Task-7.

Troubleshooting (Explain)

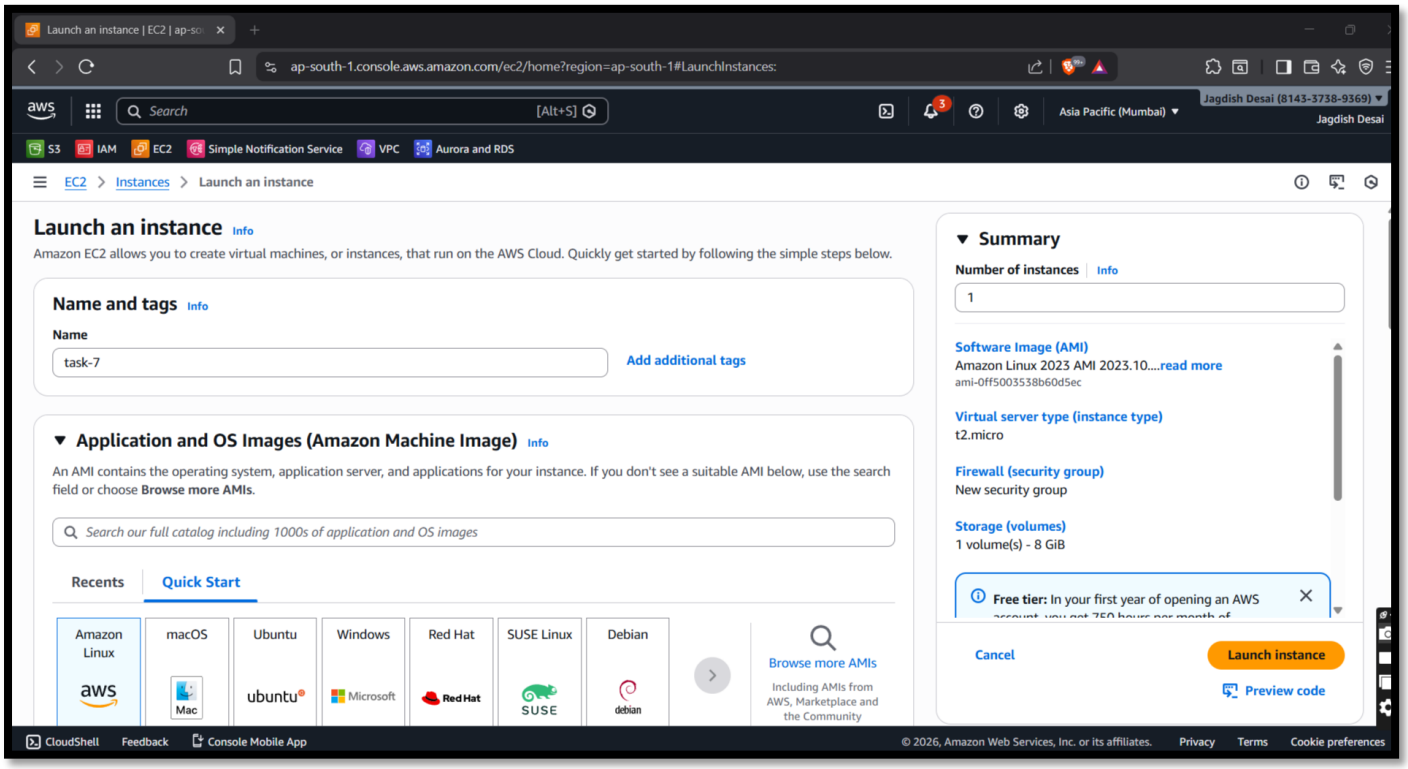
App not accessible

Container running but port not reachable

