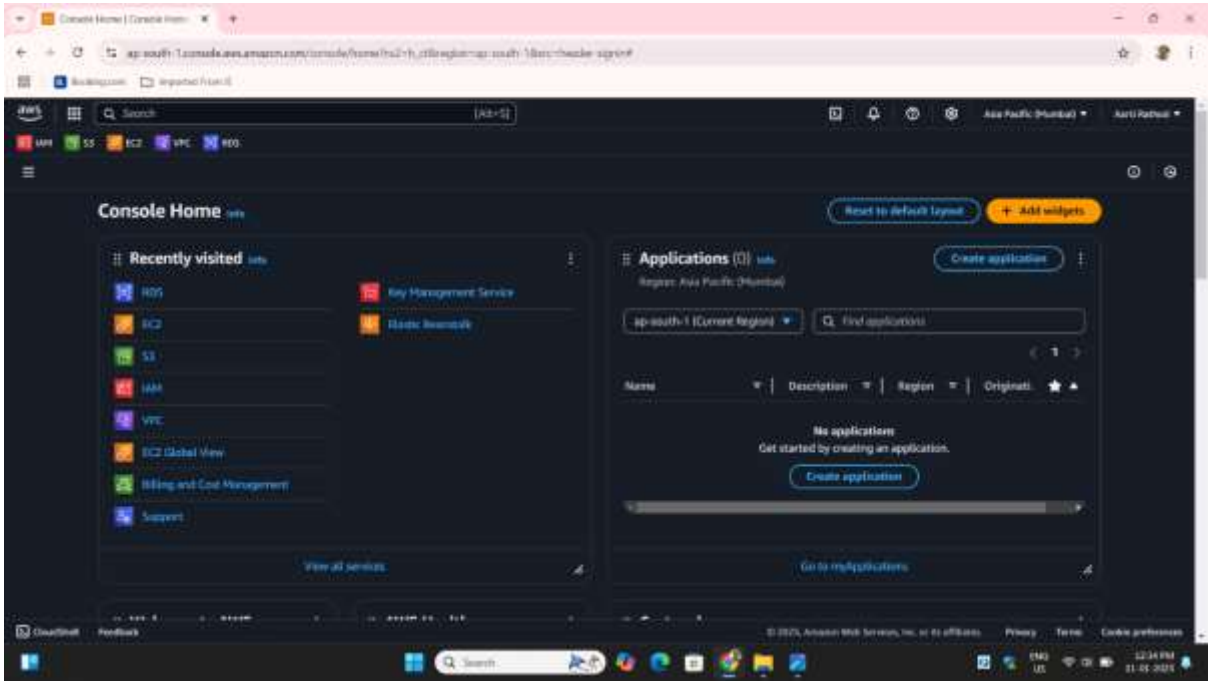
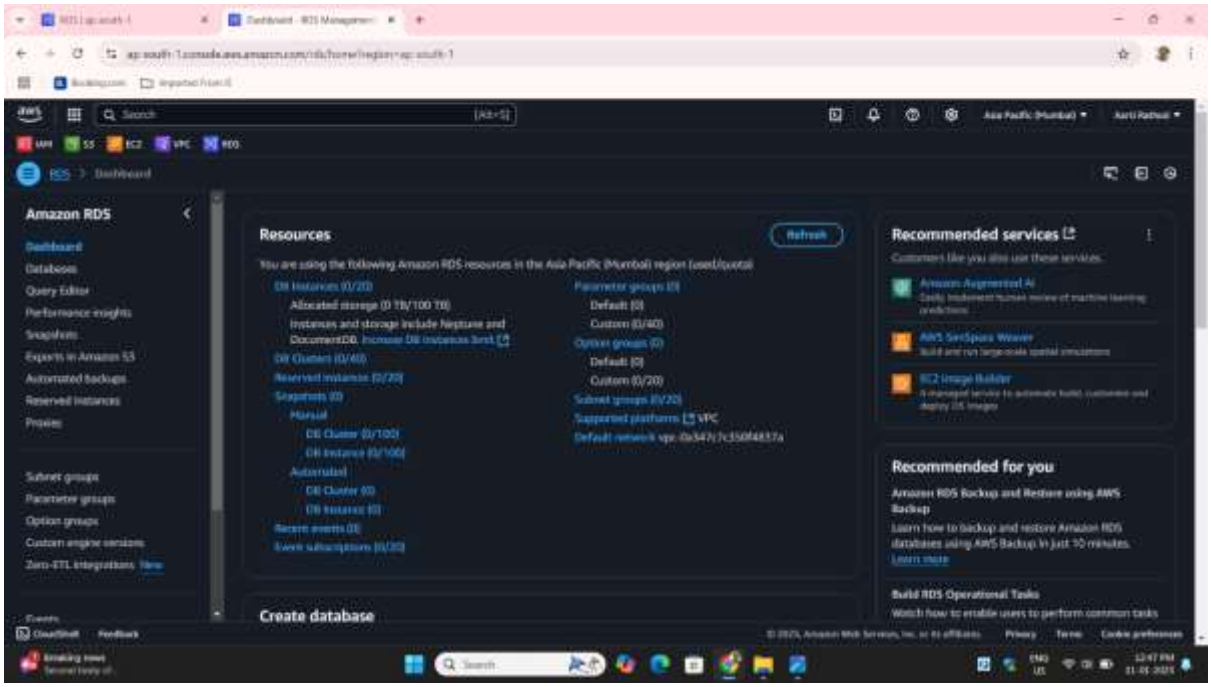
Deploying and Managing MariaDB on AWS using EC2 and RDS

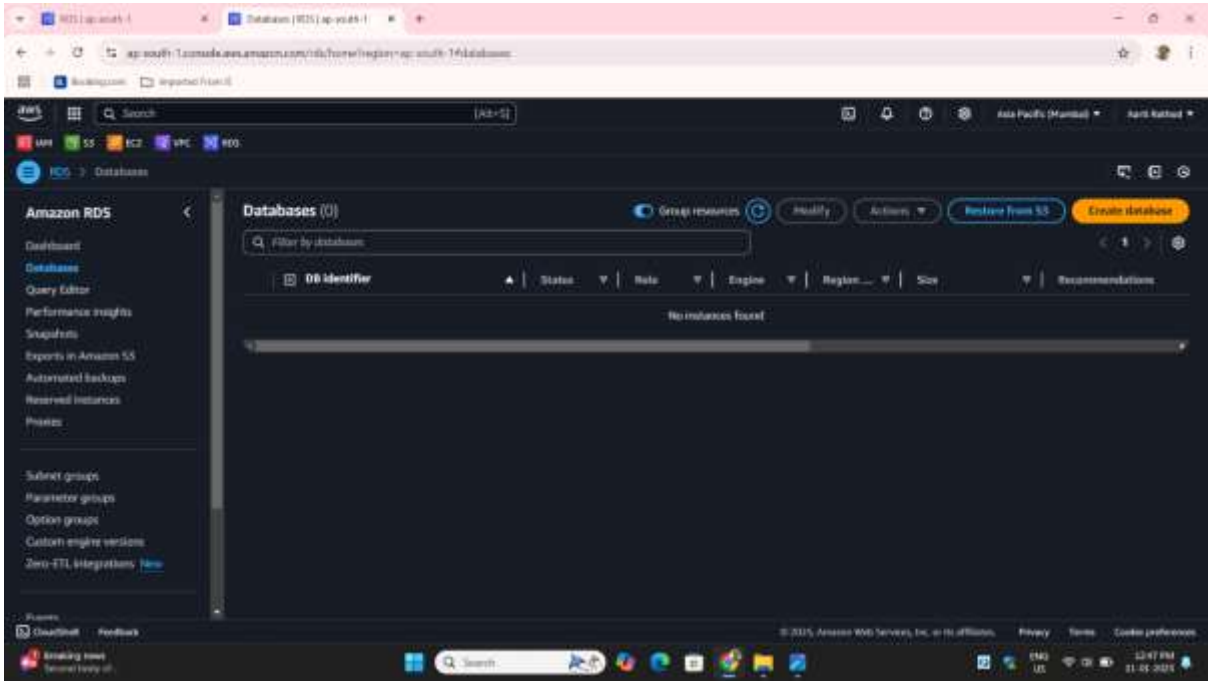
Step 1 : Log in to the AWS Management Console



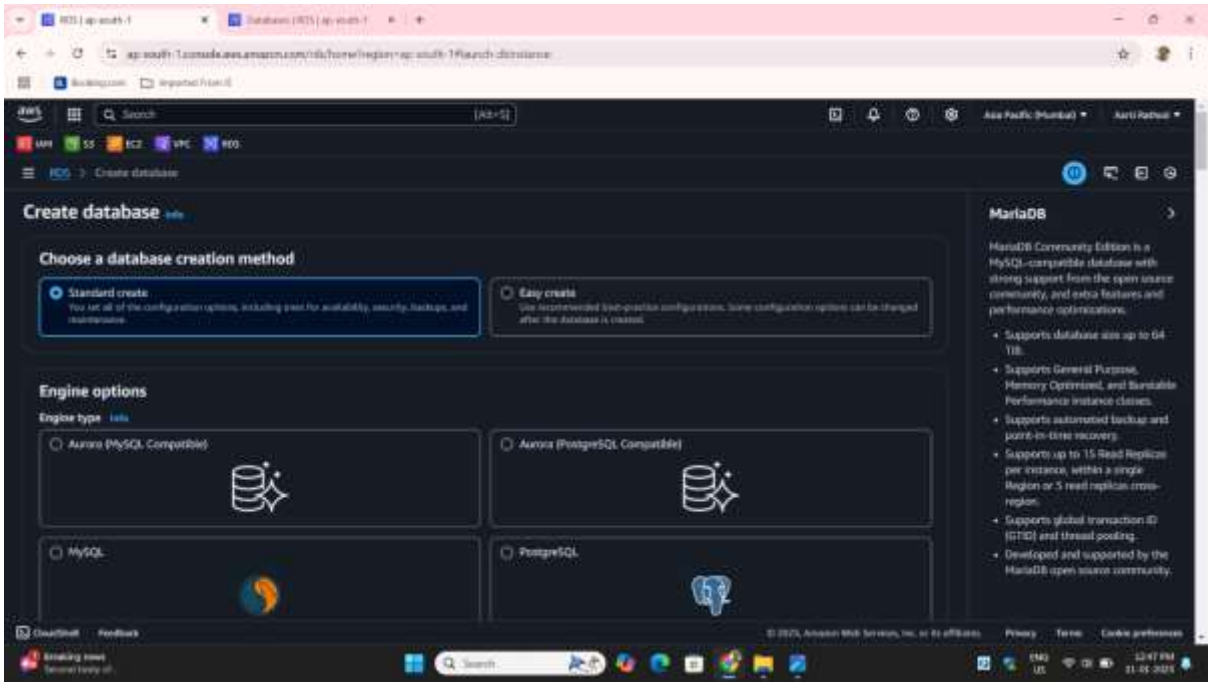
Step 2 : Navigate to the RDS service.



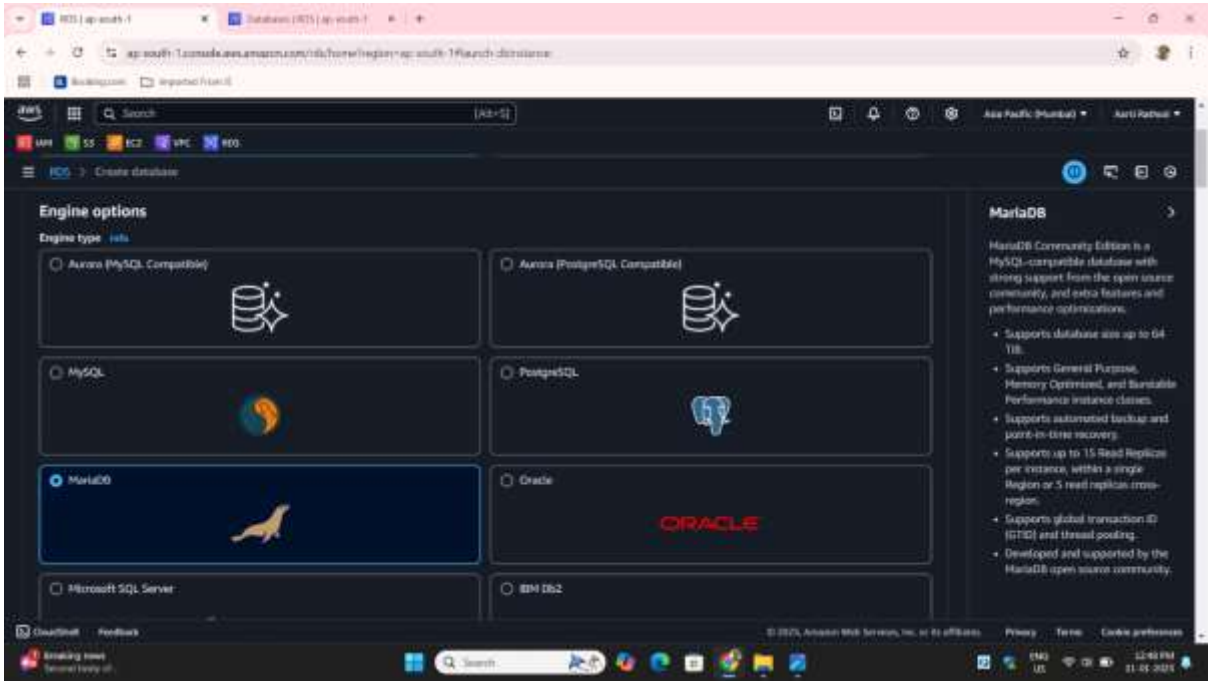
Step 3 : Click Create database.



