Capstone Project 1

Description: Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) cloud. Using Amazon EC2 eliminates your need to invest in hardware up front so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. Amazon EC2 enables you to scale up or down to handle changes in requirements or spikes in popularity, reducing your need to forecast traffic.

Problem Statement: Company ABC wants to move their product to AWS. They have the following things set up right now:

1. MySQL DB

2. Website (PHP) The company wants high availability on this product, therefore wants Auto Scaling to be enabled on this website.

Steps To Solve:

1. Launch an EC2 Instance

2. Enable Auto Scaling on these instances (minimum 2)

3. Create an RDS Instance

4. Create Database & Table in RDS instance:

    a. Database name: intel

    b. Table name: data

    c. Database password: intel123

5. Change hostname in website

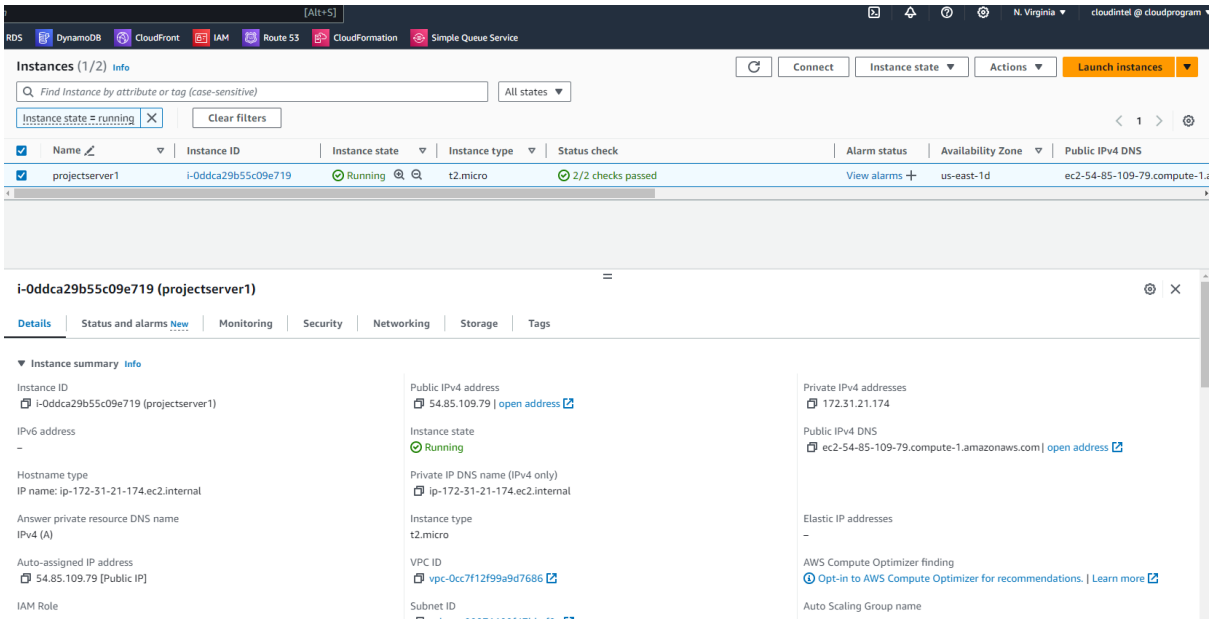
6. Allow traffic from EC2 to RDS instance

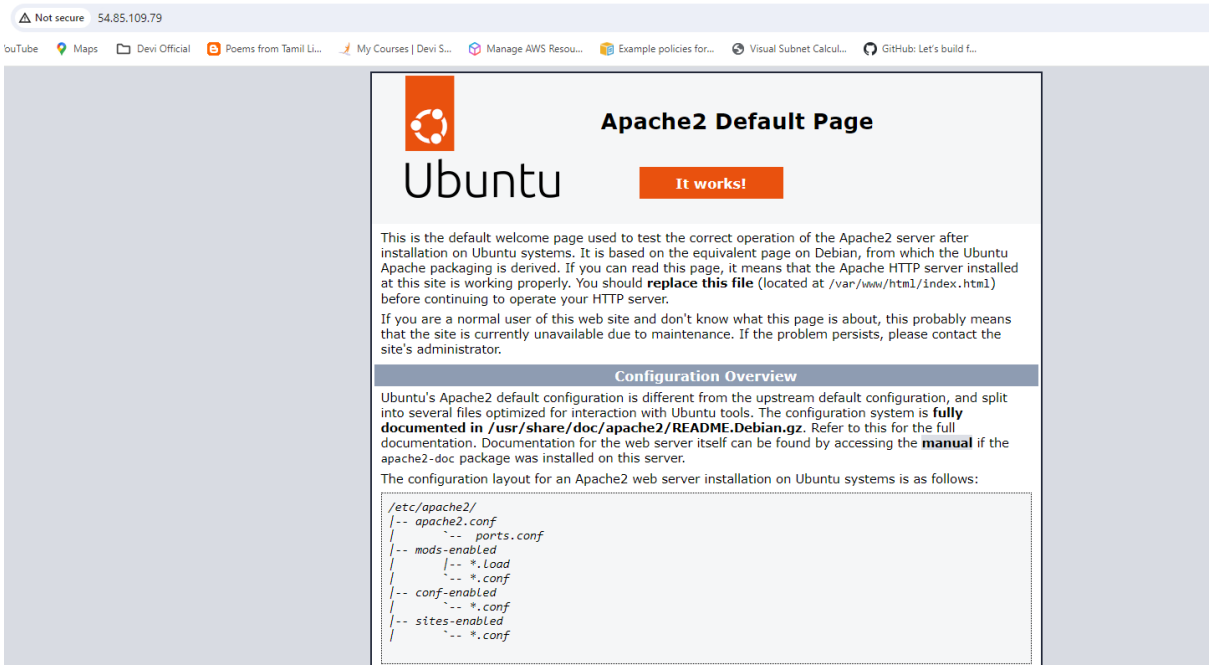
7. Allow all-traffic to EC2 instance

SOLUTION:

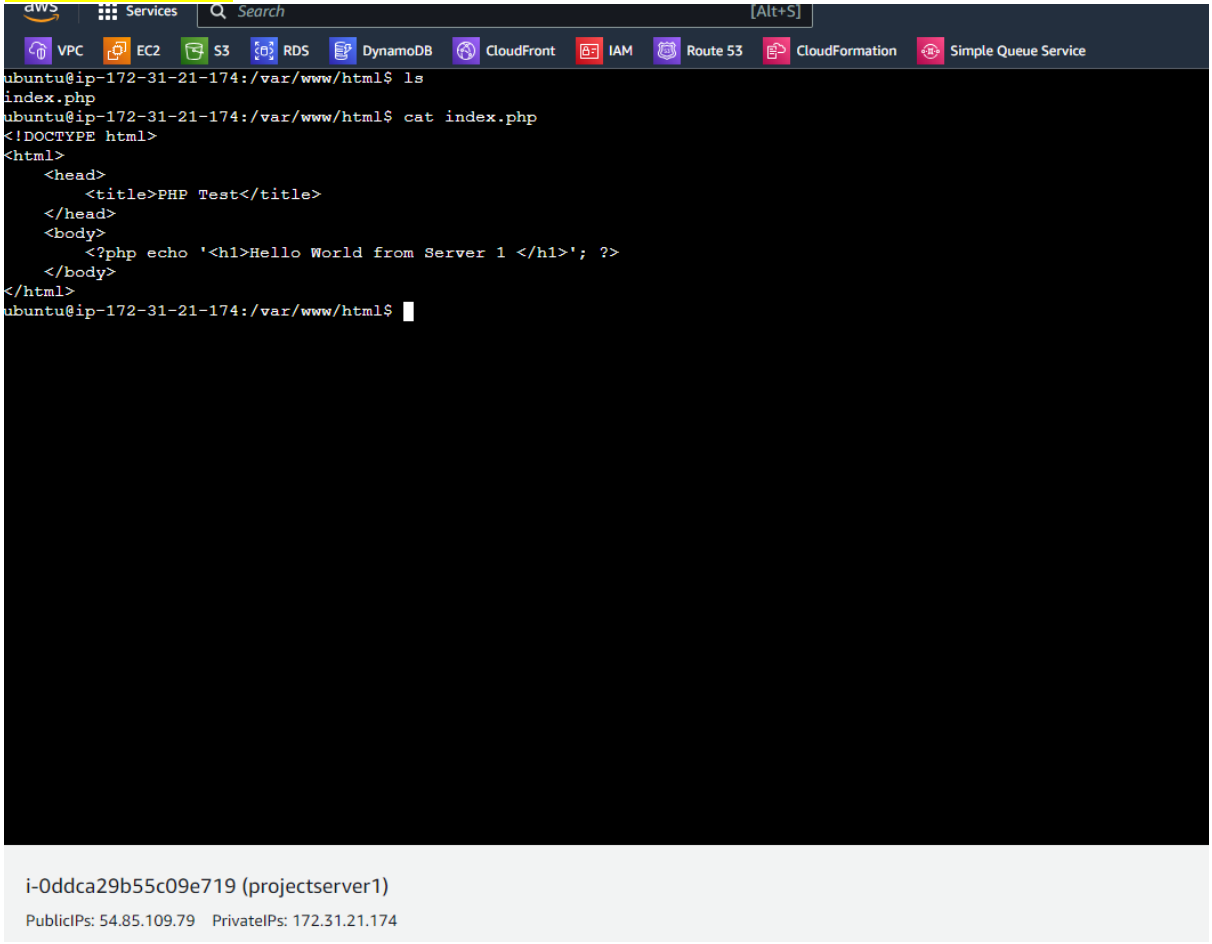
1. Created an Ubuntu EC2 instances and installed PHP custom website

