

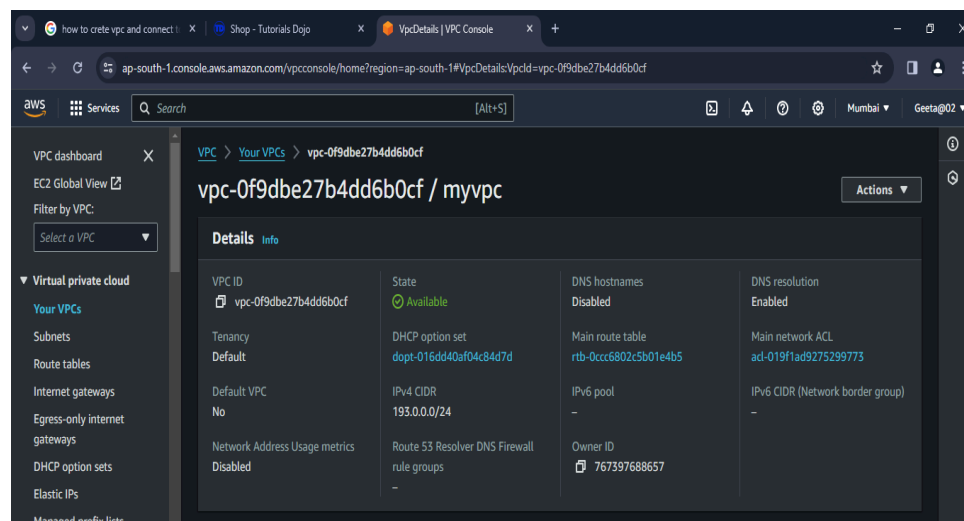
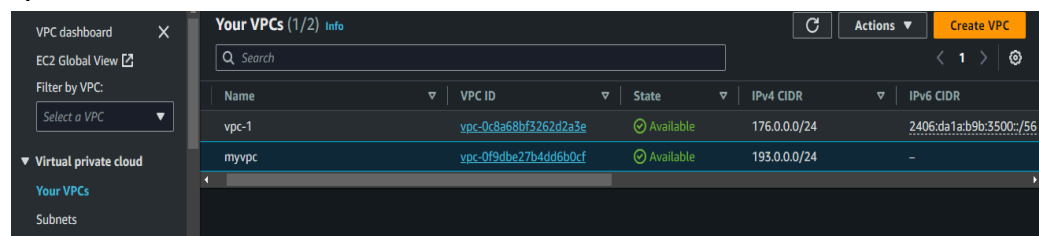
Name - Ch.Geethanjali
Batch - 119(7am)
Phone - 6303766345
Email - geethanjalicbellaboina09@gmail.com

Topic - create a vpc attach to lambda and then attach the lambda to database.

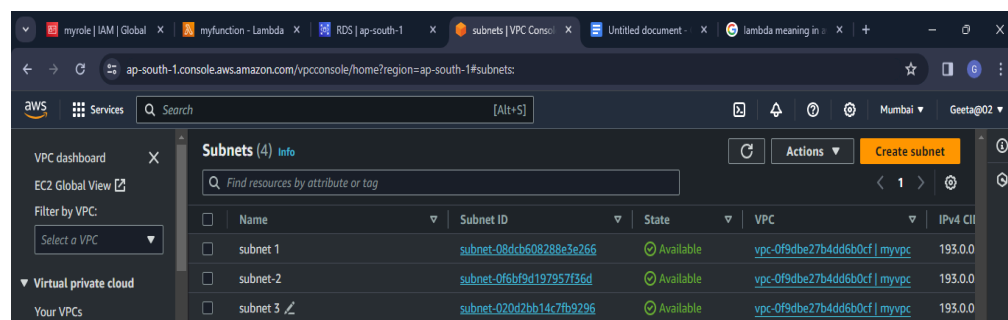
Lambda - Lambda is a serverless, event driven compute service that lets you run your code for virtually any type of application or backend service without provisioning or managing service.