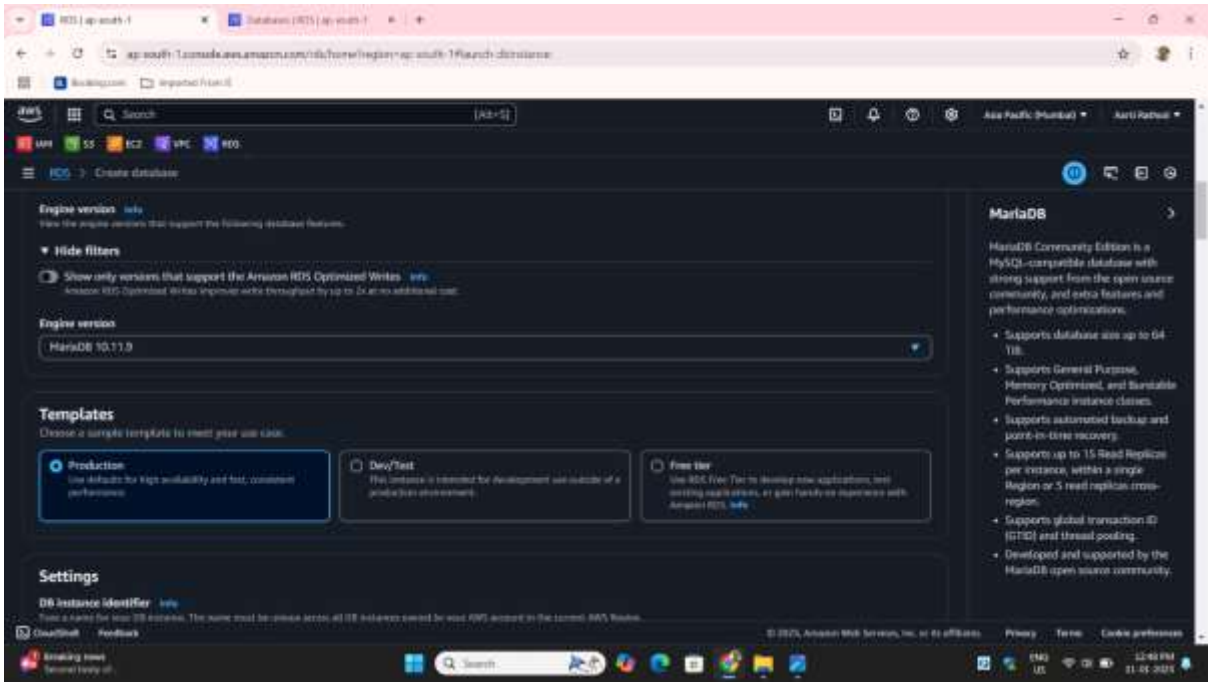
Select Standard create for more control over settings.



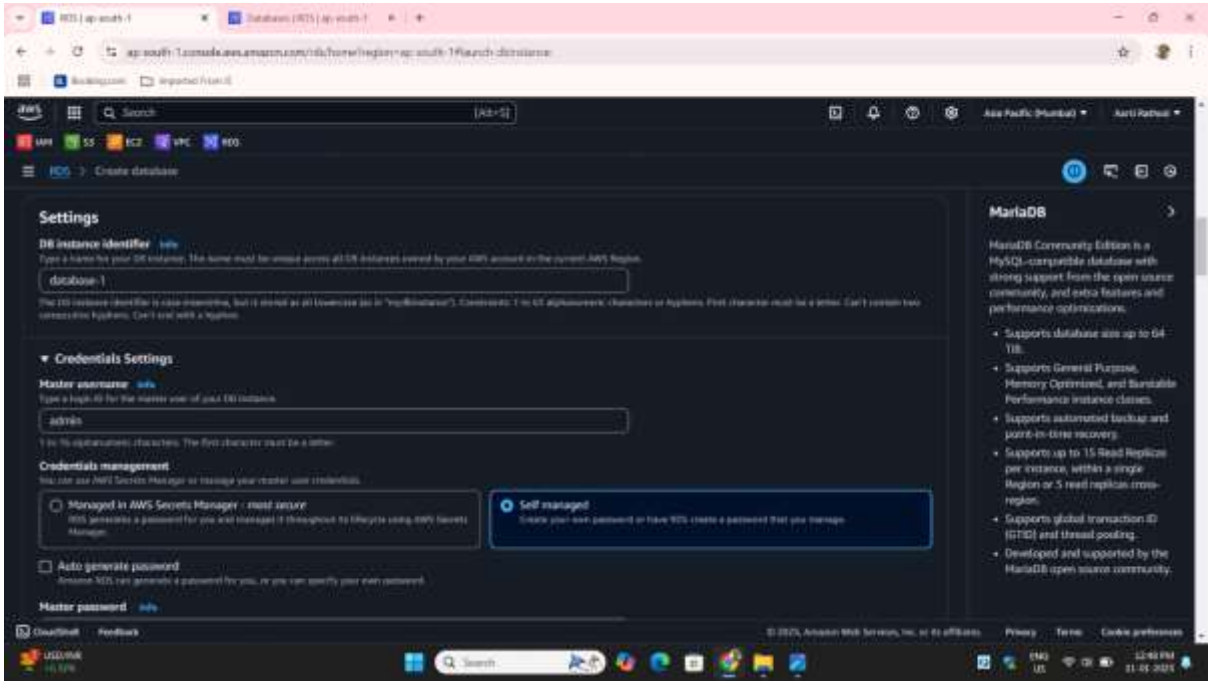
choose your database engine MariaDB



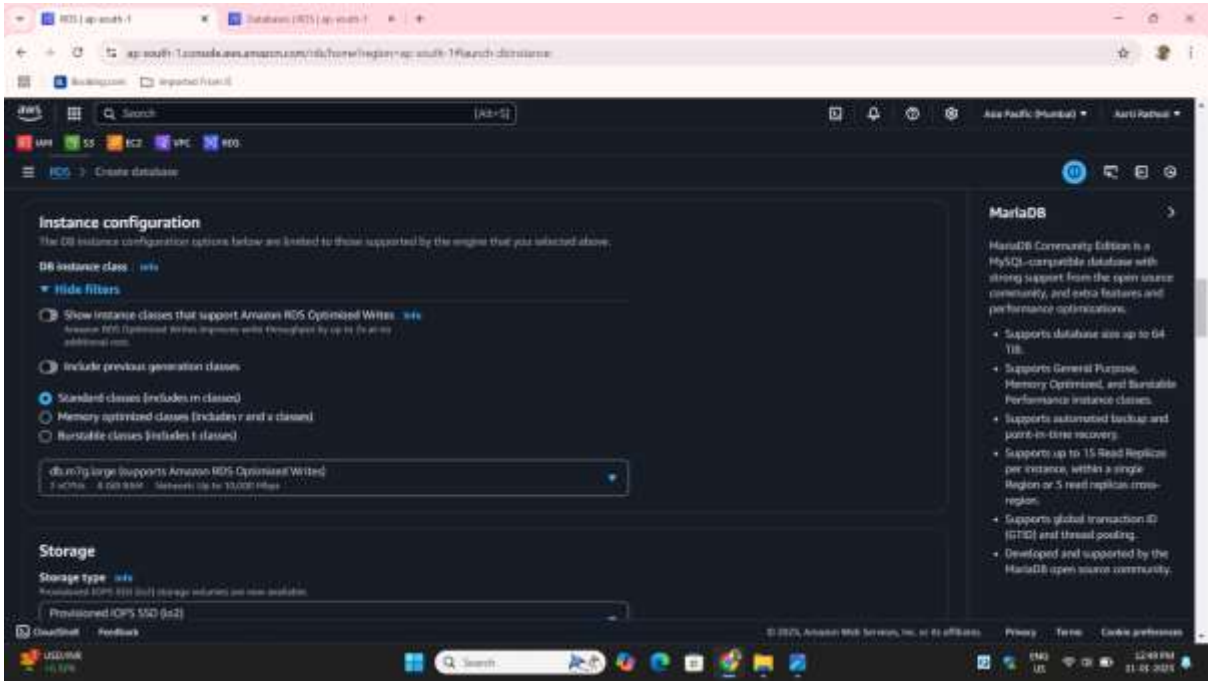
Choose Engine Version: Select the required version.Choose Templates: Choose Production



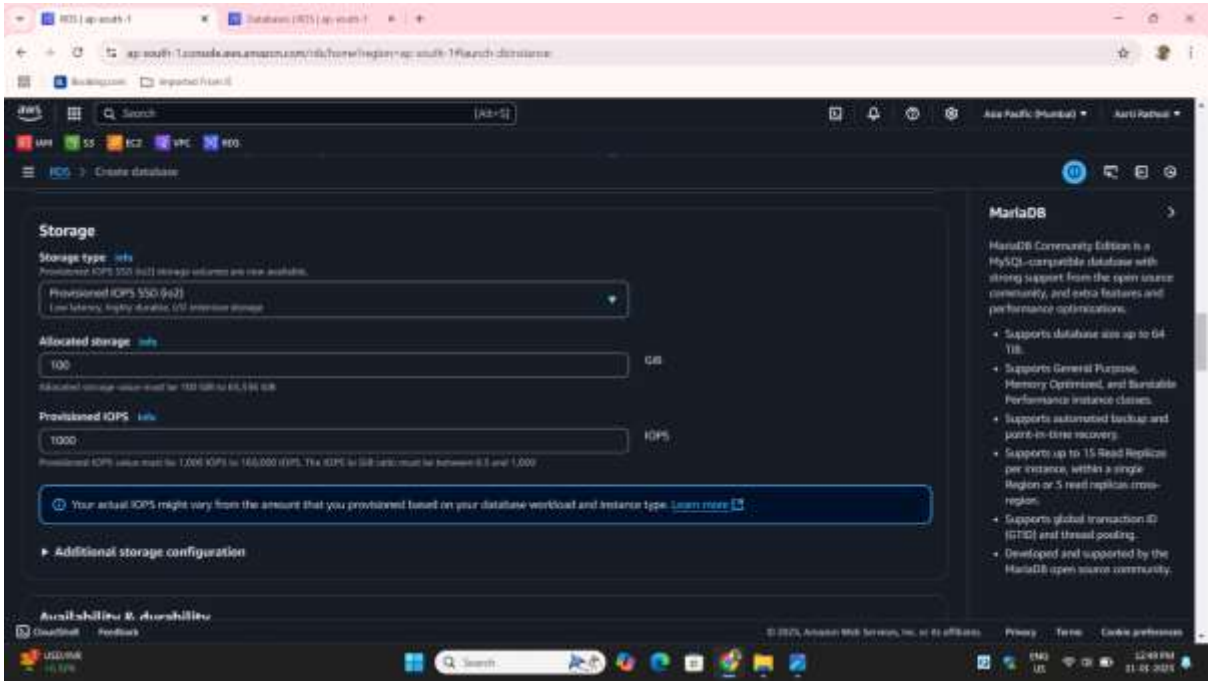
1. **DB Instance Identifier: Enter a unique name for your database (e.g., mydb-instance).**
2. **Master Username: Set the admin username for managing the database.**
3. **Credentials Management: choose self manage**
    - **Select Auto-generate a password if you want AWS to create a strong password.**
    - **Alternatively, enter your own password manually.**



Choose standard classes for cpu and memory for everyday use

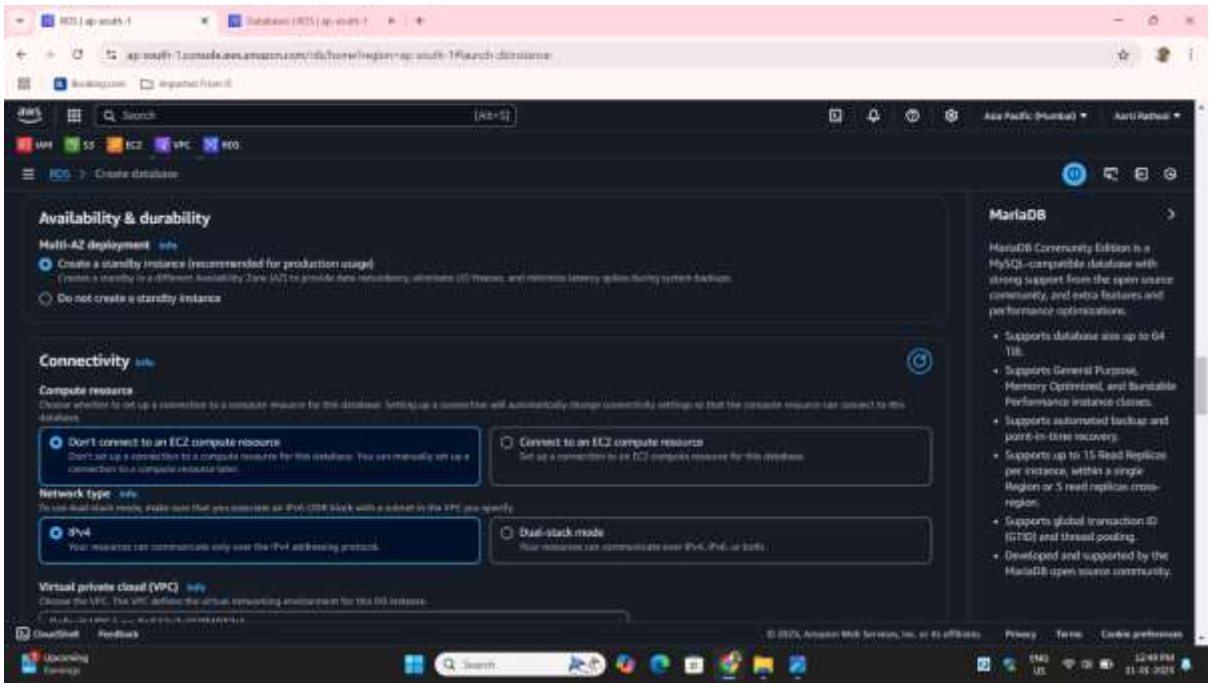


Set the storage type (e.g., General Purpose SSD). Allocate sufficient storage space (minimum 20GB for production). Enable storage autoscaling if required.