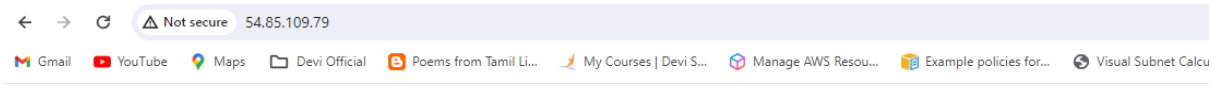
Instance: Projectserver1





Updated index.php

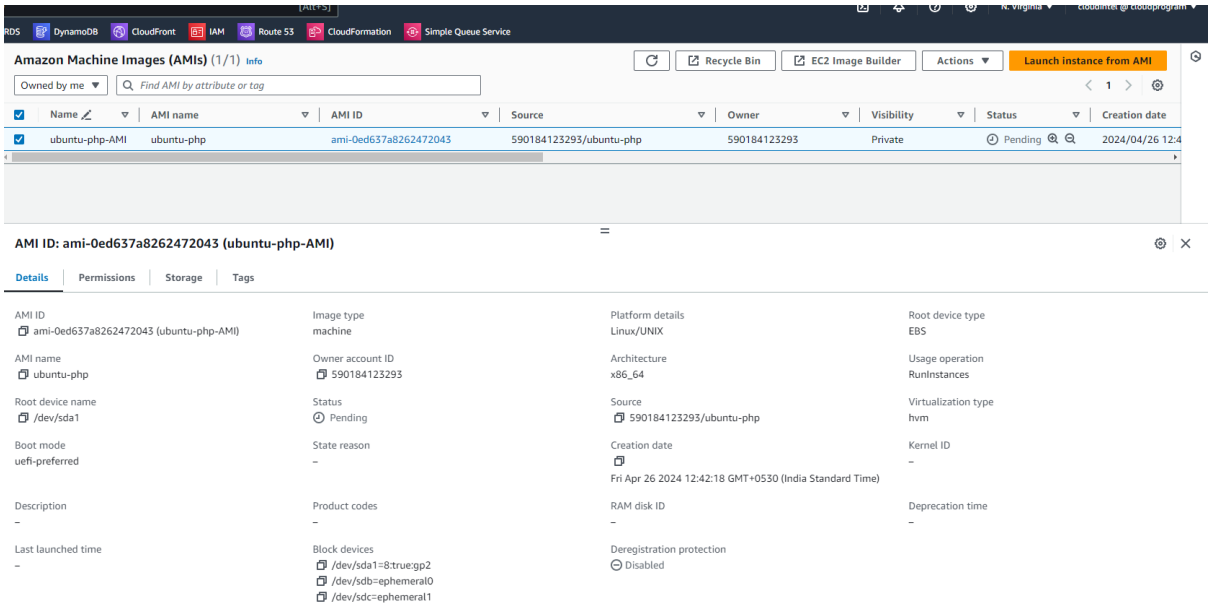




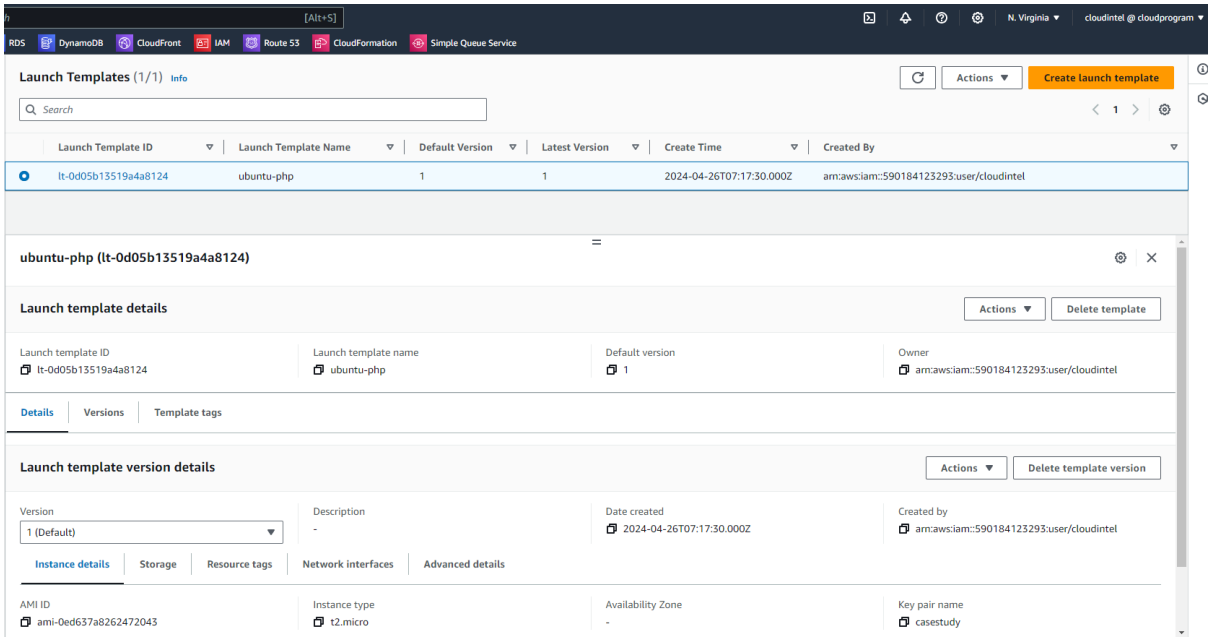
Hello World from Server 1

