**Project - 1: Deploying a**

**Multi-Tier Website Using AWS EC2**

**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

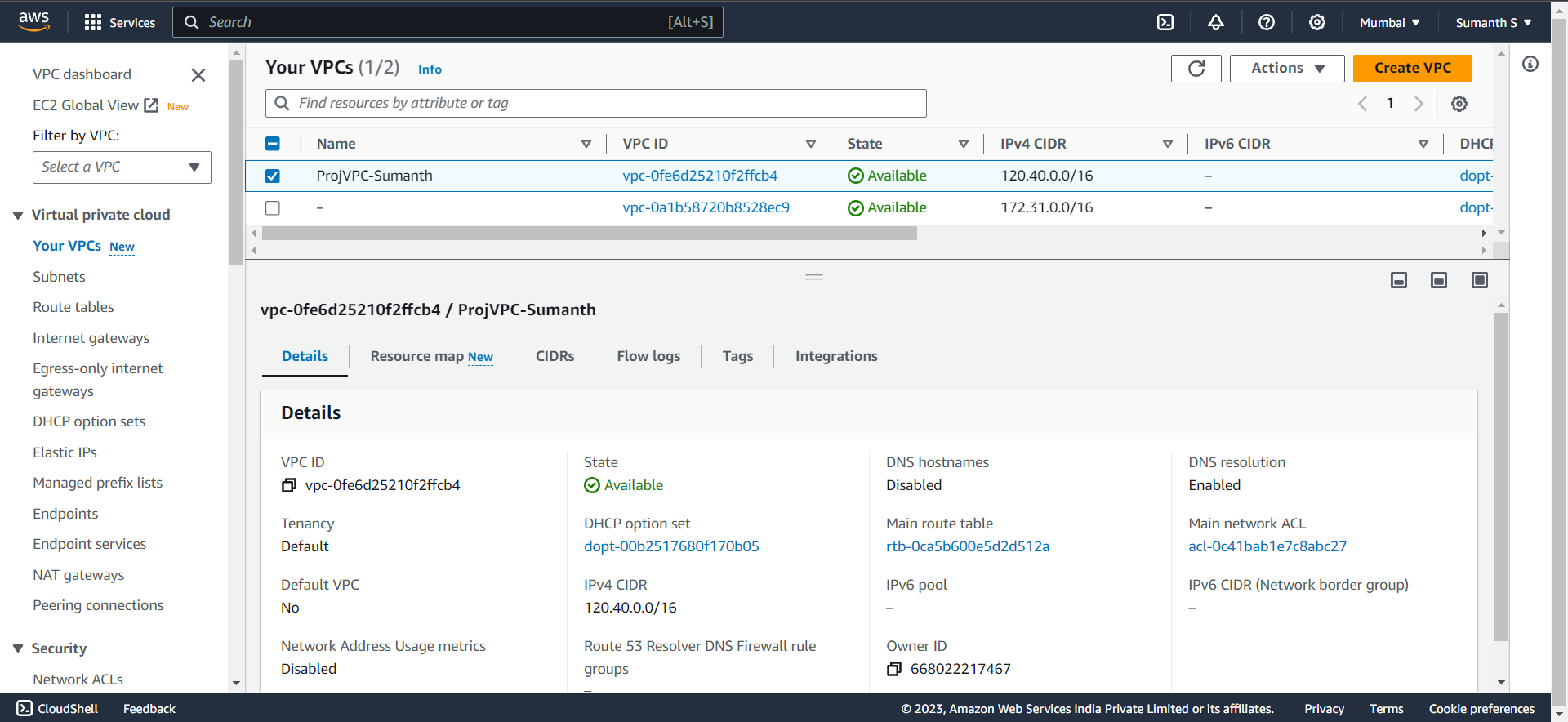
5. Change hostname in website

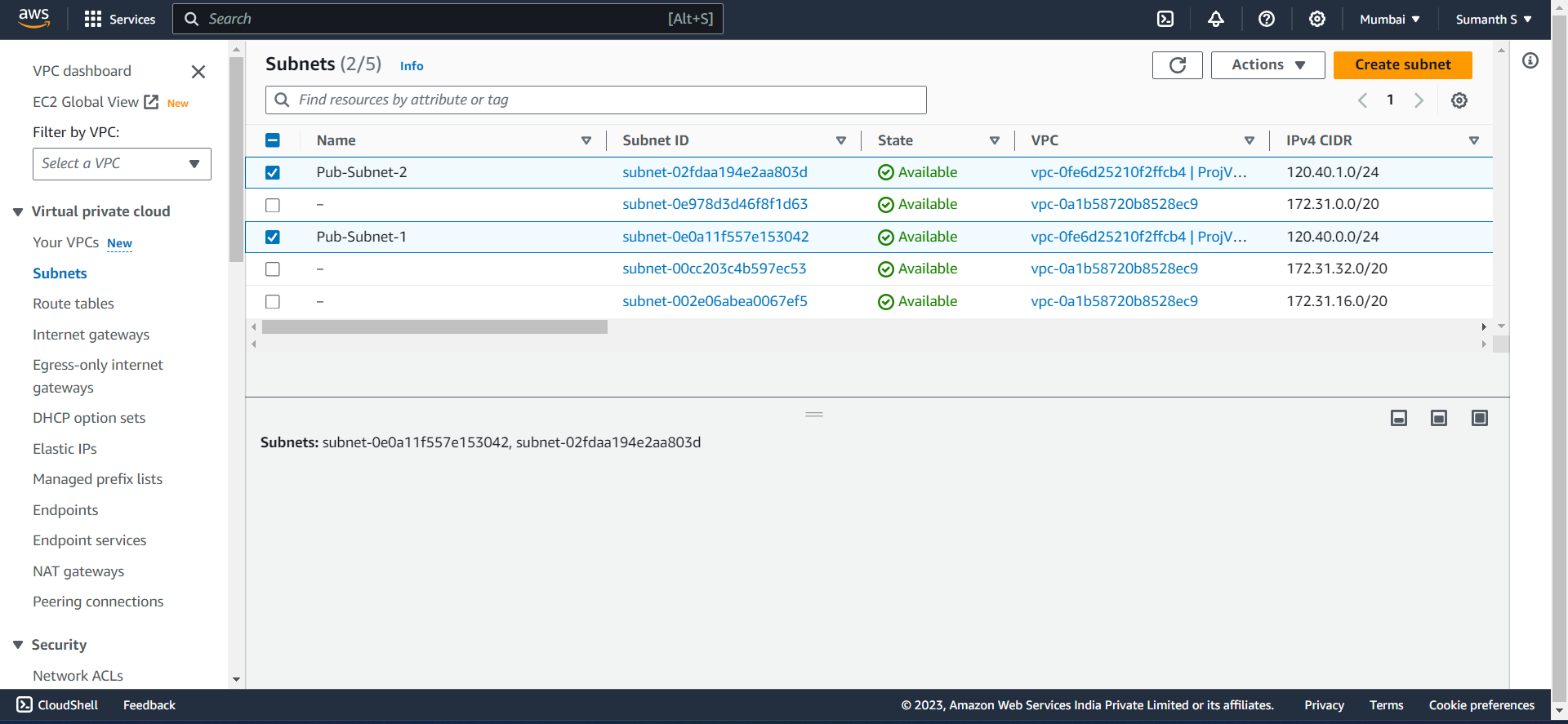
6. Allow traffic from EC2 to RDS instance