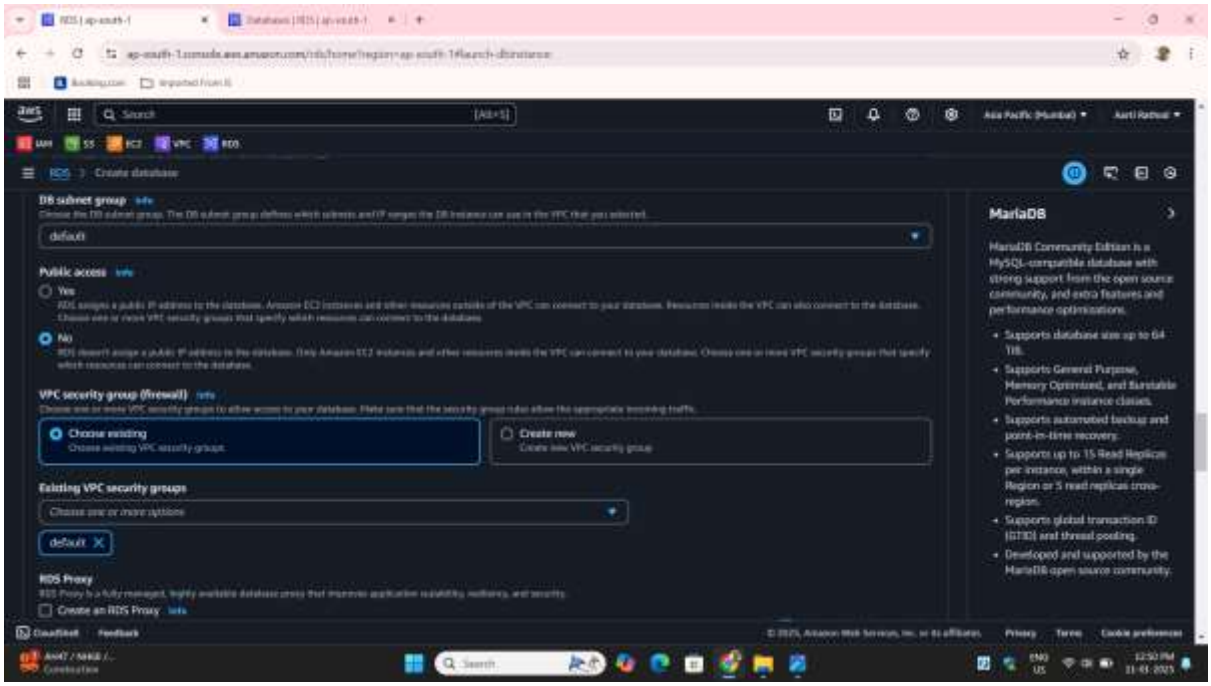


Enable Multi-AZ Deployment for high availability.Create a standby instance for a backup to keep your database available if it fails.

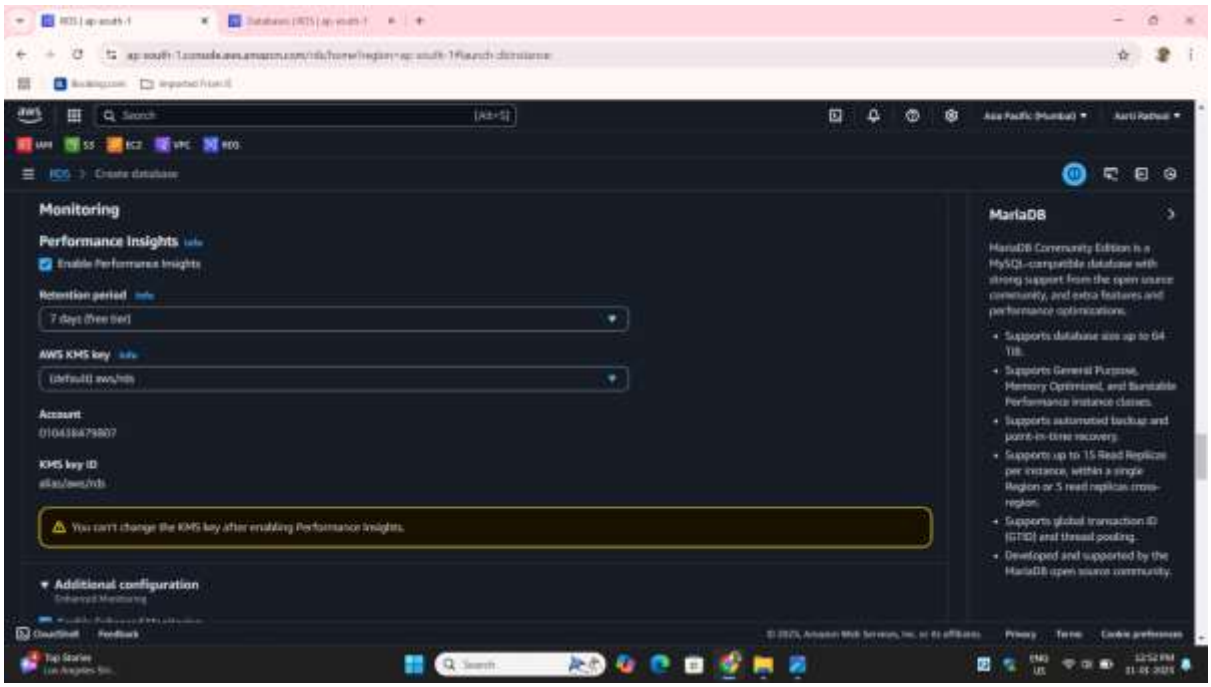
Choose Don’t connect EC2 instace compute resource this we will do manually. Choose network type IPV4



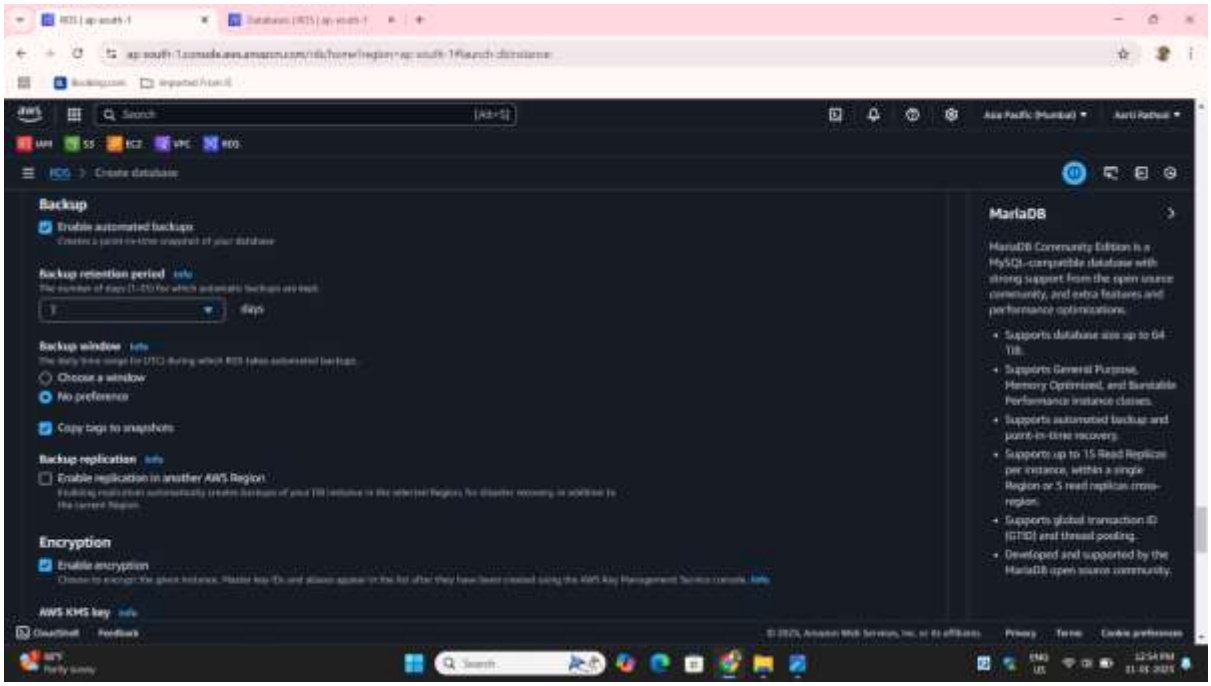
VPC: Select the VPC for the database. Public Access: Enable if the database needs external access.



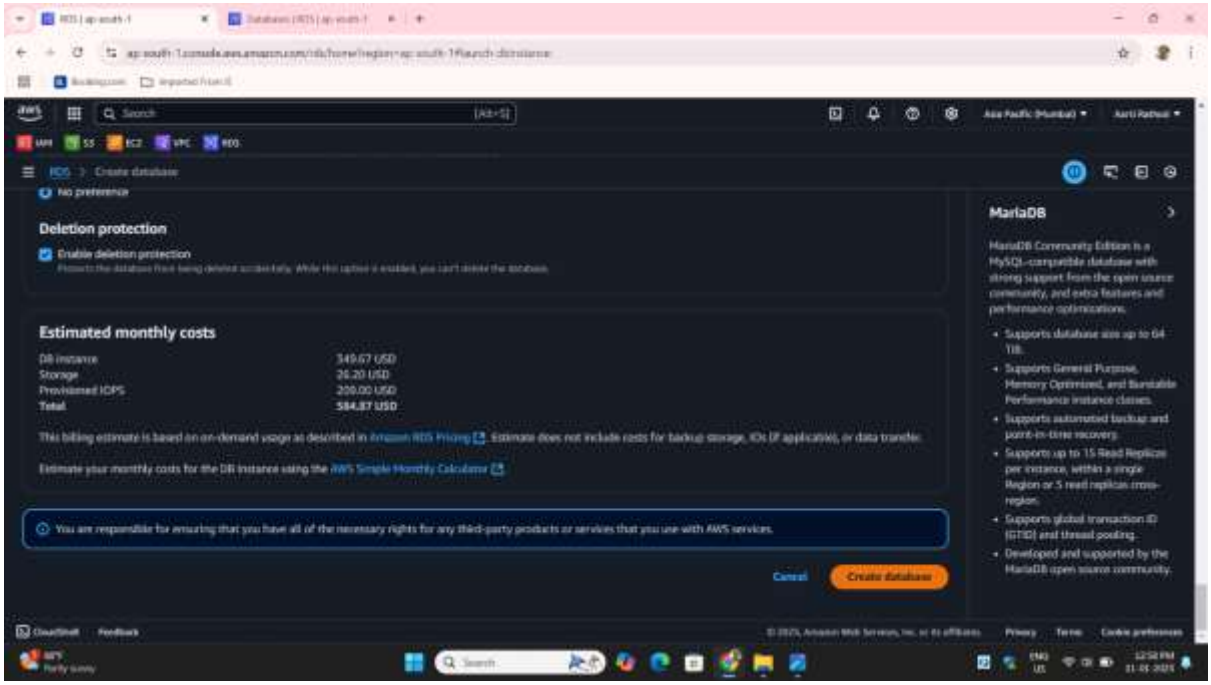
Enable performance insights for track and analyze database performance



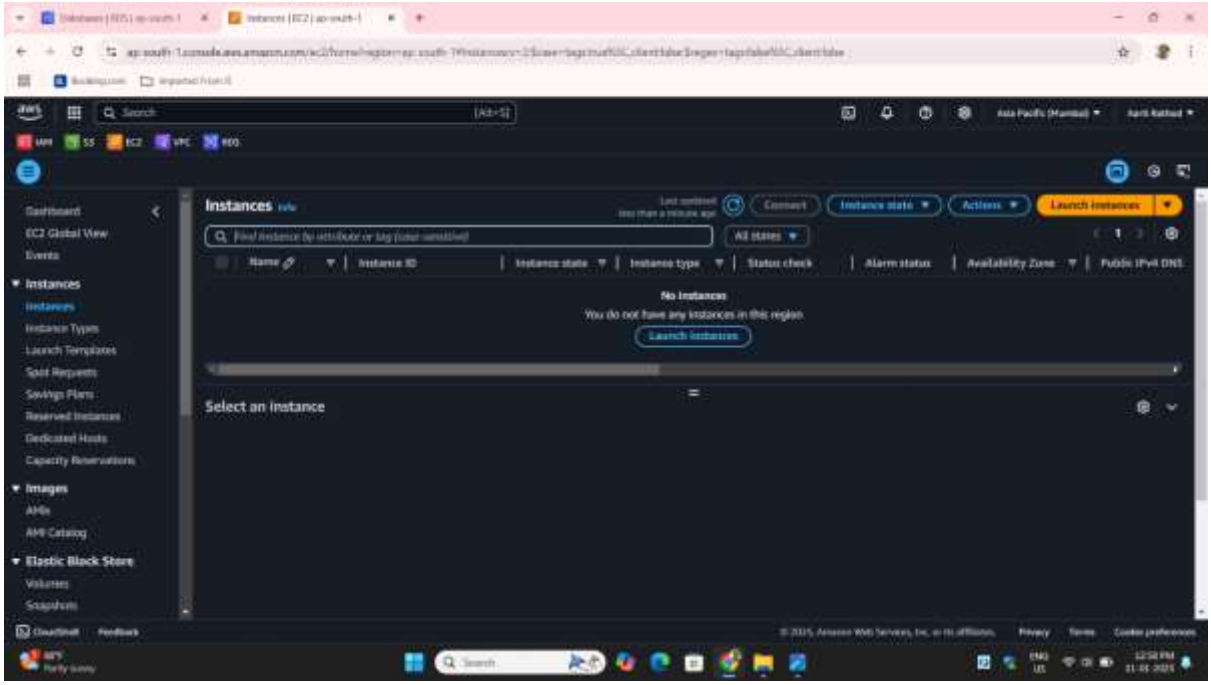
It refers to automatically saving copies of your database to protect against data loss.



