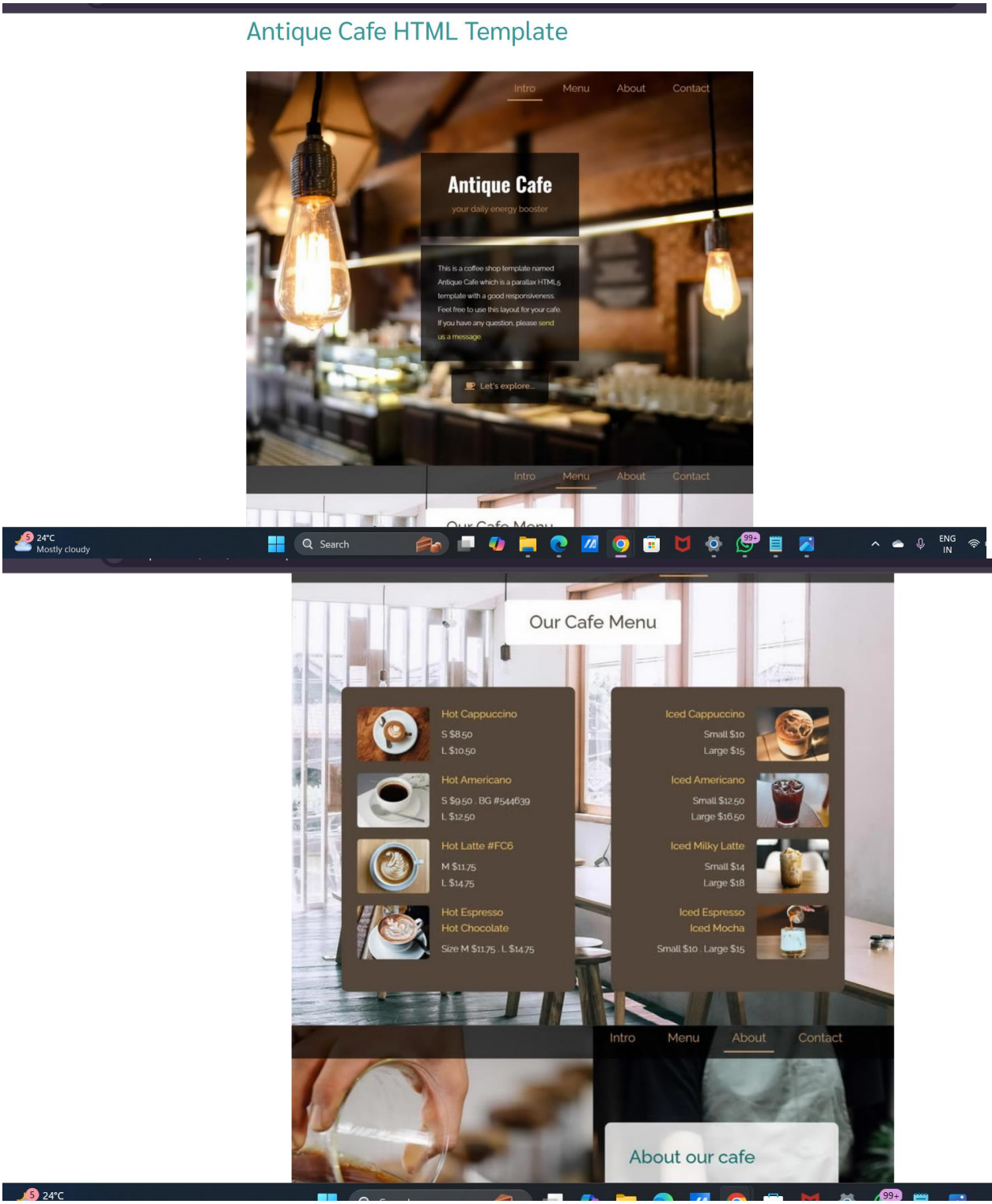
# AWS PROJECT

**Project Overview**

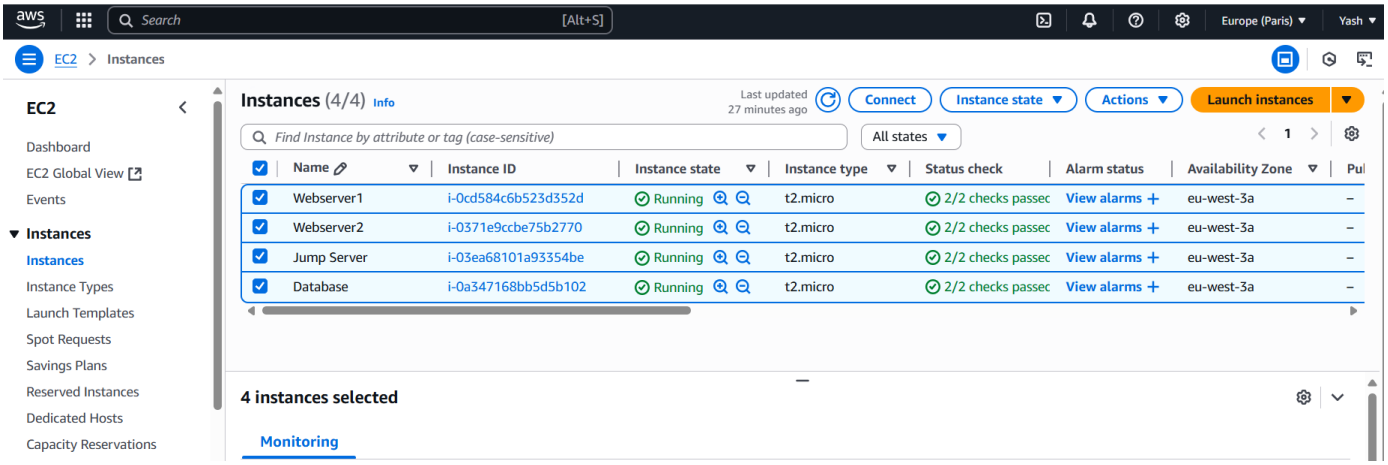
Website hosting on AWS by creating a custom VPC with Auto Scaling, Application Load Balancer, and monitoring using CloudWatch. Also integrates Simple Notification Service (SNS) for alerts and notifications. And also created Private Database.