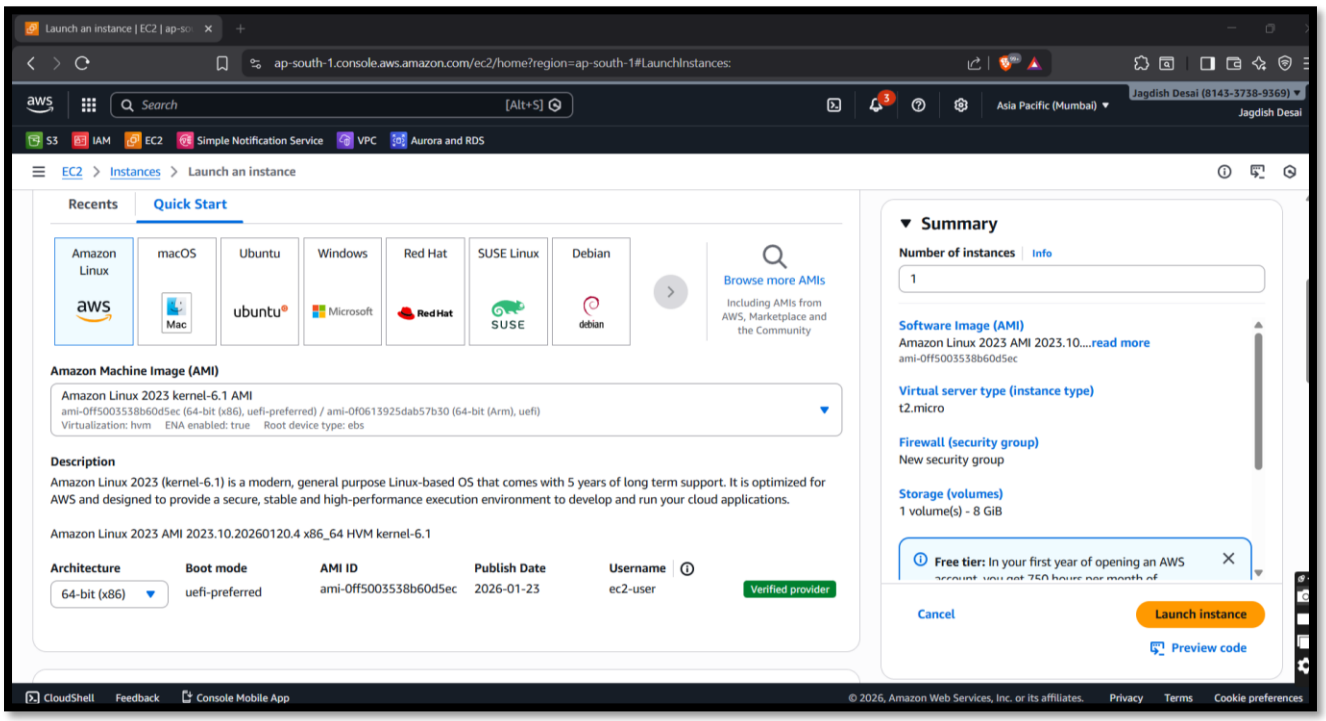
ALB health check failures

Steps

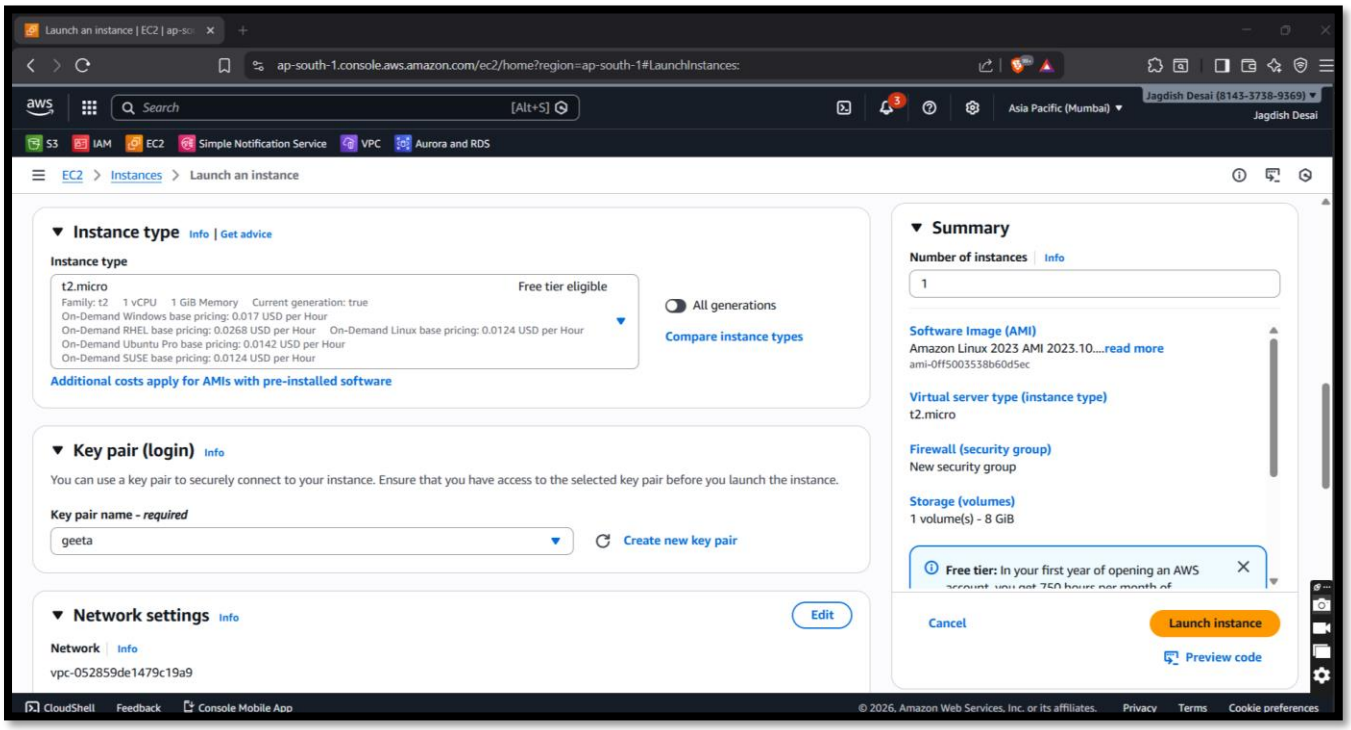
Step 1: Launch instance