2. Autoscaling group is created and associated the instances

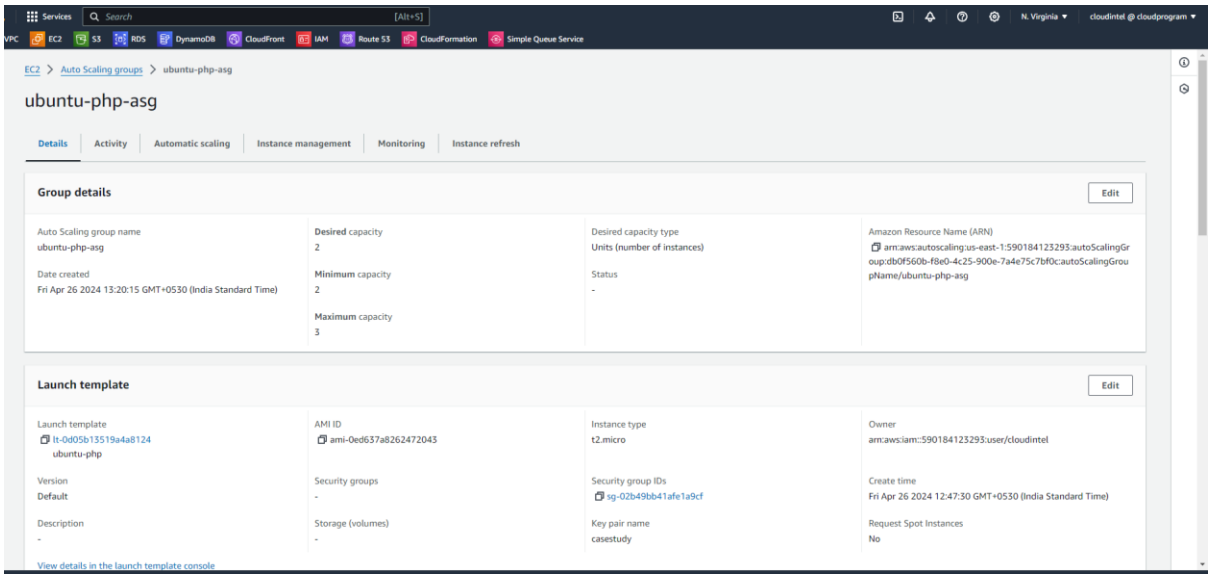
AMI created



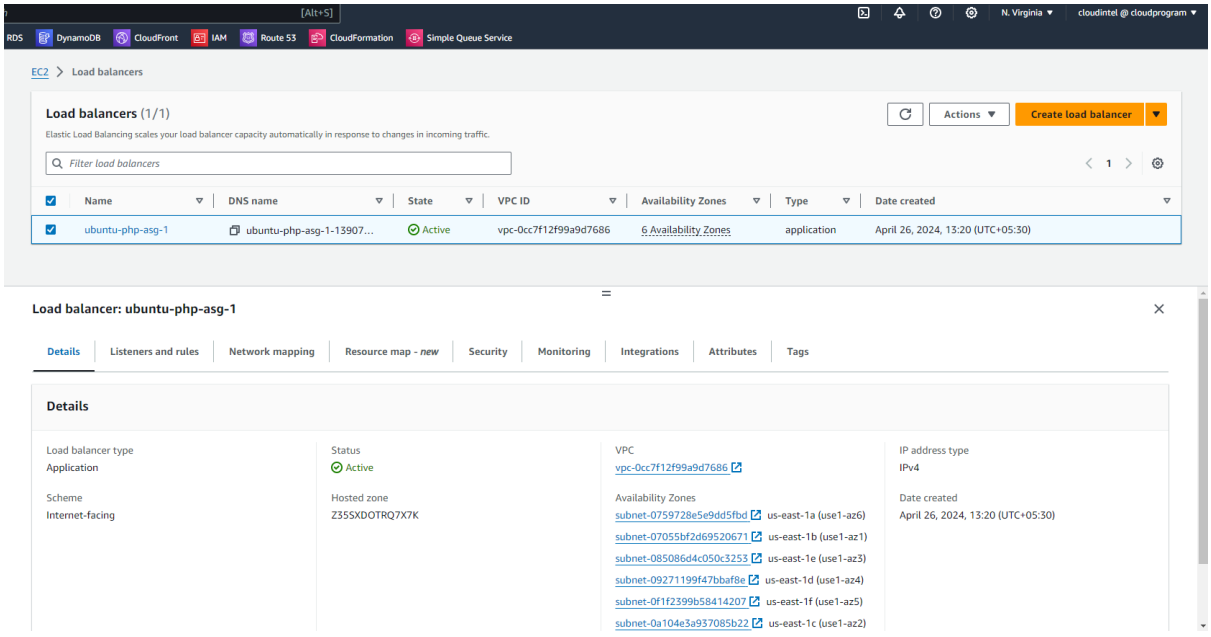
Launch Template created