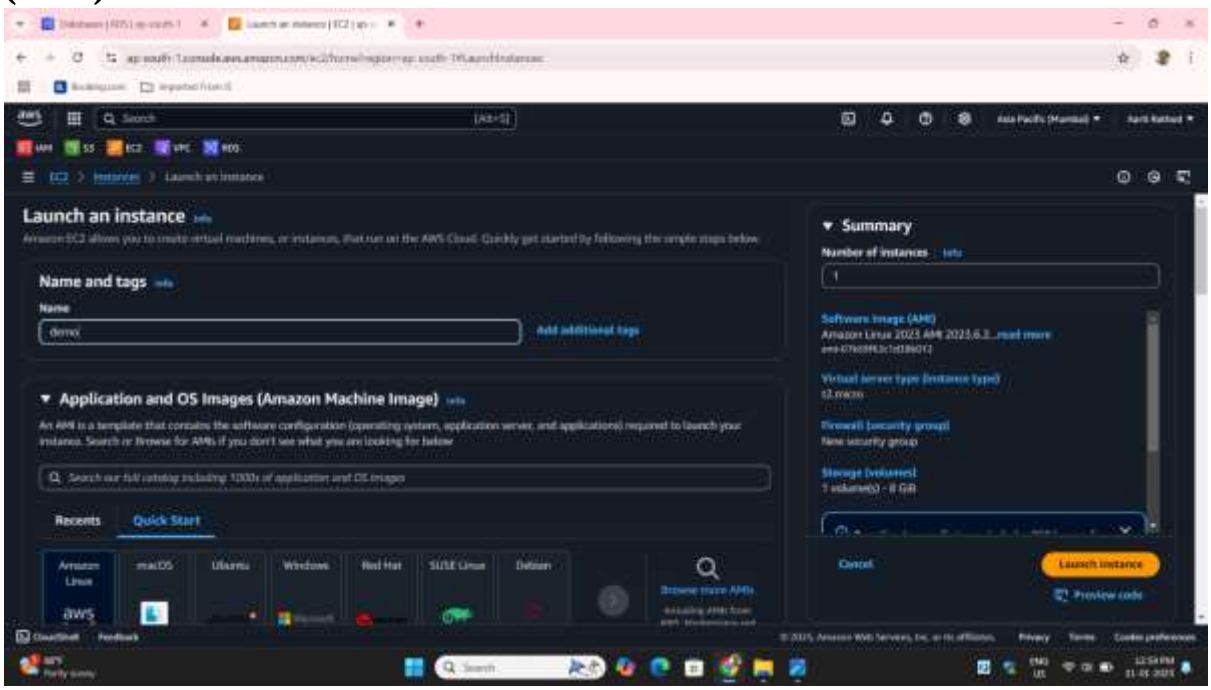
Delete Protection in RDS prevents accidental deletion of your database instance. Click on Create database



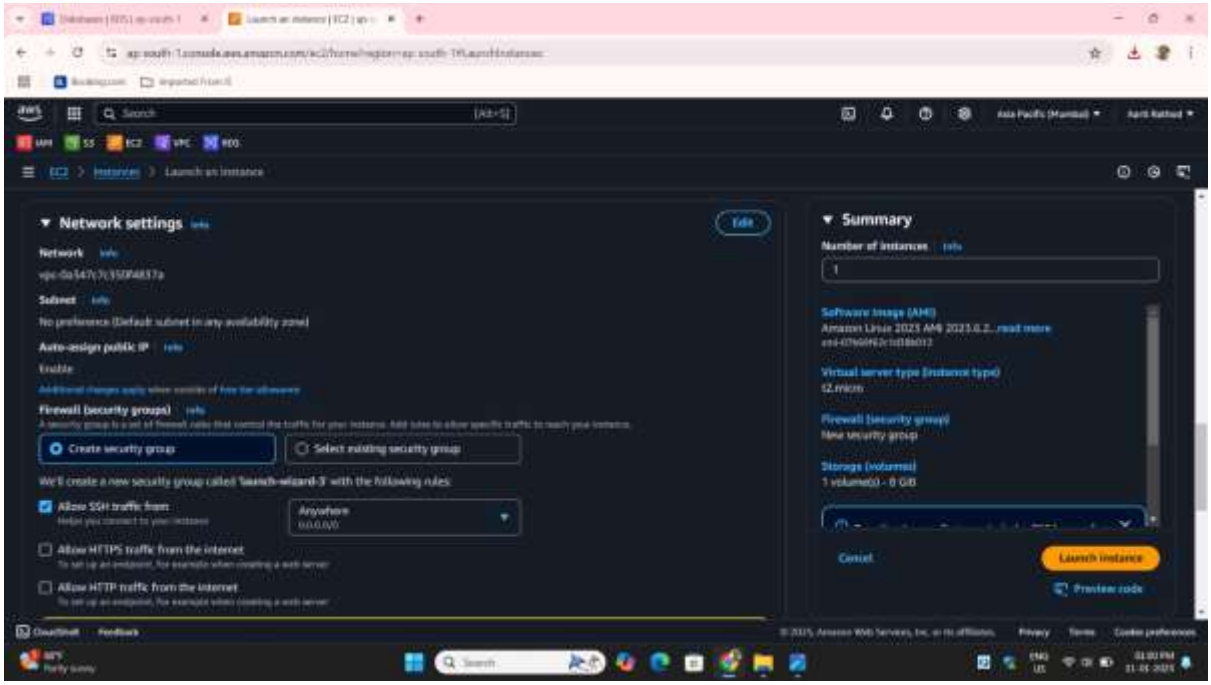
Log in to AWS Management Console: Go to EC2 Dashboard. Launch Instance: Click on Launch Instance to start the creation process.



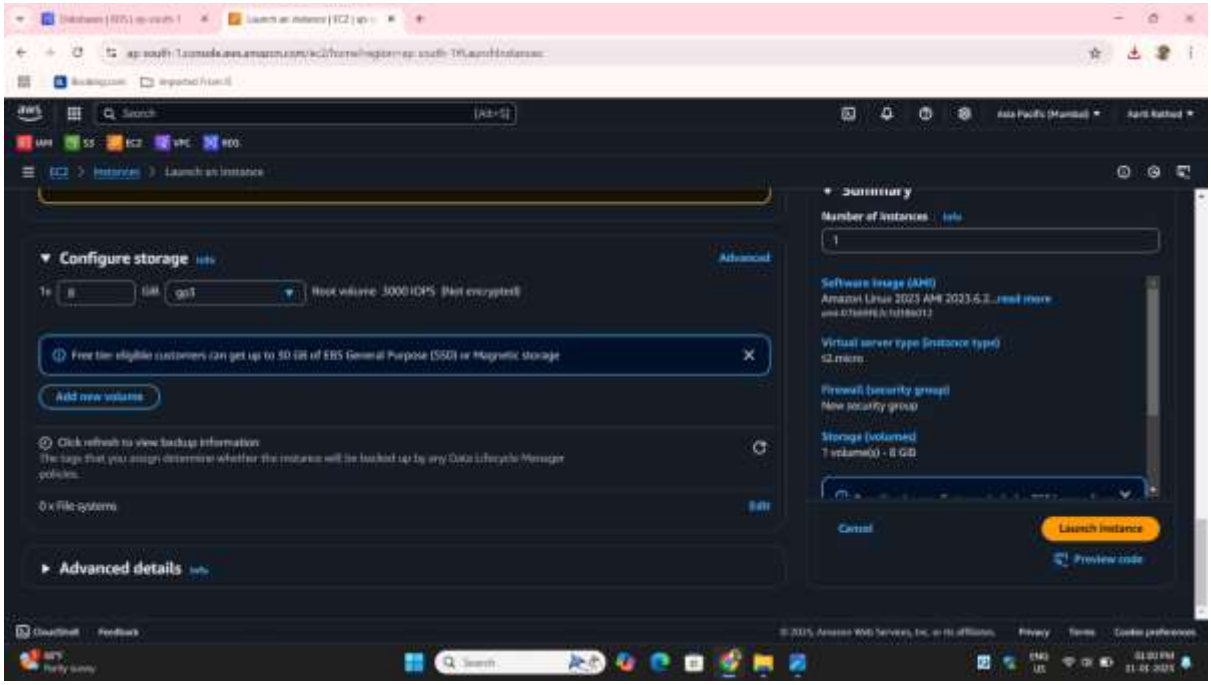
Give a name Demo to your Instance Choose an Amazon Machine Image (AMI): Amazon Machine