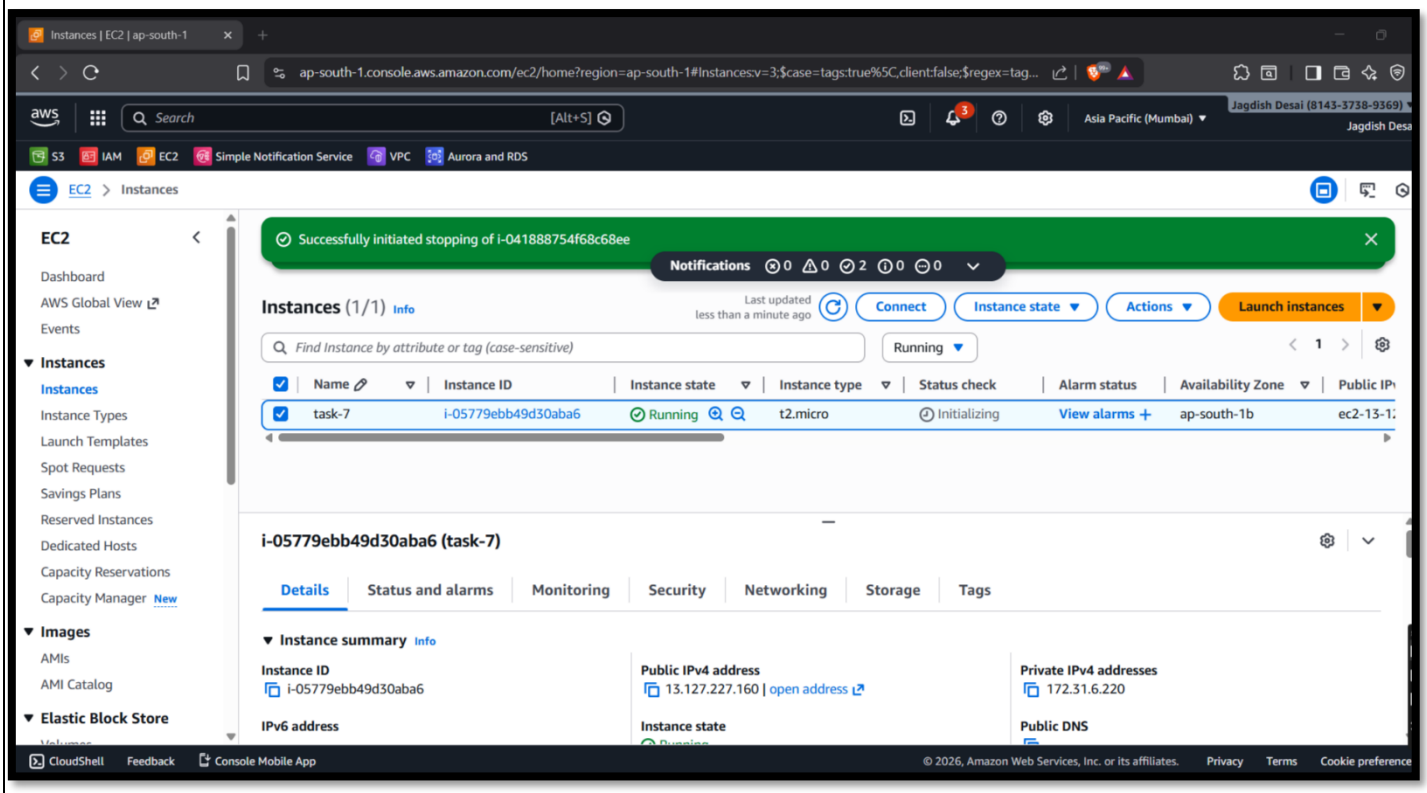
Step 2: Select Default Ami



Step 3: Select Instance Type & key-pair

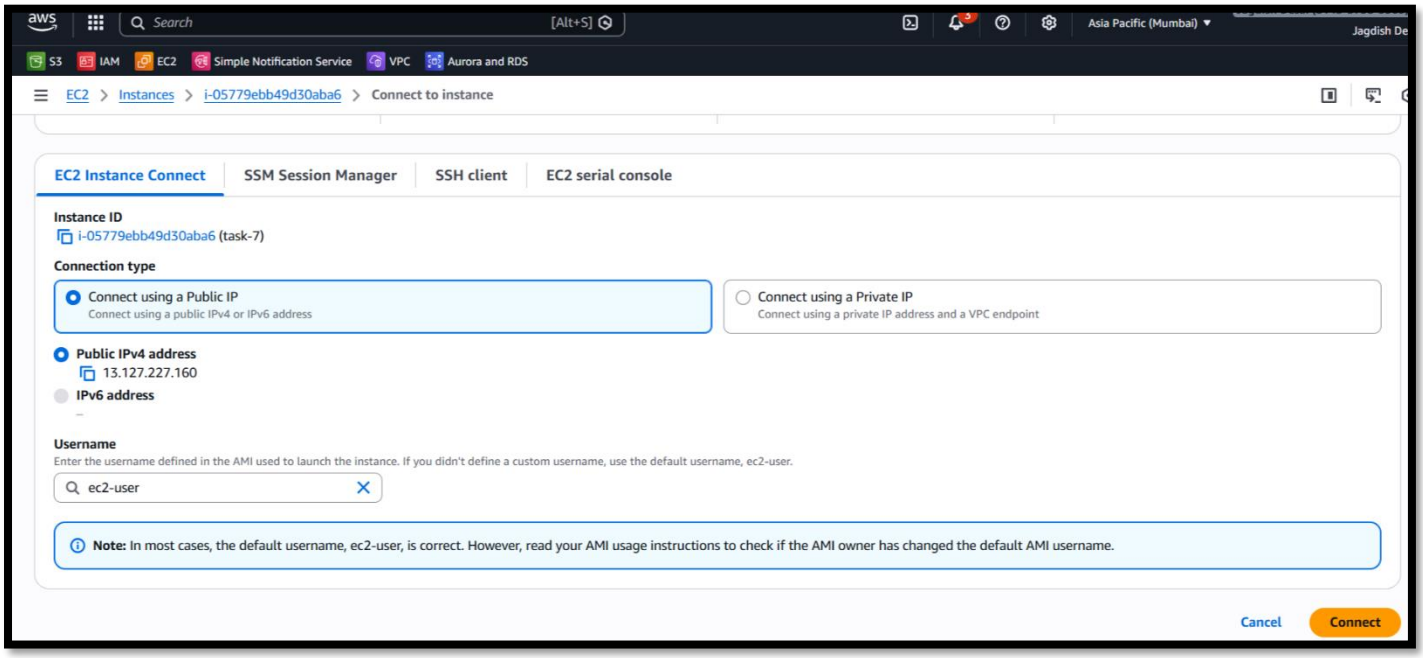


