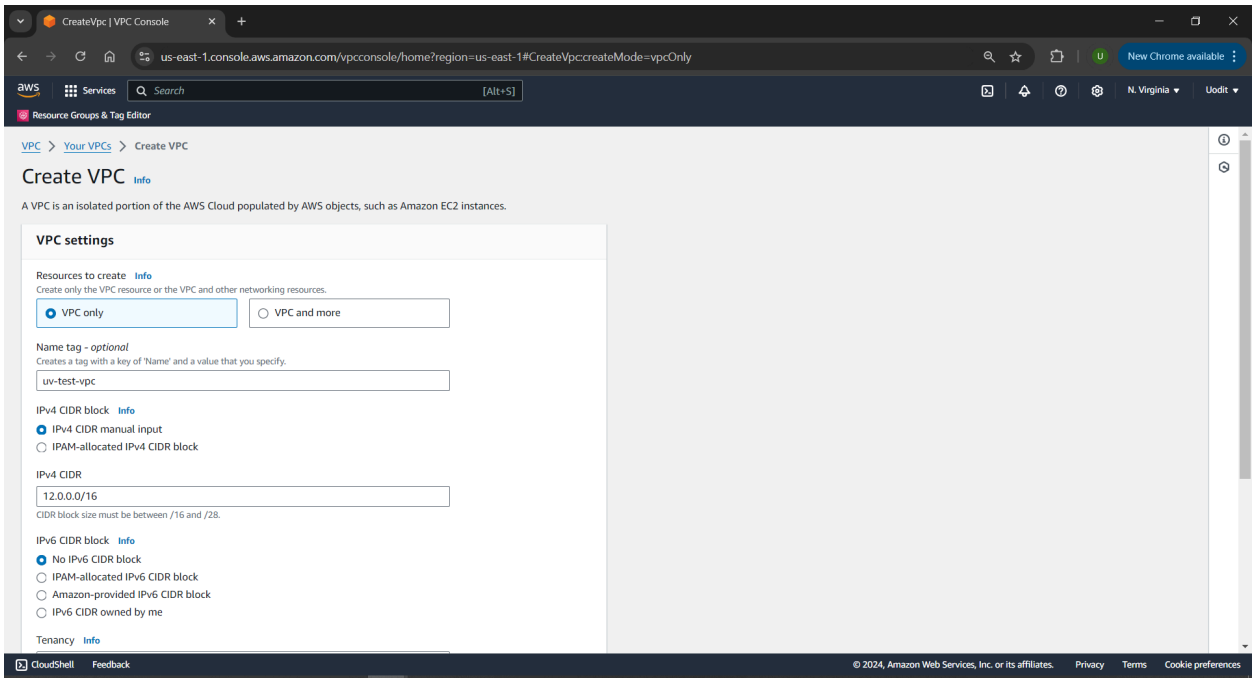
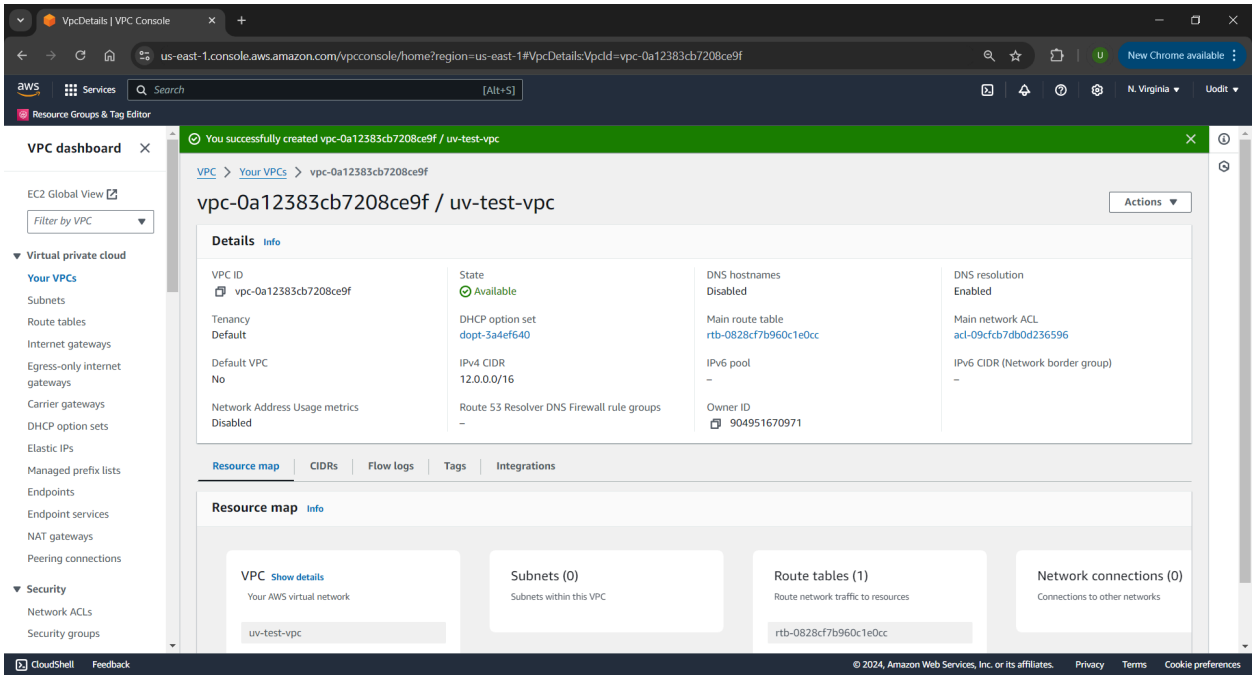
AWS LAB - Auto Scaling

Bharathi
R22BPS10
10

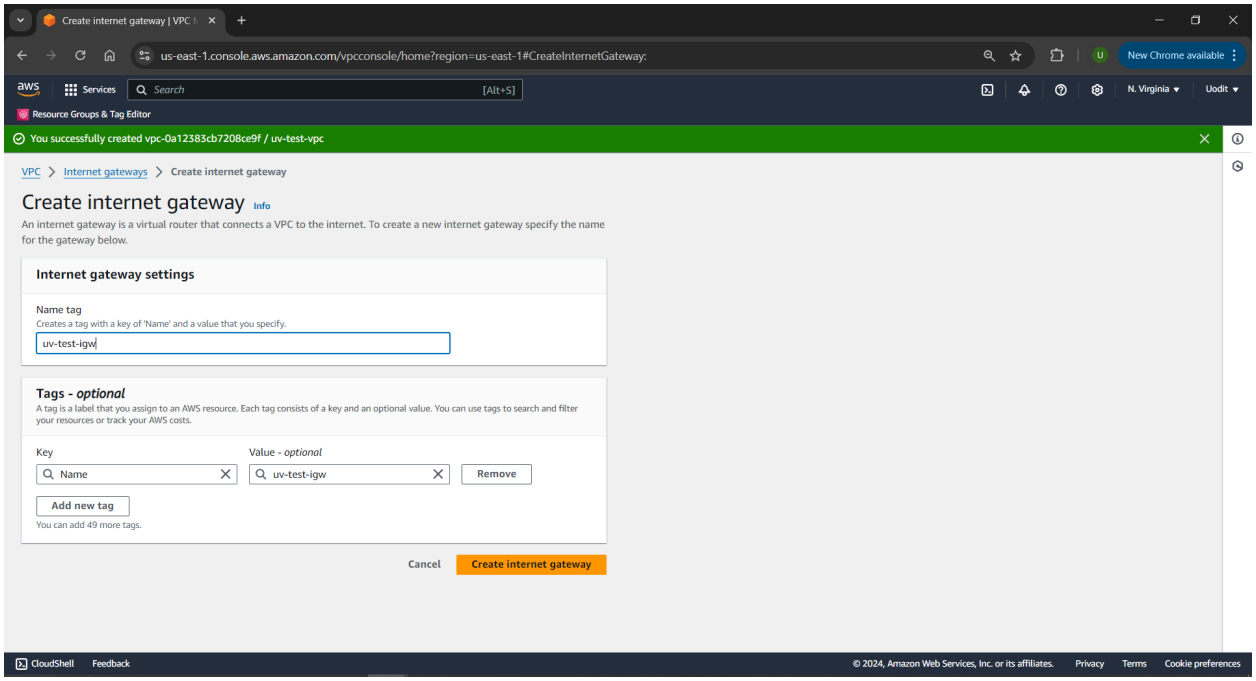
1. Create a VPC with details and ip as in the image



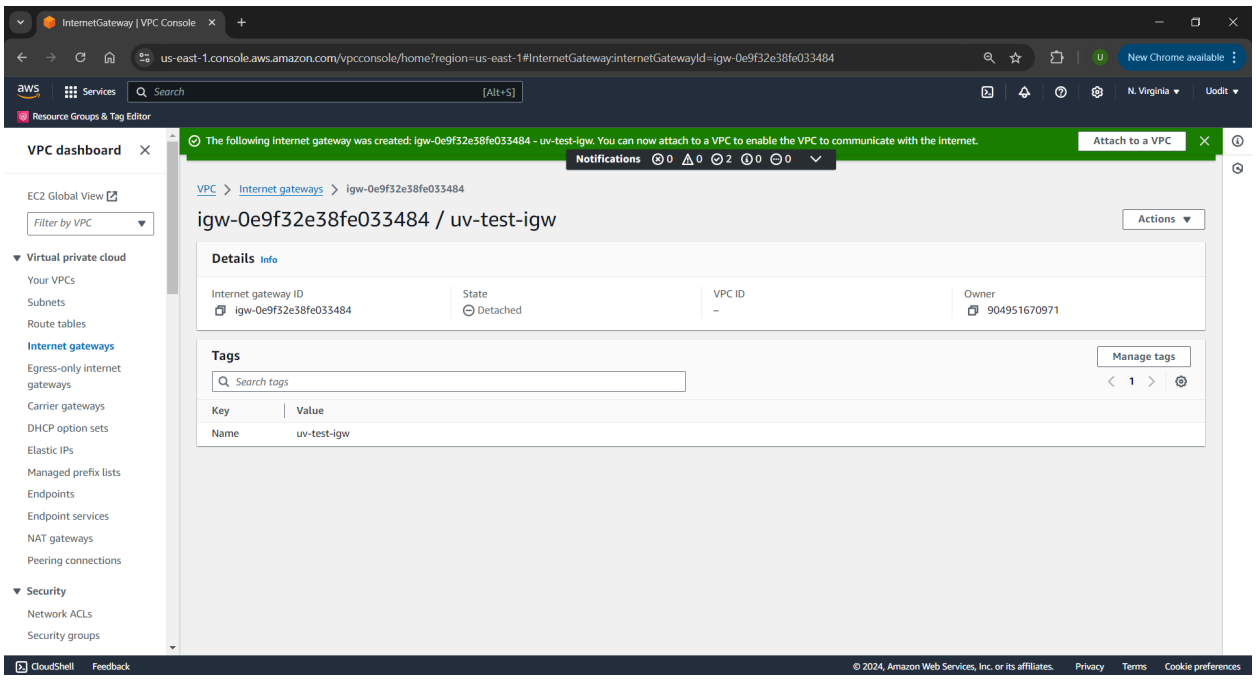
VPC created successfully



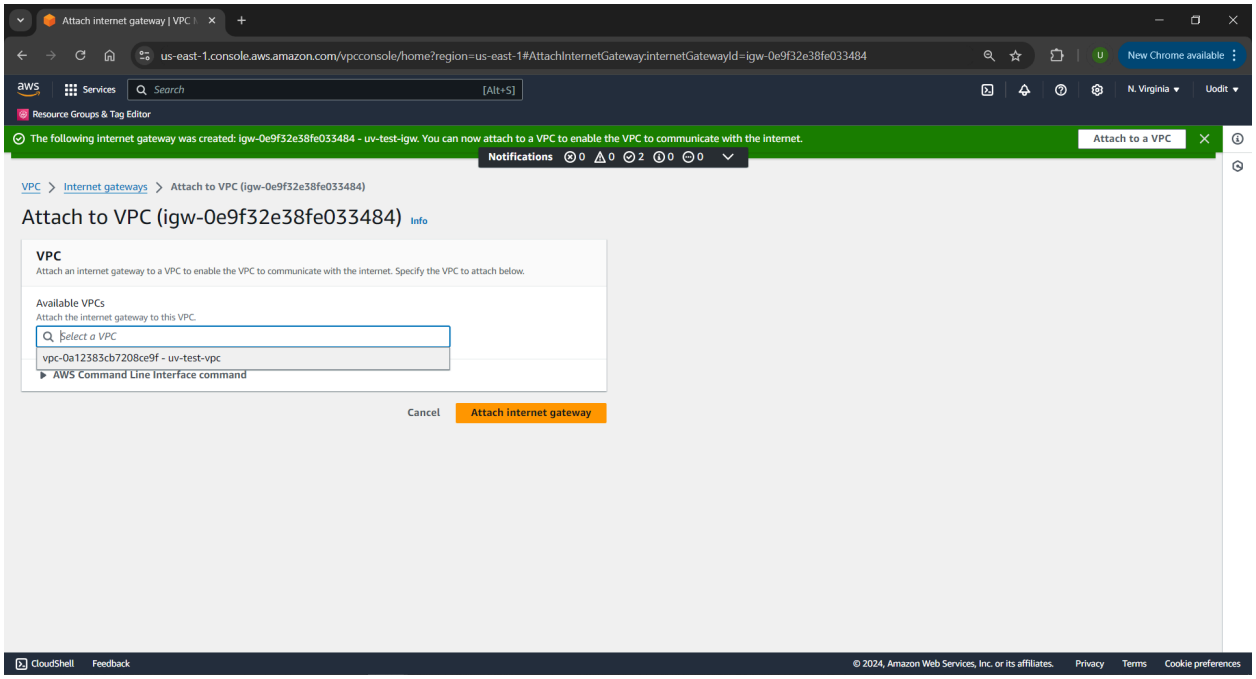
2. Create a new Internet Gateway



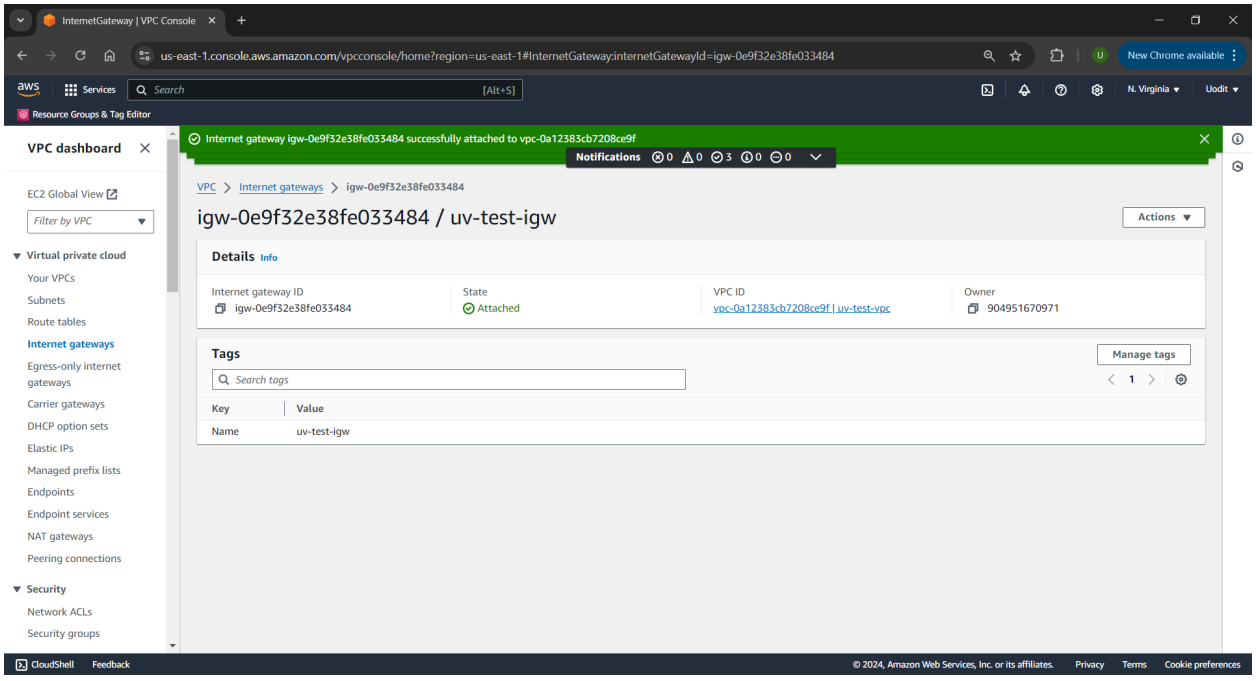
Internet gateway created successfully



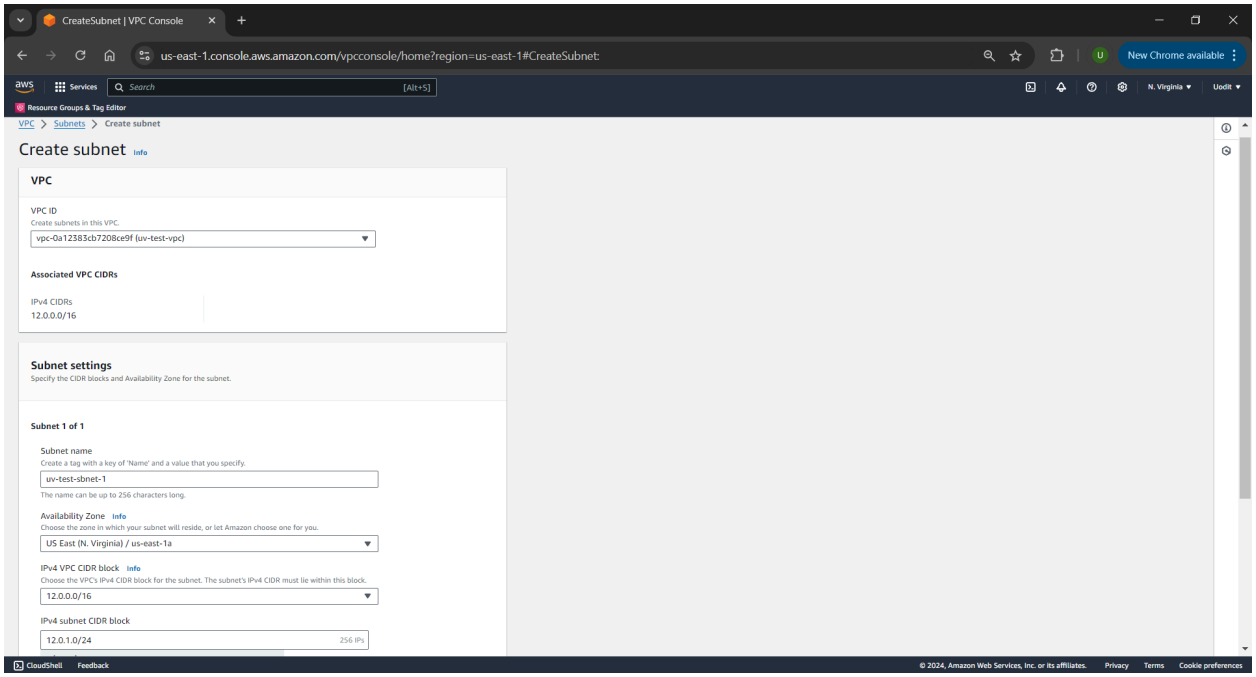
3. Attach the internet gateway to the VPC