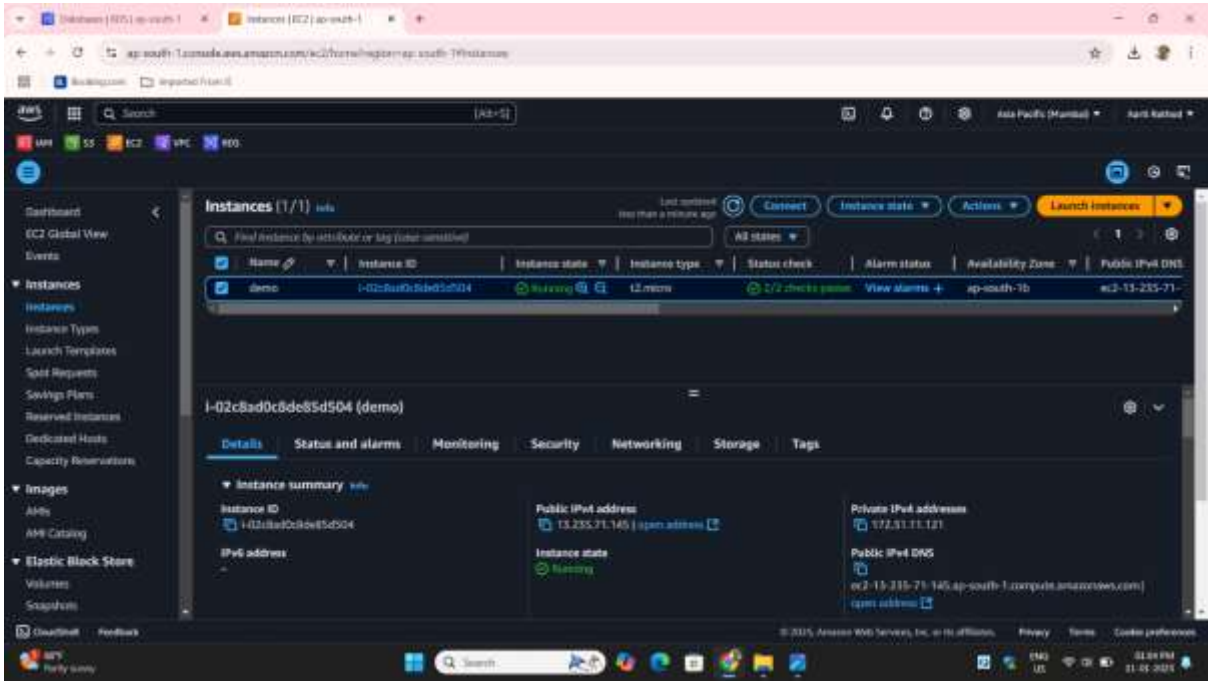
Create key pair



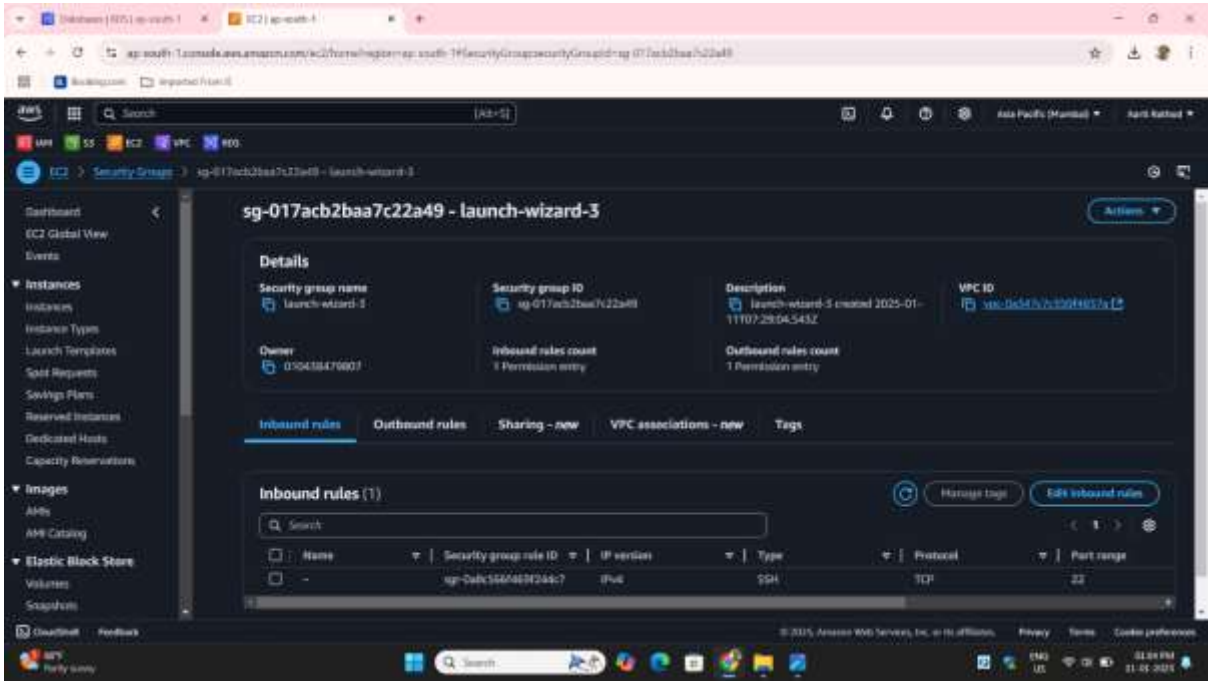
Click on Launch Instance



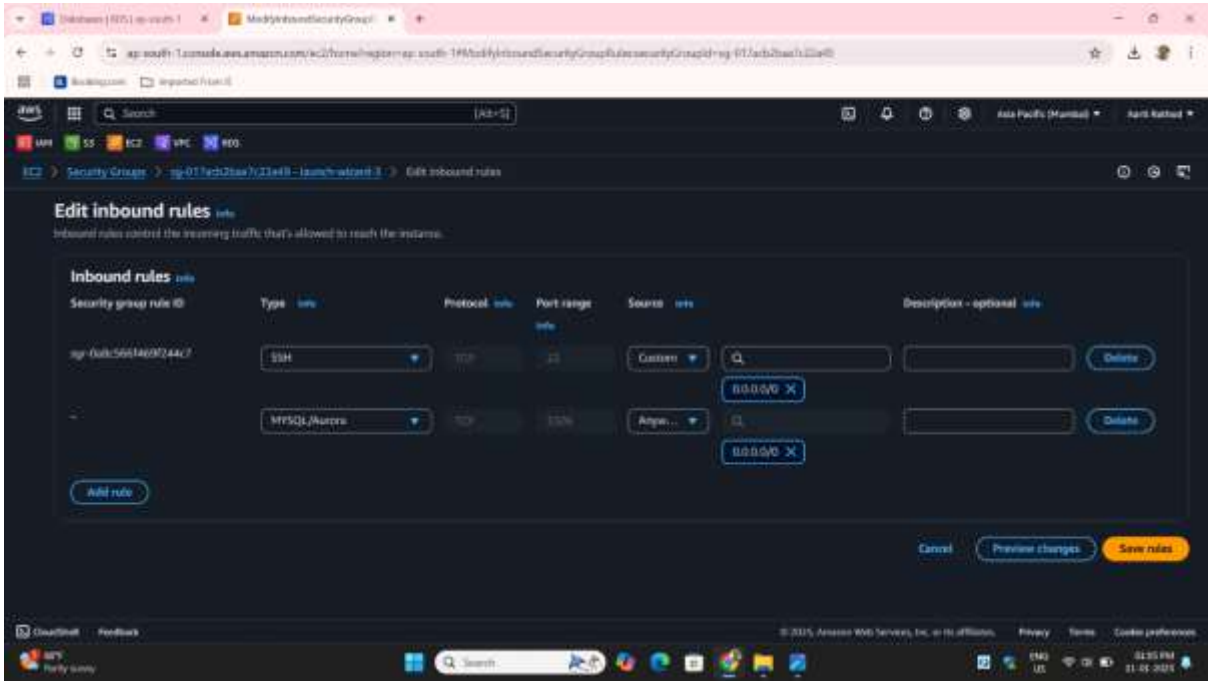
Instance is created go to instance security Group



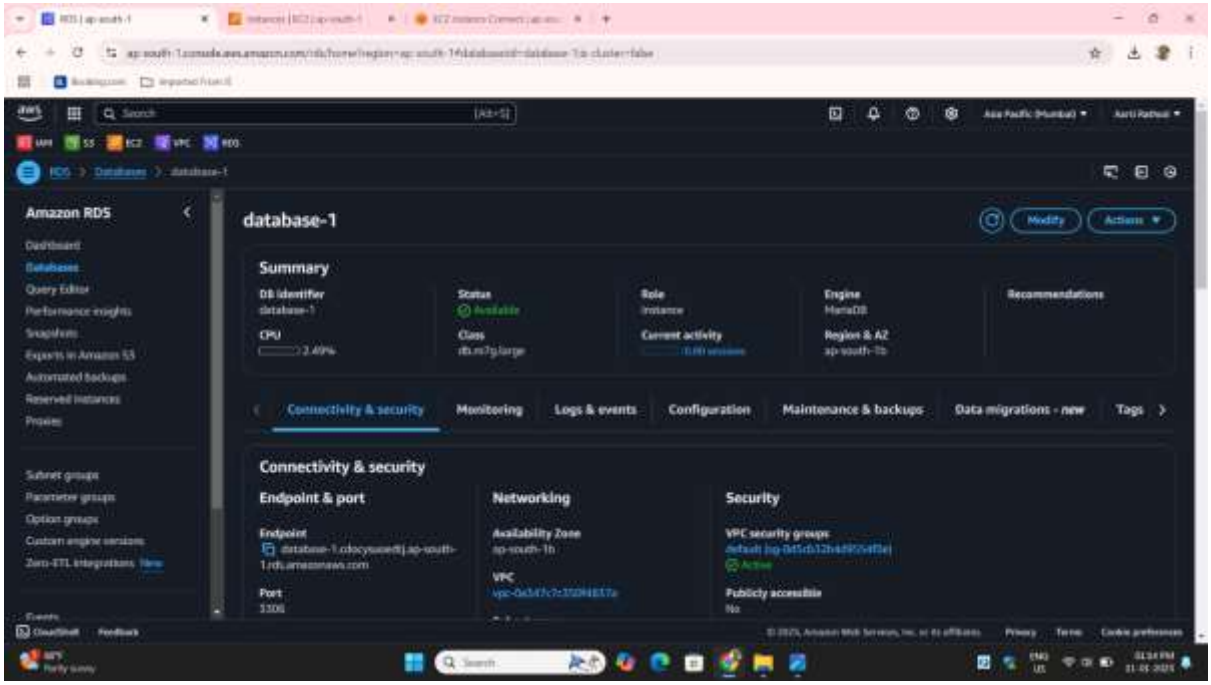
Click on Edit Inbound Rules



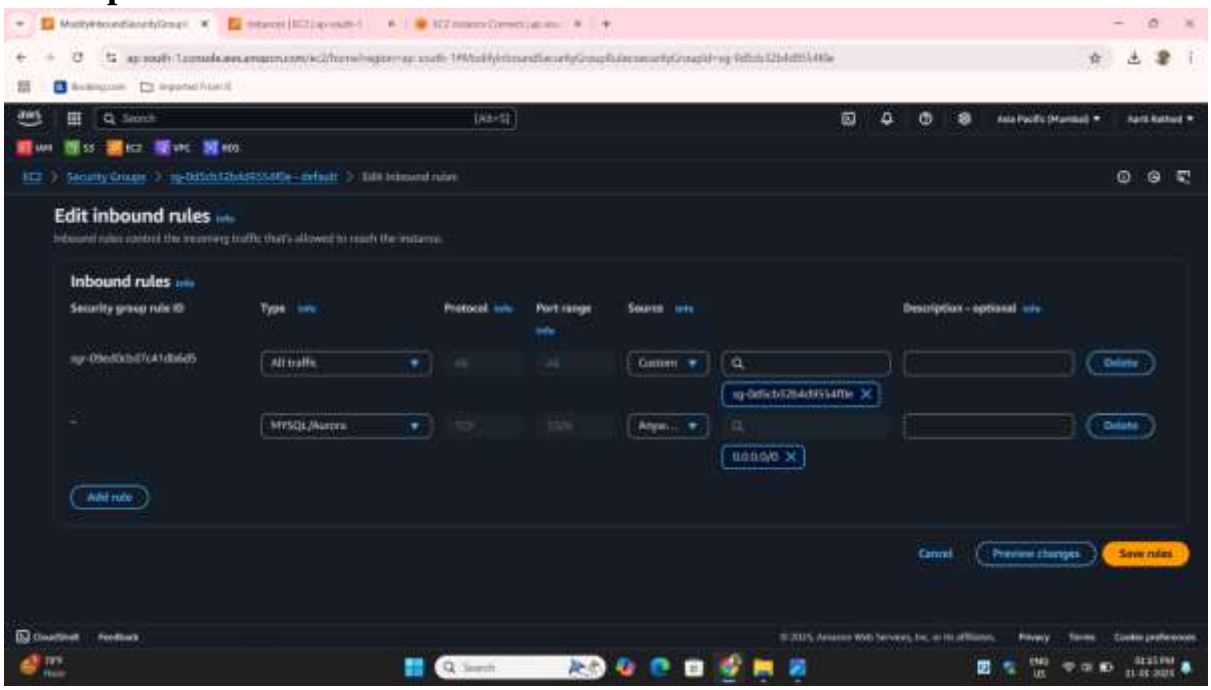
Allow port 3306 in Instance security group