## Web server with Public IP & Load Balancer DNS

*Deployed a Clean Work HTML template on EC2 with a public IP and integrated it behind an Application Load Balancer for high availability.*



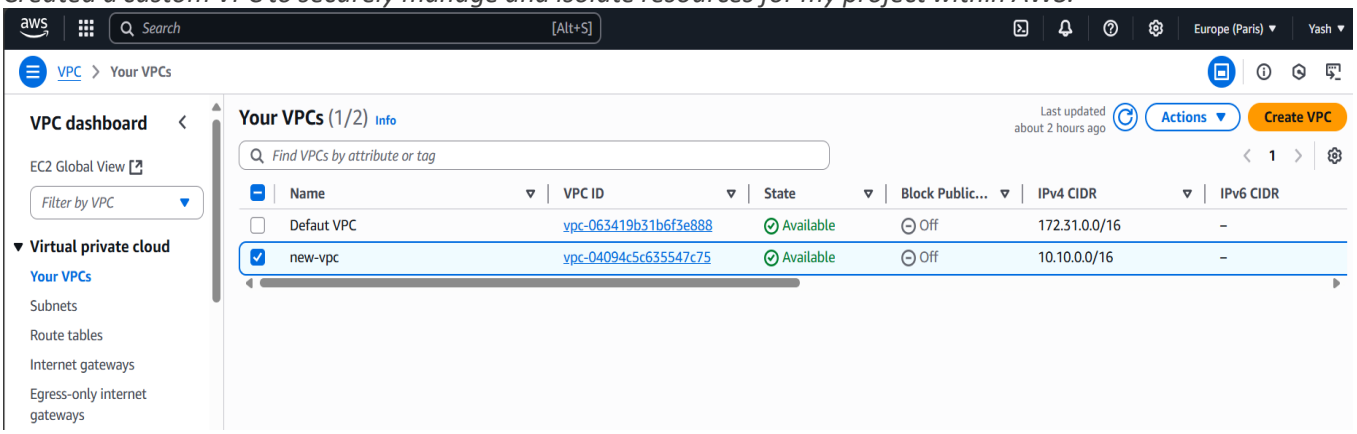
# EC2 INSTANCES




*Launched EC2 instances for the project using Auto Scaling to ensure high availability and scalability.*