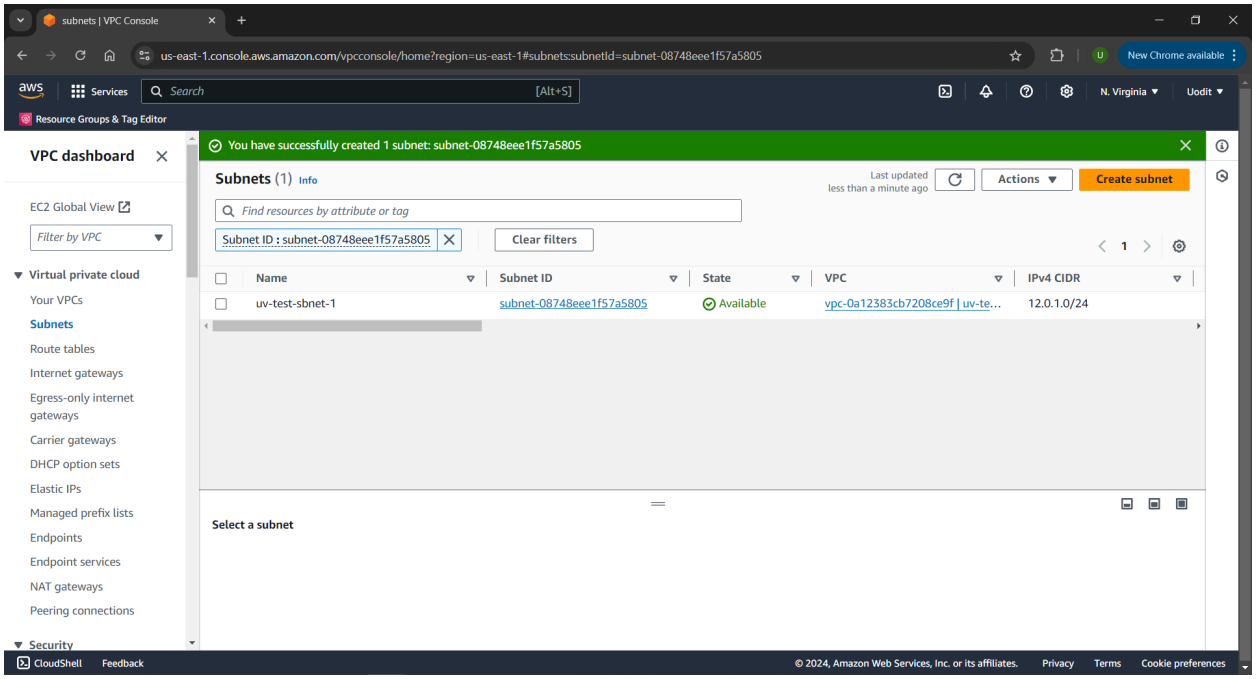
Internet gateway attached successfully



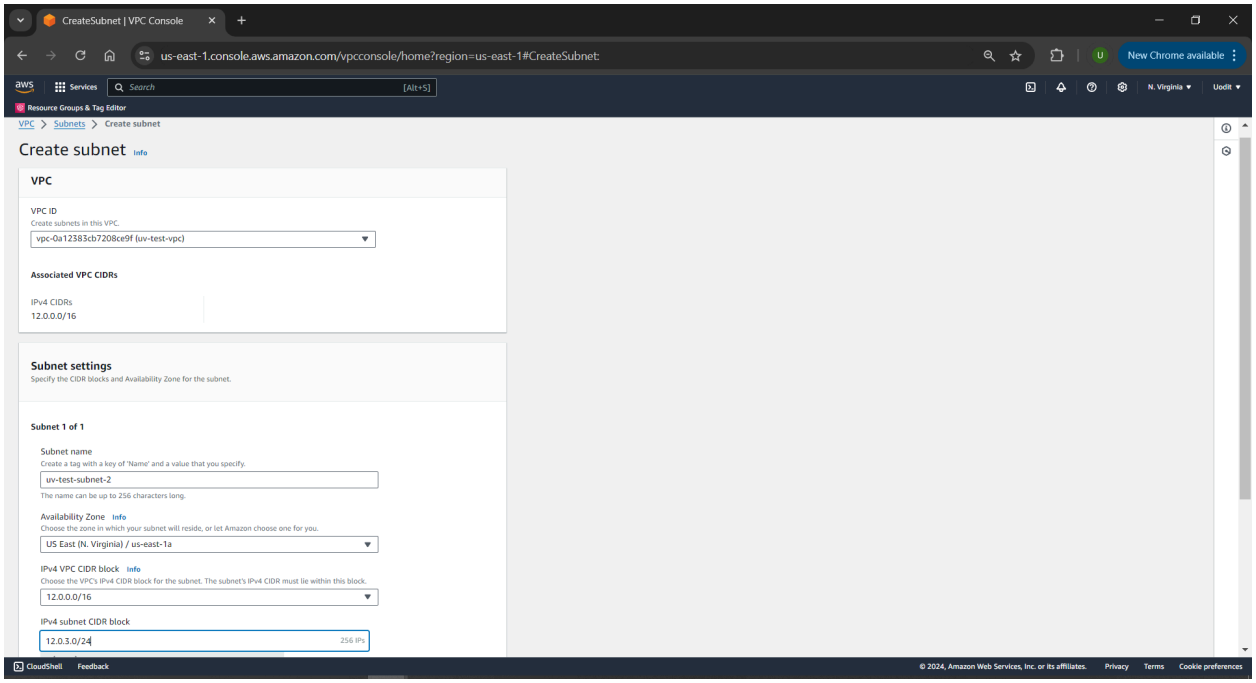
4. Create a subnets



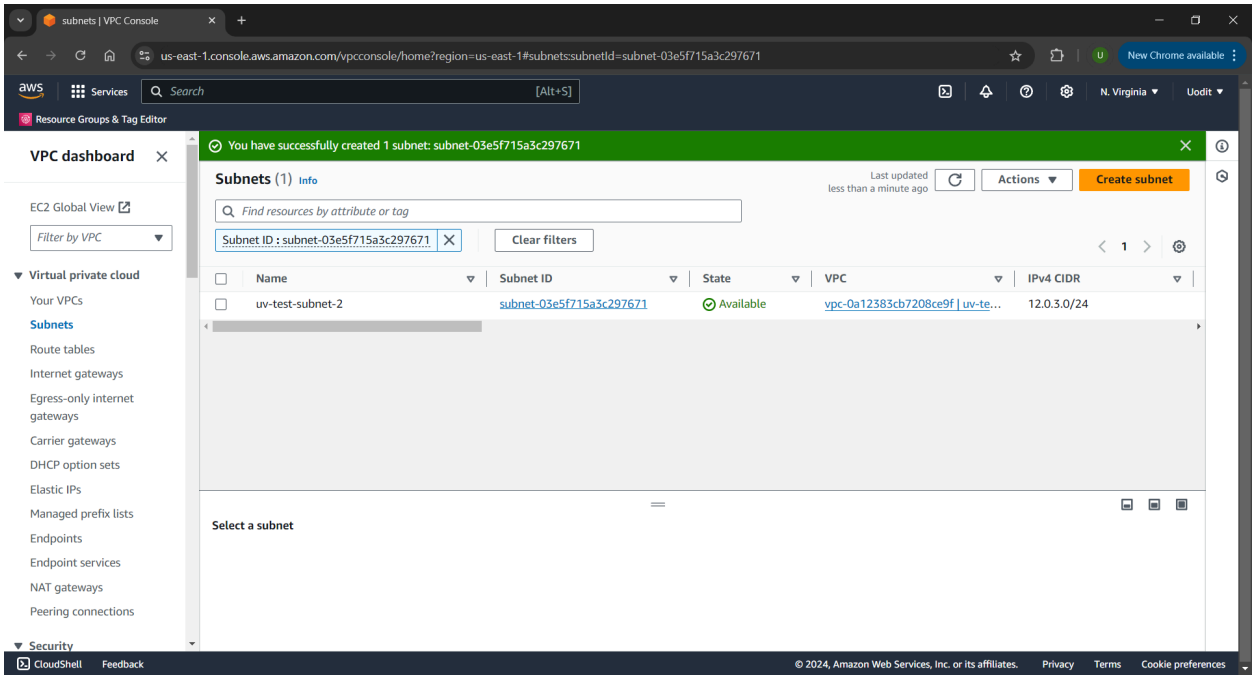
Subnet-1: uv-test-subnet-1 created successfully with ip-12.0.1.0/24



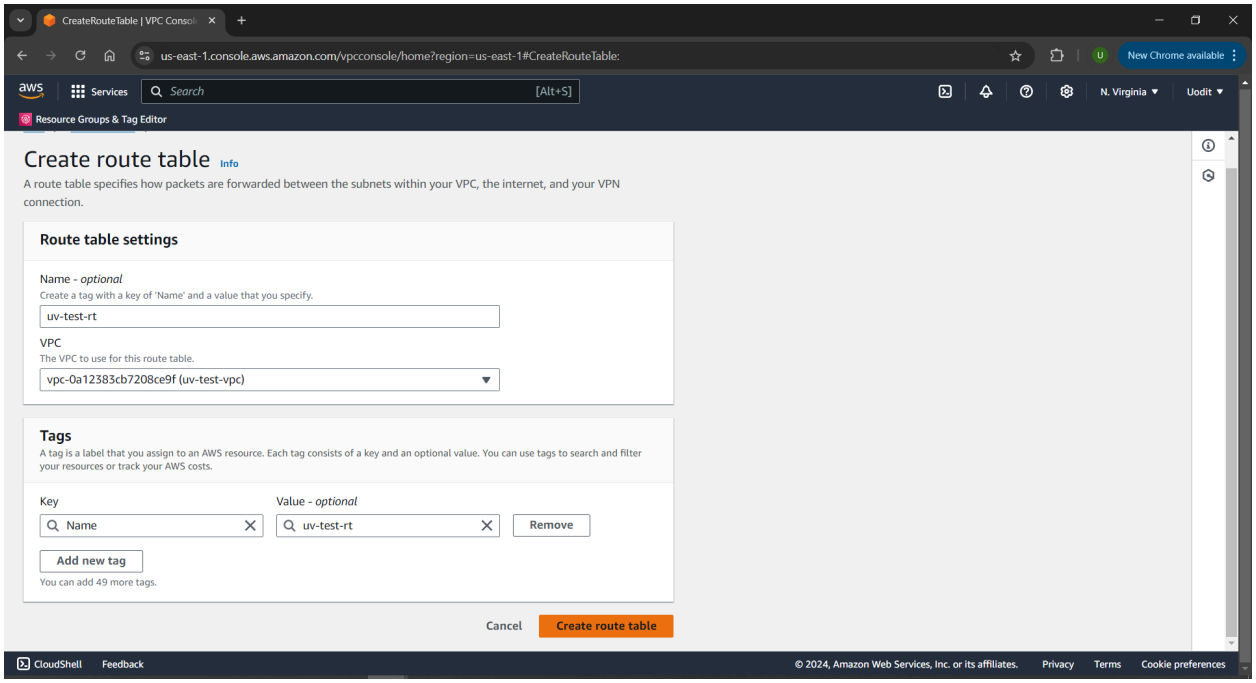
5. Create second subnet



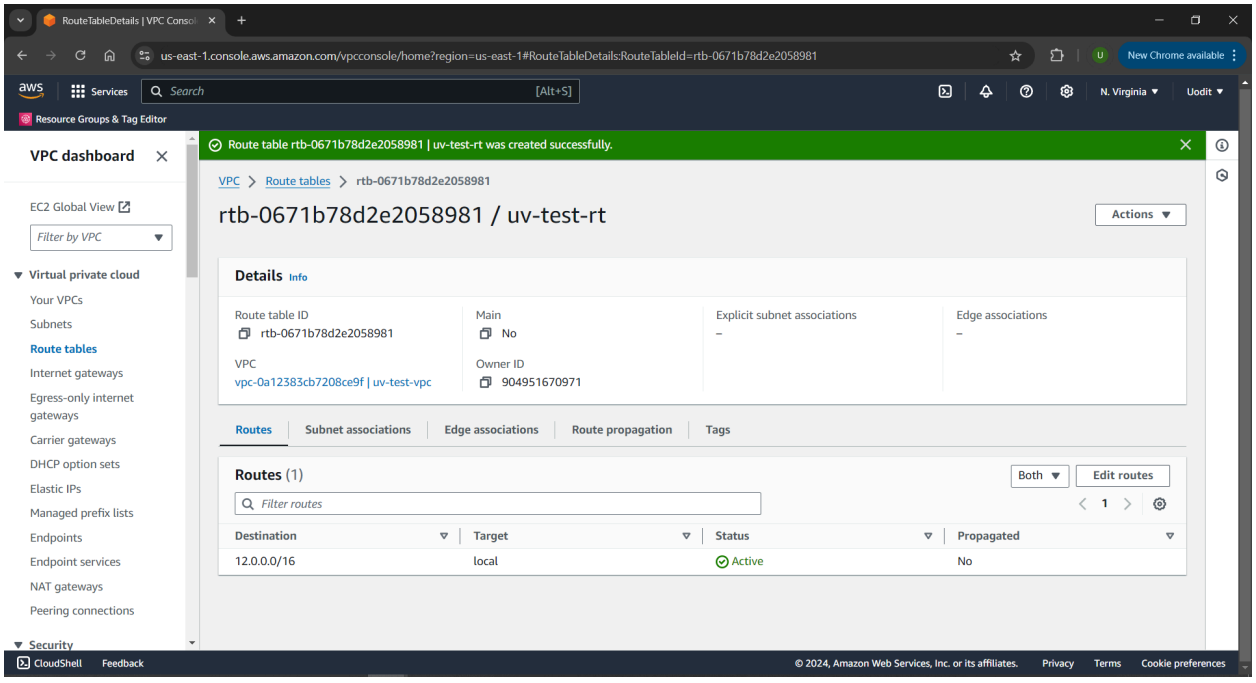
Subnet-1: uv-test-subnet-2 created successfully with ip-12.0.3.0/24



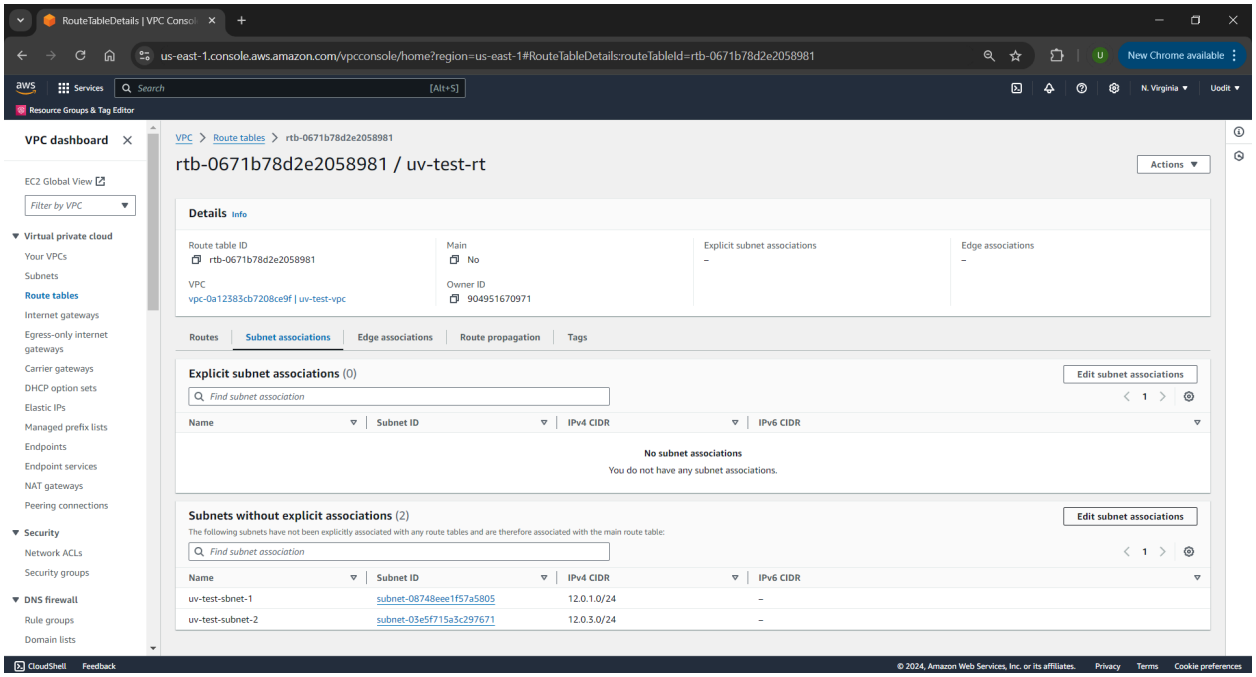
6. Create a route table and select the above created VPC