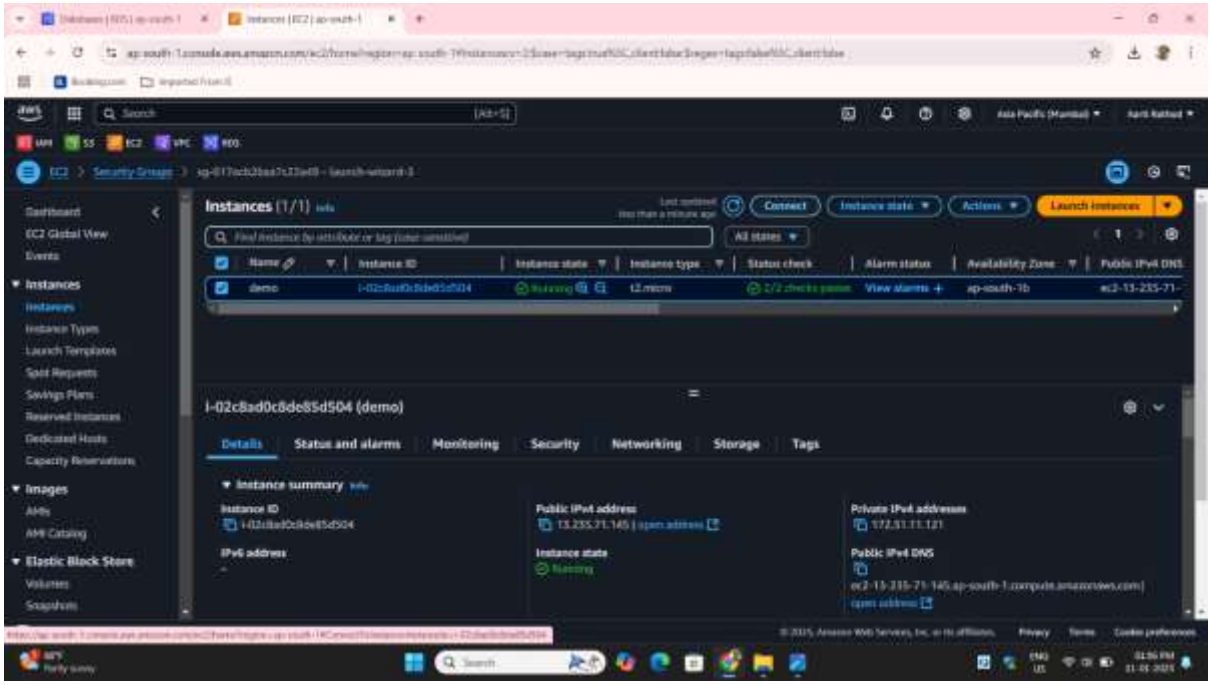
Goto Rds security group



Allow port 3306

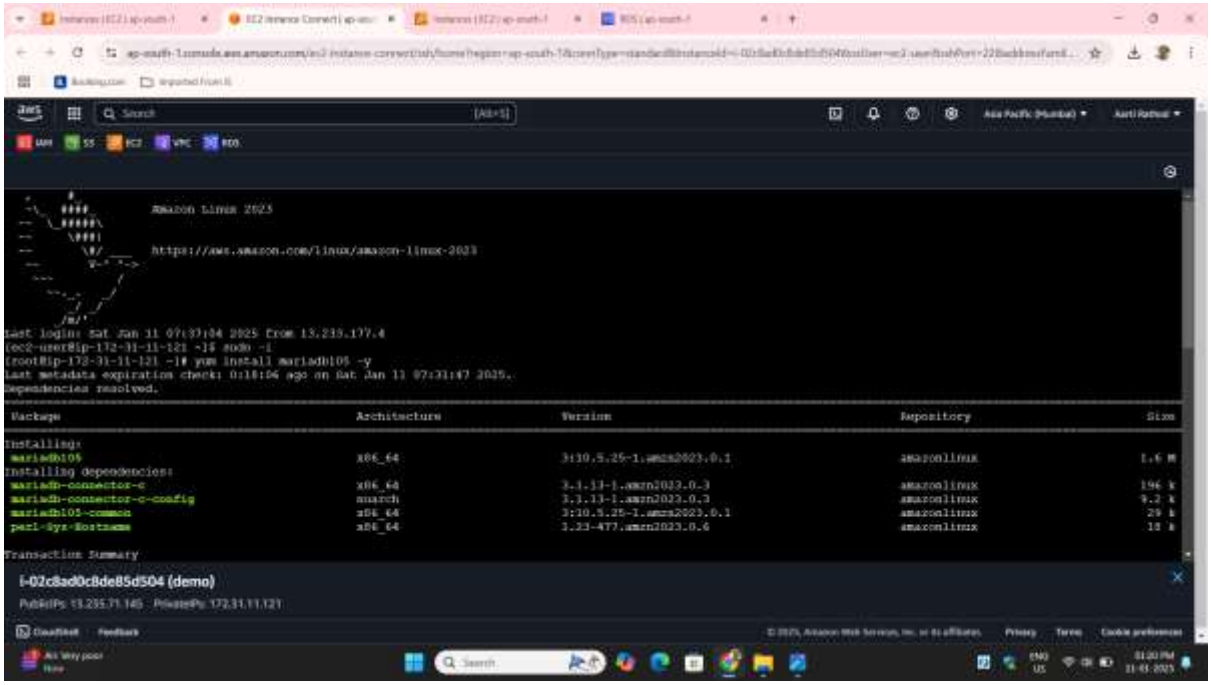


Come to ec2 instace select instace click on coonect

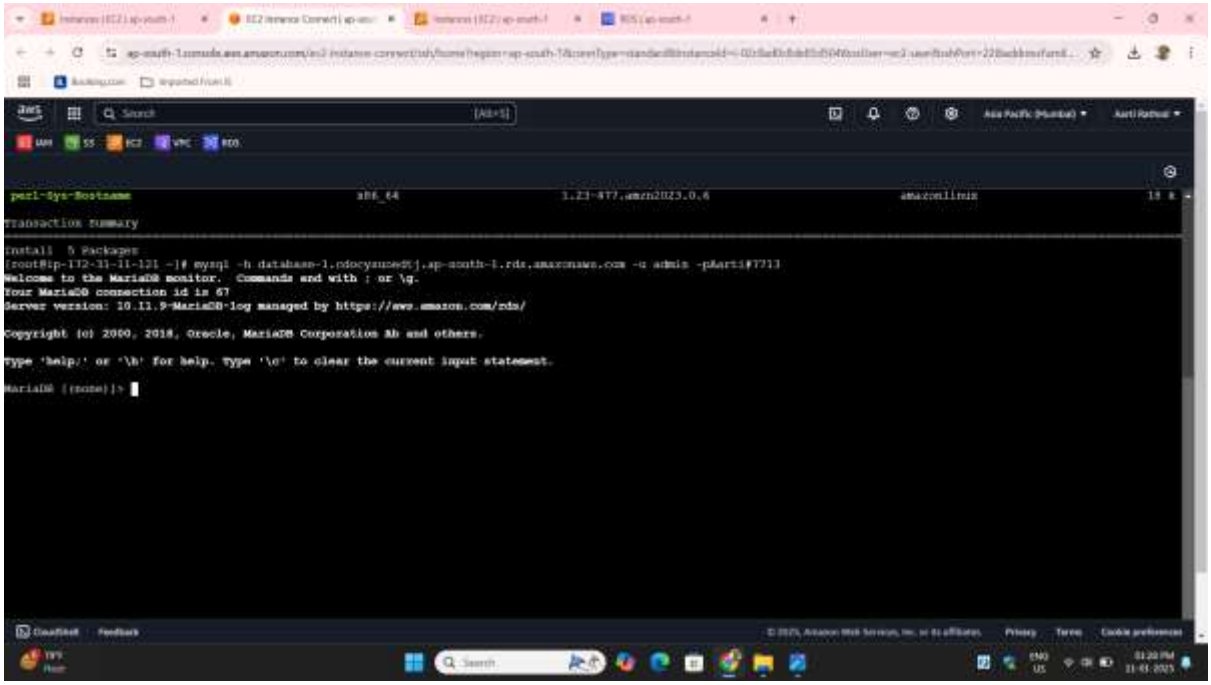


Run Commands on CLI Now youre login to CLI switch to root user

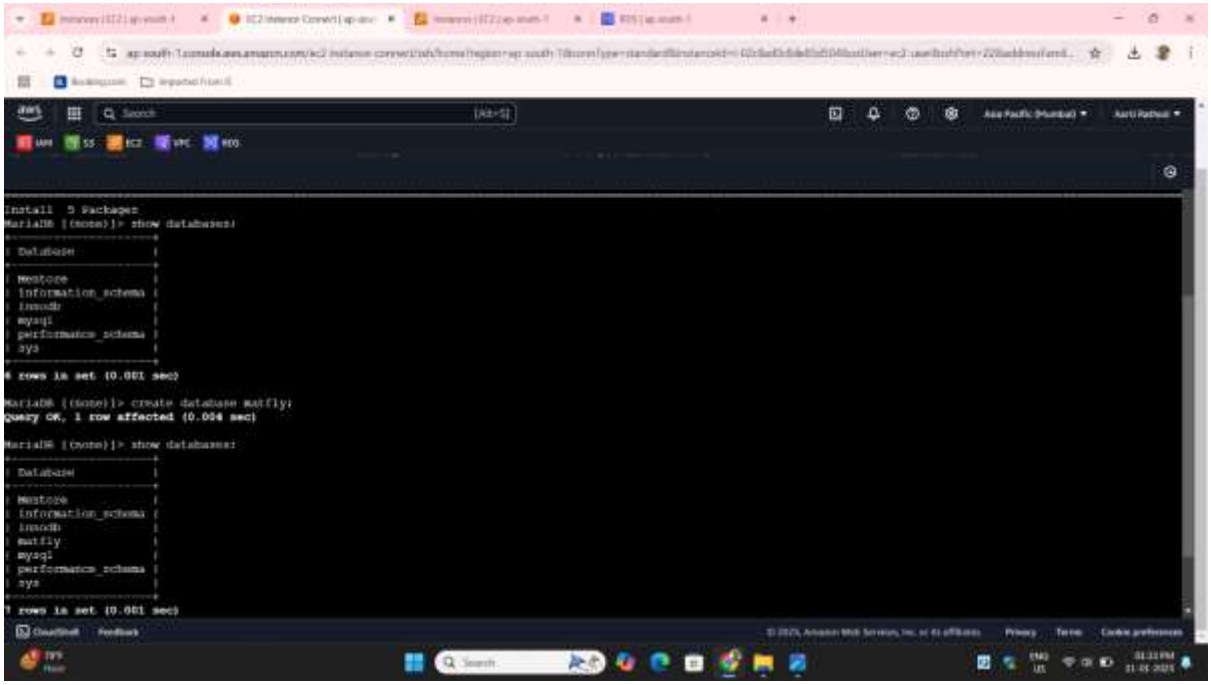
Install Mariadb: install mariadb using package manager



Connect to mariaDB With Rds Endpoint

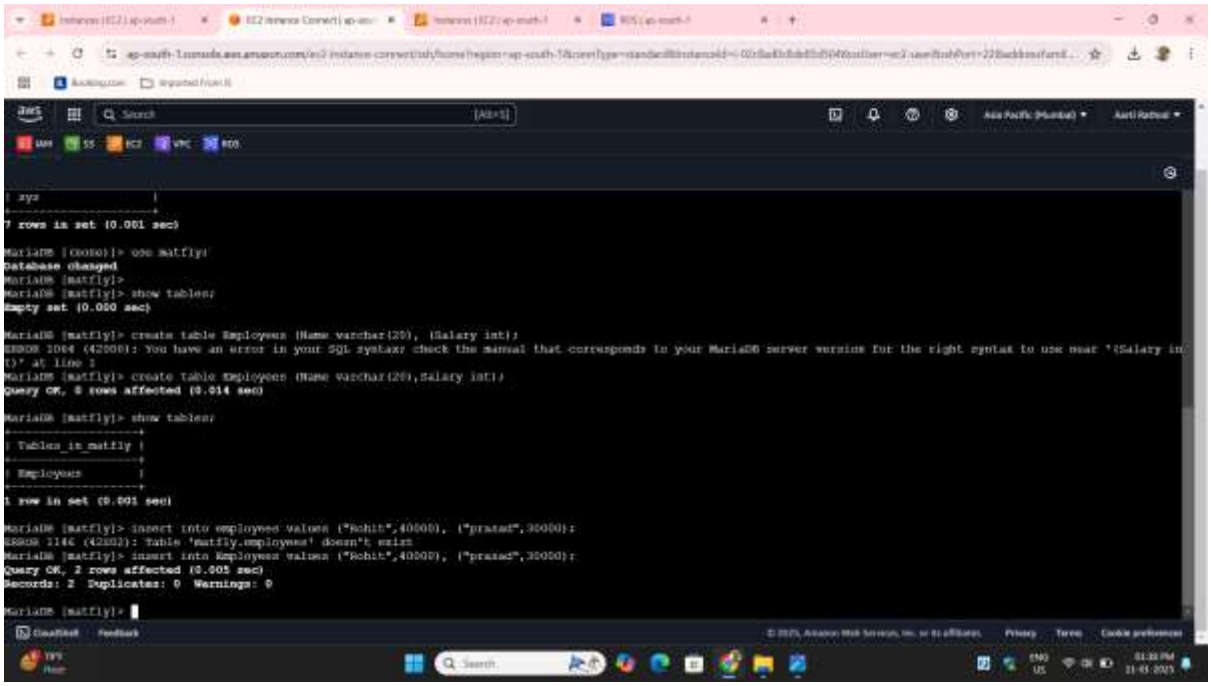


Run Some Command For Database Create And Access Show databases- check databases Create one database give name matfly