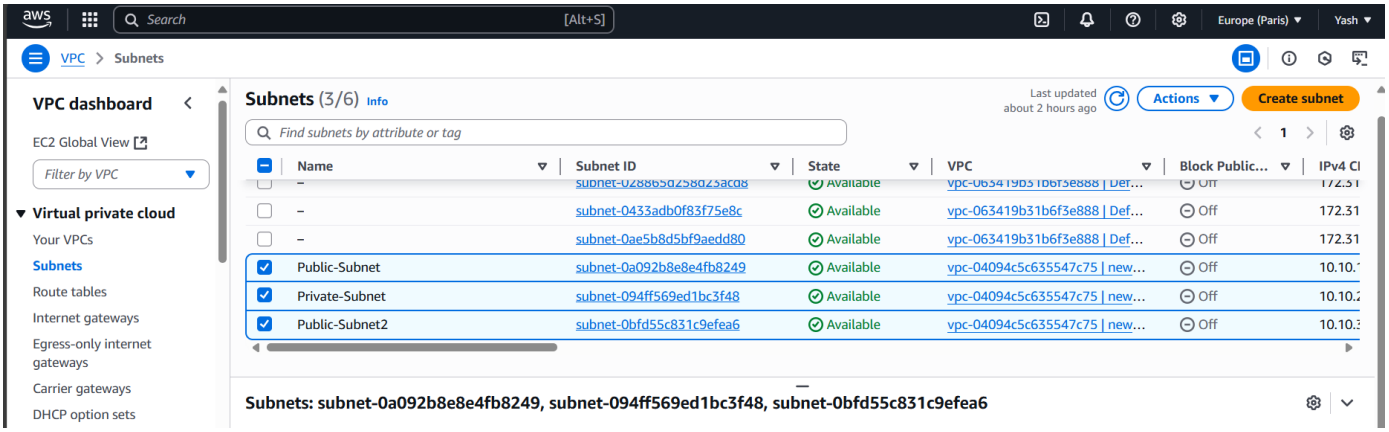
# VPC

*Created a custom VPC to securely manage and isolate resources for my project within AWS.*



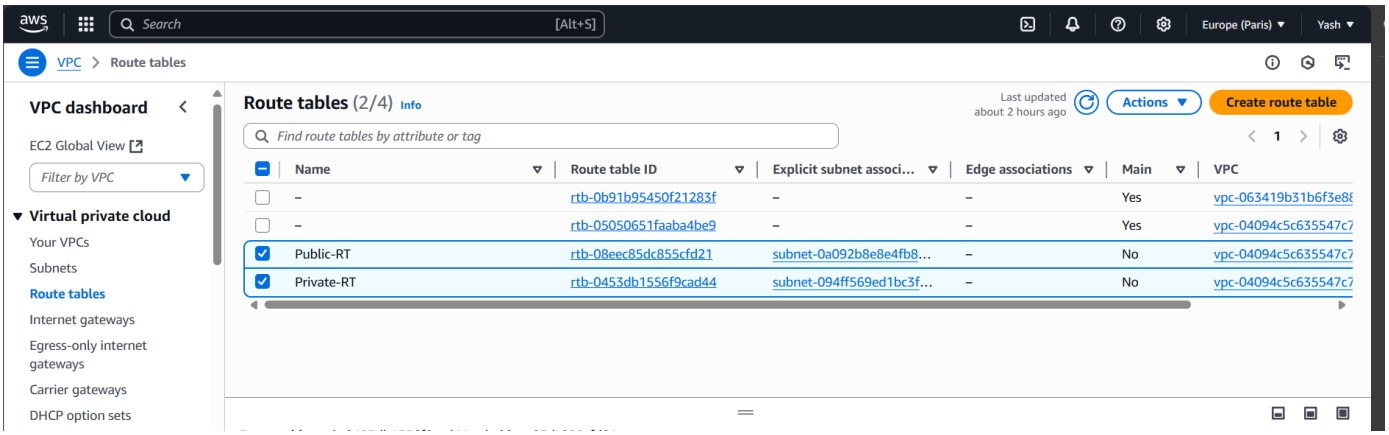
# Subnets

*Configured public and private subnets within the VPC to separate internet-facing and internal resources.*