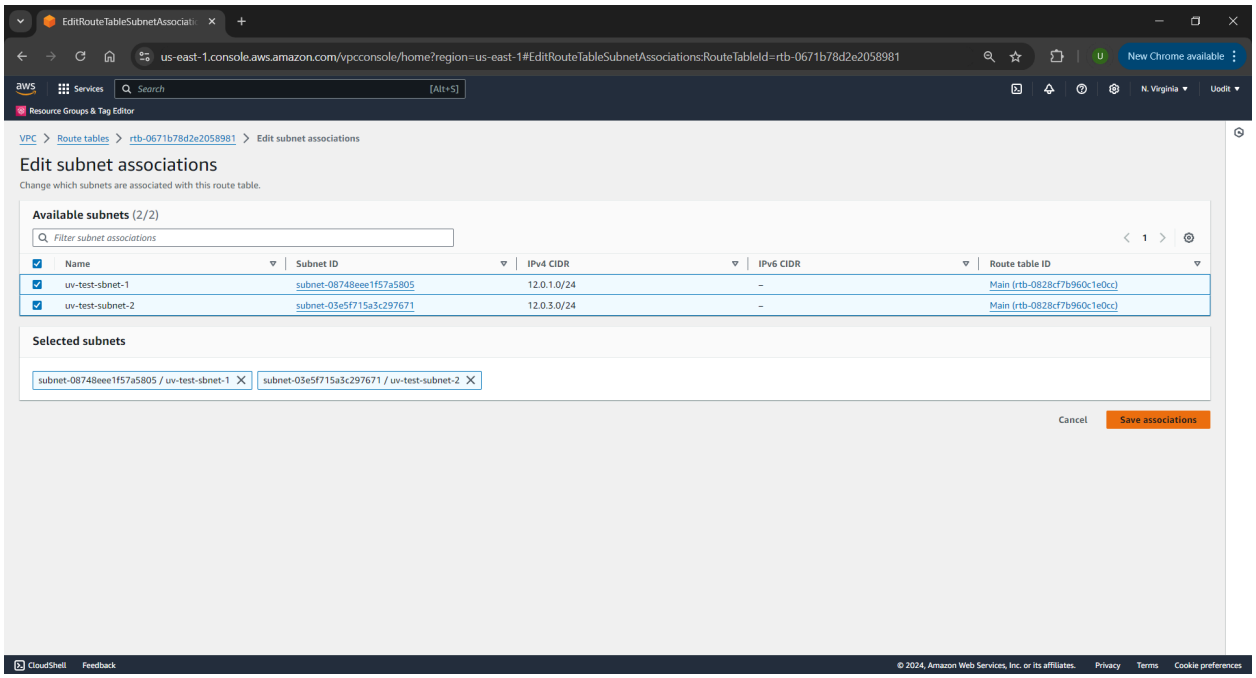
Route table created successfully



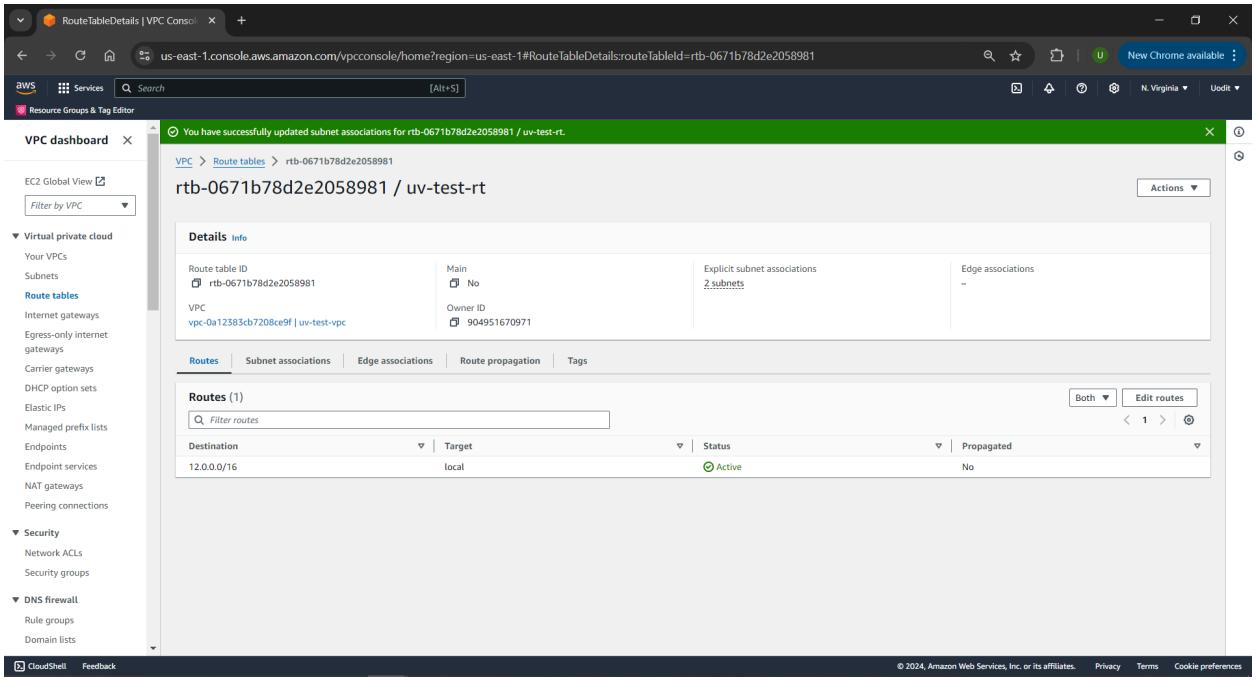
7. **Go to subnet association section of route table and click edit subnet associations**



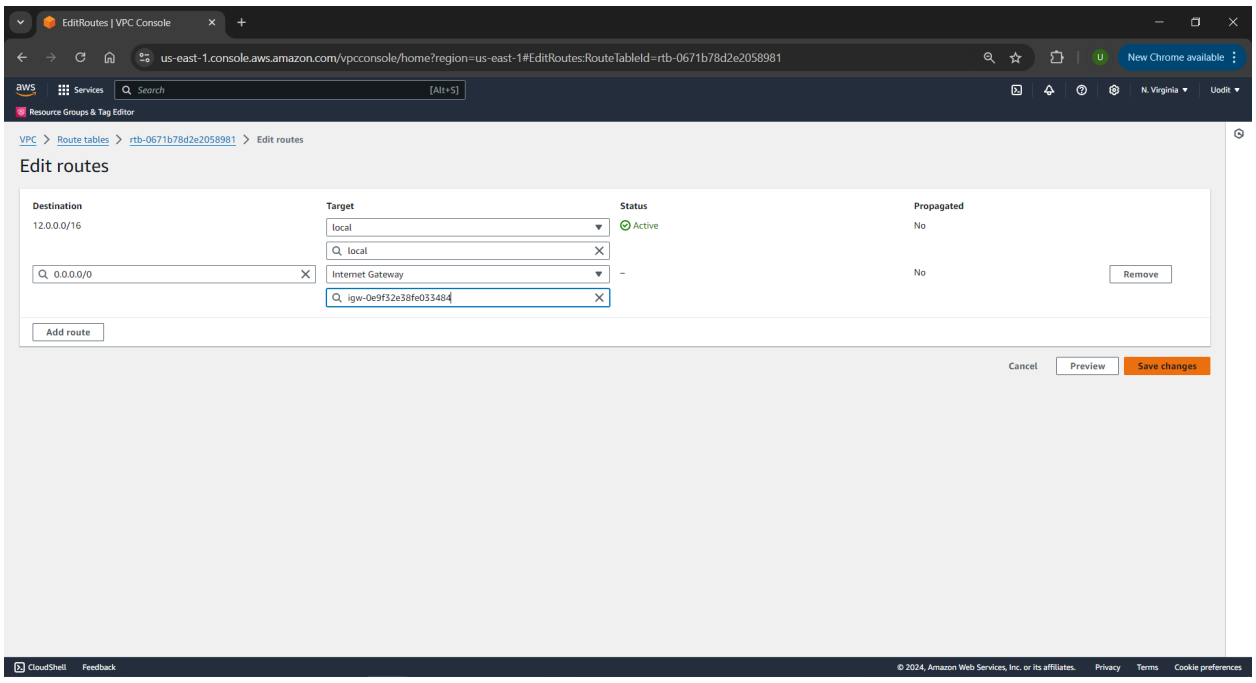
Select the subnets created and save association



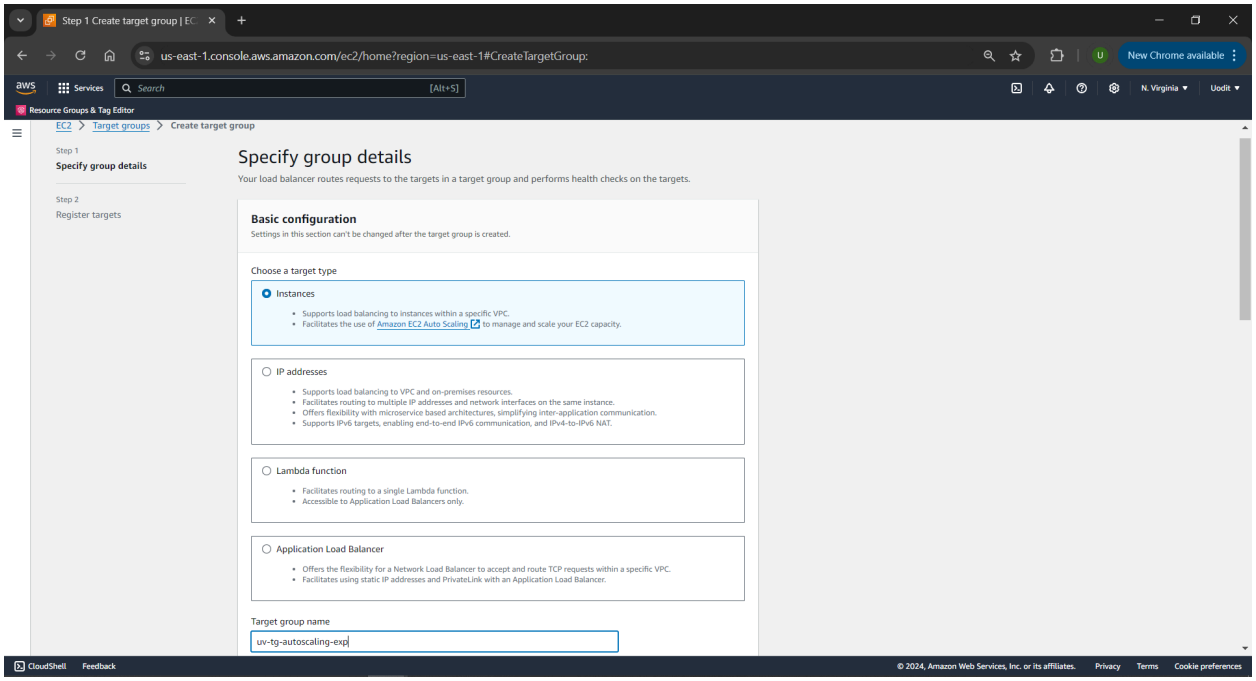
8. **Go to routes section of route table and click edit routes**



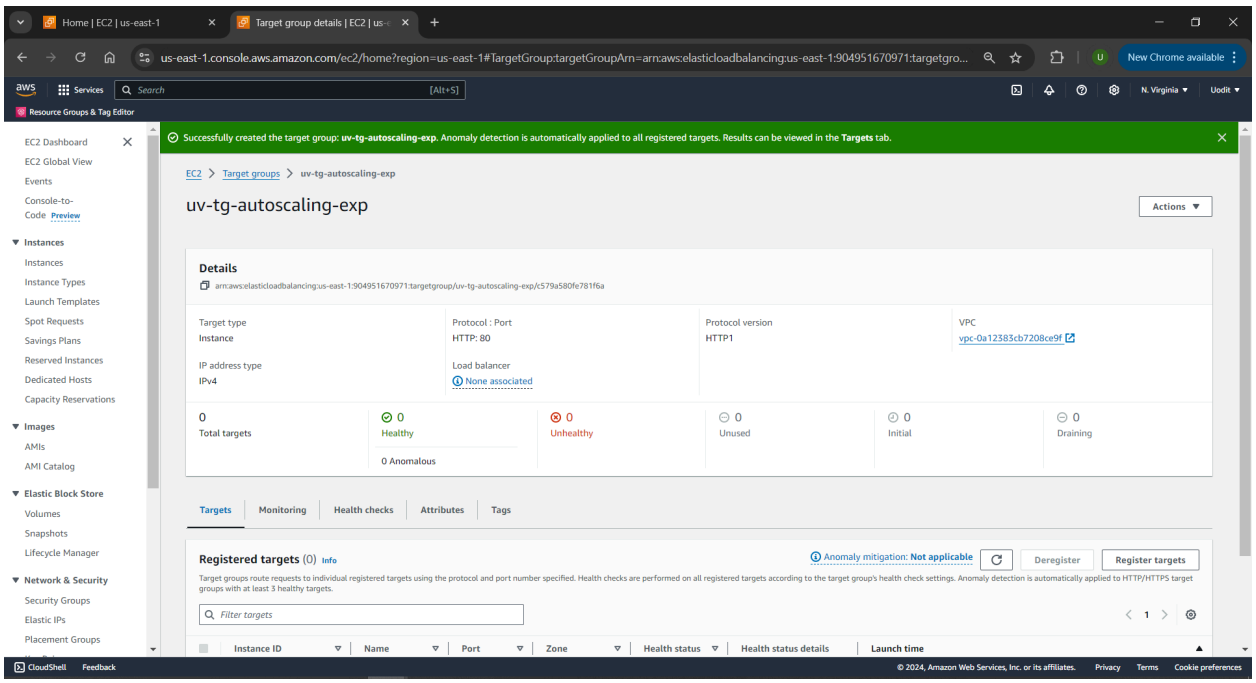
Click add route and select internet gateway created and save changes



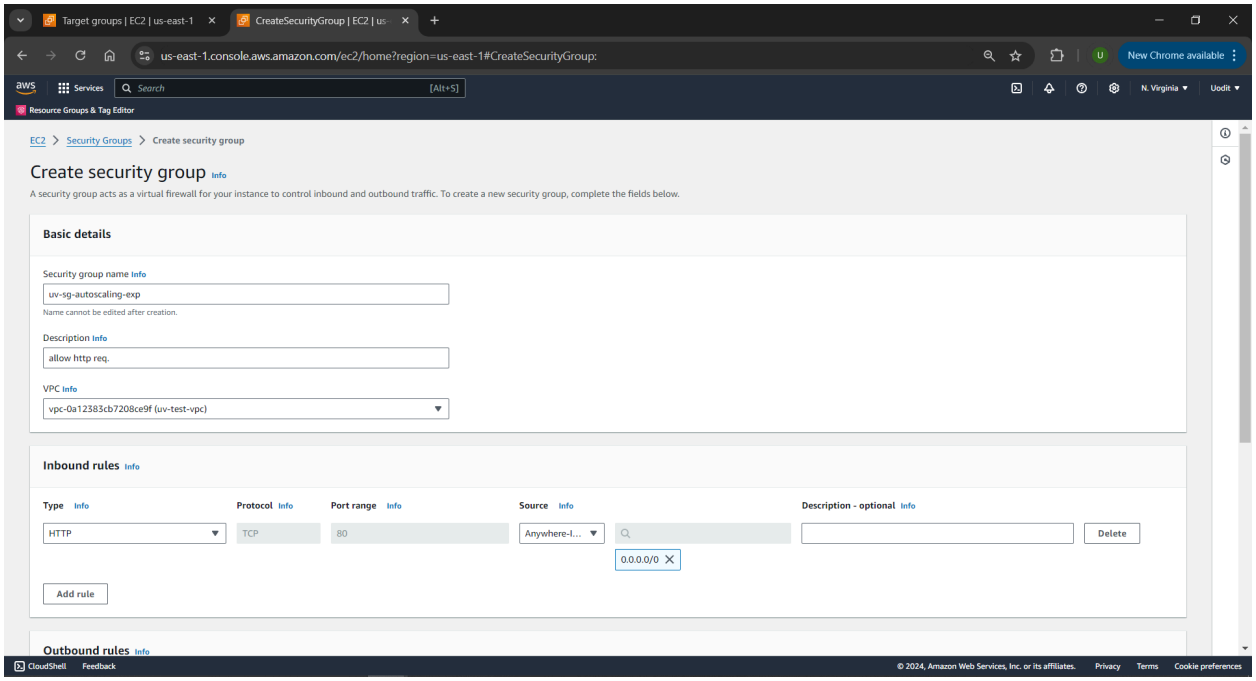
9. **Go to EC2 and create a Target group by selecting type as instance**