Process:

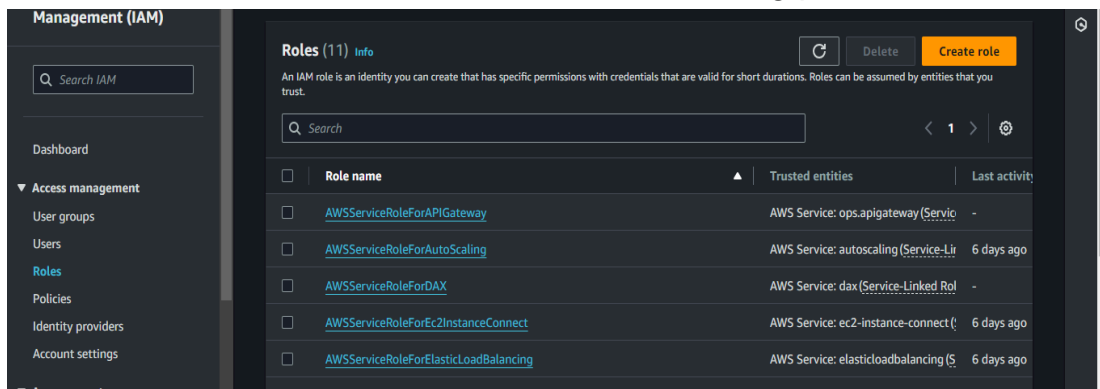
1. Create a vpc with 3 subnets in three availability zones. And also we need to create routes internet gateway since all together forms a vpc.



Vpc is created with the name my vpc.



2. Then we will create an IAM role with the following permissions:

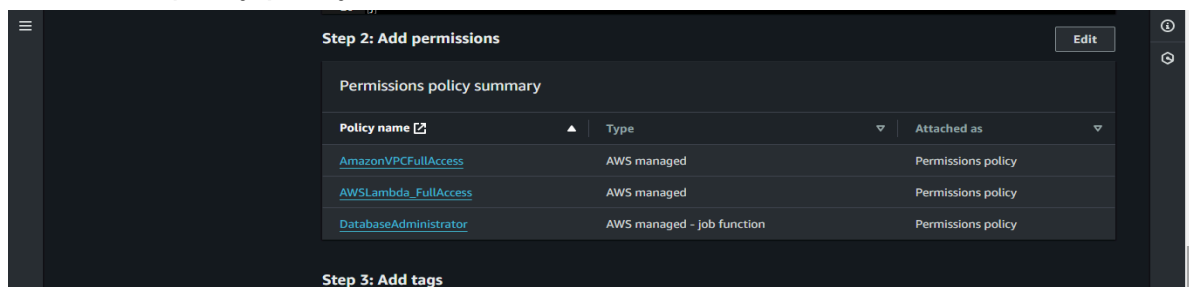


Vpc full access

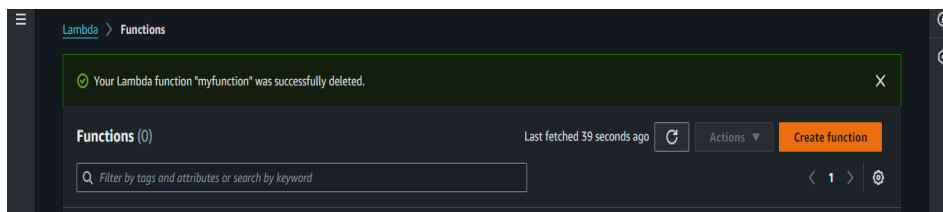
Lambda full access

Database administrator access

Rds proxy policy access.



3. Now we need to search for lambda and create a function



vcube

Use only letters, numbers, hyphens, or underscores with no spaces.

Runtime [Info](#)
Choose the language to use to write your function. Note that the console code editor supports only Node.js, Python, and Ruby.

Python 3.12

Architecture [Info](#)
Choose the instruction set architecture you want for your function code.

☒ x86_64
☐ arm64

Permissions [Info](#)
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.

► Change default execution role

► Advanced settings

Cancel Create function

.Add in additional settings enable vpc and enter vpc details.

☒ **Enable VPC** [Info](#)
Connect your function to a VPC to access private resources during invocation.

VPC
Choose a VPC for your function to access.

vpc-0f9dbe27b4dd6b0cf (193.0.0.0/24)

☐ **Allow IPv6 traffic for dual-stack subnets**
You can allow outbound IPv6 traffic to subnets that have both IPv4 and IPv6 CIDR blocks.

Subnets
Select the VPC subnets for Lambda to use to set up your VPC configuration.