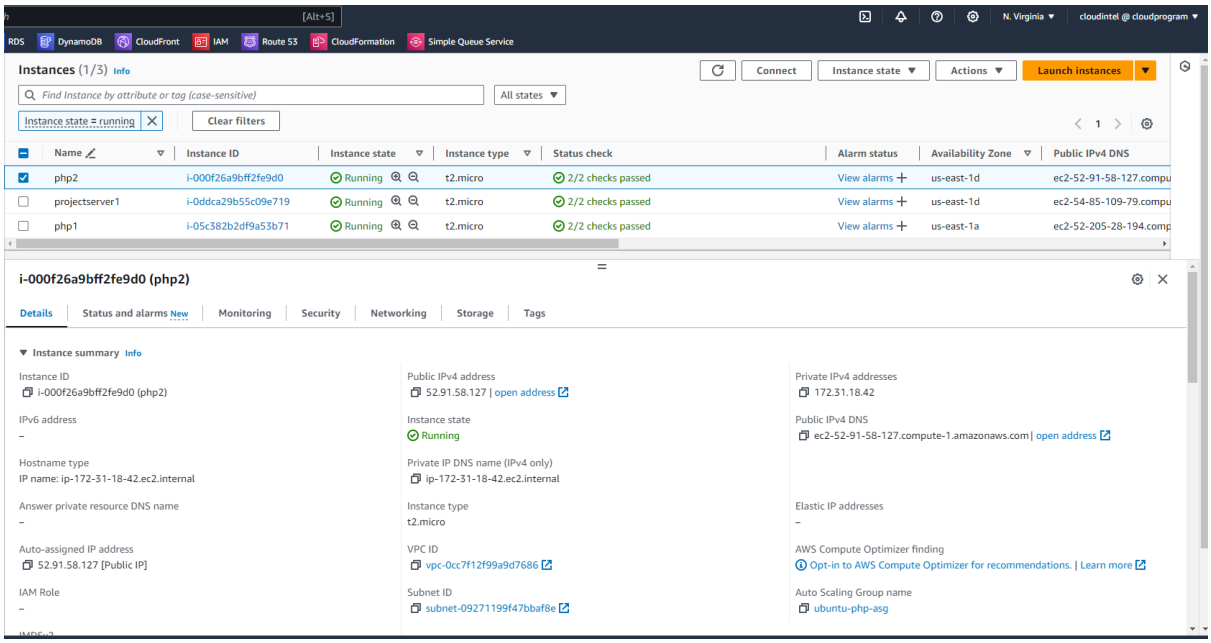
Autoscaling Group Created

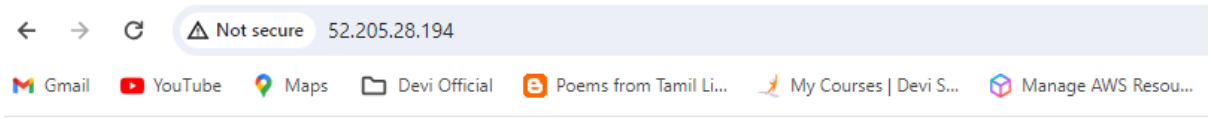


Load Balancer created

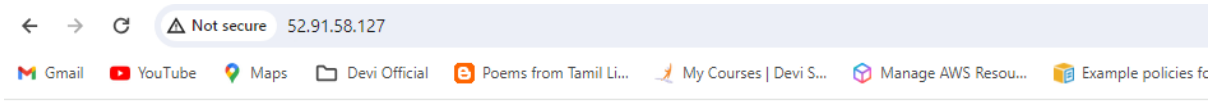


Instances created by ASG – php1 & php2