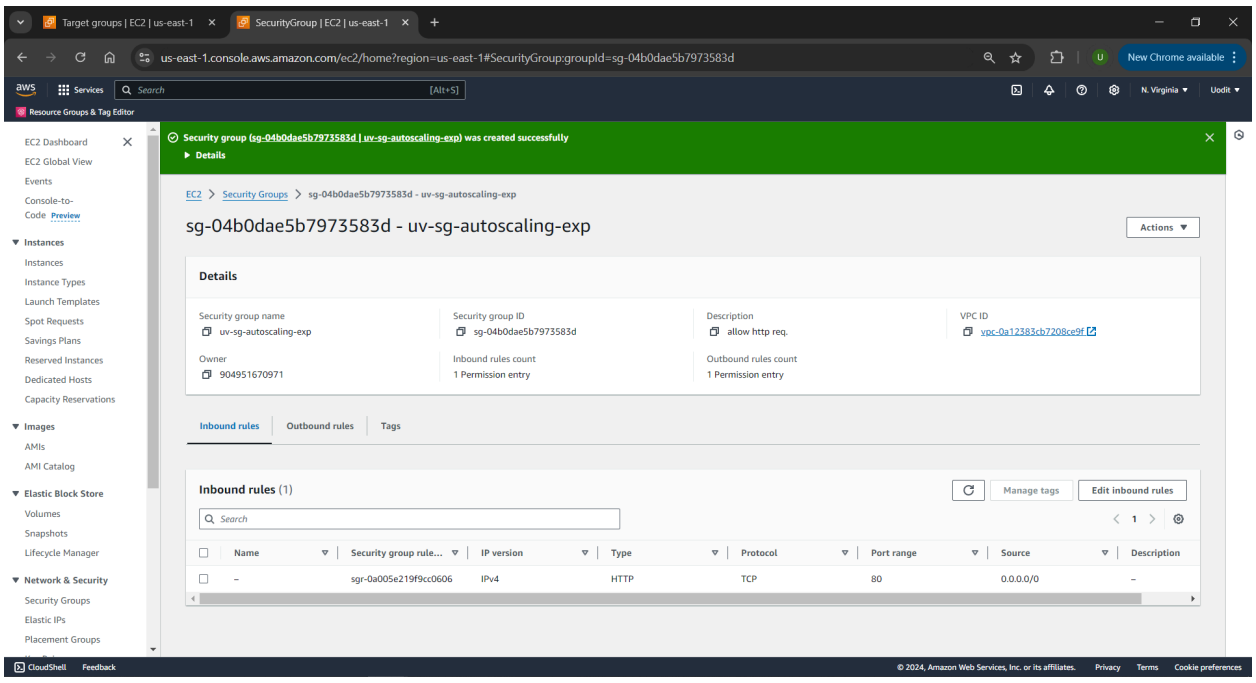
Target group created successfully



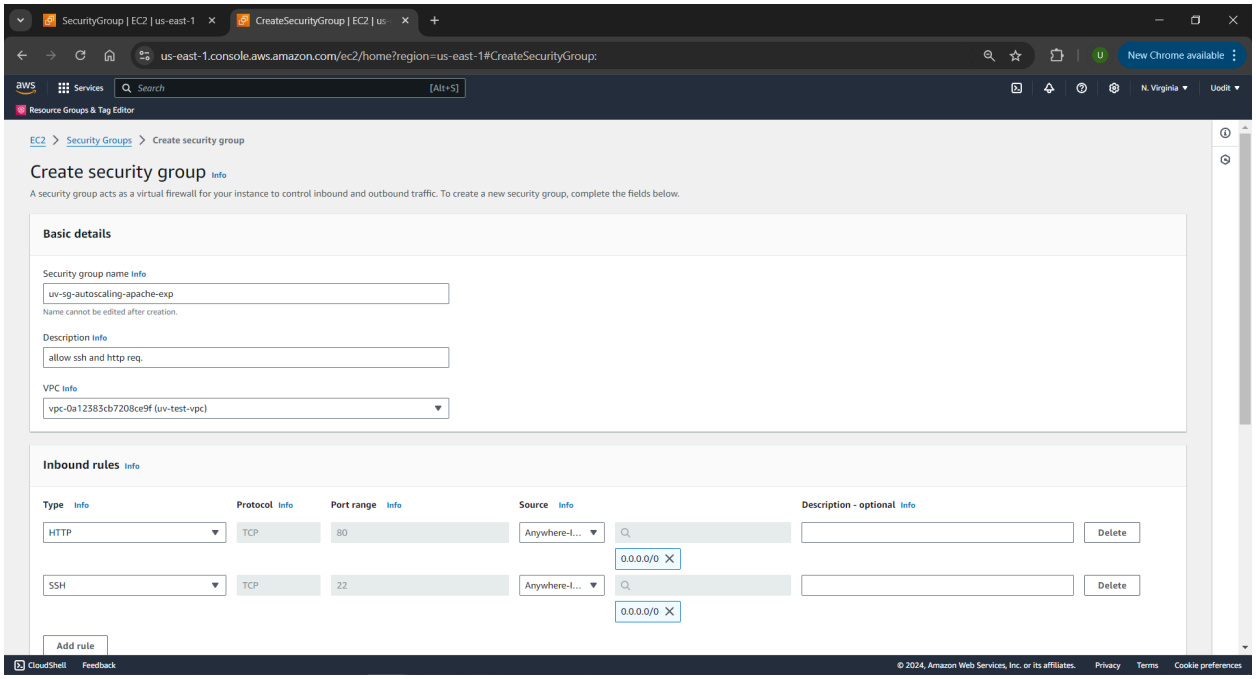
10. Create a security group for HTTP requests



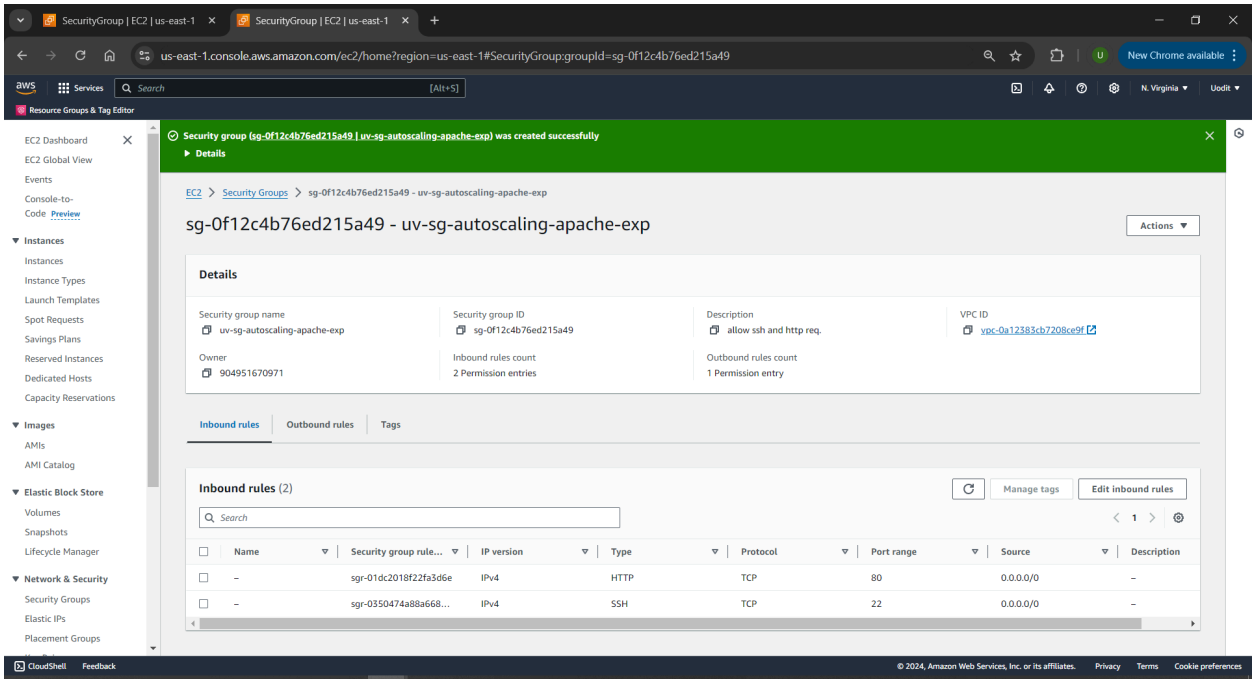
Security group created successfully



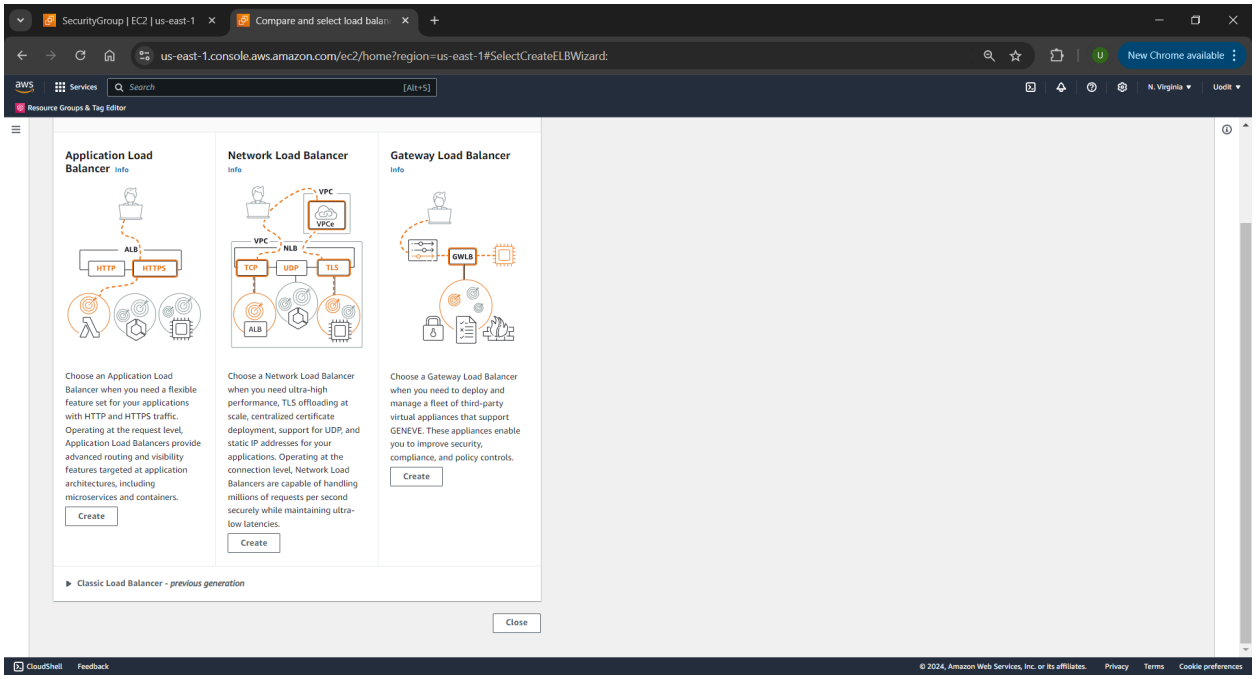
11. Create another security group for HTTP and SSH request



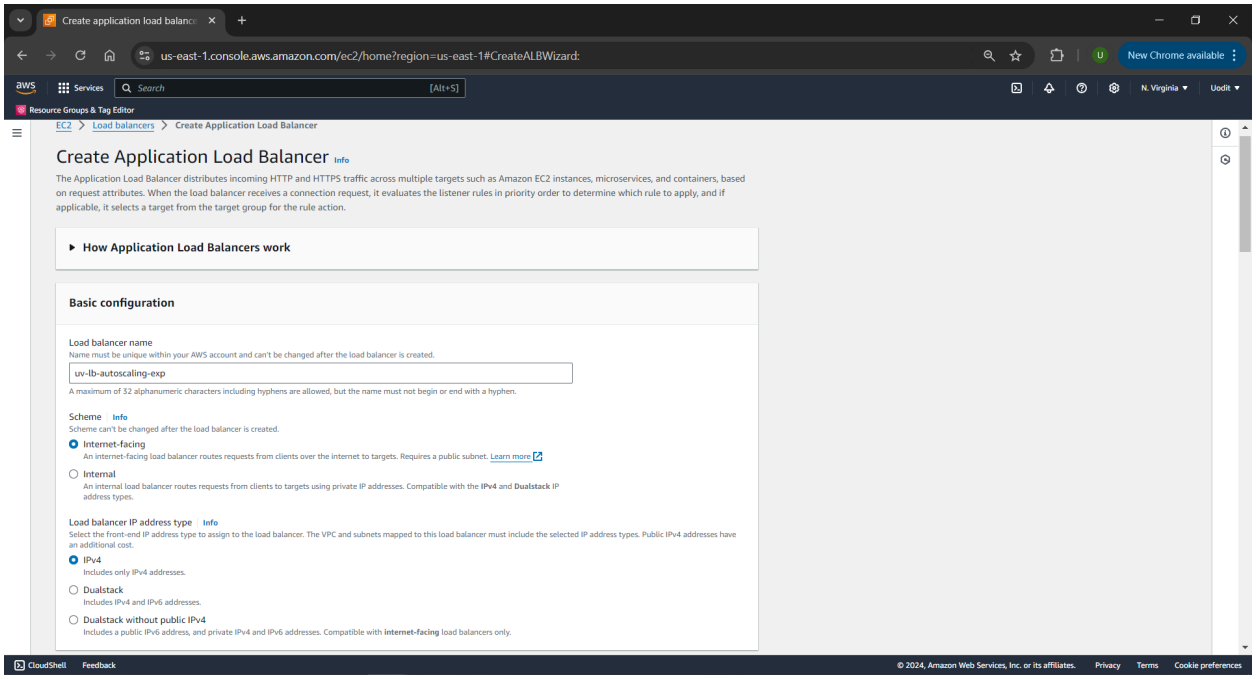
Security group created successfully



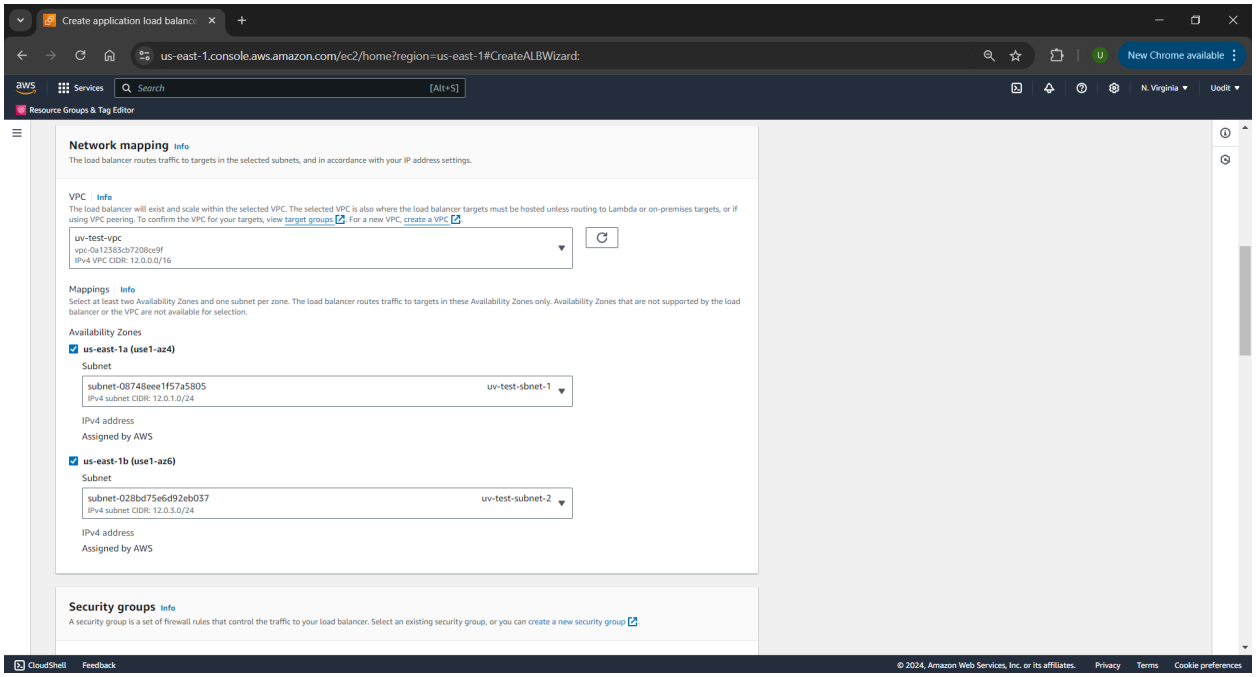
12. Now we need to create a load balancer. So go to load balance and select application load balancer