Choose subnets

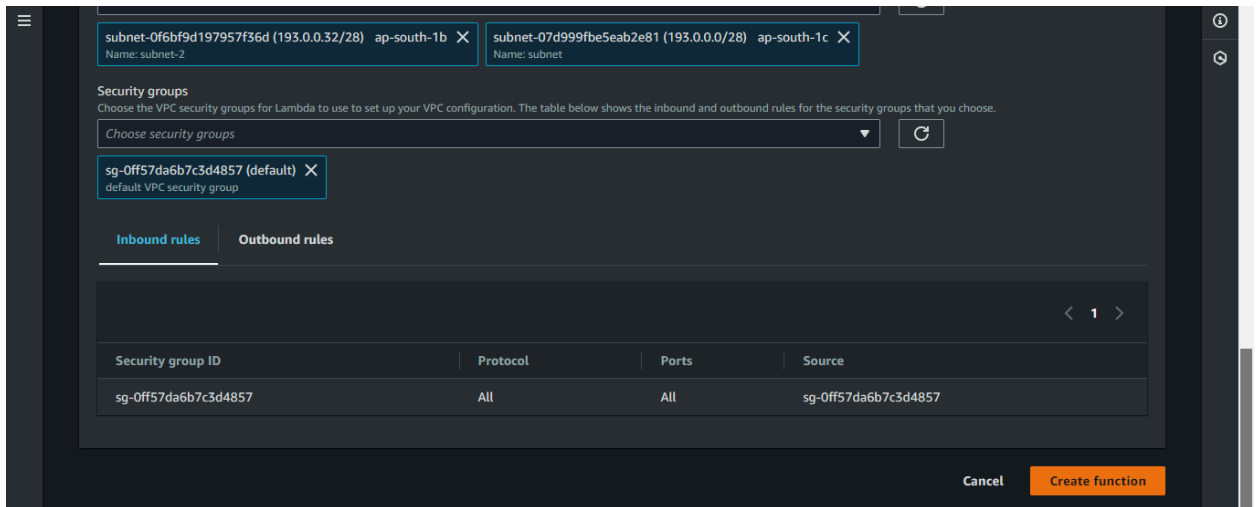
subnet-0f6bf9d197957f36d (193.0.0.32/28) ap-south-1b X
Name: subnet-2

subnet-07d999fbe5eab2e81 (193.0.0.0/28) ap-south-1c X
Name: subnet

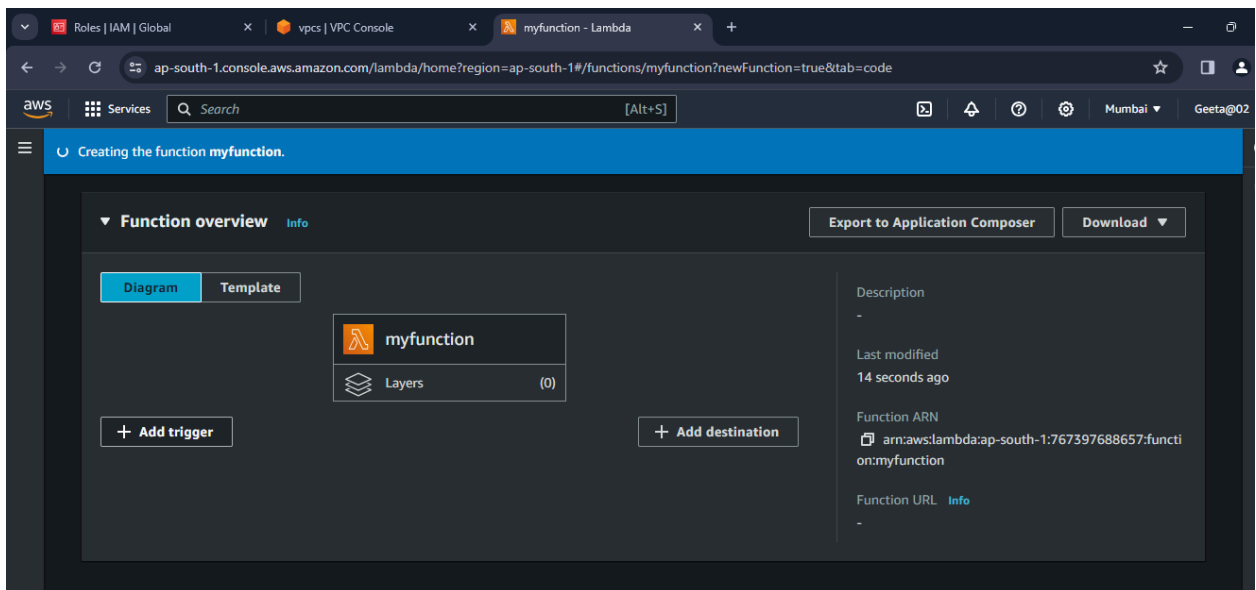
Security groups
Choose the VPC security groups for Lambda to use to set up your VPC configuration. The table below shows the inbound and outbound rules for the security groups that you choose.