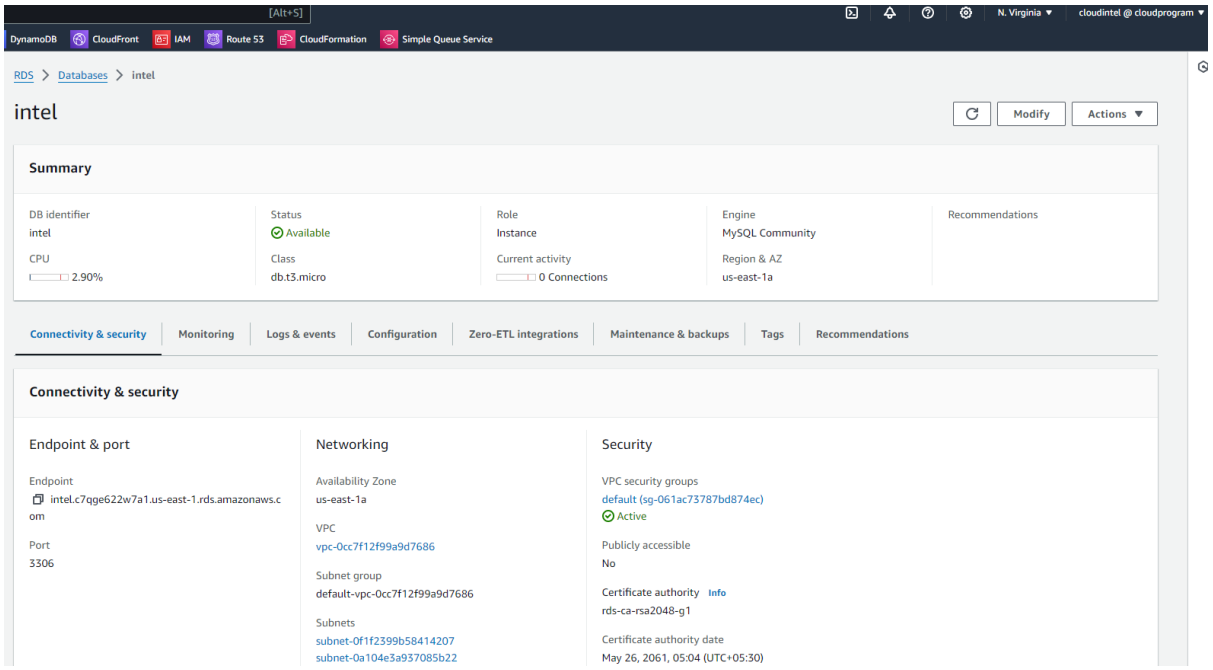


Hello World from Server 1



Hello World from Server 2

3. Created an RDS instance with MySQL engine



4. Database and Table creation

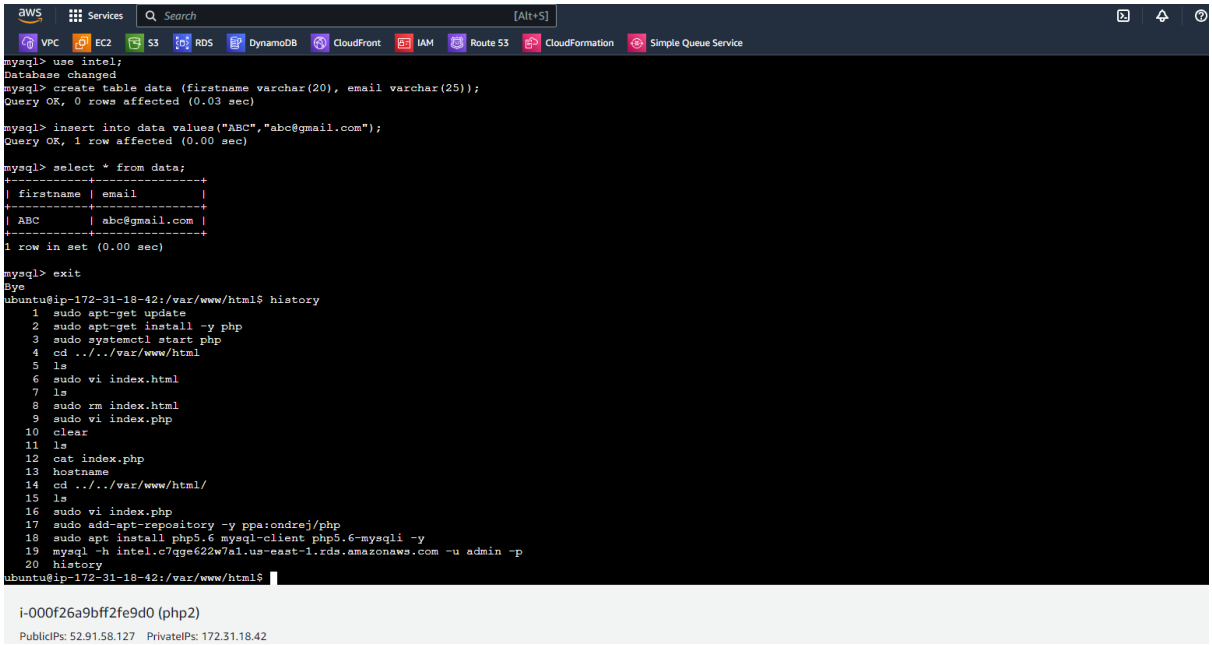