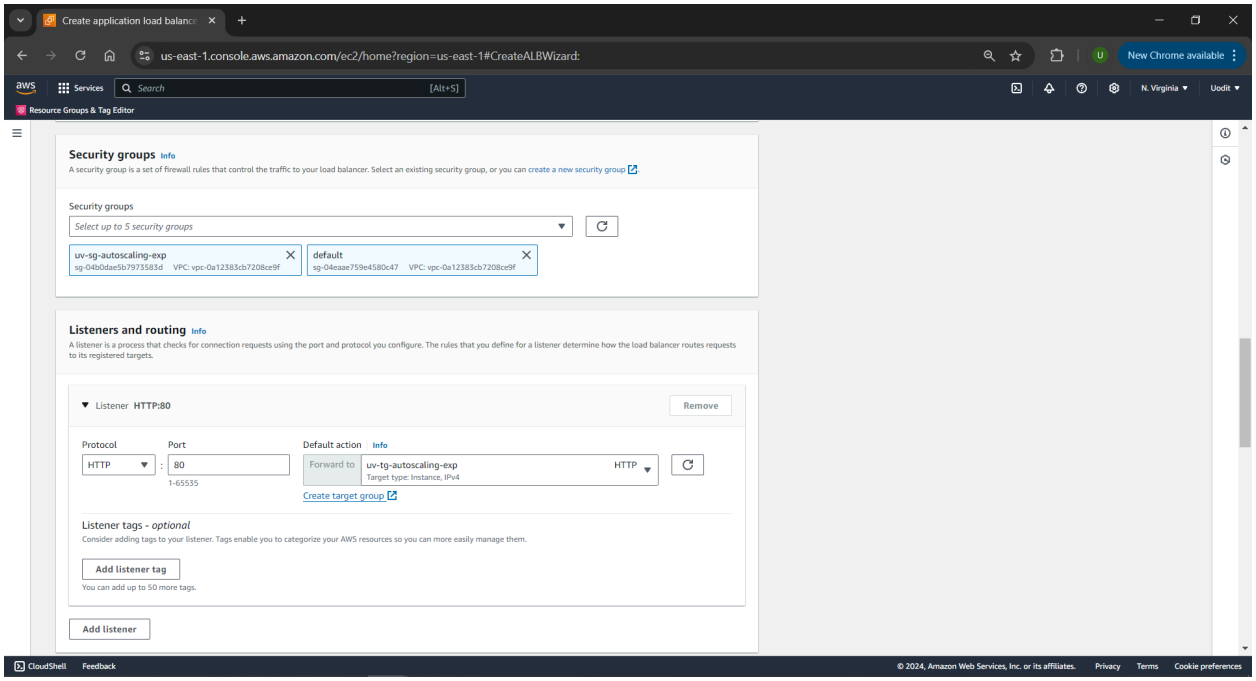
Fill and select the details of the load balancer as selected in the image



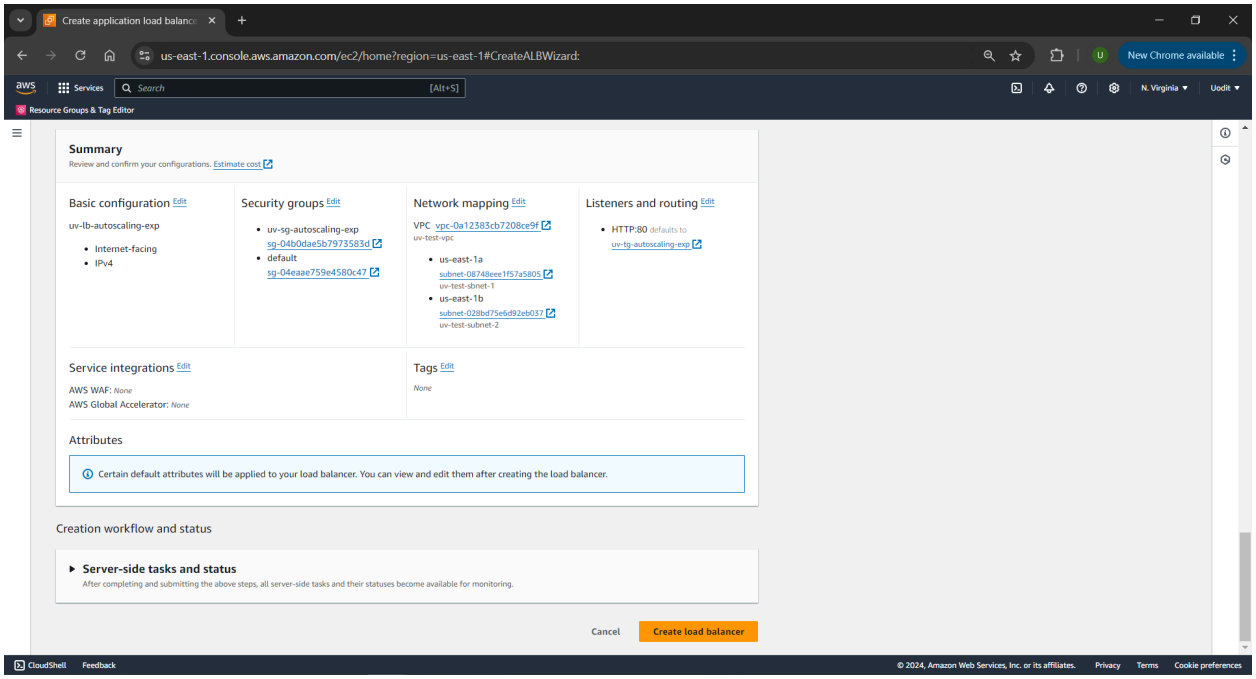
Select the created VPC and its subnets



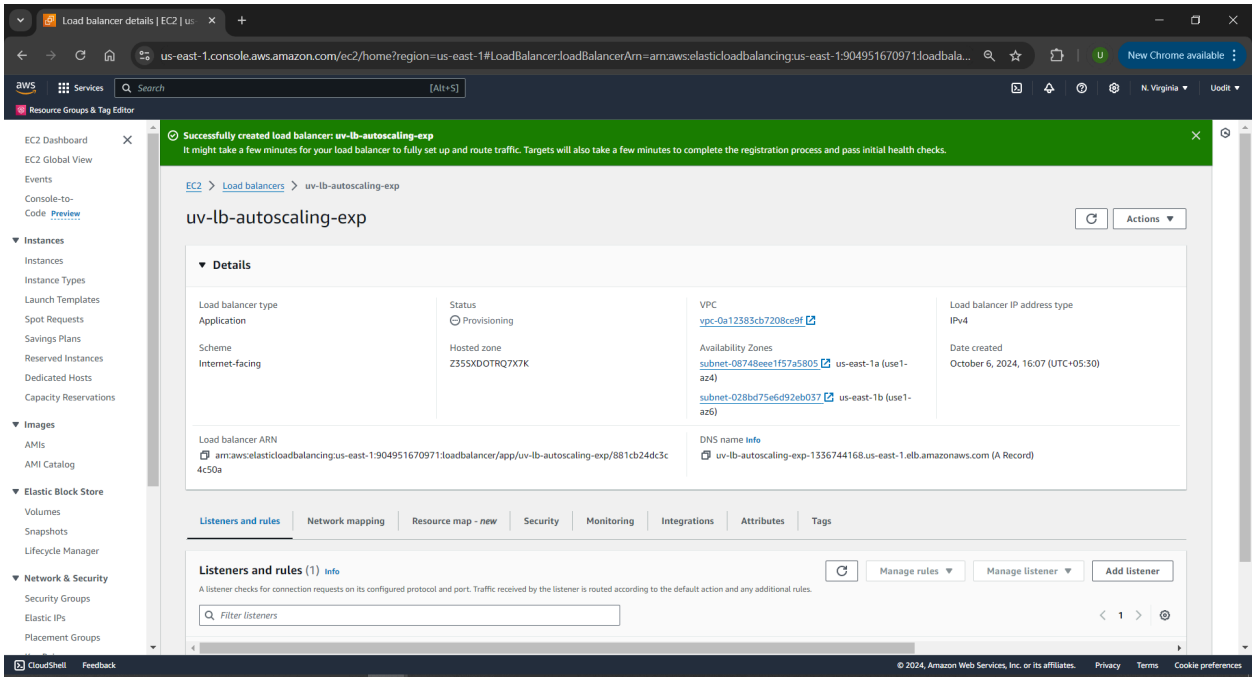
Select the HTTP security group and the target group created



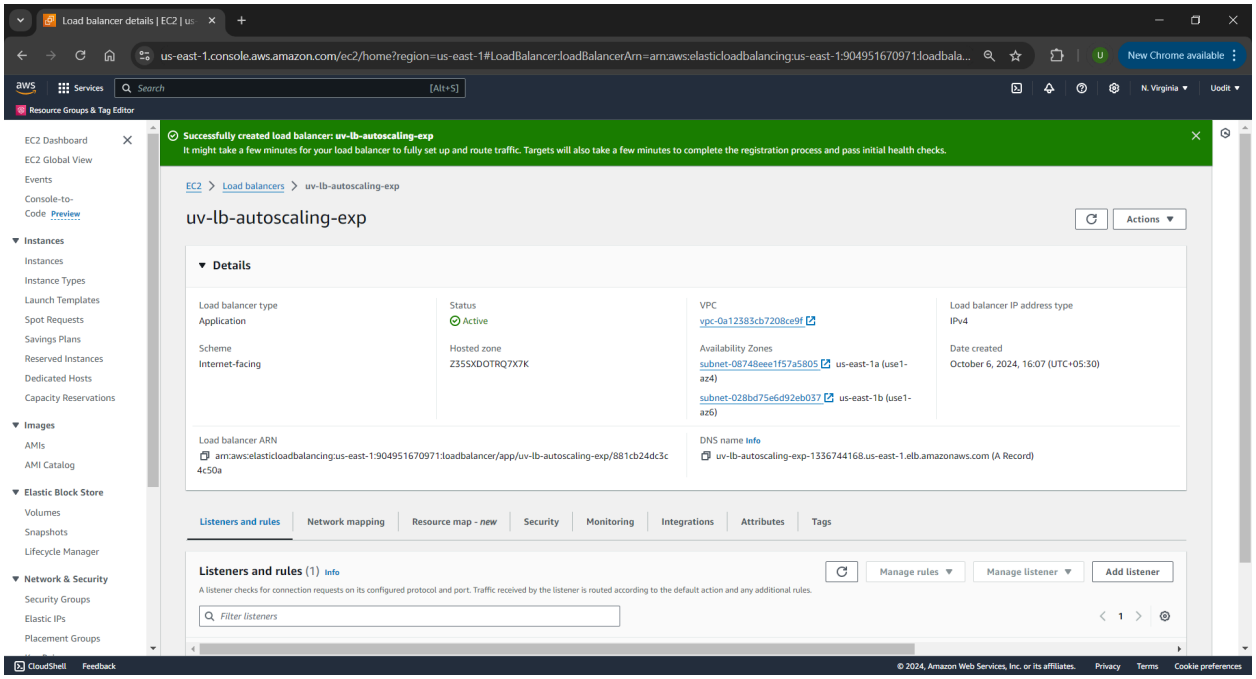
Create the load balancer



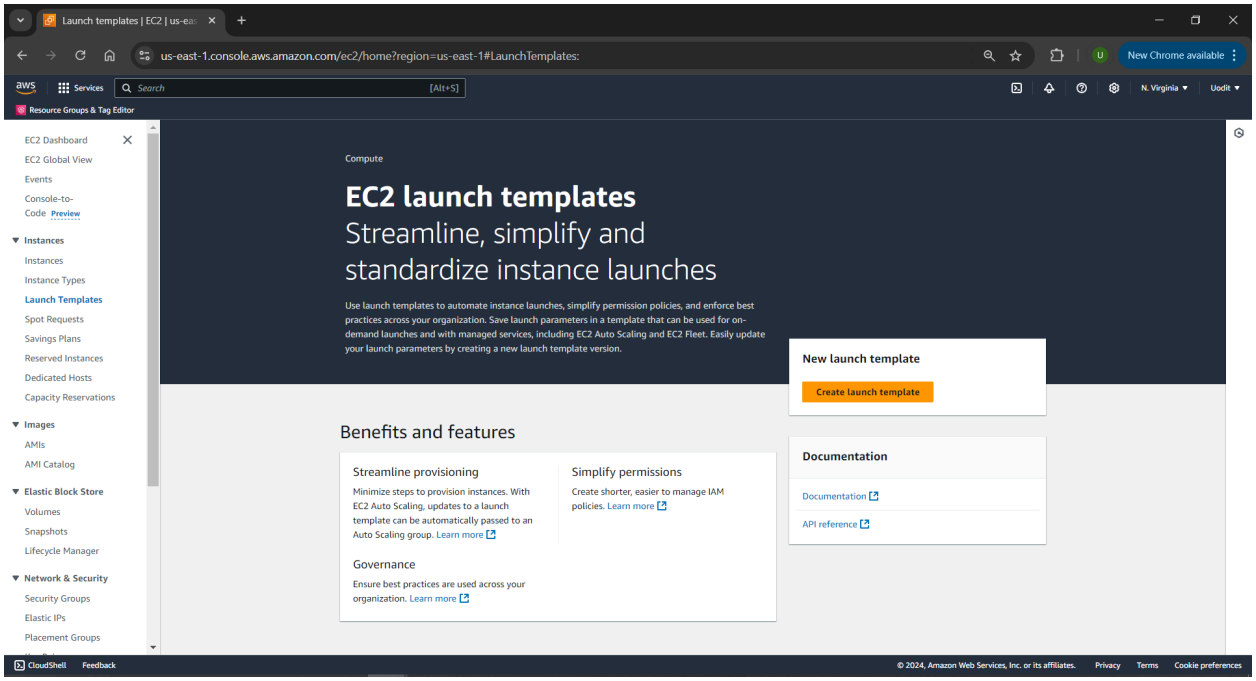
Load balancer created successfully



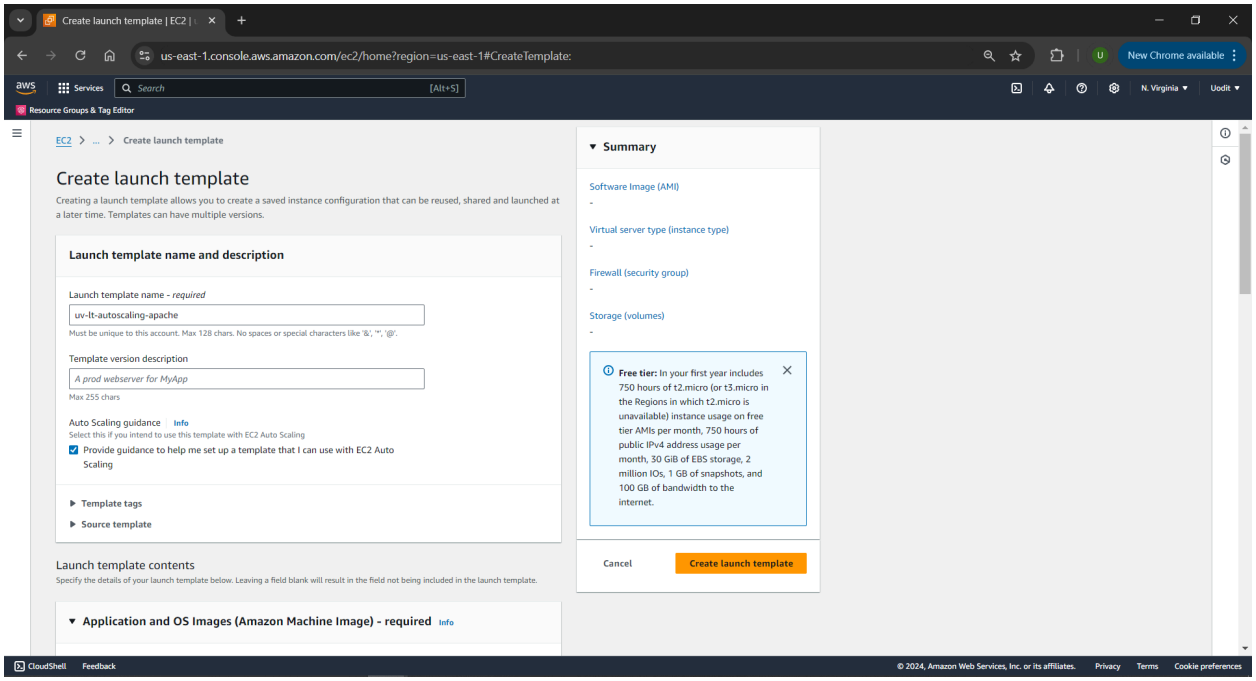
Wait for few minutes for the status to become active



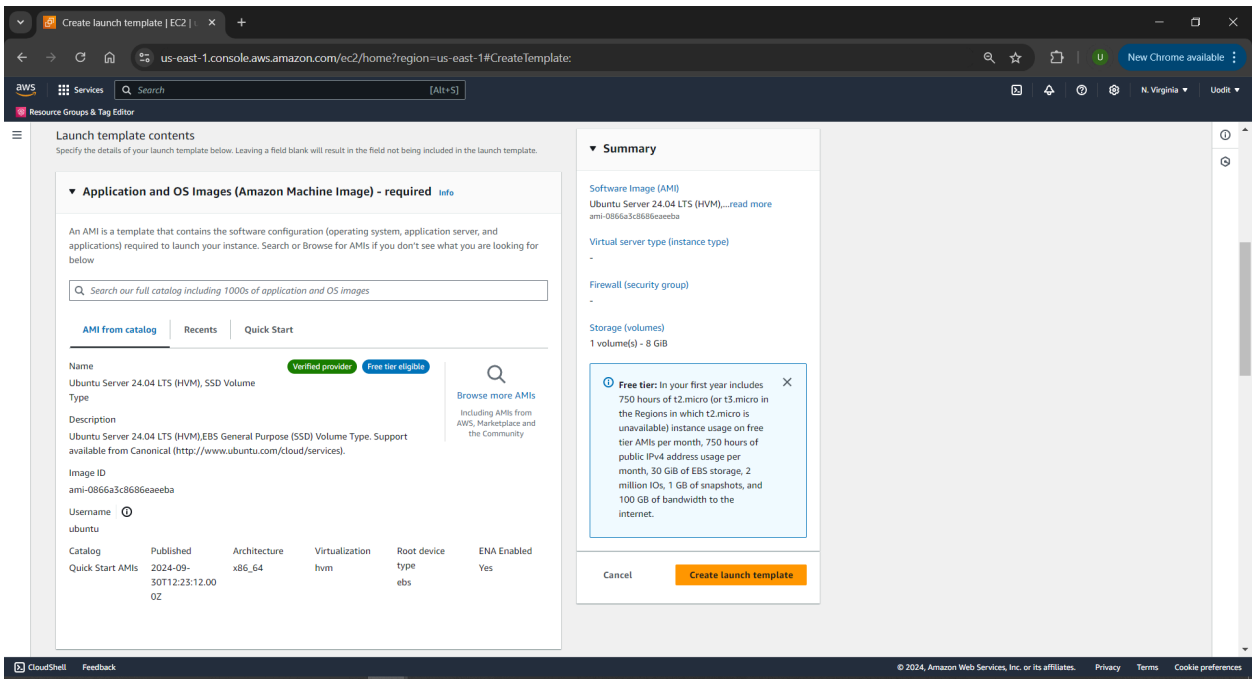
13. Go to EC2 launch template and click create