Choose security groups

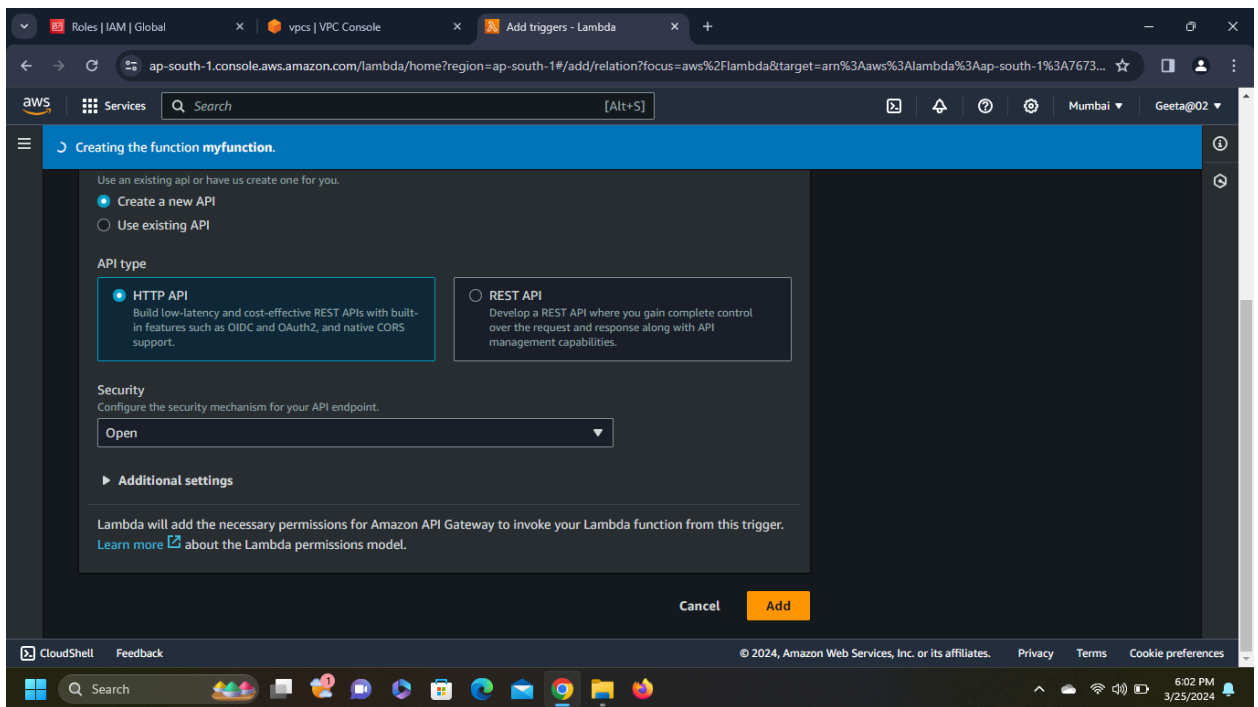
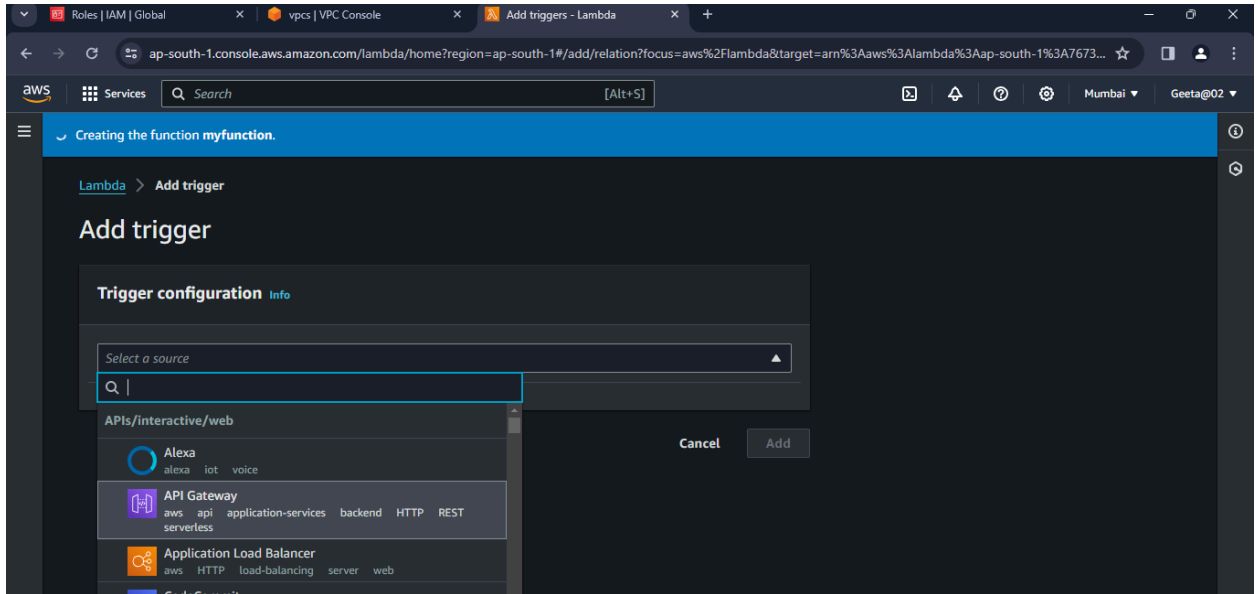
sg-0ff57da6b7c3d4857 (default) X
default VPC security group