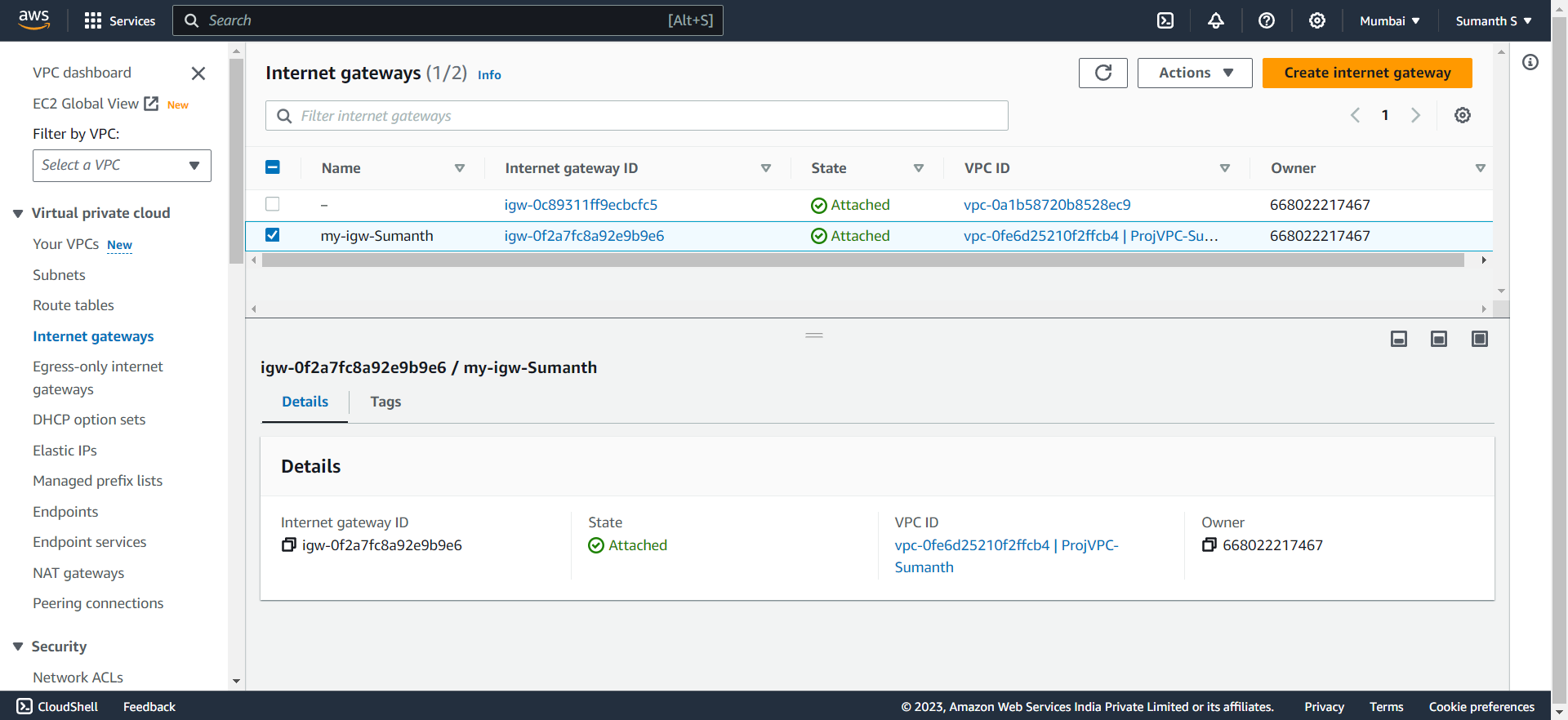
7. Allow all-traffic to