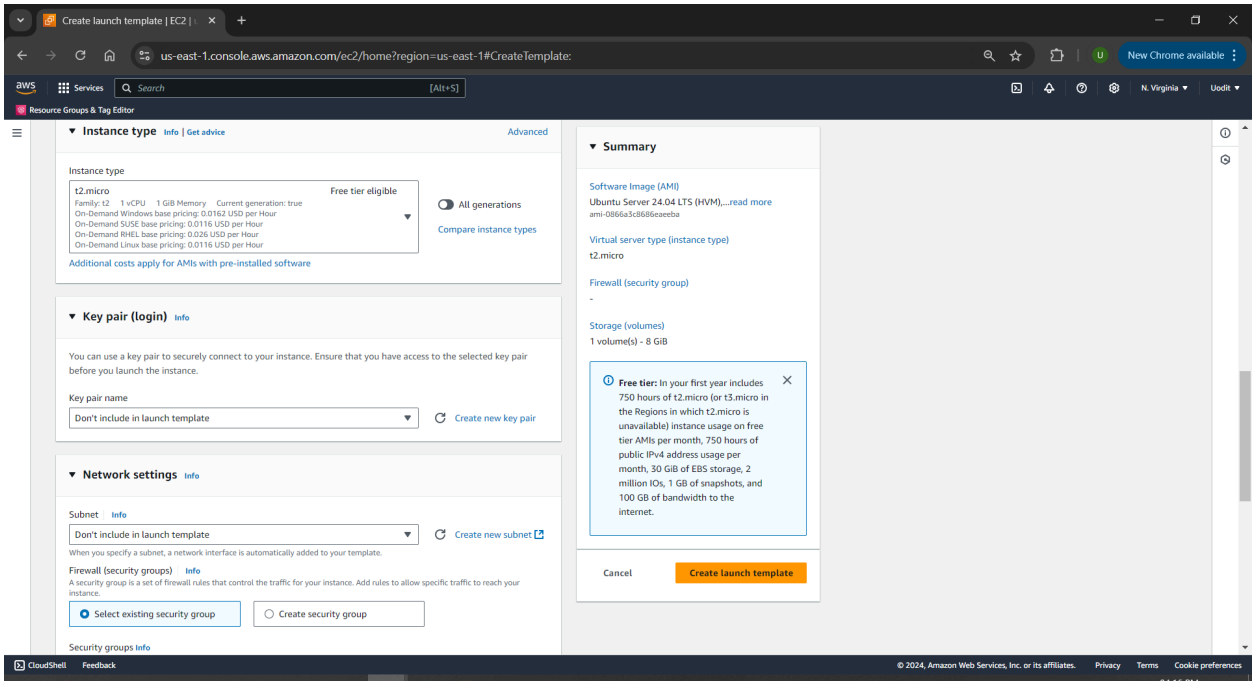
Fill the details as per the images



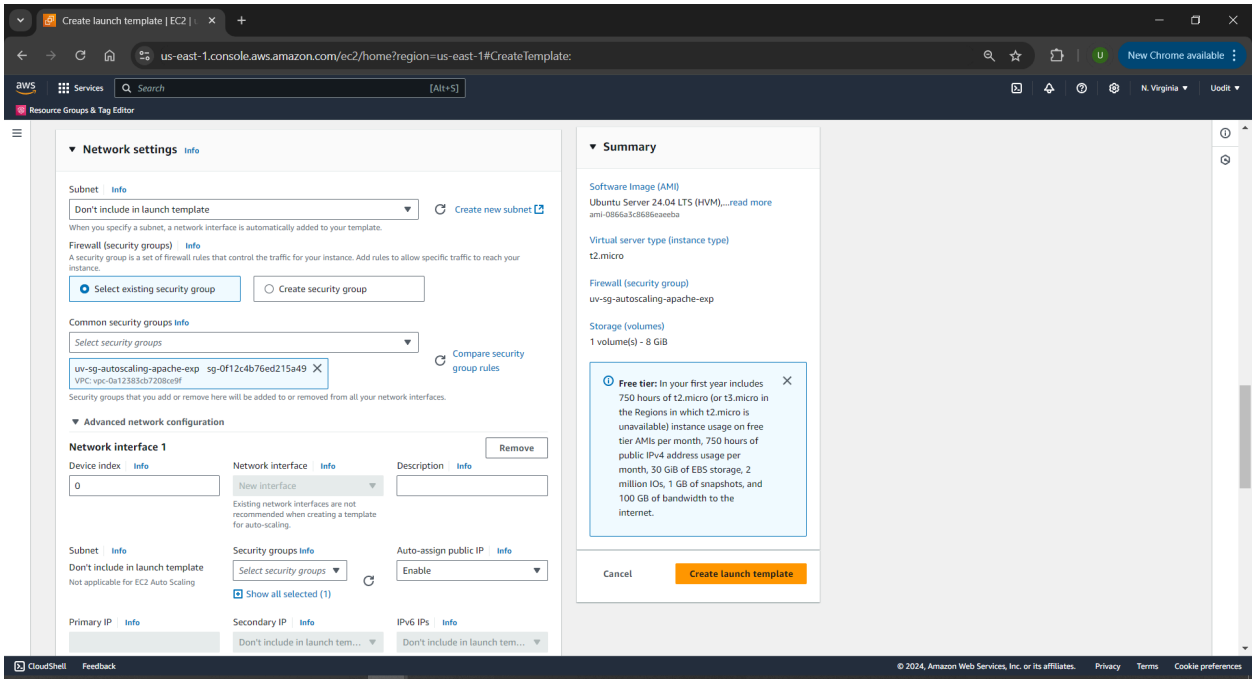
Select the Ubuntu AMI



Select the t2.micro instance

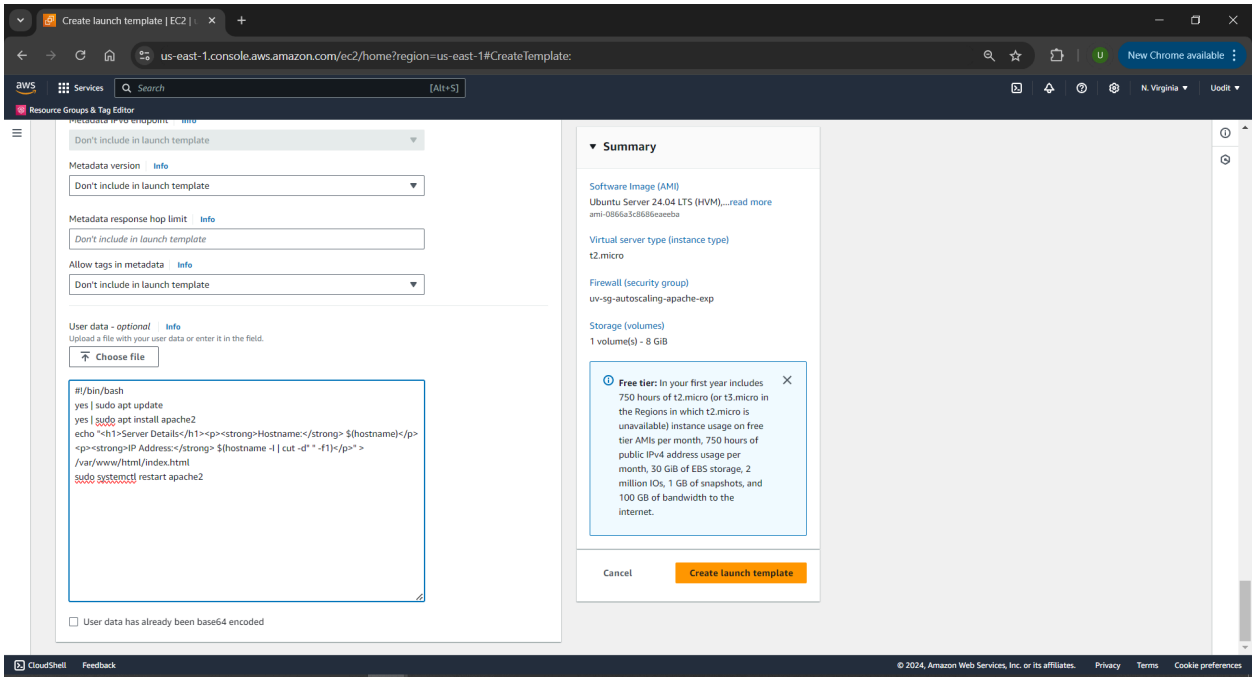


Select the created security group and also enable auto assign public ip

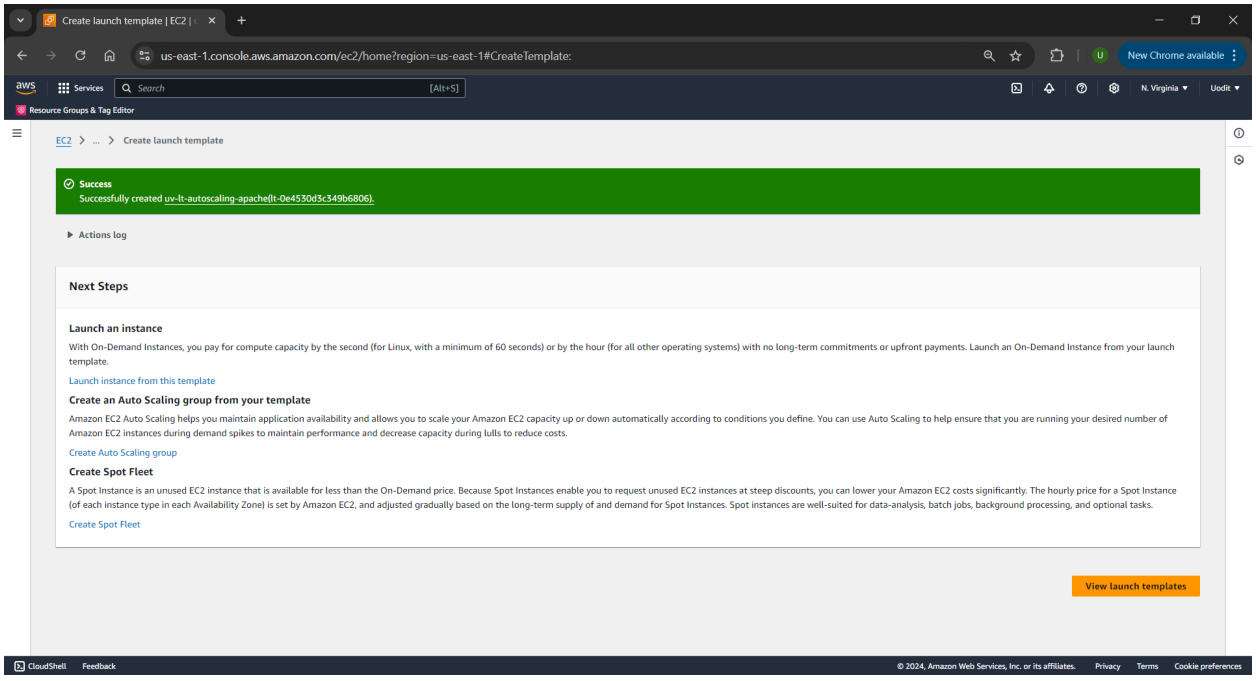


And add this script to install apache web server

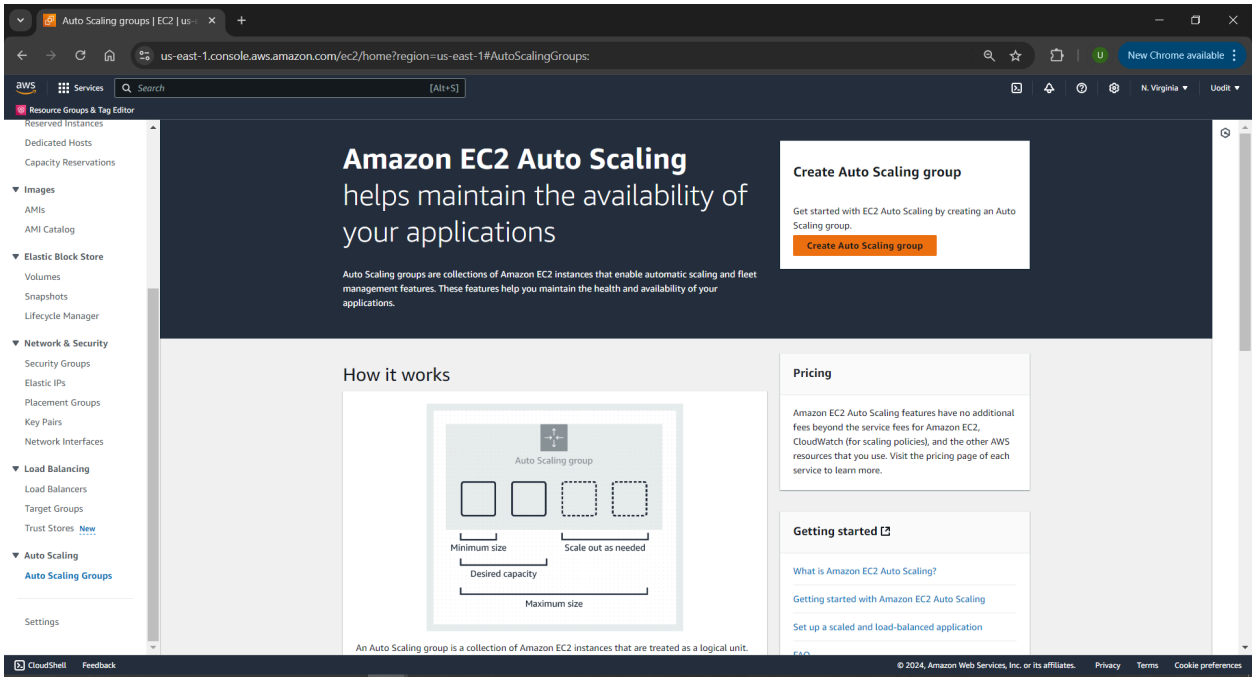
```
#!/bin/bash
yes | sudo apt update
yes | sudo apt install apache2
echo "<h1>Server Details</h1><p><strong>Hostname:</strong> $(hostname)</p><p><strong>IP Address:</strong> $(hostname -I | cut -d" " -f1)</p>" > /var/www/html/index.html
sudo systemctl restart apache2
```