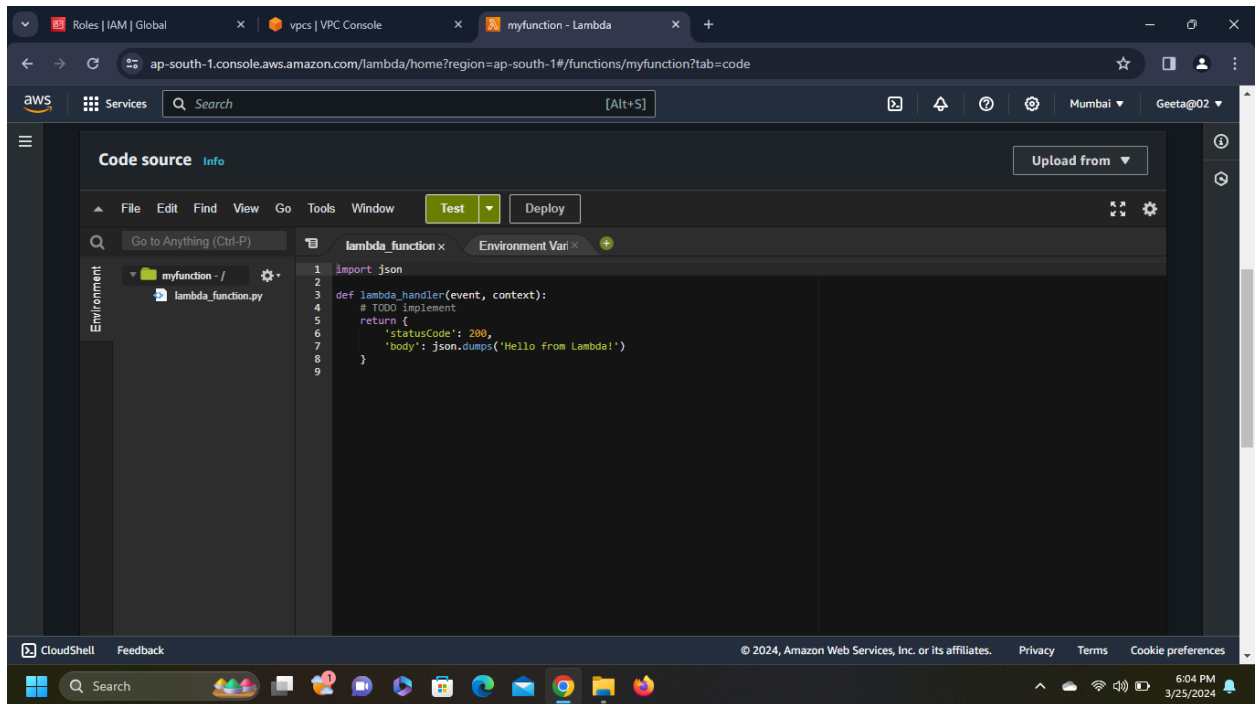


Then click on create function. It appears as follows:

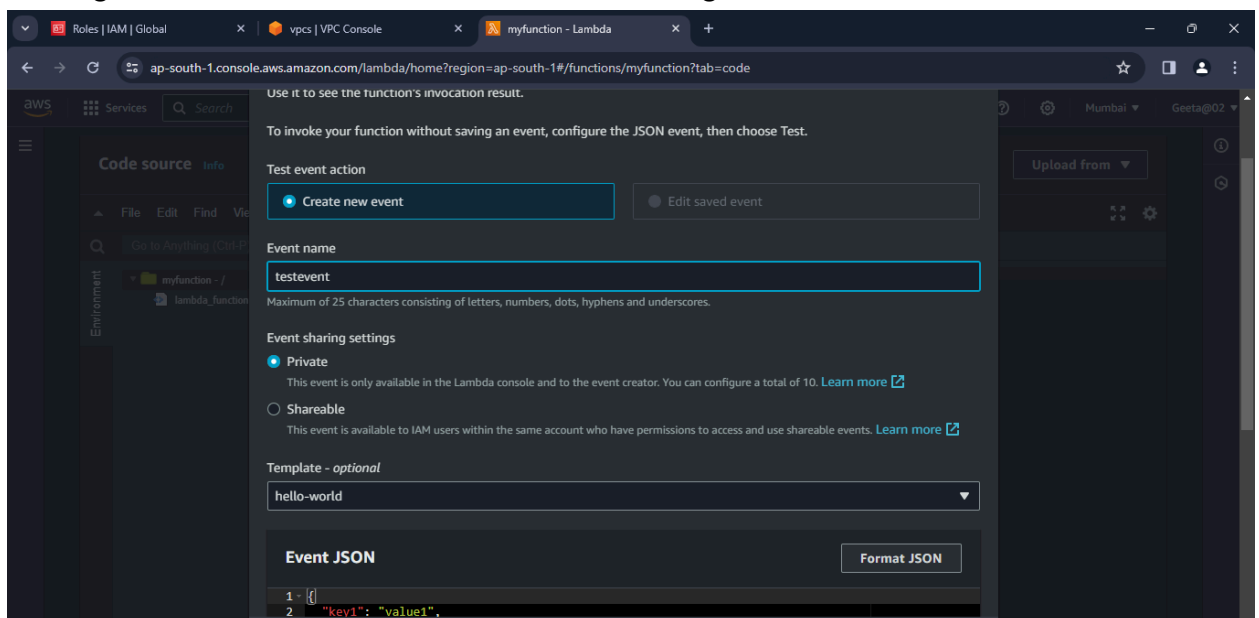


Then add trigger -choose API gateway

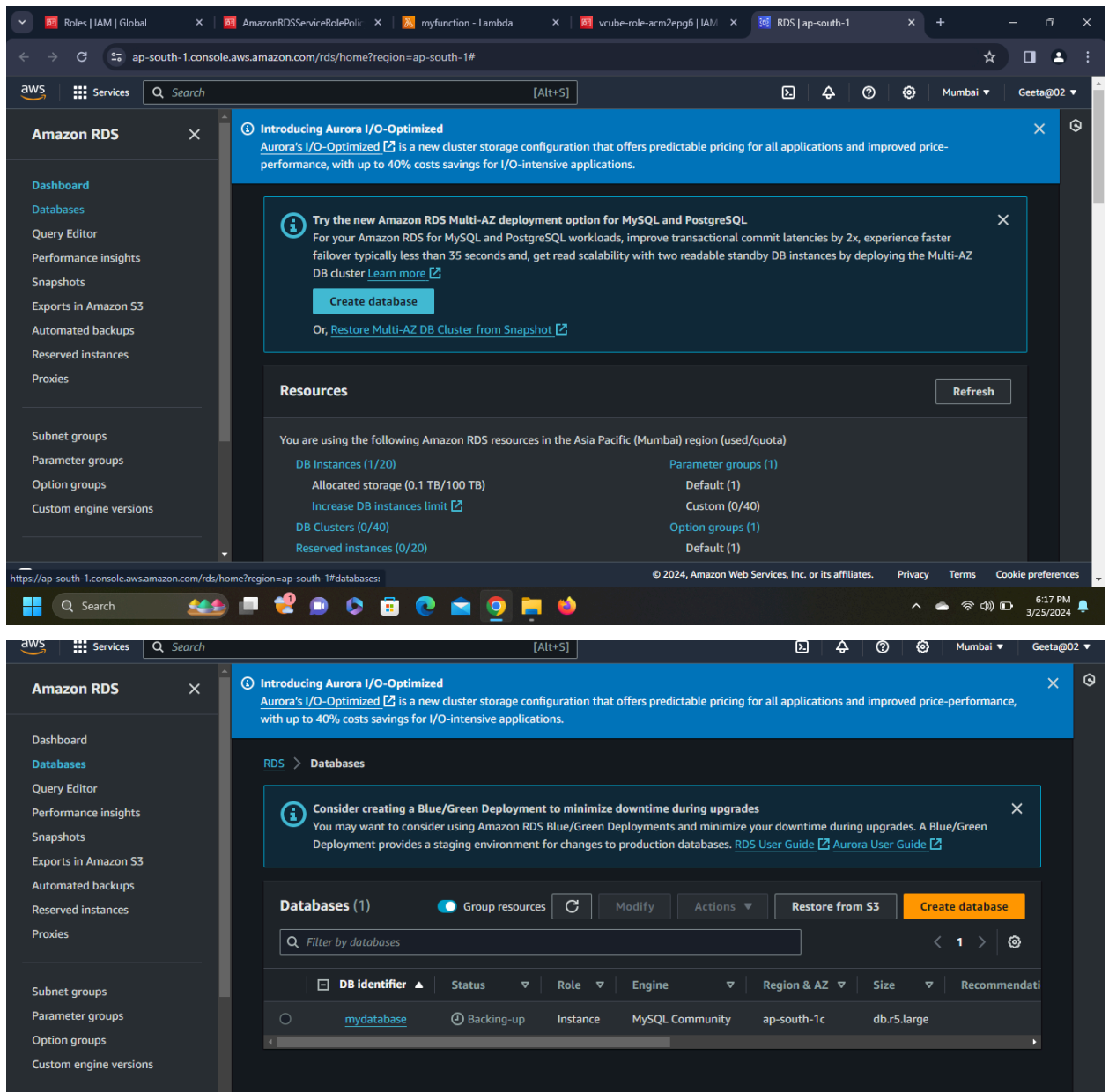