Table CREATED from php2

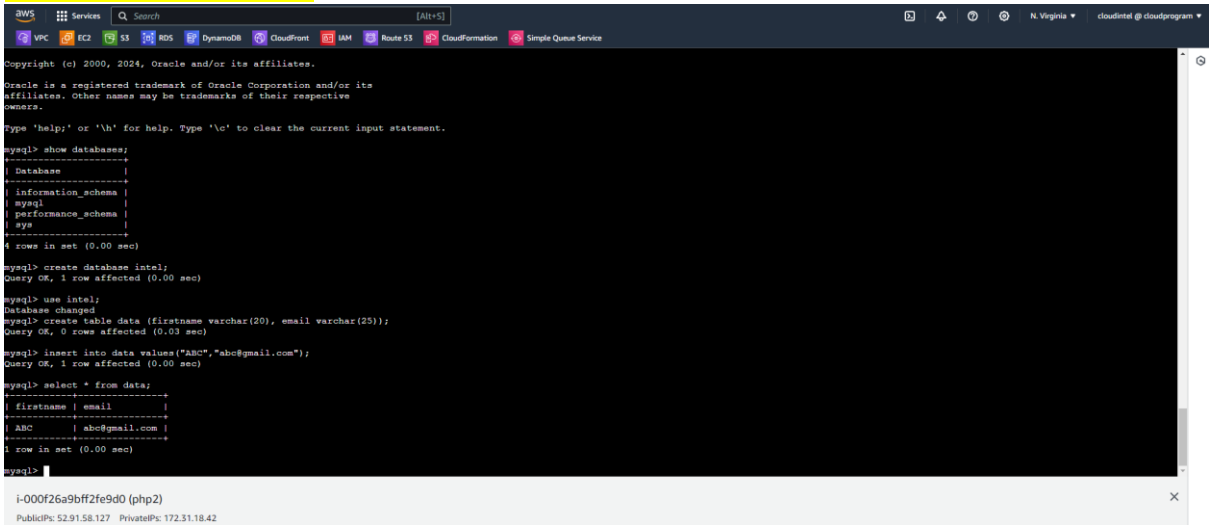
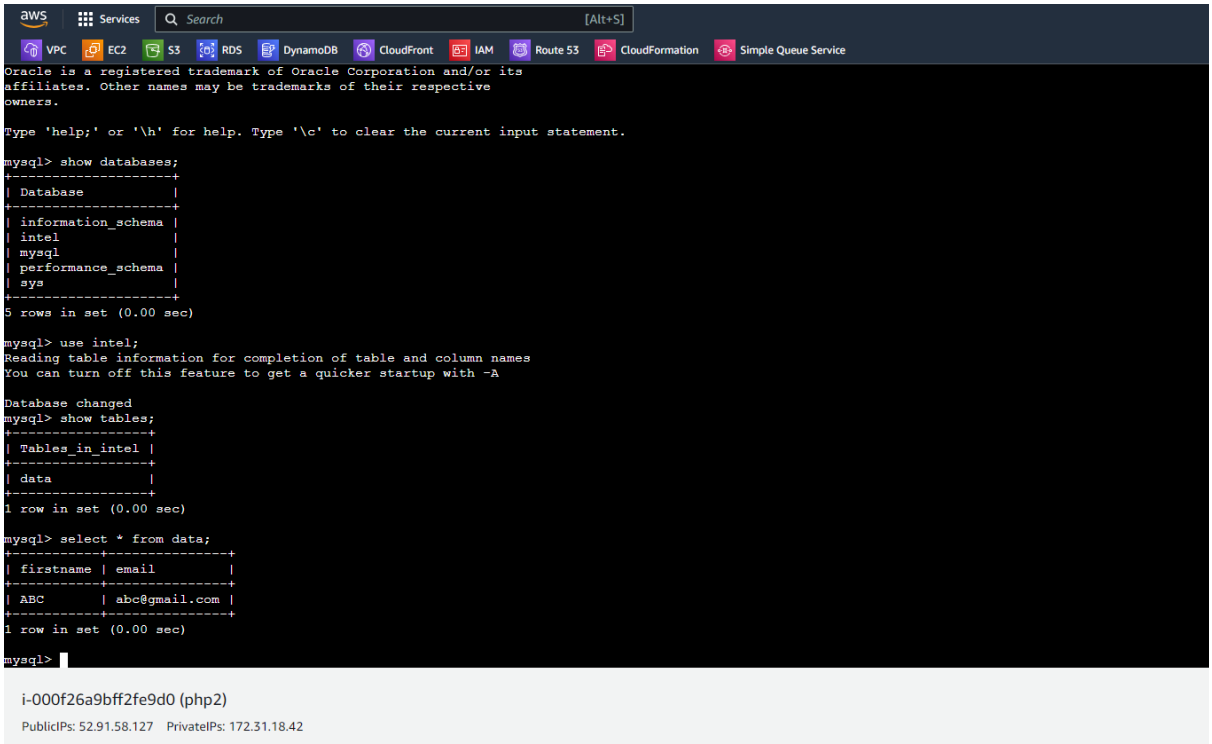
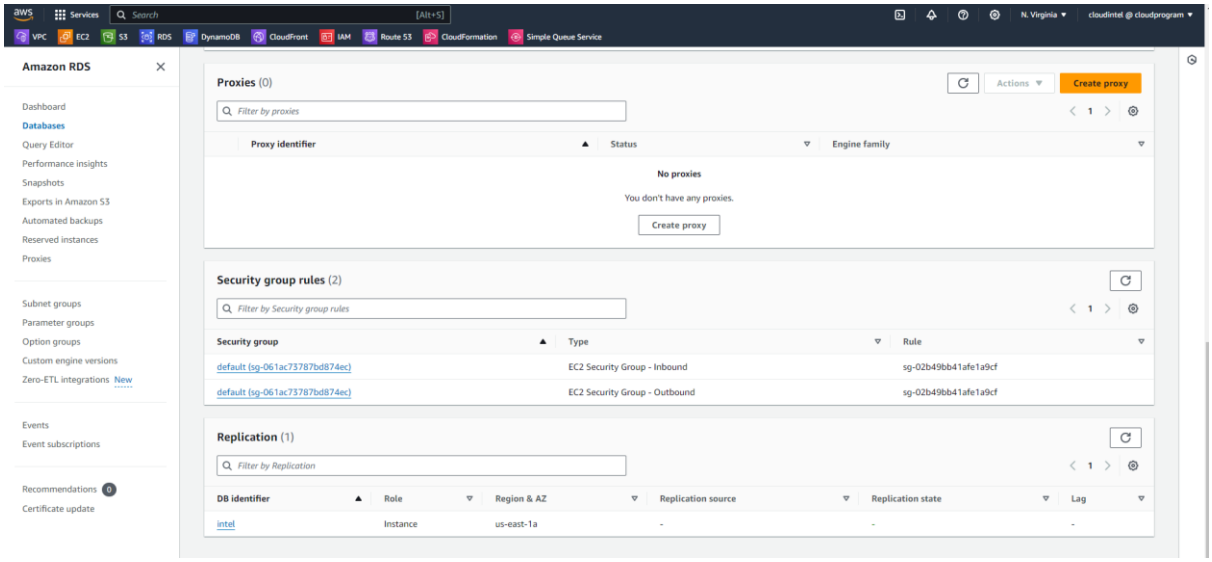
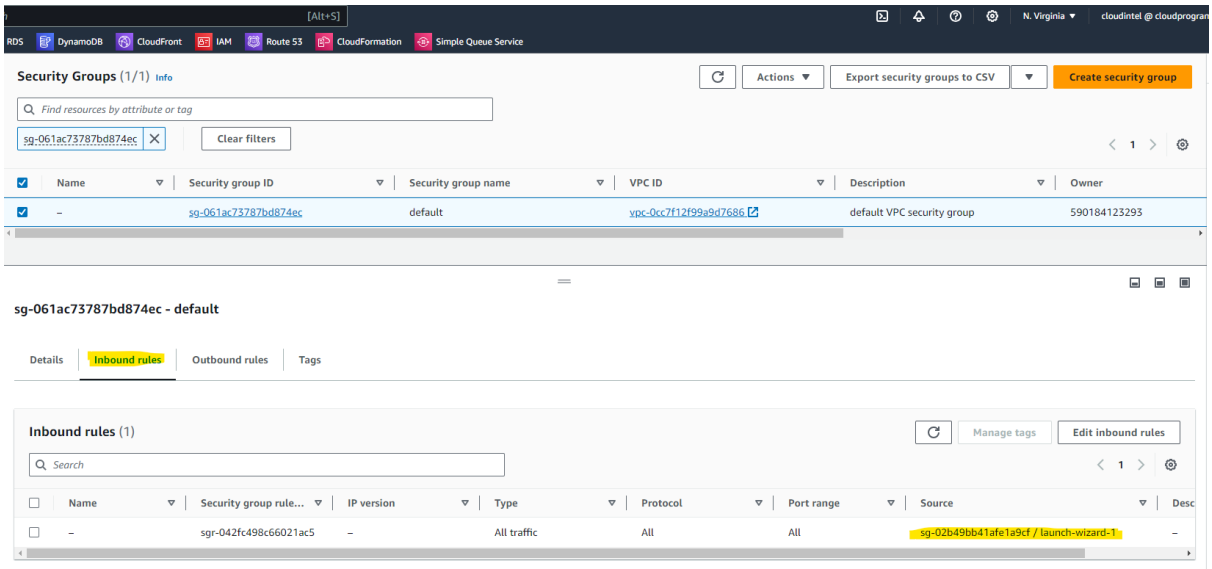