EC2 instance

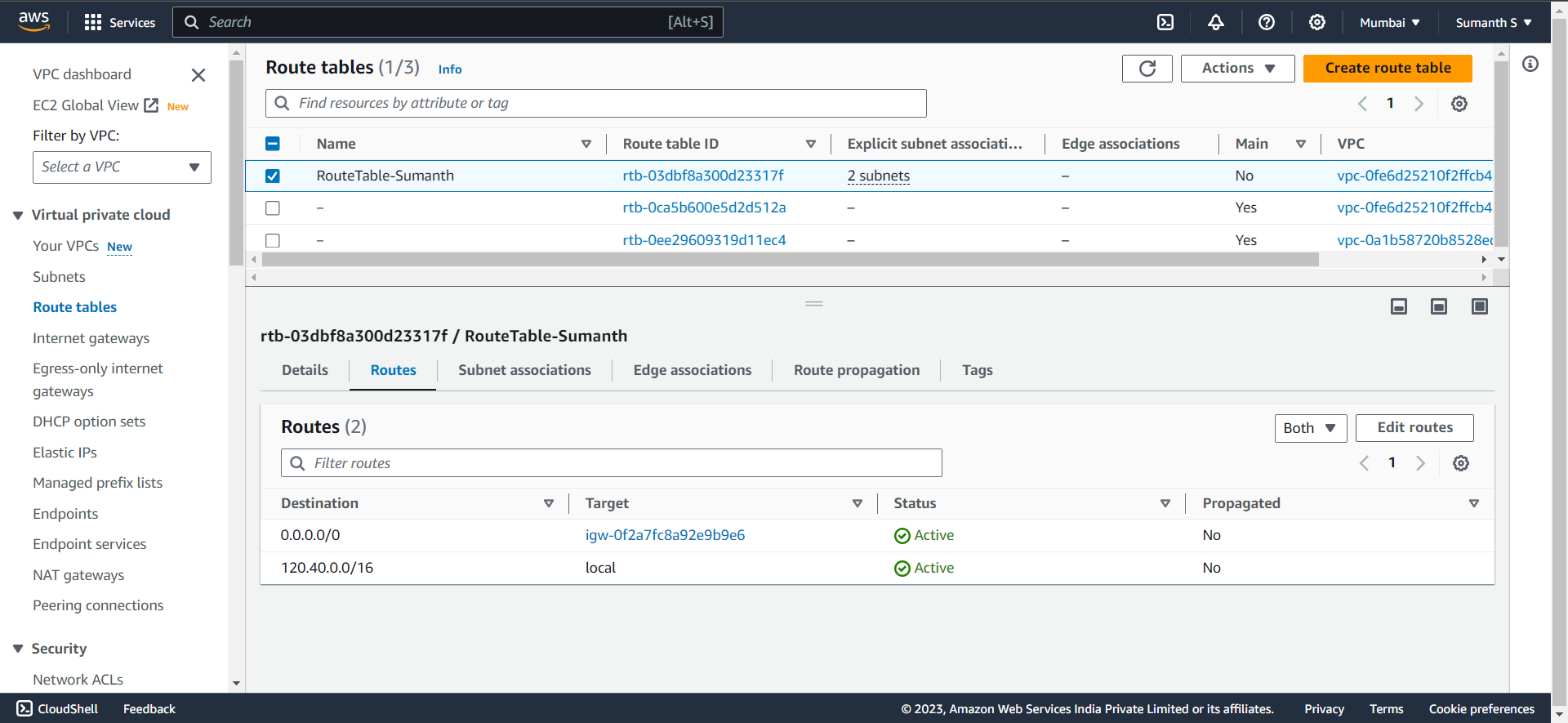
Solution:

1. Configured VPC, Subnets, Internet Gateway and Route table.

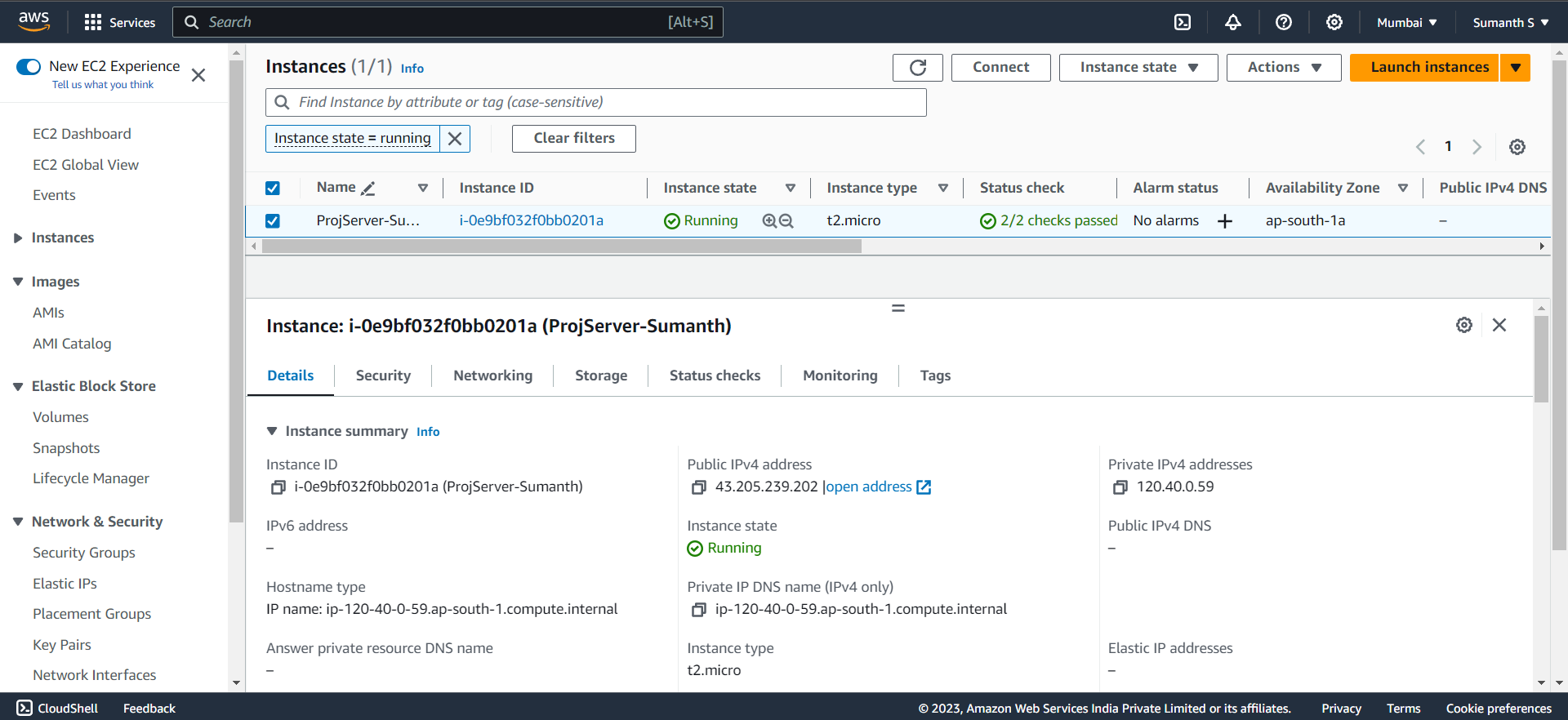