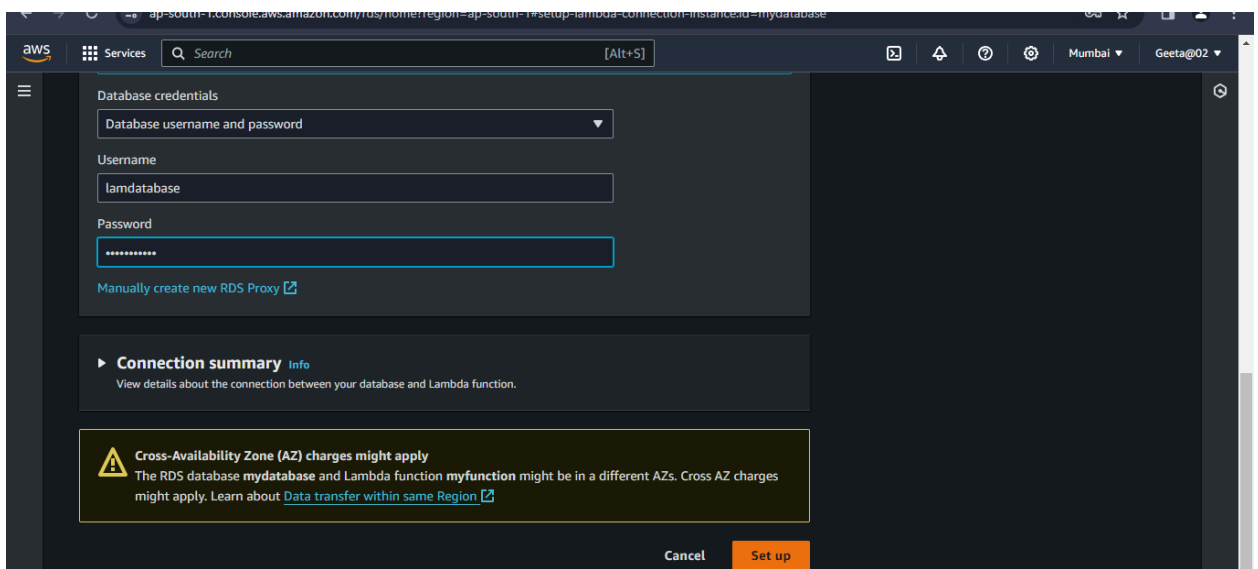
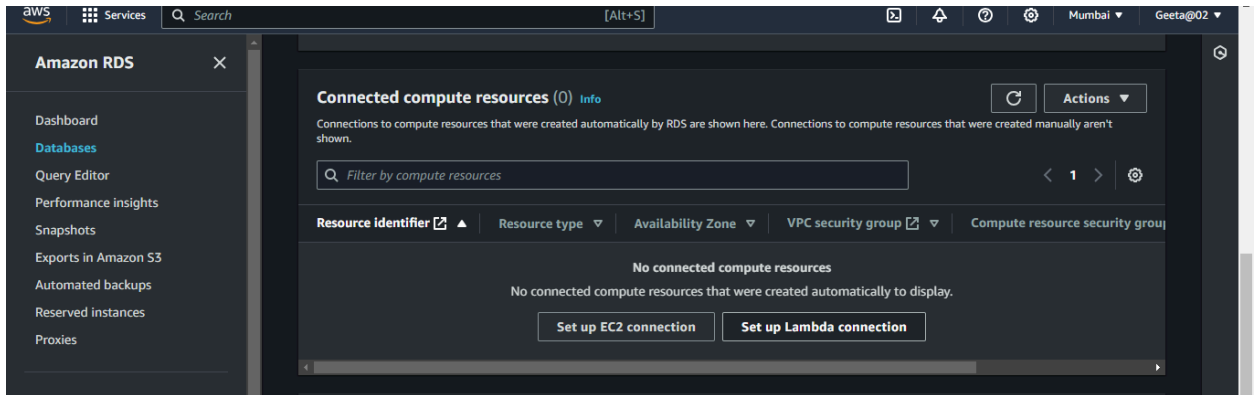
Then go to test and add name and save changes.