Step 4: Keep all it is and launch instance.

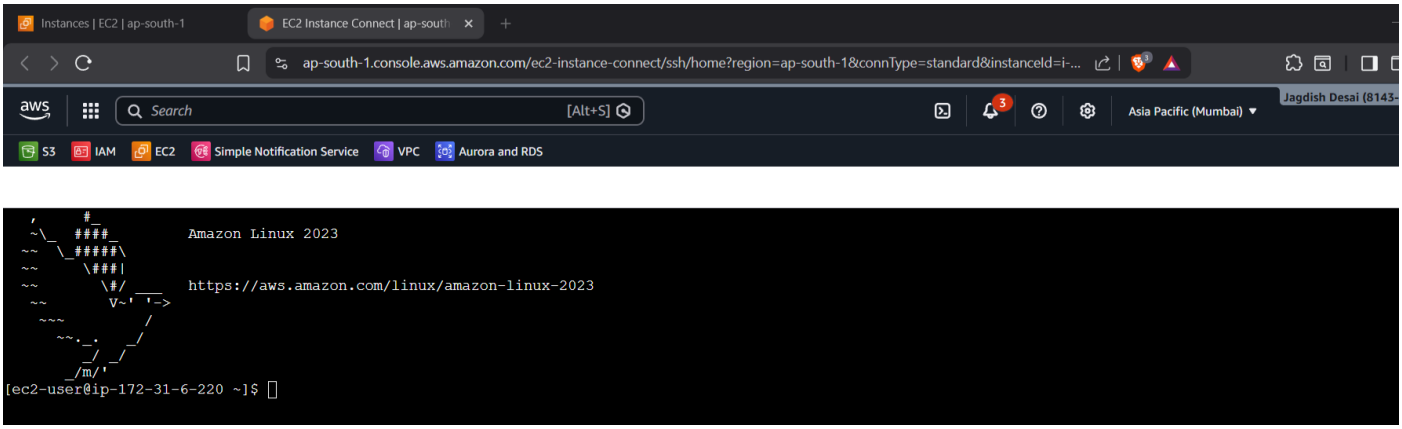


Successfully launched instance.