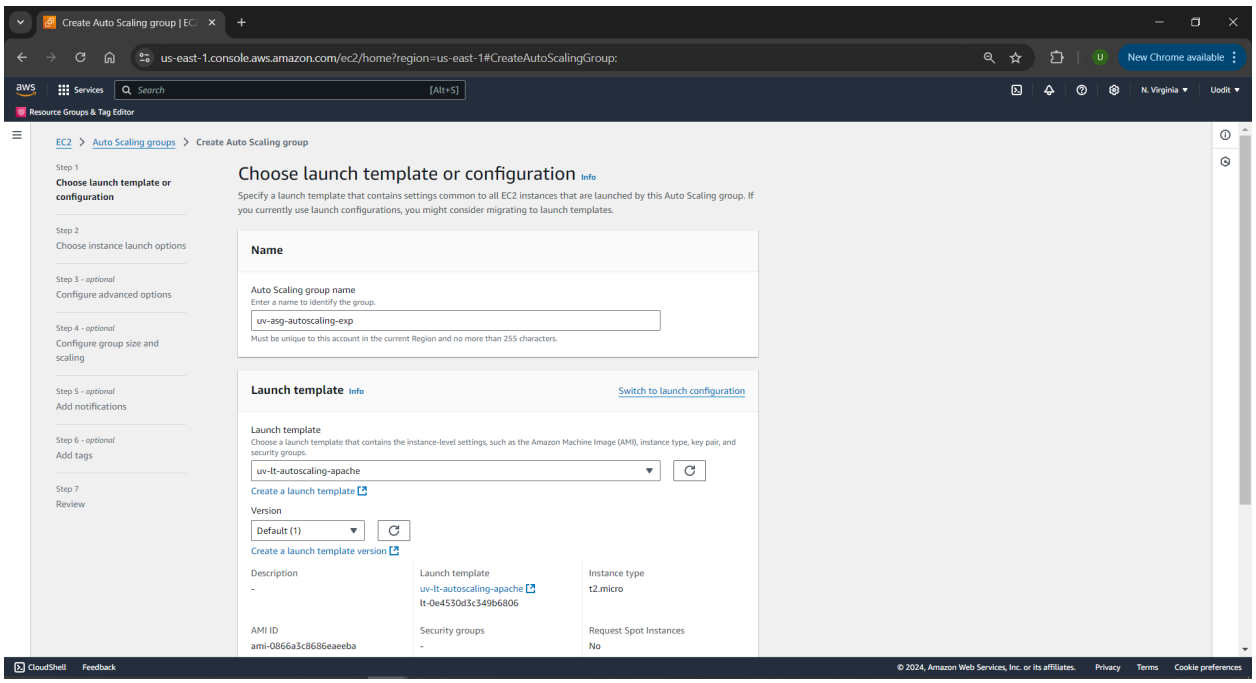
Instance launched successfully



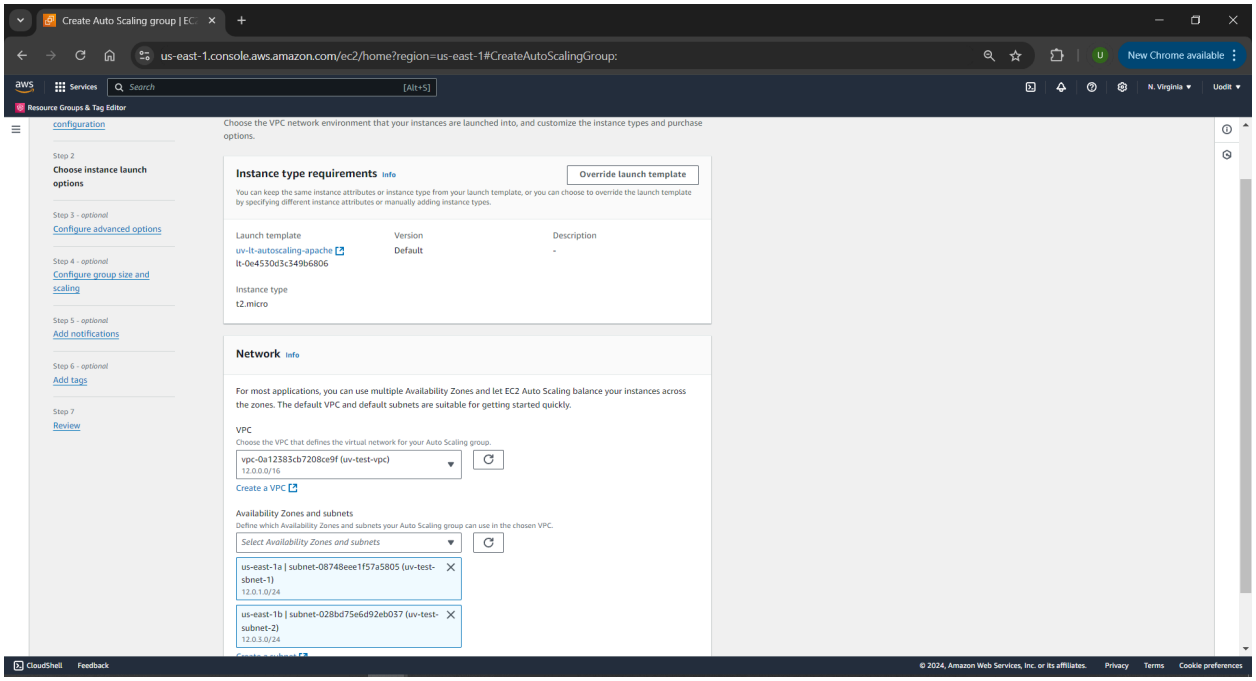
14. Create an auto scaling group



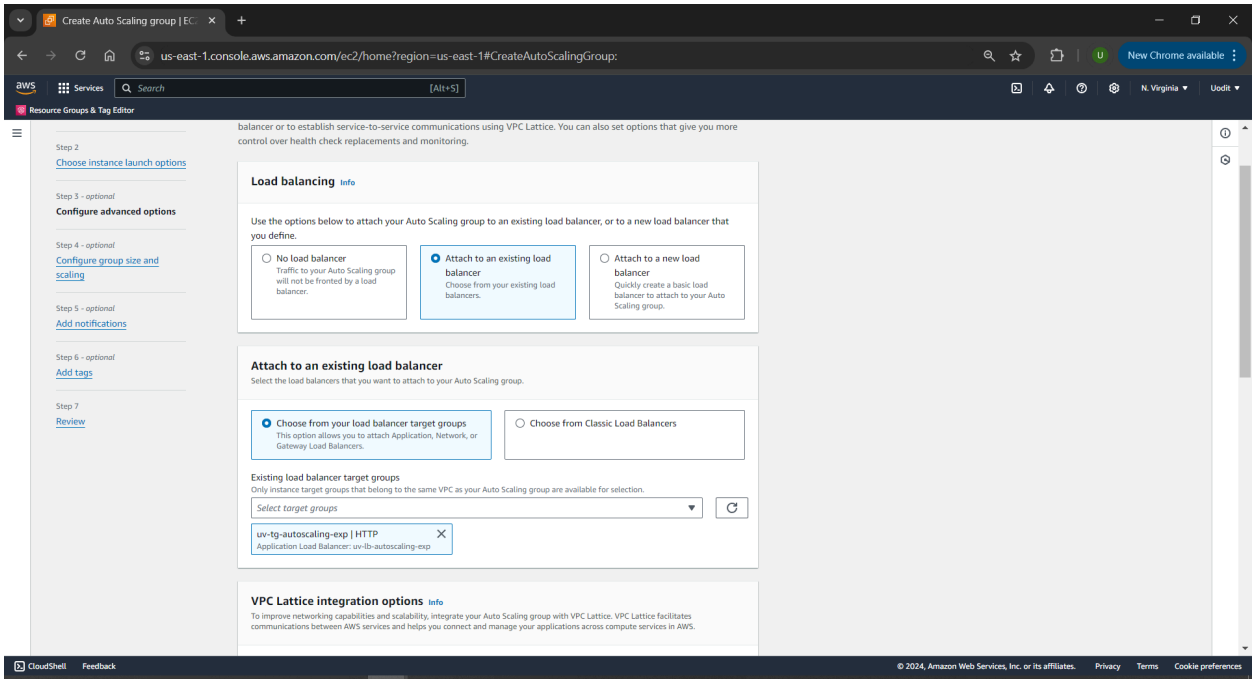
Fill the details as per the images



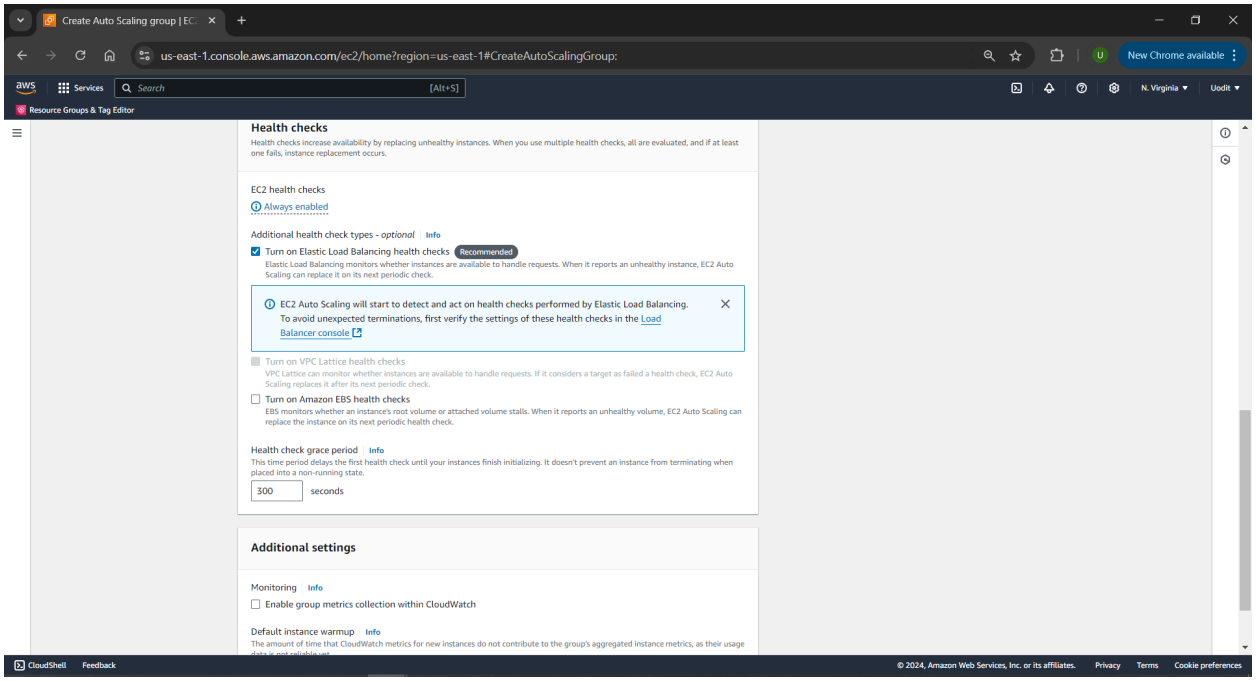
Select the VPC and the subnets created



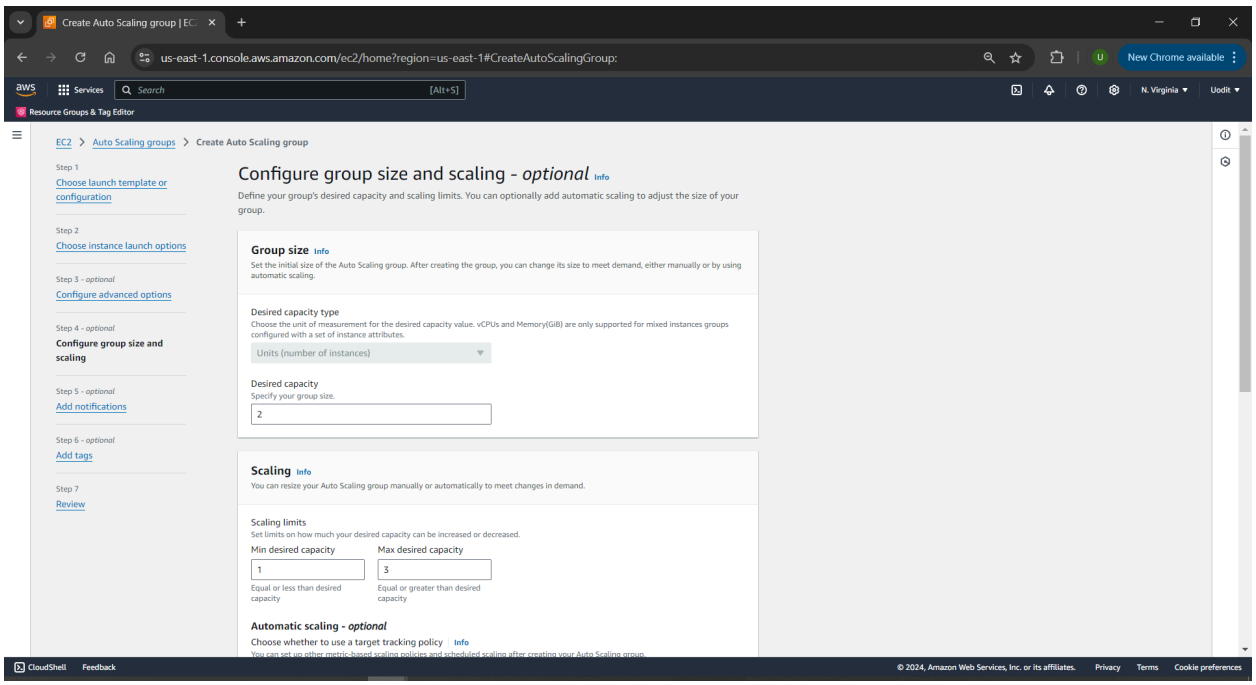
Select attach an existing load balancer and also select the load balancer group created