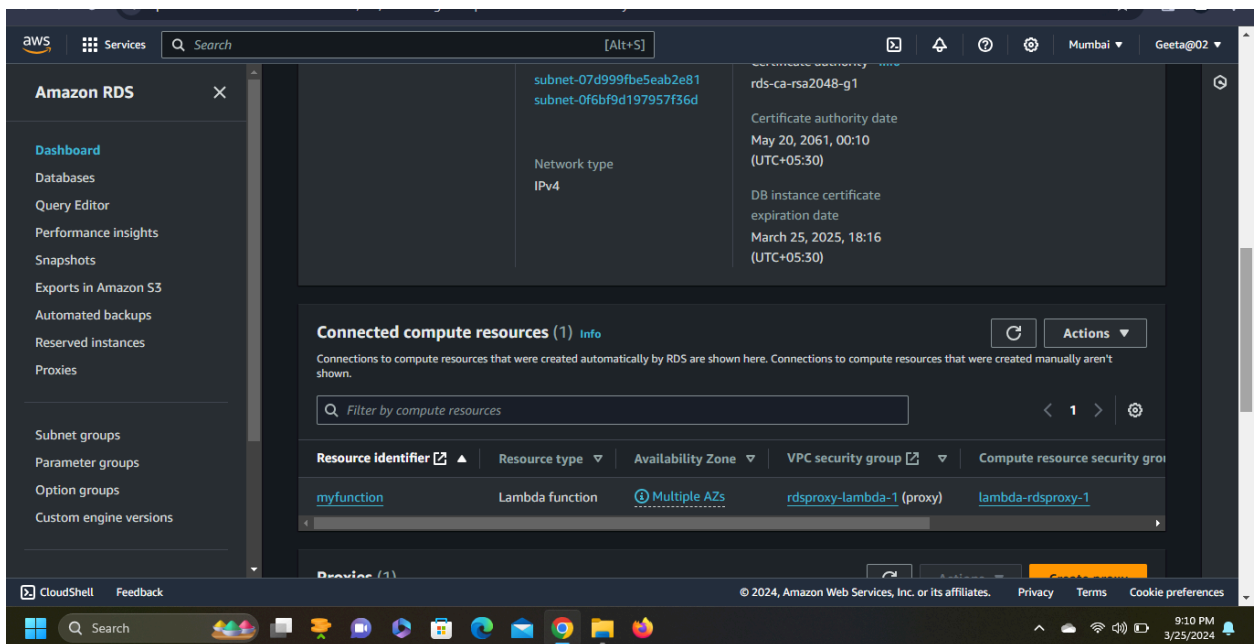
4. Then we need to create a database



5..Set up lambda function using rds proxy.Here we use the created my function to set up with database.



Now lambda function is set with rds proxy



6. Then go to configuration check vpc.

The screenshot shows the AWS Lambda console configuration page for a function named 'myfunction'. The 'VPC' tab is selected in the left-hand navigation menu. The main content area displays the VPC configuration details:

- VPC:** vpc-0f9dbe27b4dd6b0cf (193.0.0.0/24) | myvpc
- Subnets:**
 - Allow IPv6 traffic = false
 - subnet-0f6bf9d197957f36d (193.0.0.32/28) | ap-south-1b, subnet-2
 - subnet-07d999f5e5eab2e81 (193.0.0.0/28) | ap-south-1c, subnet
- Security groups:**
 - sg-0ff57da6b7c3d4857 (default)

Below the configuration details, there are tabs for 'Inbound rules' and 'Outbound rules'. The 'Inbound rules' tab is active, showing a table with one rule:

Security group ID	Protocol	Ports	Source
sg-0ff57da6b7c3d4857	All	All	sg-0ff57da6b7c3d4857

7. Then go check for rds connections you can see the created database

The screenshot shows the AWS Lambda console configuration page for the same function, but now the 'RDS databases' tab is selected in the left-hand navigation menu. The main content area displays the 'RDS database connections (1)' section:

The following table shows databases that match this function's VPC and security group. Review the details to confirm a connection.

DB identifier	Proxy identifier	Endpoint	Lambda security group	DB security group
mydatabase	proxy-171138098935...	mydatabase.c1mu0c6...	default (sg-0ff57da6b...	default (sg-0ff57da6b...