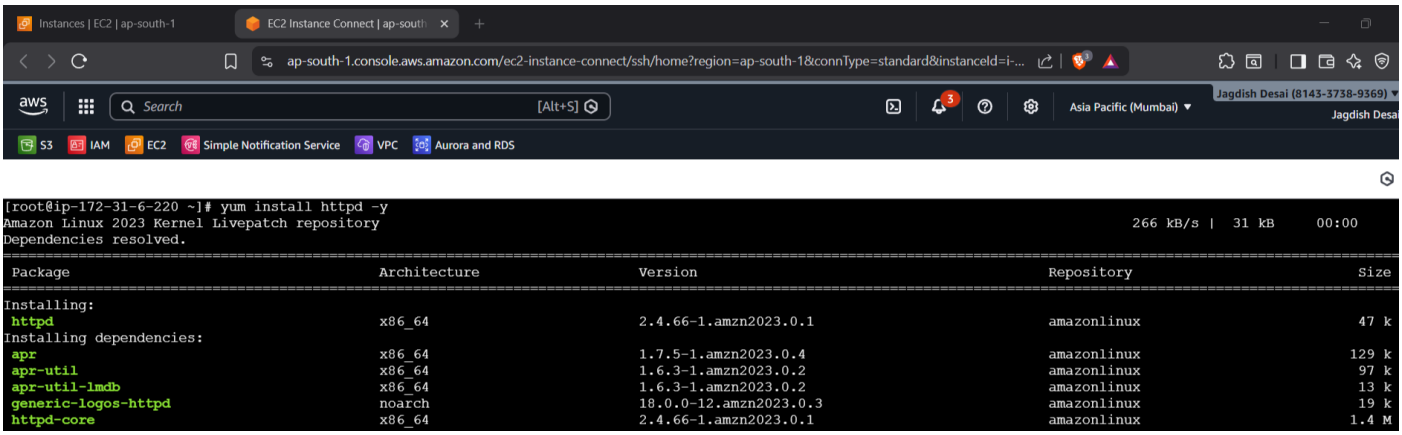
Step 5: Connect To Ec2 instance



Successfully Connected Instance task-7:

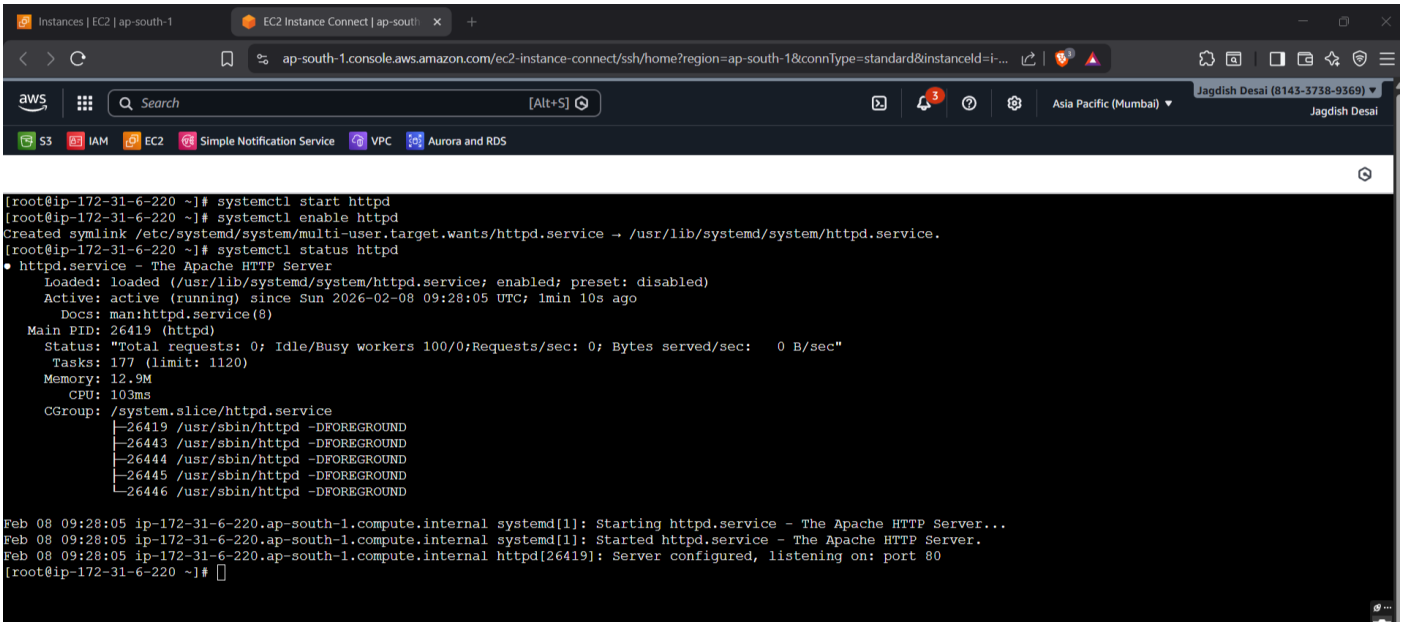


Step 6: We install httpd (Apache HTTP Server) to serve web content over the internet using command- yum install httpd



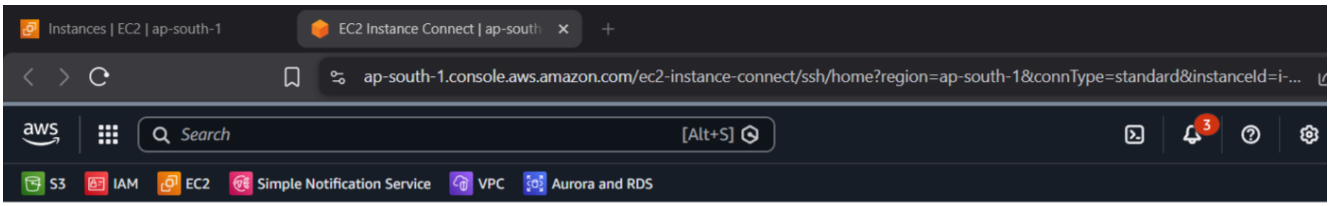
Systemctl start httpd

Systemctl enable httpd



Step 7:Typing our code EC2 web server directory:

- For **httpd**: cd /var/www/html/index.html




```
[root@ip-172-31-6-220 ~]# cd /var/www/html
[root@ip-172-31-6-220 html]# vim index.html
[root@ip-172-31-6-220 html]#
```