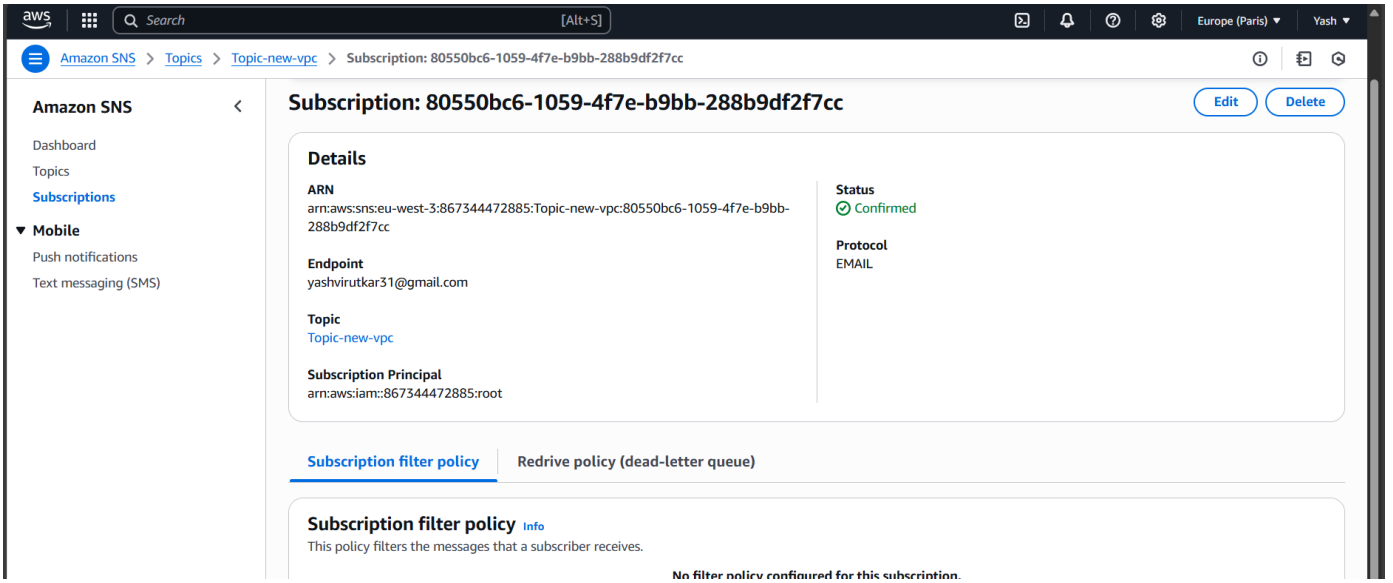

# Route Tables

*Created and associated route tables to control traffic flow between subnets and external networks.*