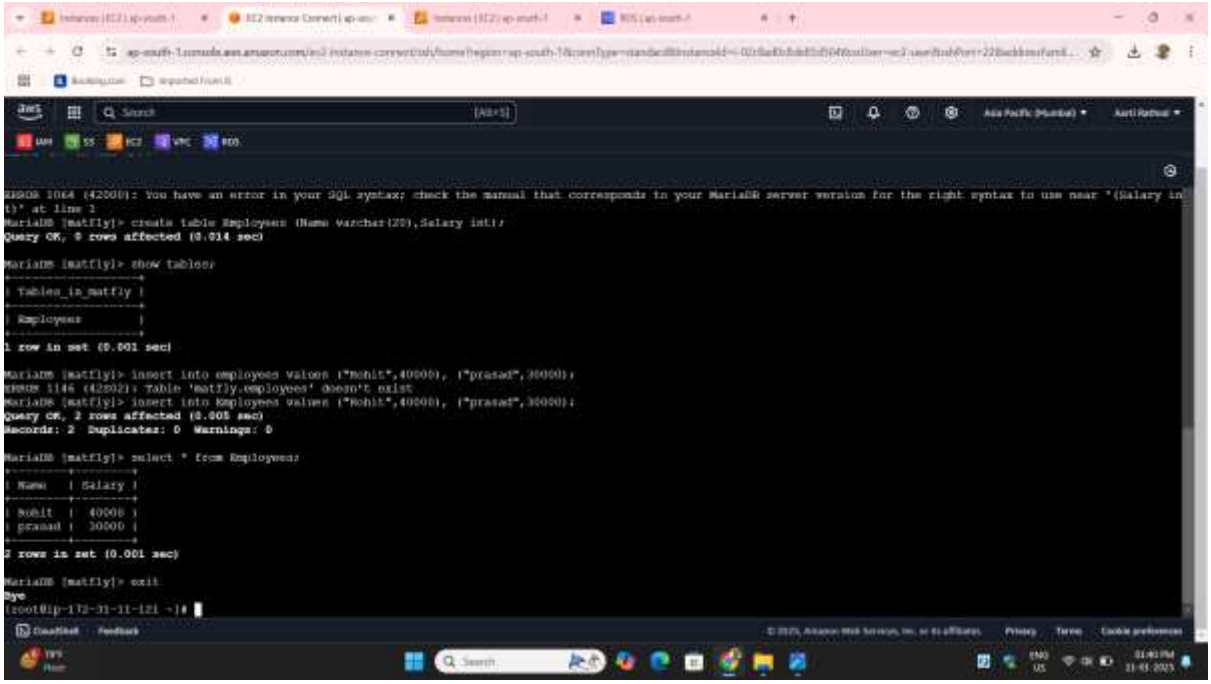


Use matfly command to write inside database Create table employee

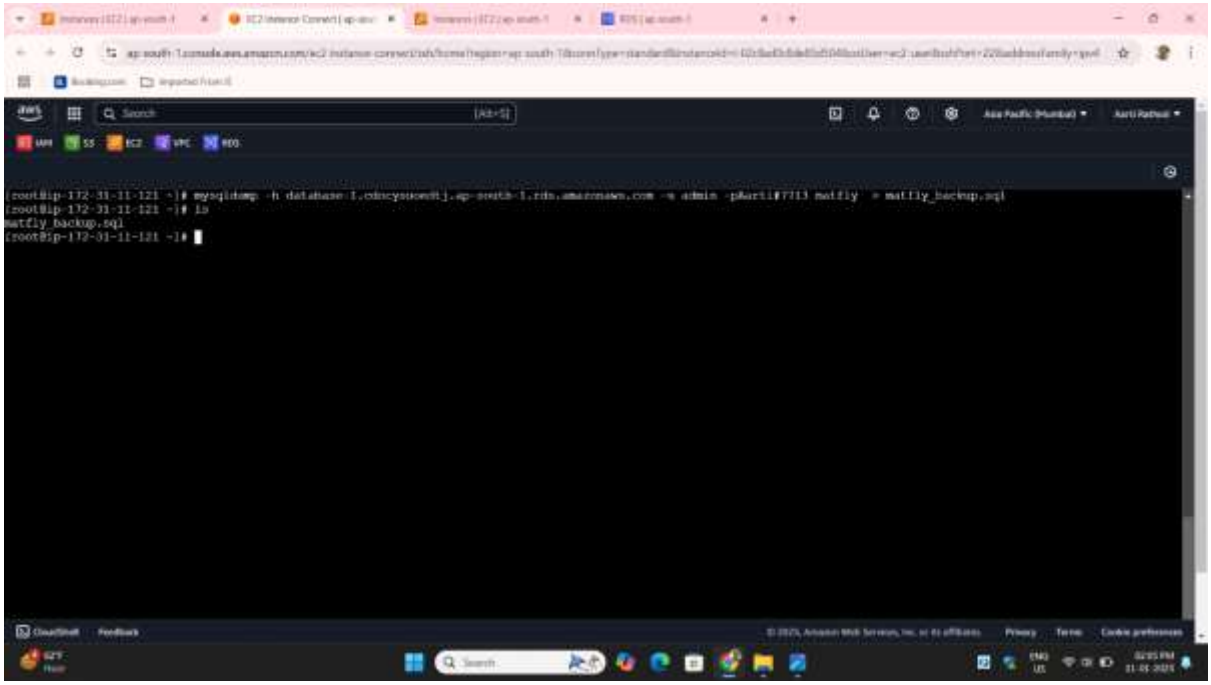
Insert into employees



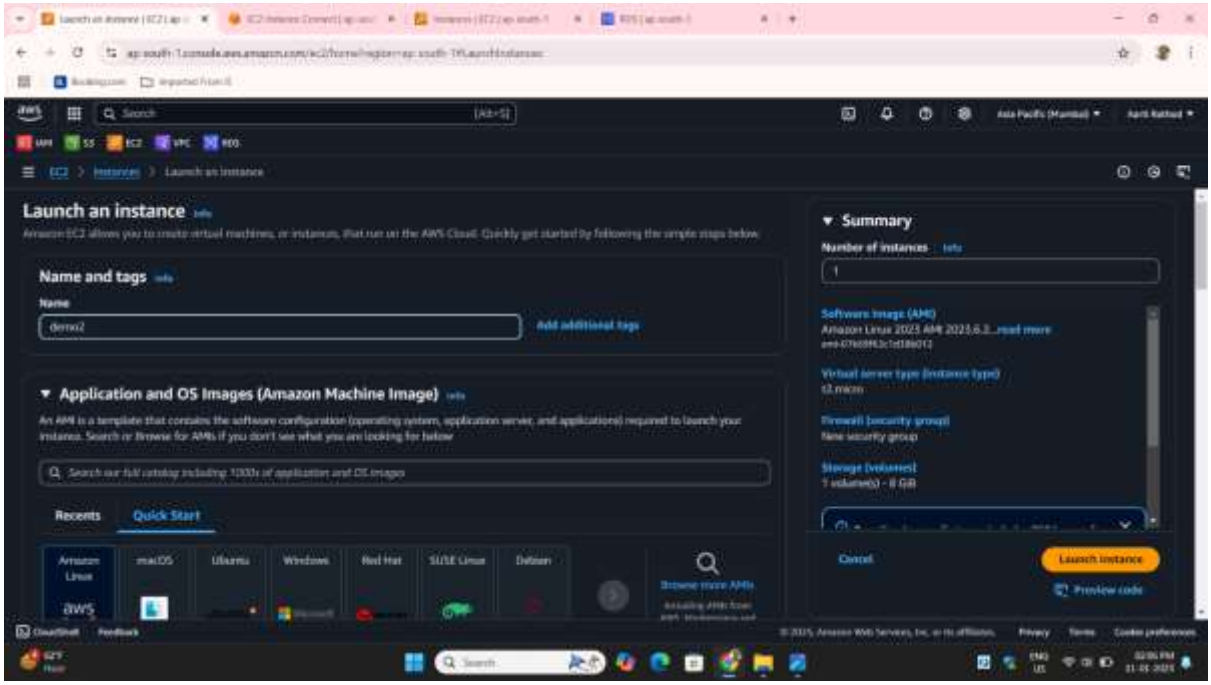
Check the data with command select * from Employees



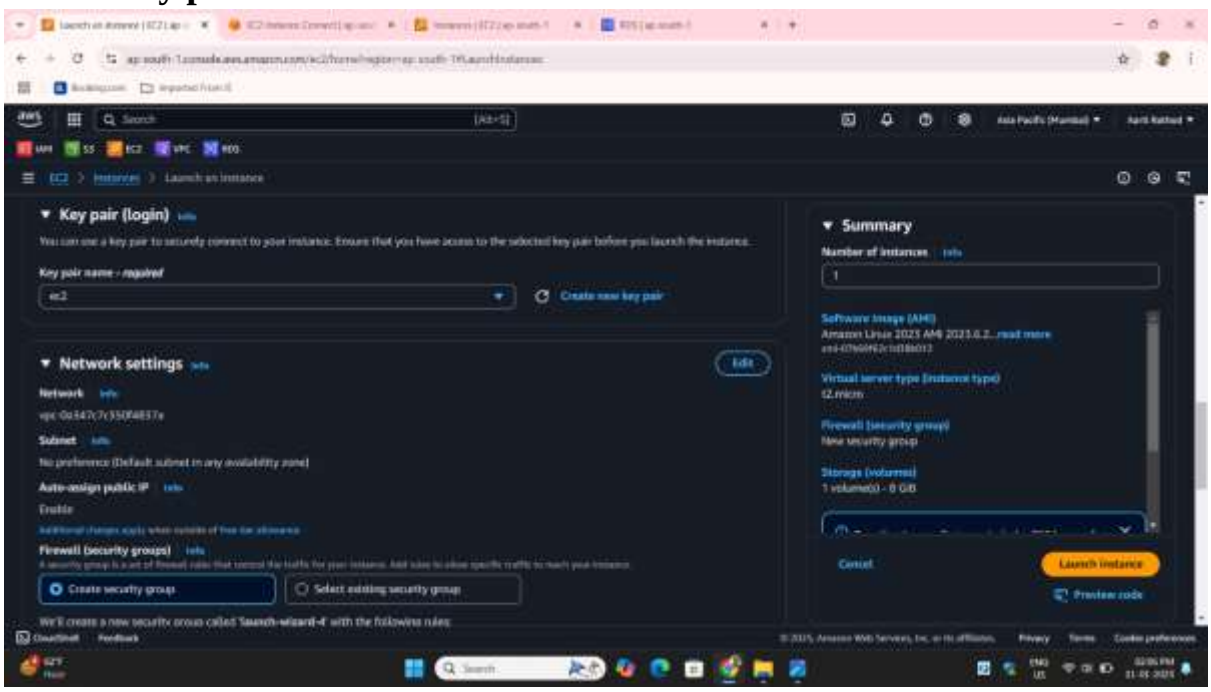
Take backup of the database with mysqldump command