Table ACCESSED from php1

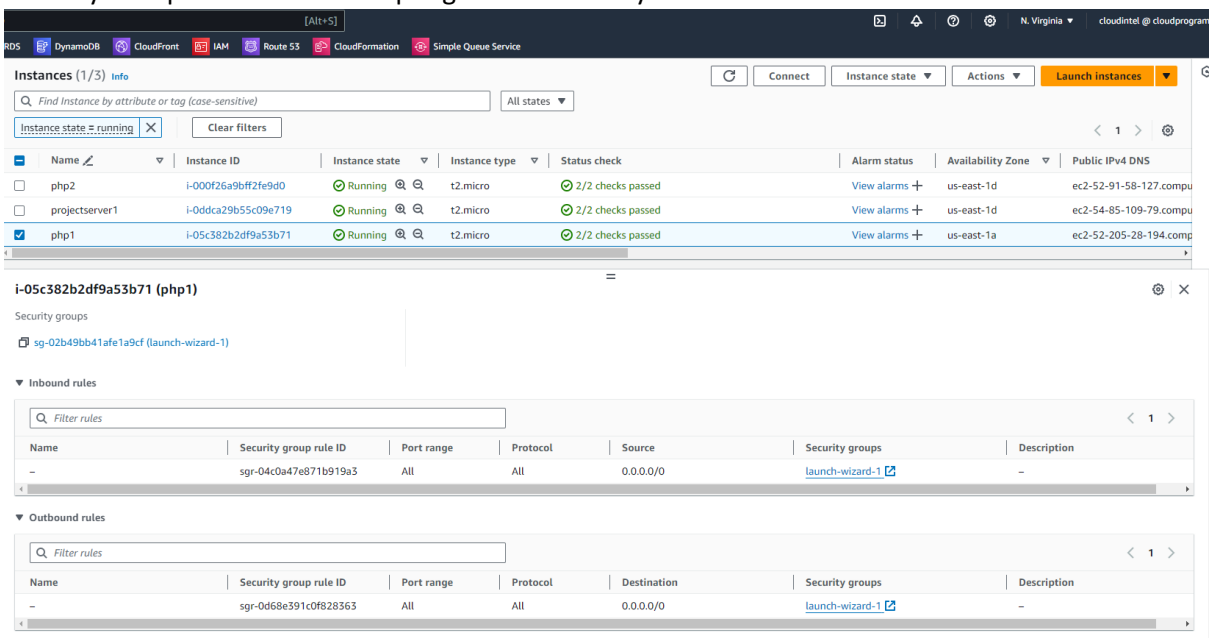


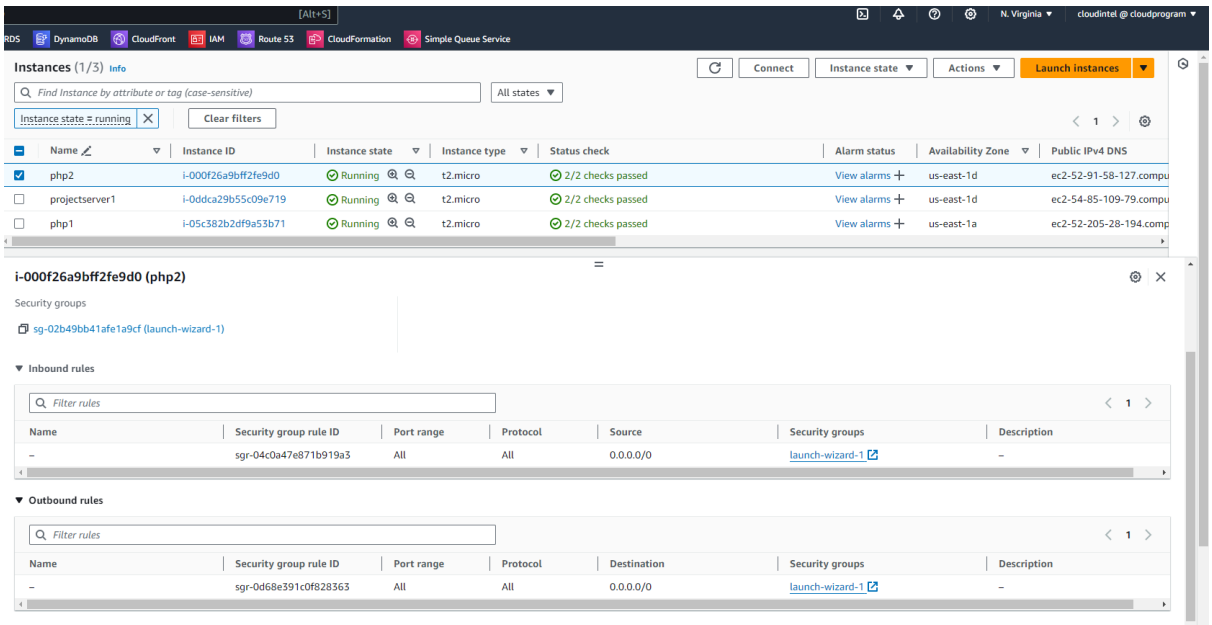
5. Security Group Rules of RDS with traffic only from EC2



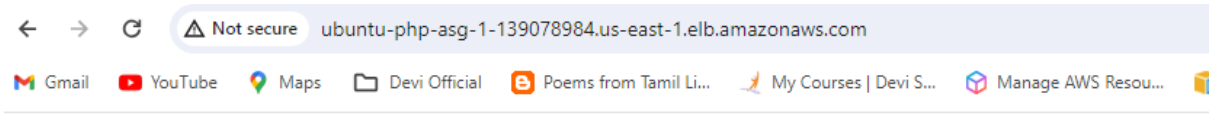


6. Security Group Rules of EC2 accepting traffic from Anywhere

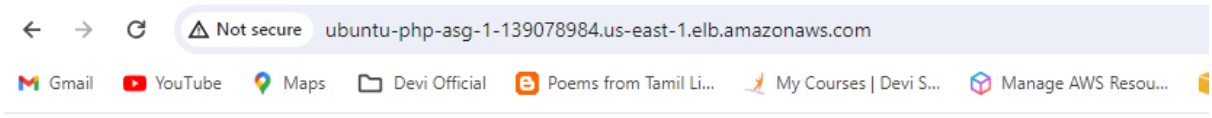




Load Balancer DNS



Hello World from Server 1



Hello World from Server 2

Hostname modification to be done as below with Route53 to direct traffic to load balancer