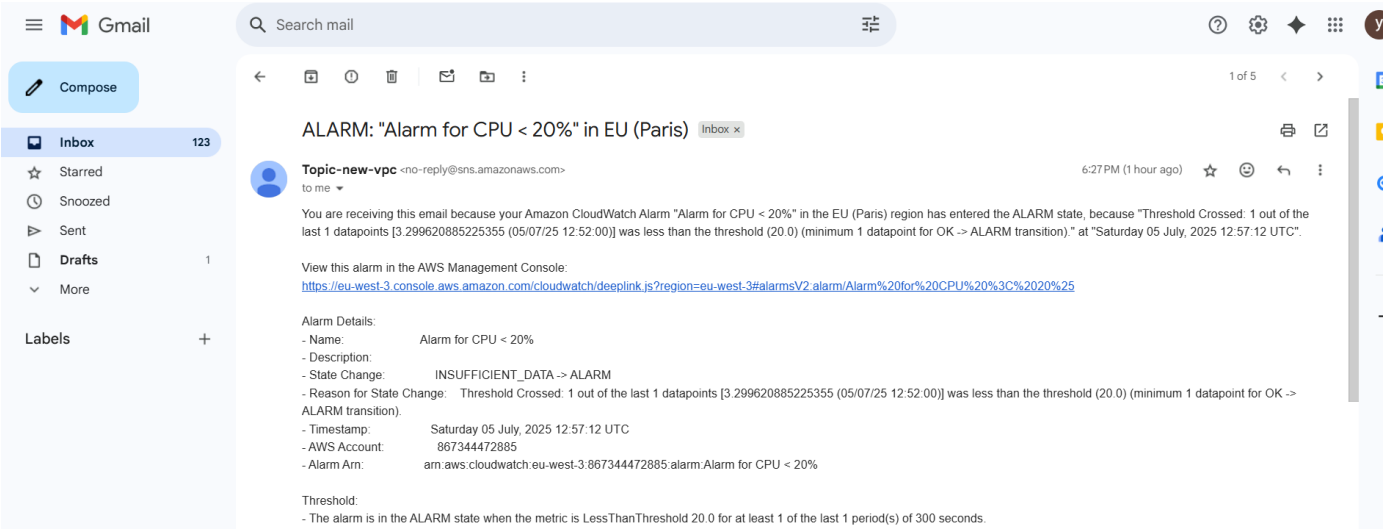
# SNS

*Configured Amazon SNS to send automated alerts and notifications based on CloudWatch alarms*