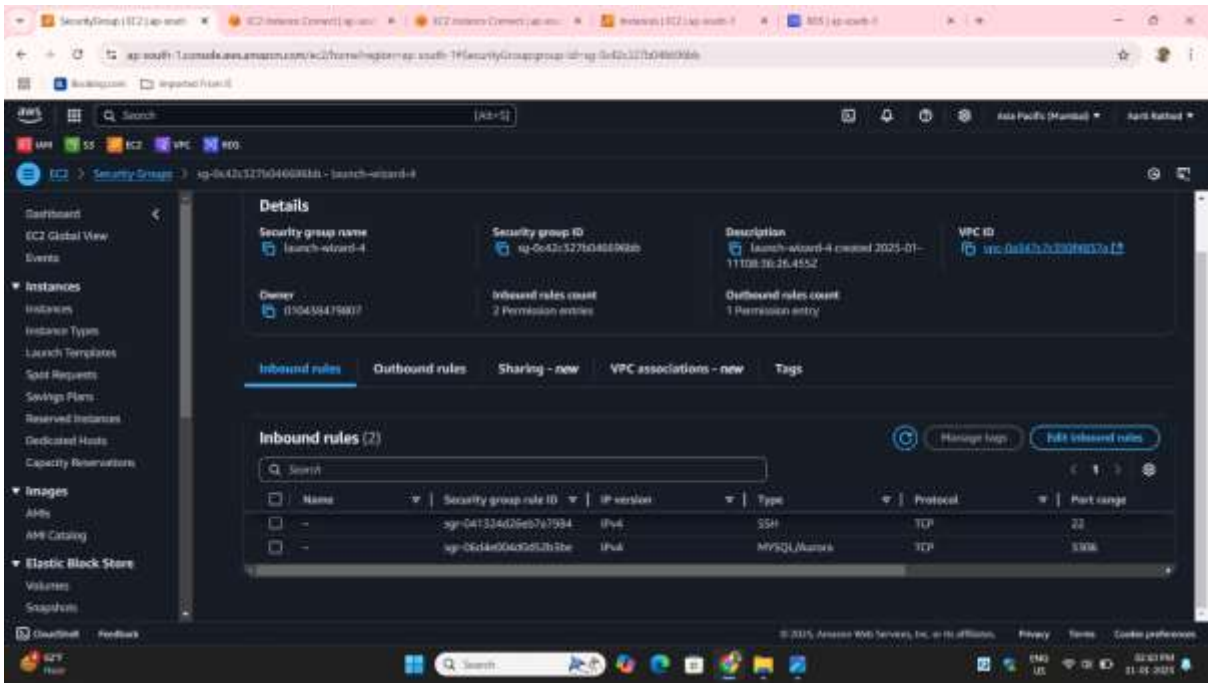
Launch another instance demo2



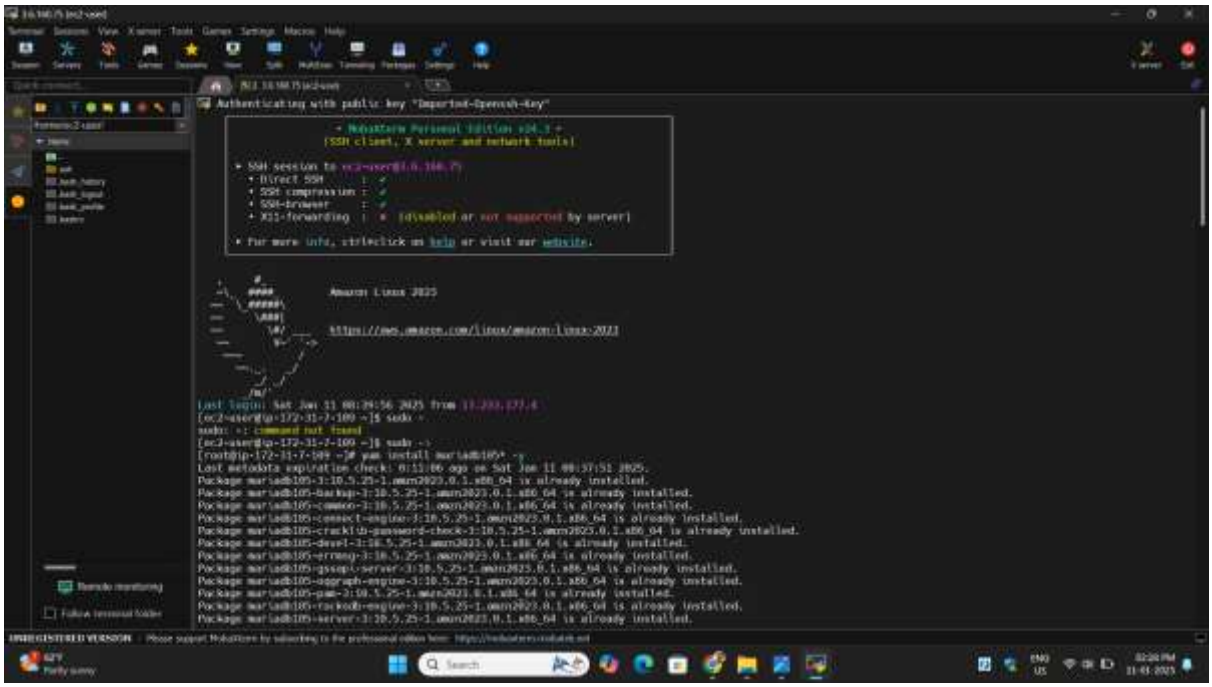
Attach key pair And launch instance



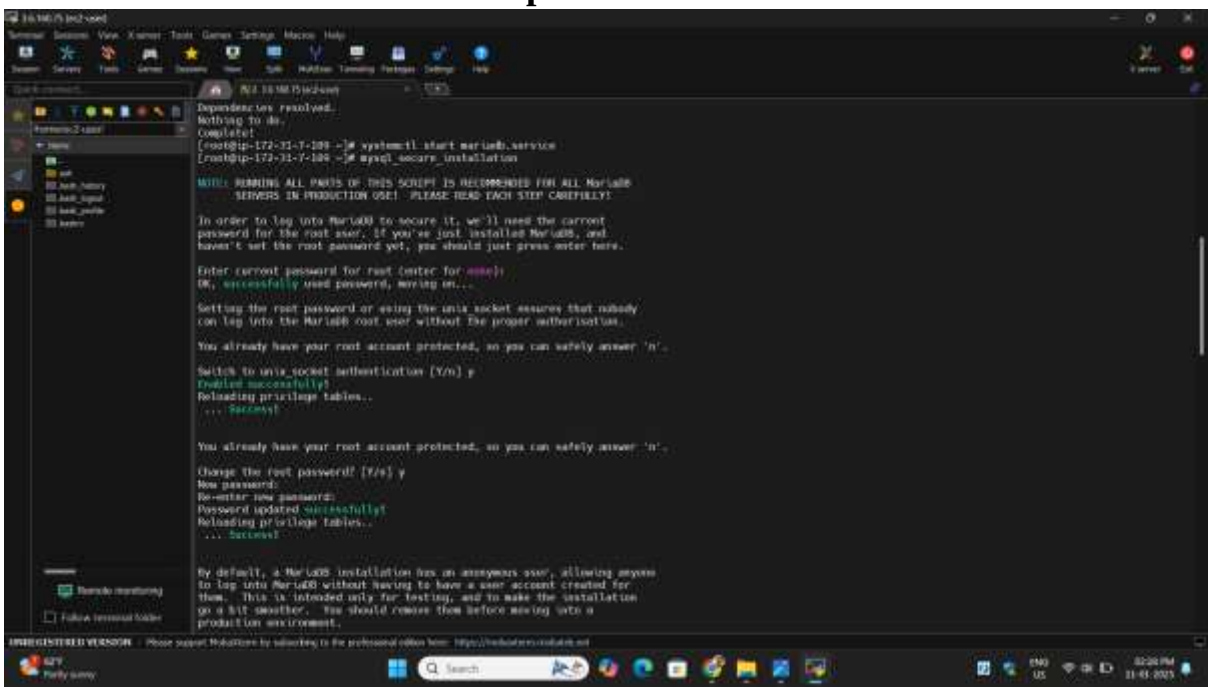
Go to security group edit inbound rules allow port 3306



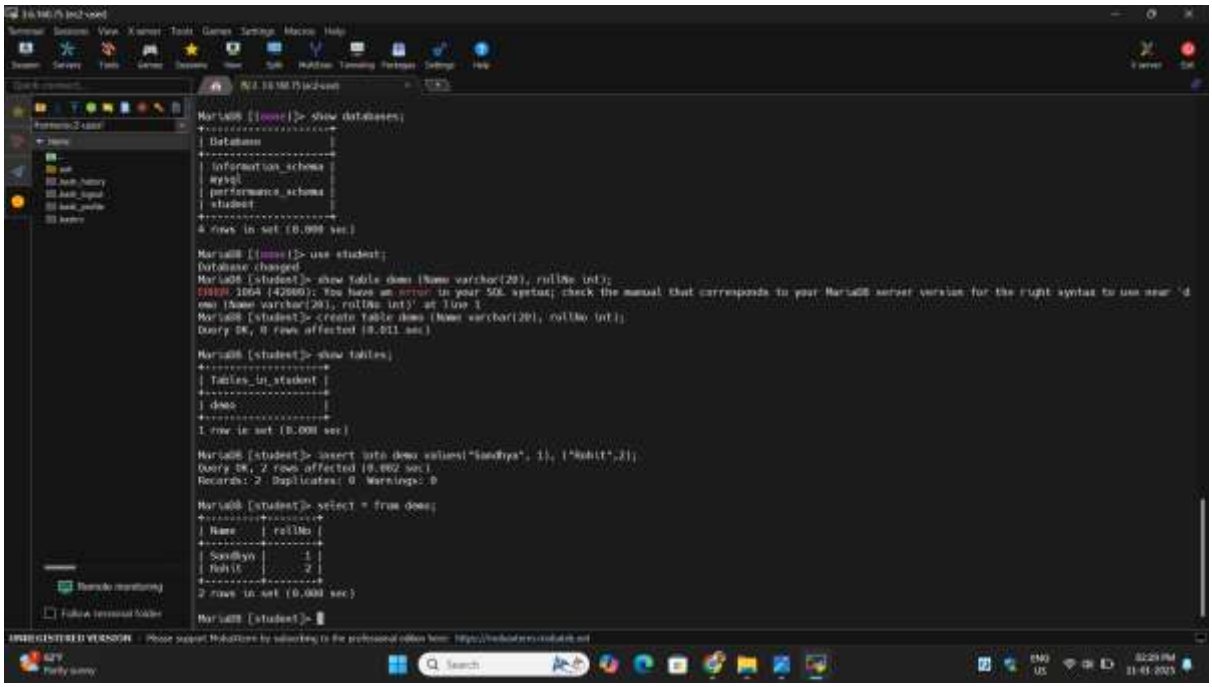
Connect that demo2 instace on MobaXterm switch to root using sudo –I command. Install mariadb. Start mariadb.



Start secure installation Set new password

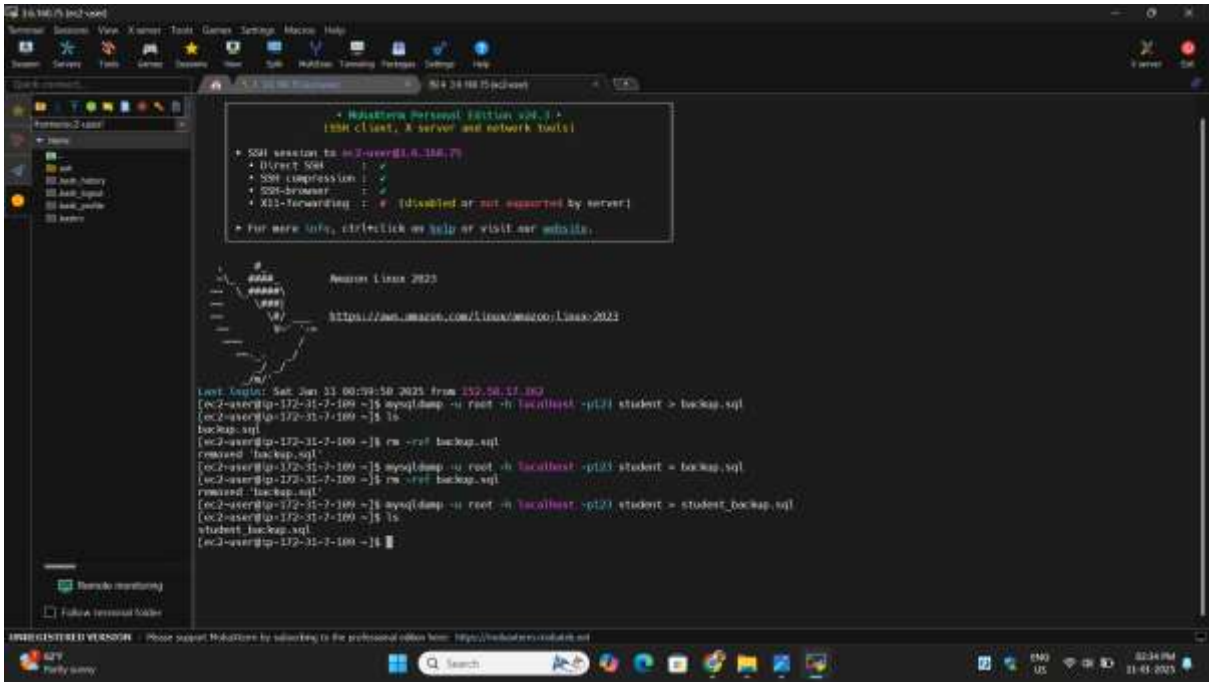


Access local mariaDB create databse student Create table demo insert

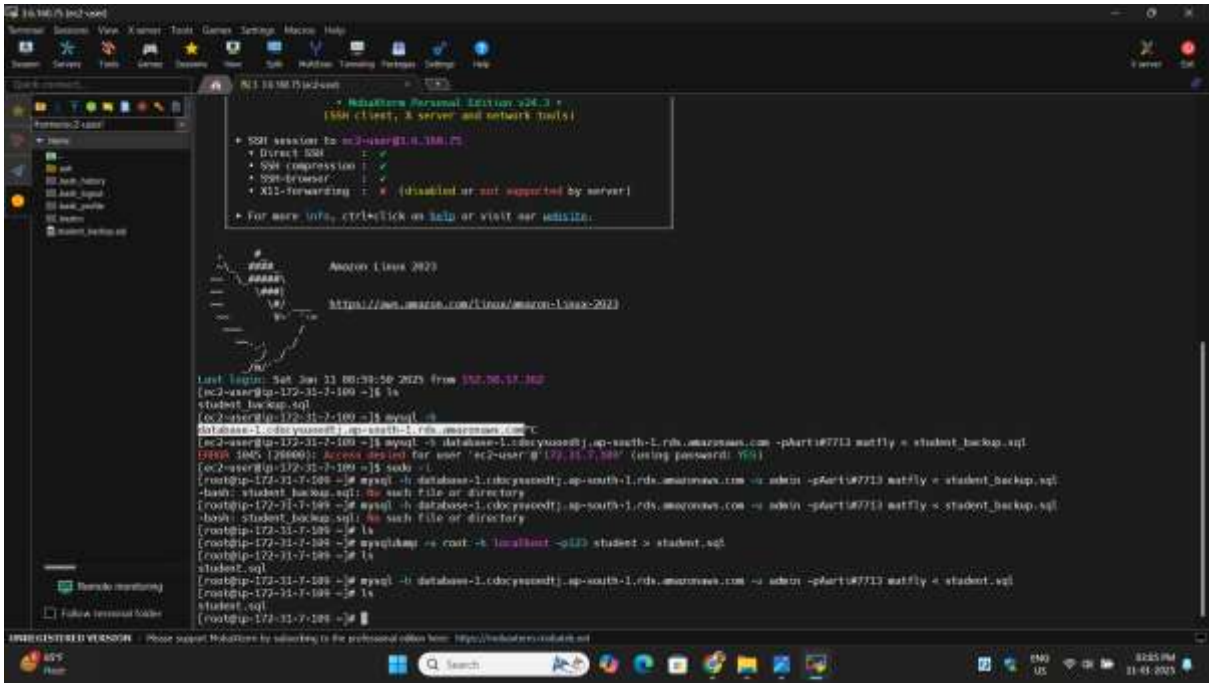


some data and exit the marisDB Create backup with mysqldump command

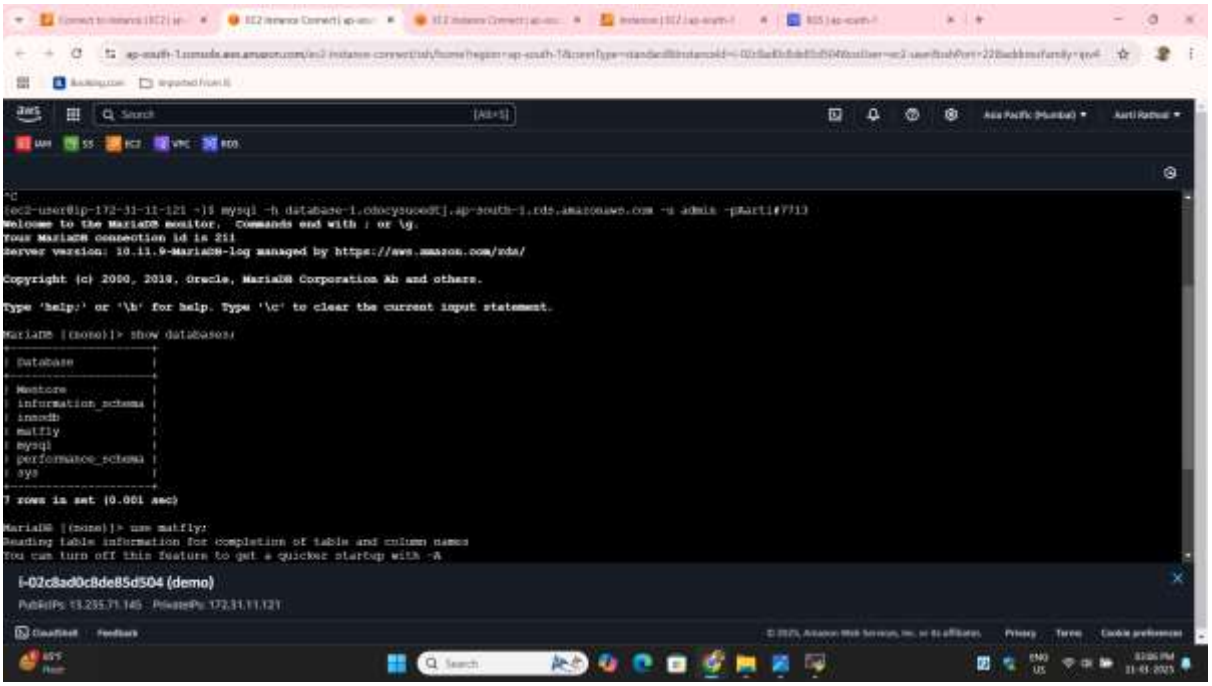
Dump the local database to a .sql file



Import the backup to RDS



Connect the rds again with endpoint Run the command show tables



Here you can see the table which we have created in locally on ec2 this is how we can take back up