Index.html Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>Public IP Viewer</title>
<style>
body {
  margin: 0;
  height: 100vh;
  font-family: 'Segoe UI', Tahoma, sans-serif;
  display: flex;
  justify-content: center;
  align-items: center;
  background: linear-gradient(135deg, #667eea, #764ba2);
  color: white;
}
.card {
  background: rgba(255, 255, 255, 0.15);
  padding: 40px 60px;
  border-radius: 15px;
  text-align: center;
  box-shadow: 0 10px 25px rgba(0,0,0,0.3);
  backdrop-filter: blur(8px);
```

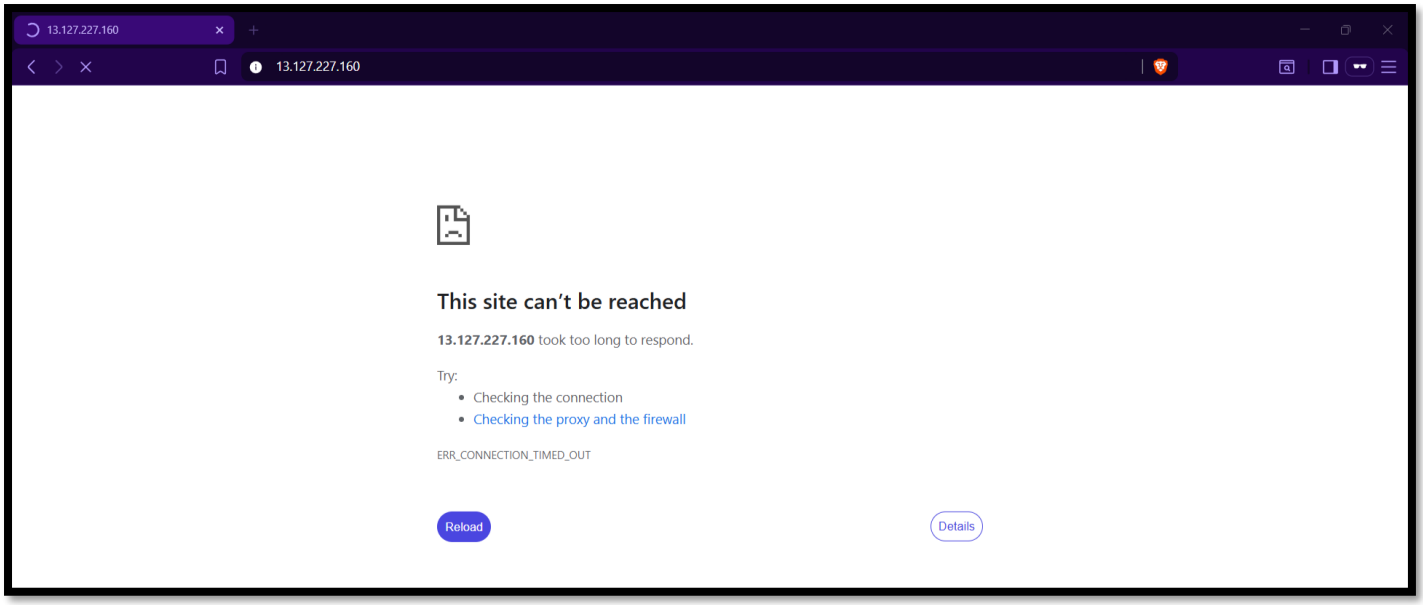
```
}
h1 {
  margin-bottom: 15px;
  font-size: 32px;
}
.ip {
  font-size: 22px;
  font-weight: bold;
  color: #ffeb3b;
  margin-top: 10px;
}
footer {
  margin-top: 20px;
  font-size: 14px;
  opacity: 0.8;
}
</style>
</head>
<body>
<div class="card">
  <h1>Jagdish Desai EC2 Application</h1>
  <div>Public IP Address</div>
  <div class="ip" id="publicIp">Loading...</div>
  <footer>Running on AWS EC2 Instance</footer>
</div>
<script>
fetch('http://169.254.169.254/latest/meta-data/public-ipv4')