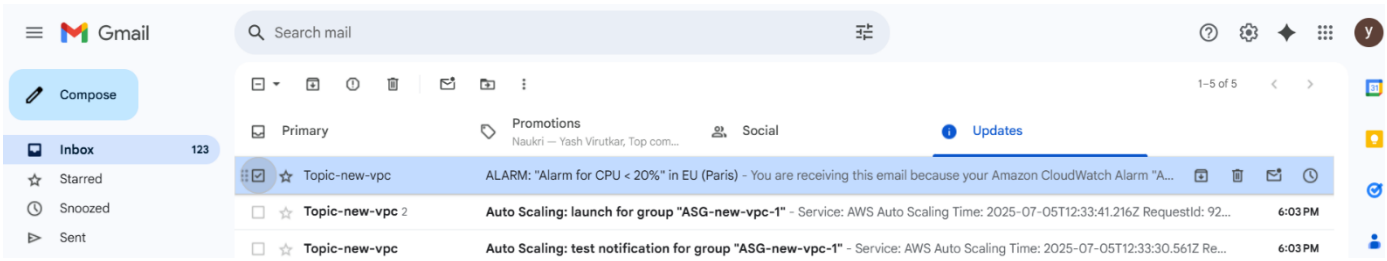

# Email

*email notifications for system alerts triggered by CloudWatch alarms*



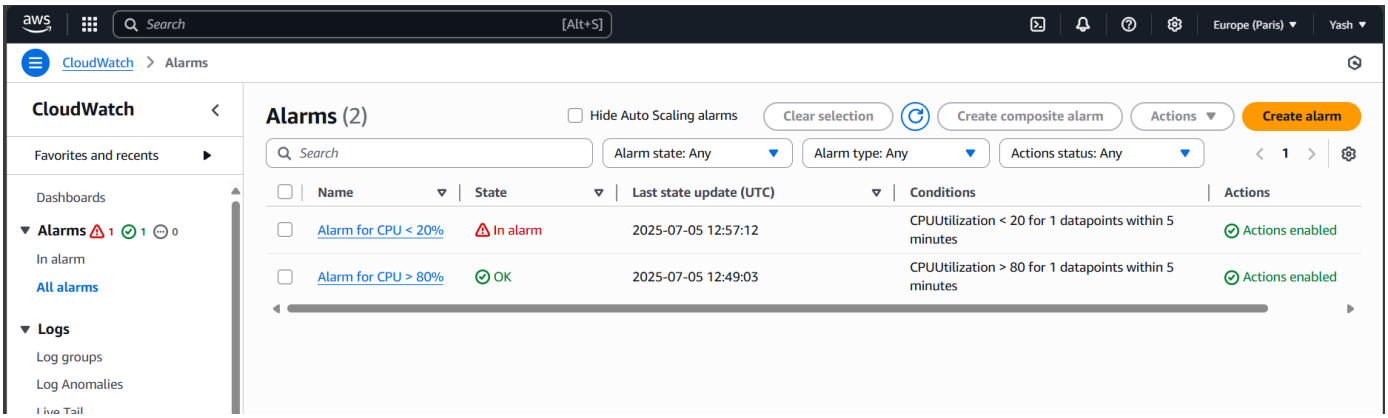
# Email for Alarms

*Received automated email notification via SNS triggered by a CloudWatch alarm when EC2 CPU utilization dropped below 20%.*



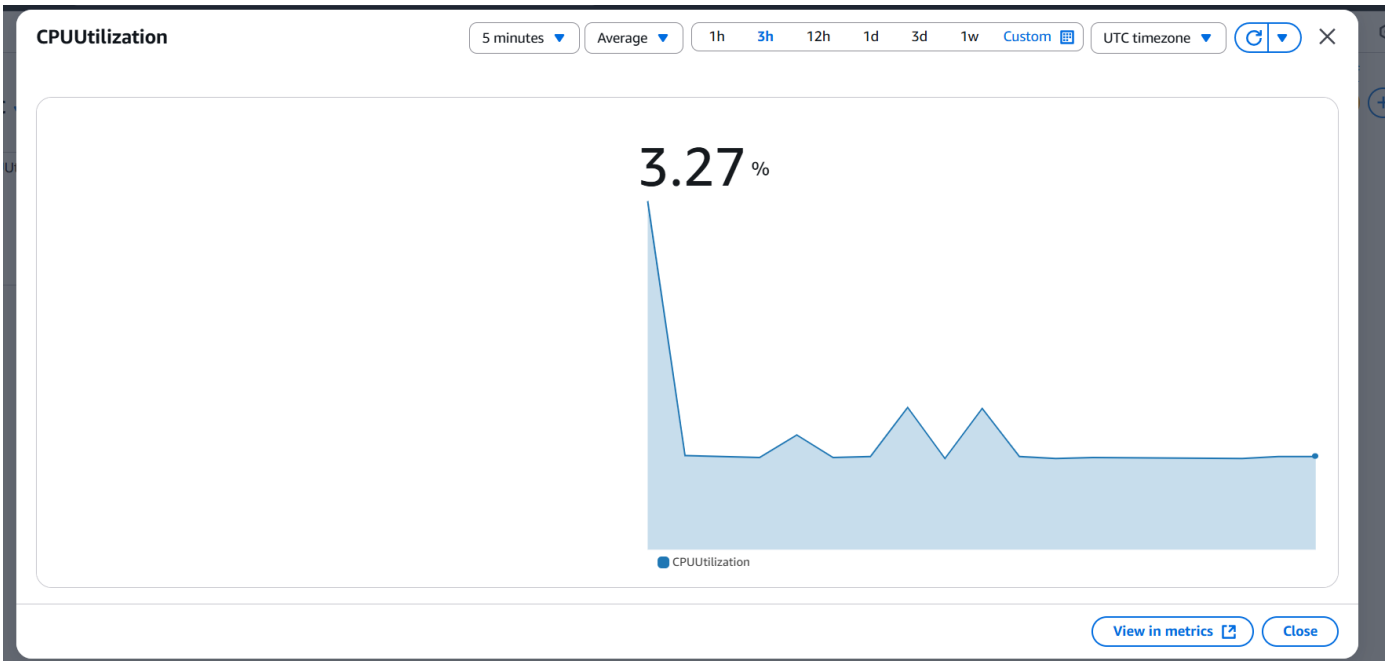

# CloudWatch Alarms

*CloudWatch alarm transitioned between 'In Alarm' and 'OK' states based on CPU utilization thresholds.*