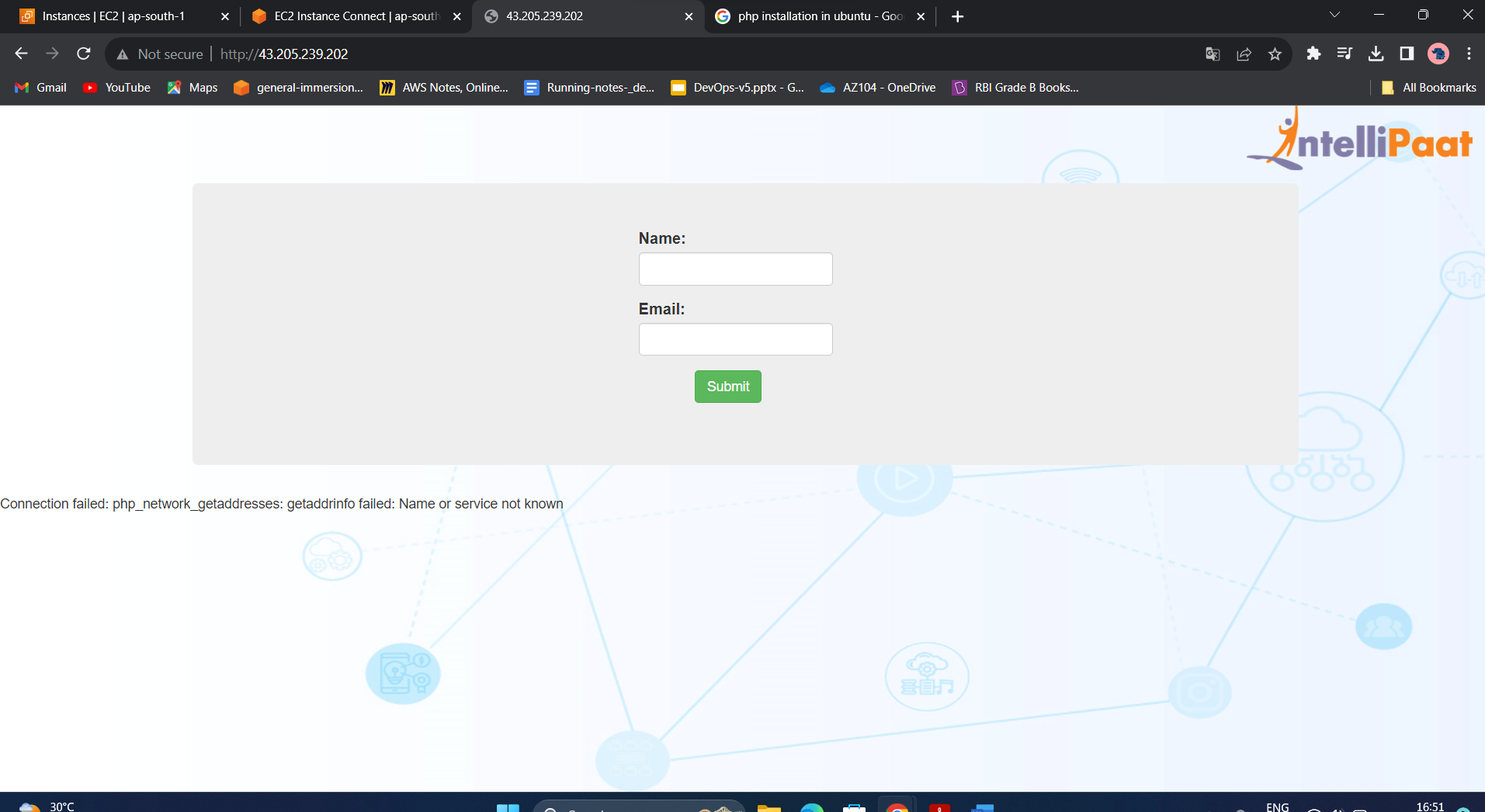




1. Created an EC2 instance



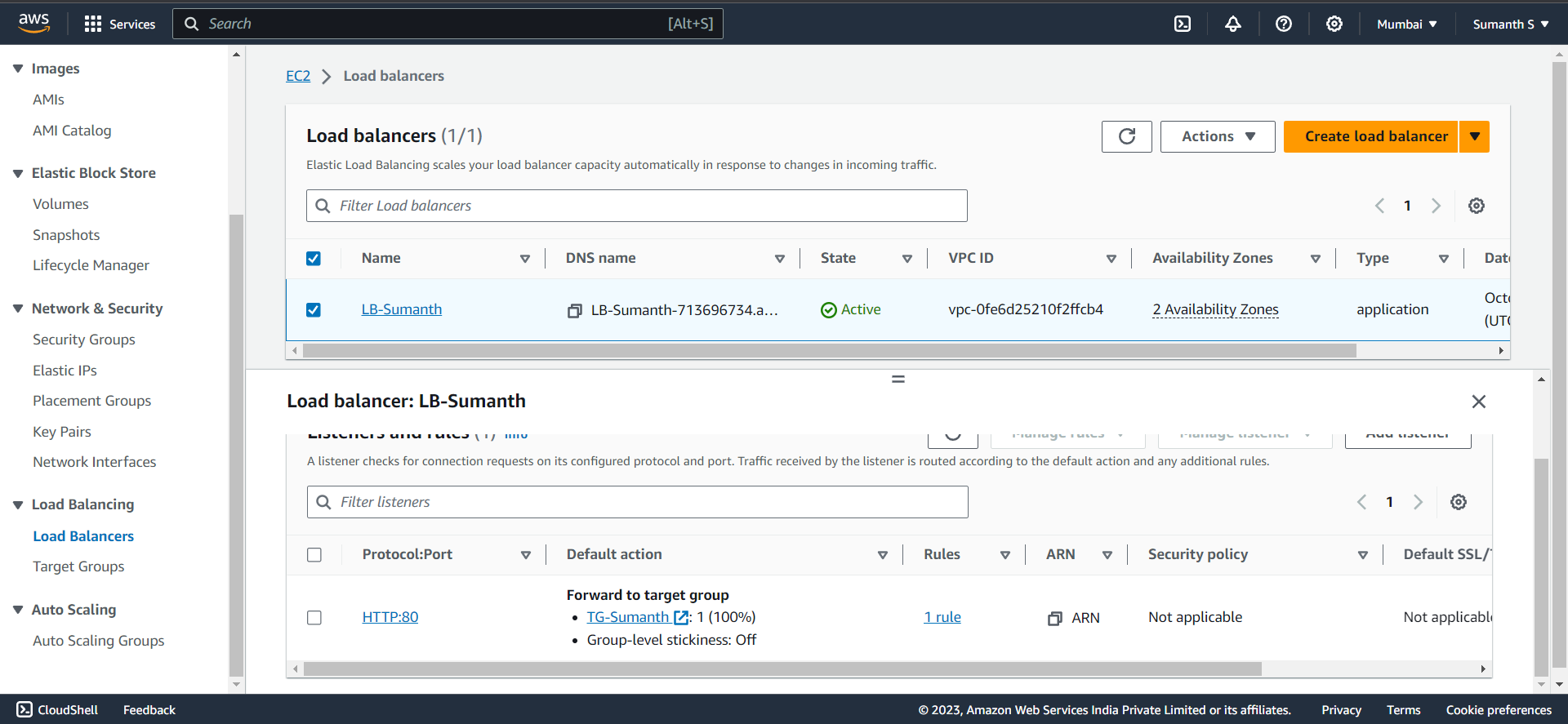
1. Installed the apache2 and php. Also imported the webpage from local machine to virtual machine using WINSCP.