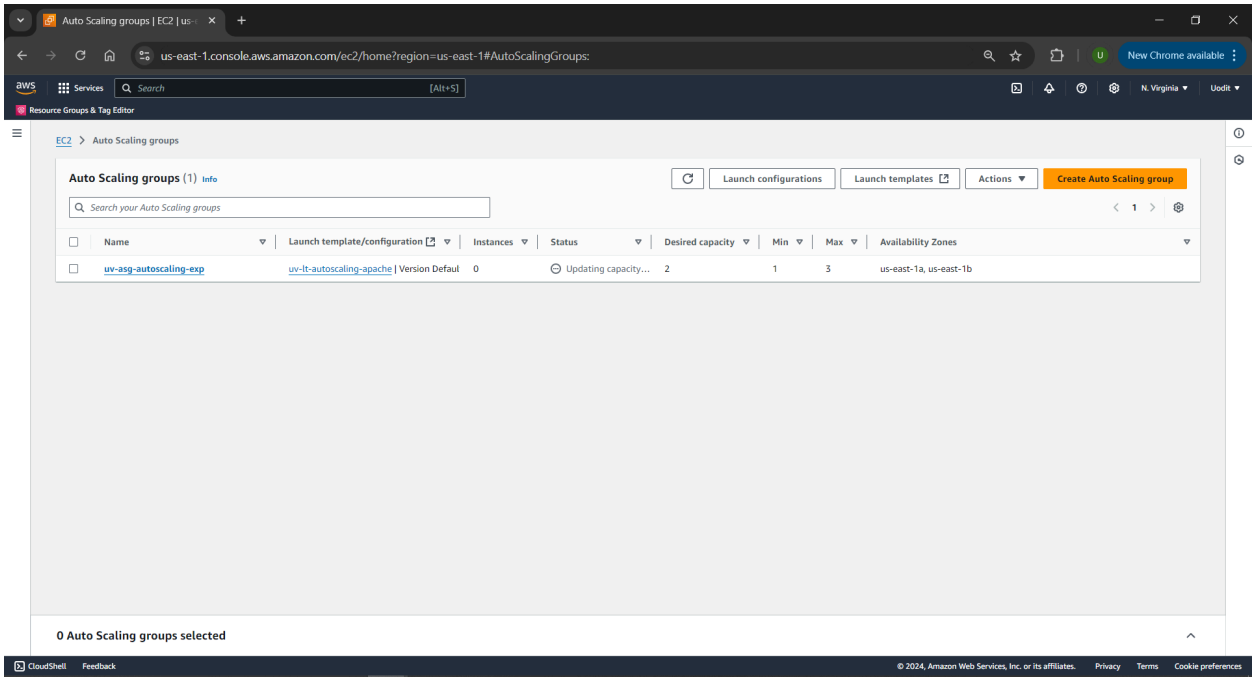
Enable health check



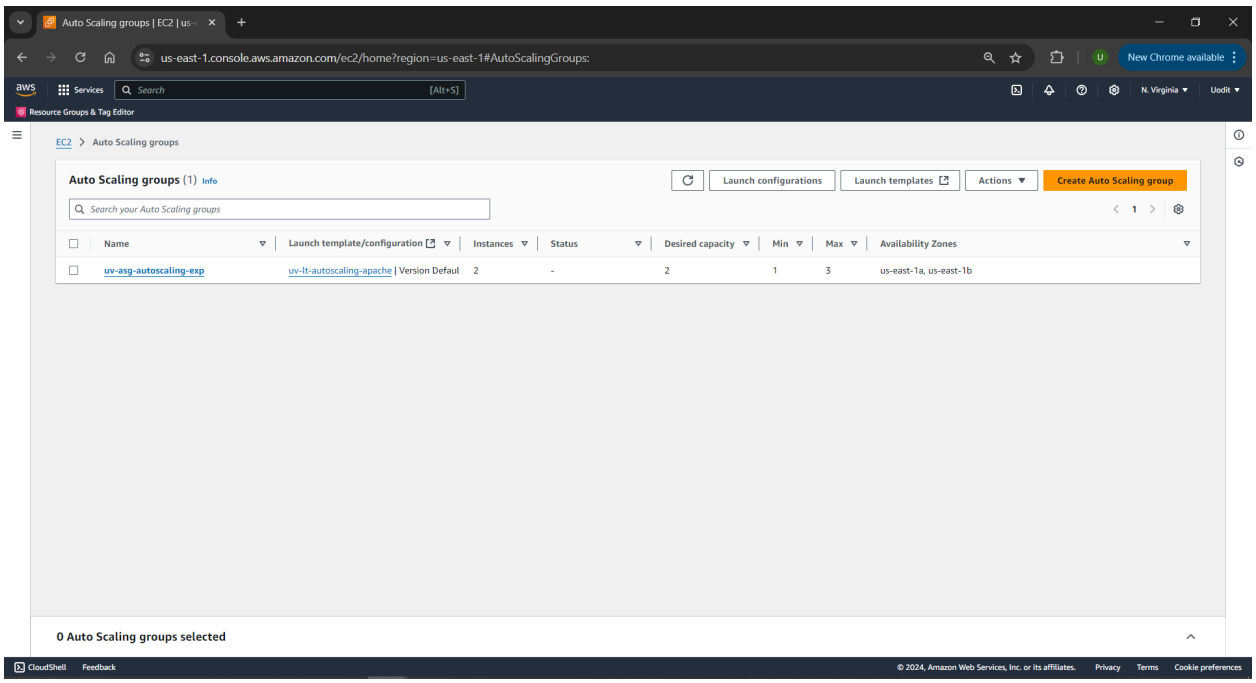
Set desired size to 2 and max size to 3



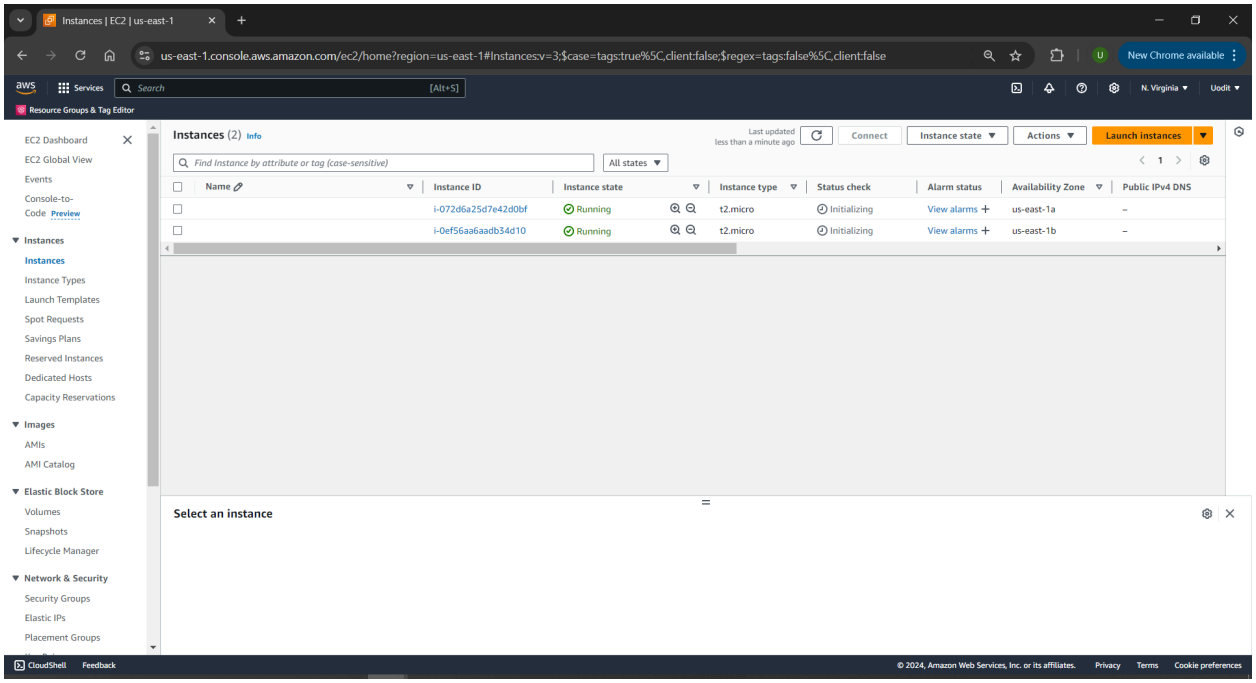
Auto scaling group created successfully



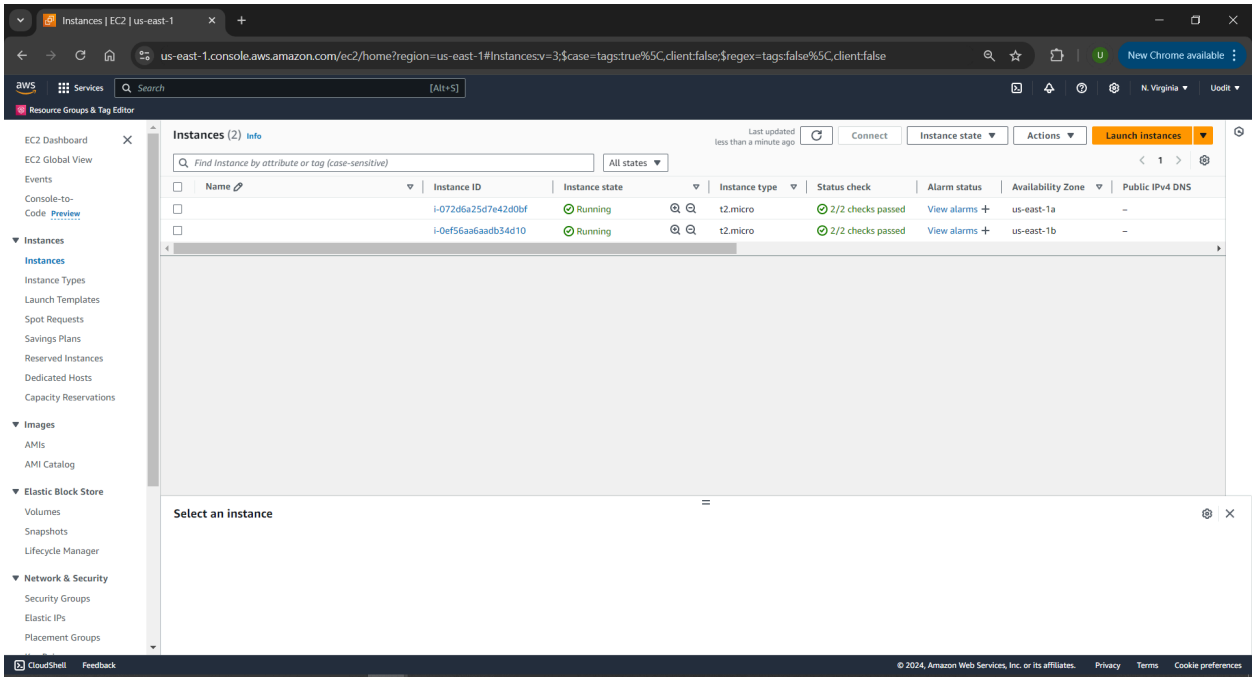
Wait for some time to create the instance



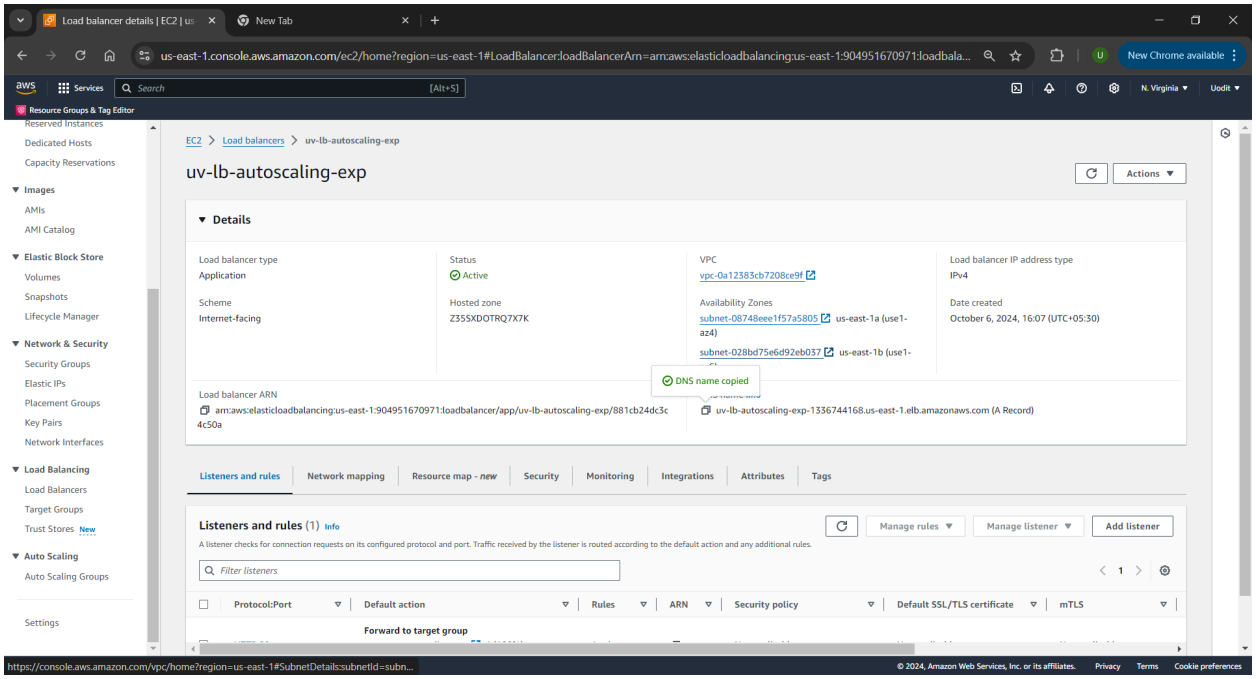
15. Two instances has been created automatically by the auto scaling



After few minutes the instance is running



16. Go to the load balancer and copy the DNS and Paste the URL into a new tab to load the webpage



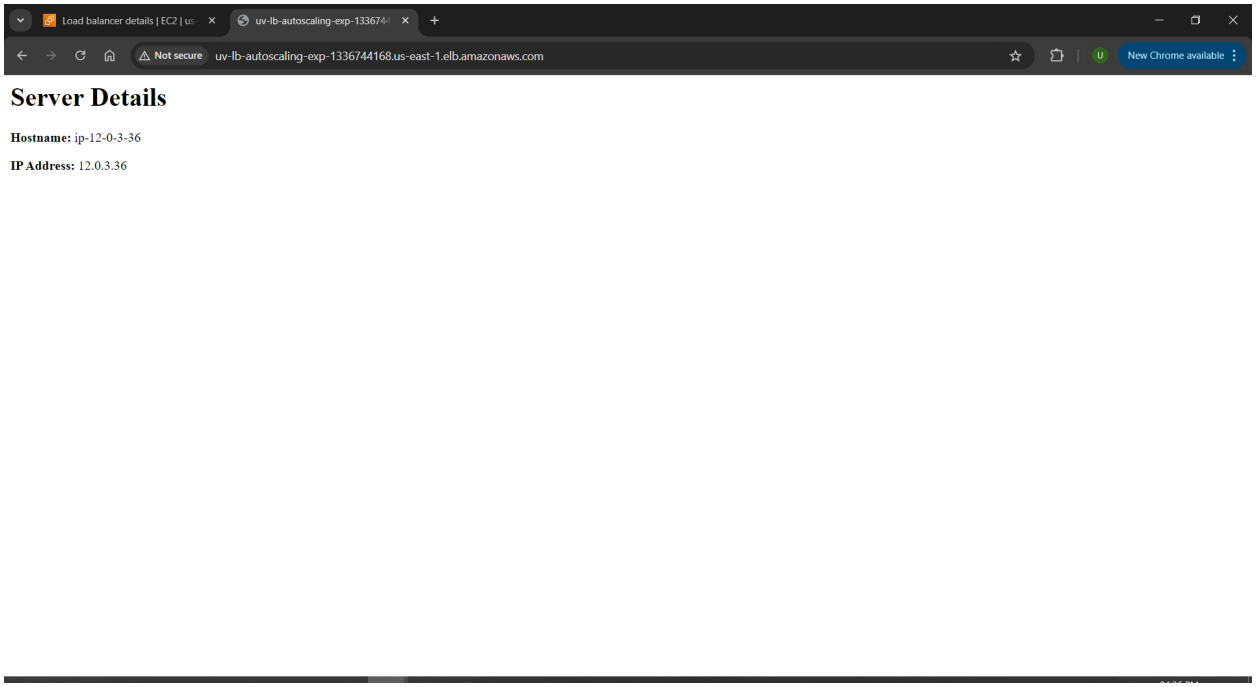
The webpage is hosted from the 1st EC2

Server Details

Hostname: ip-12-0-1-64

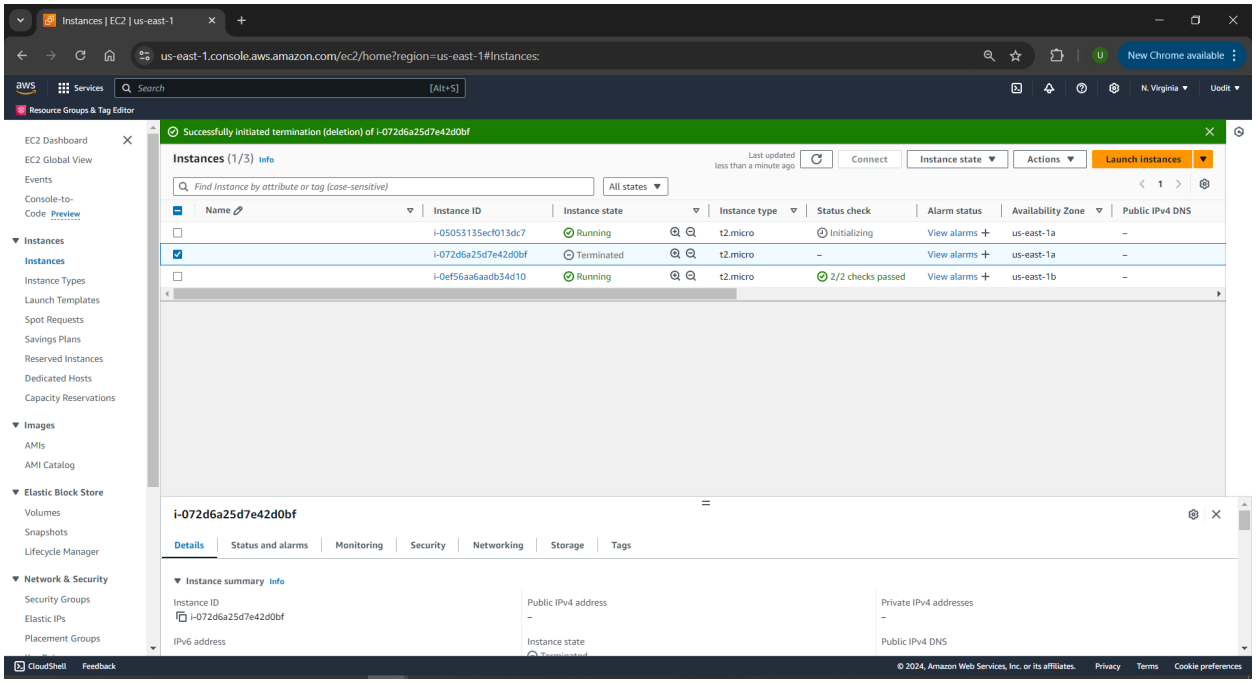
IP Address: 12.0.1.64

Reload the webpage so the load balancer switches the webpage hosted from the 1st EC2 to 2nd EC2

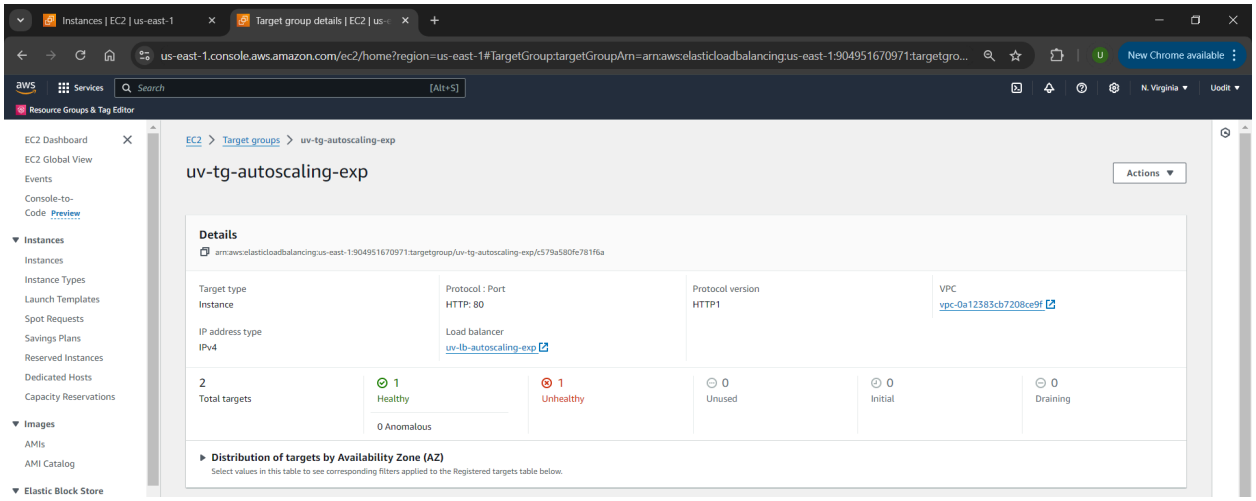


From the 2 above images it can be seen that the load balancer automatically switches between the 2 EC2 instances

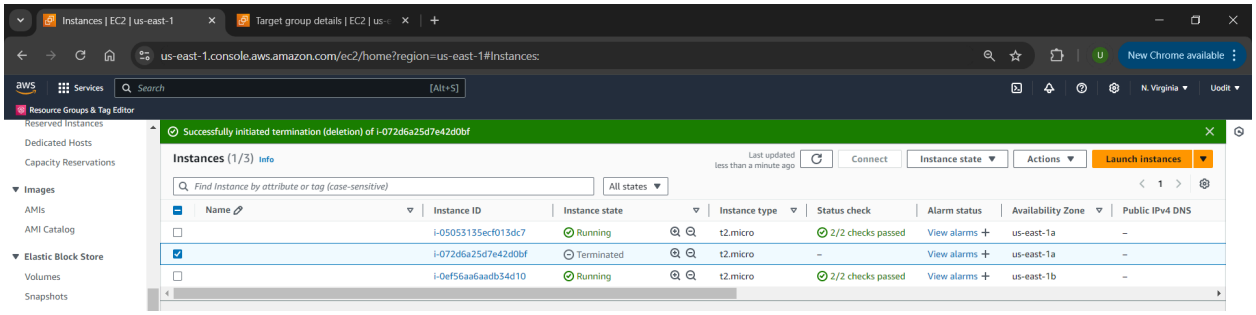
17. To verify the Auto scaling terminate one EC2 instance



Since an instance is deleted we can see that 1 healthy and 1 unhealthy target



18. After an EC2 instance is terminated automatically another one is created



And we can see that inplace of the deleted instance another has been automatically created and replaced