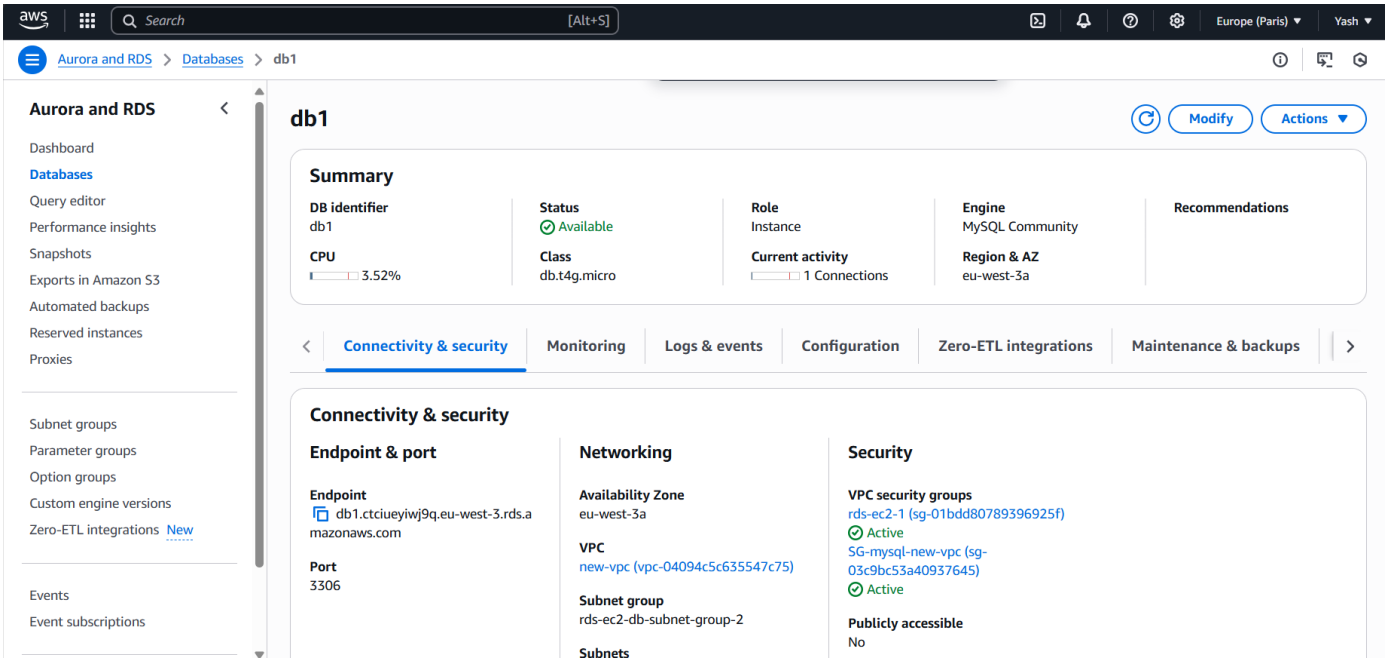

# CloudWatch Dashboard

*Created a CloudWatch dashboard to visualize and monitor real-time metrics of AWS resources in one place.*



# Aurora and RDS

*Designed and deployed a secure database architecture using Amazon RDS and Aurora in private subnets to support high availability, scalability, and automated management for the project.*




# Databases

*Created two databases, DB1 and DB2, on Amazon RDS and Aurora, and inserted structured sample data.*

```
MySQL [db1]> show databases;
+--------------------+
| Database           |
+--------------------+
| db1                |
| db2                |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
```

## Db1

```
MySQL [db1]> Select * from Banking;
+------------+---------------+----------------+--------------+-----------+---------------------+
| account_id | customer_name | account_number | account_type | balance   | created_at          |
+------------+---------------+----------------+--------------+-----------+---------------------+
|          1 | Ravi Kumar    | ACC1001        | Savings      |  15000.75 | 2025-07-05 13:53:02 |
|          2 | Anjali Mehta  | ACC1002        | Current      |  50000.00 | 2025-07-05 13:53:02 |
|          3 | Suresh Raina  | ACC1003        | Fixed Deposit | 120000.00 | 2025-07-05 13:53:02 |
+------------+---------------+----------------+--------------+-----------+---------------------+
```

# THANK YOU