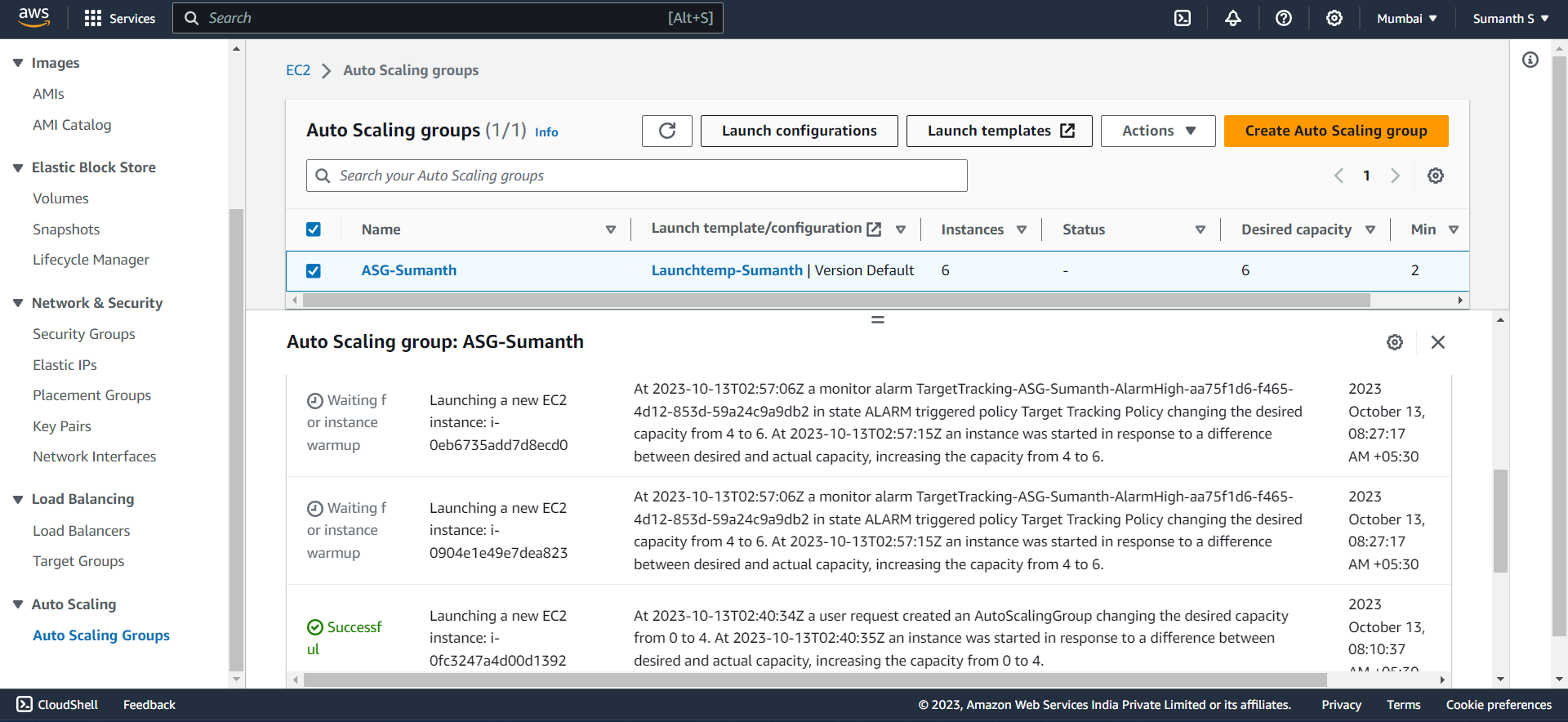
1. Configured RDS and connected to my database



1. Configured the Target group and Load Balancer. Altered the security group like first the traffic will connect to load balancer and then the traffic will be redirected to the instance and then to the RDS.



1. Configured Launch template and Auto Scaling Group.



1. Couldn’t configure Route53 as I couldn’t find the free domain services.

**Commands used for implementing the project**

1 sudo apt update

2 sudo apt install apache2 -y

3 cd /var/www/html

4 ls

5 sudo rm index.html

6 ls

7 cd

8 ls

10 sudo mv index.php images/ /var/www/html

11 ls

12 cd /var/www/html

13 ls

14 sudo add-apt-repository -y ppa:ondrej/php

15 sudo apt install php5.6 mysql-server php5.6-mysqli -y

16 ls

17 sudo nano index.php

22 mysql -h database-1.cdetz25qnpto.ap-south-1.rds.amazonaws.com -u admin -pintel123

28 sha1sum /dev/zero &

29 htop

30 kill 59404

31 history