  .then(response => response.text())
  .then(ip => document.getElementById('publicIp').innerText = ip)
  .catch(() => document.getElementById('publicIp').innerText = 'Cannot fetch IP');
</script>
</body>
</html>
```

After That Code Copy public Ip pf our instance and check application is working or not.

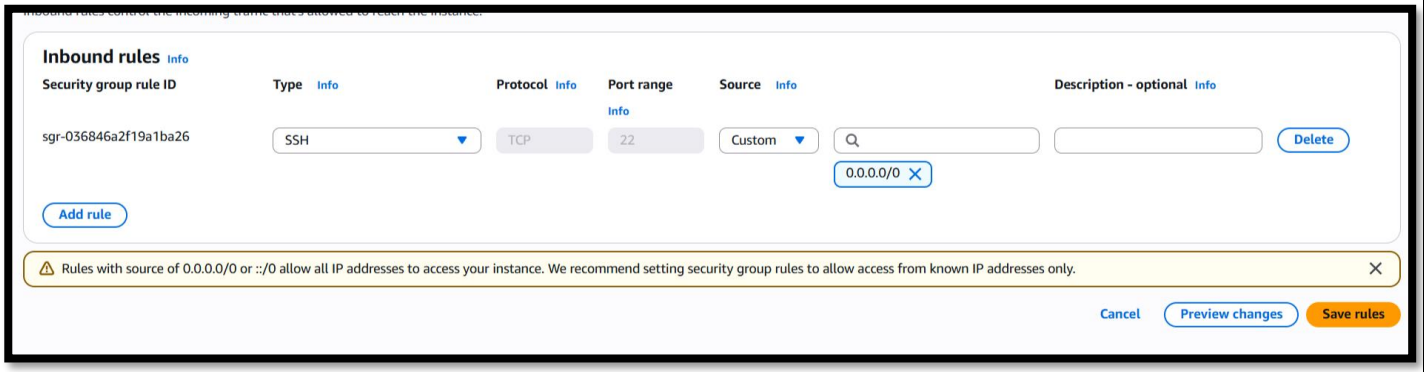
Public IPv4 address

13.127.227.160 |

Application not accessible because we doesn't allow http port in security group inbound rules.

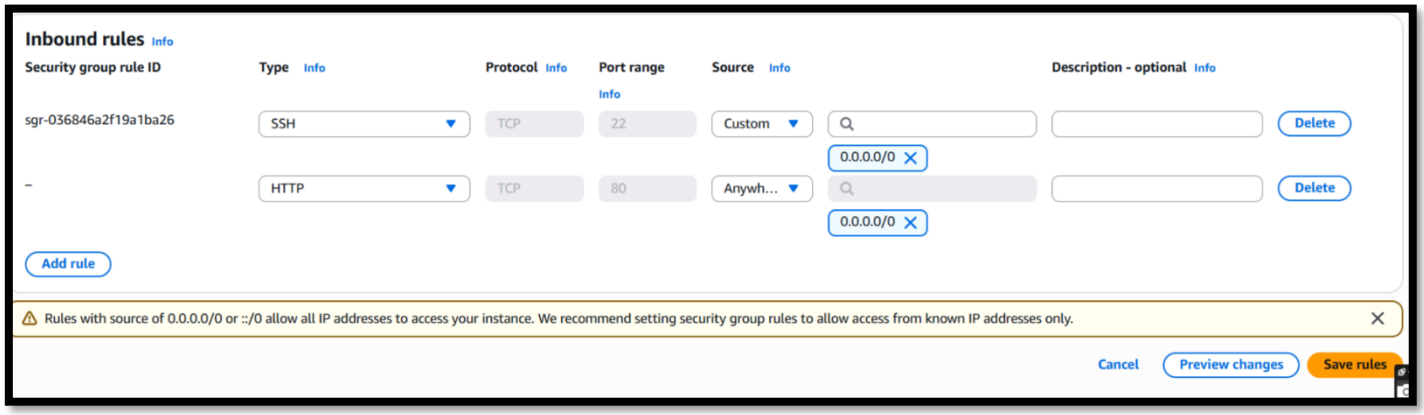


Then we go to security groups and add http in inbound rule.



No http rule present.

Then click add rule

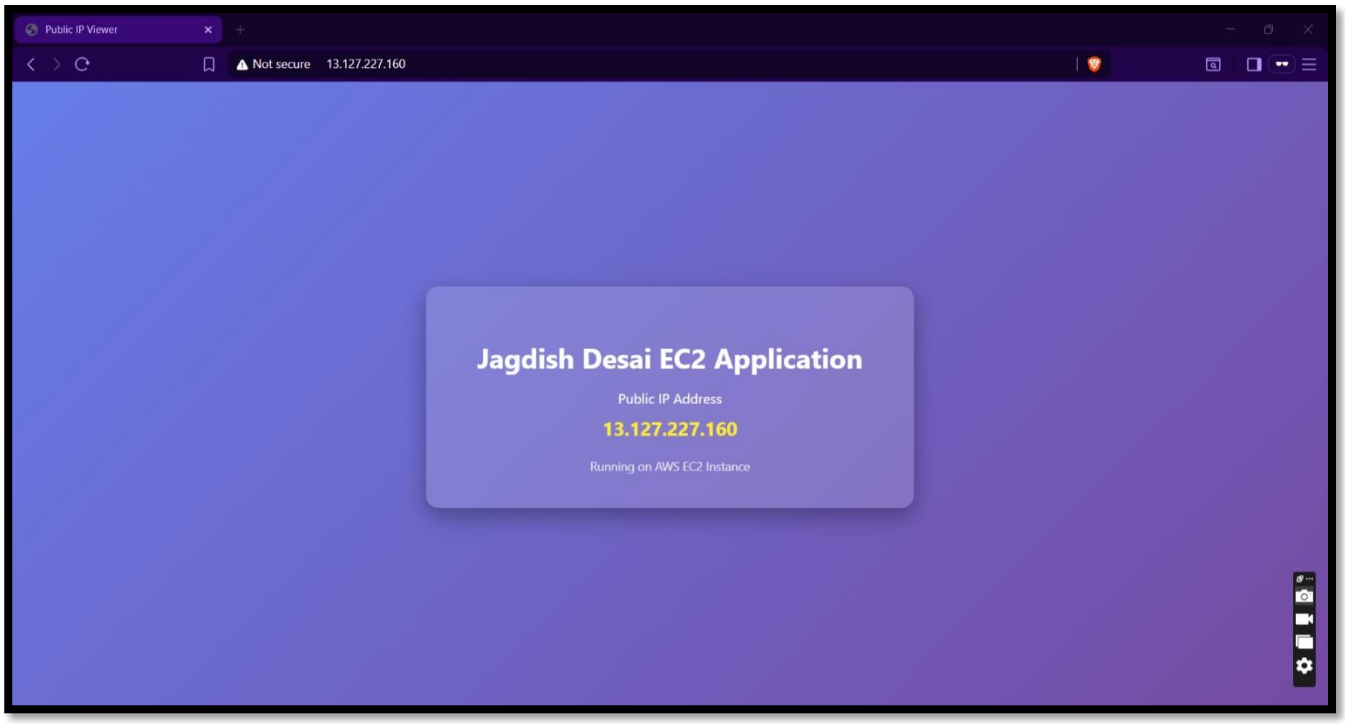


Save rules

- **Copy public Ip pf our instance and check application is working or not.**

  Public IPv4 address

  13.127.227.160 |



After Allow Http Port in security group inbound rules it properly works.

2. Container Running but Port Not Reachable

Step 1: Install Docker

sudo amazon-linux-extras install docker -y

Start Docker service:

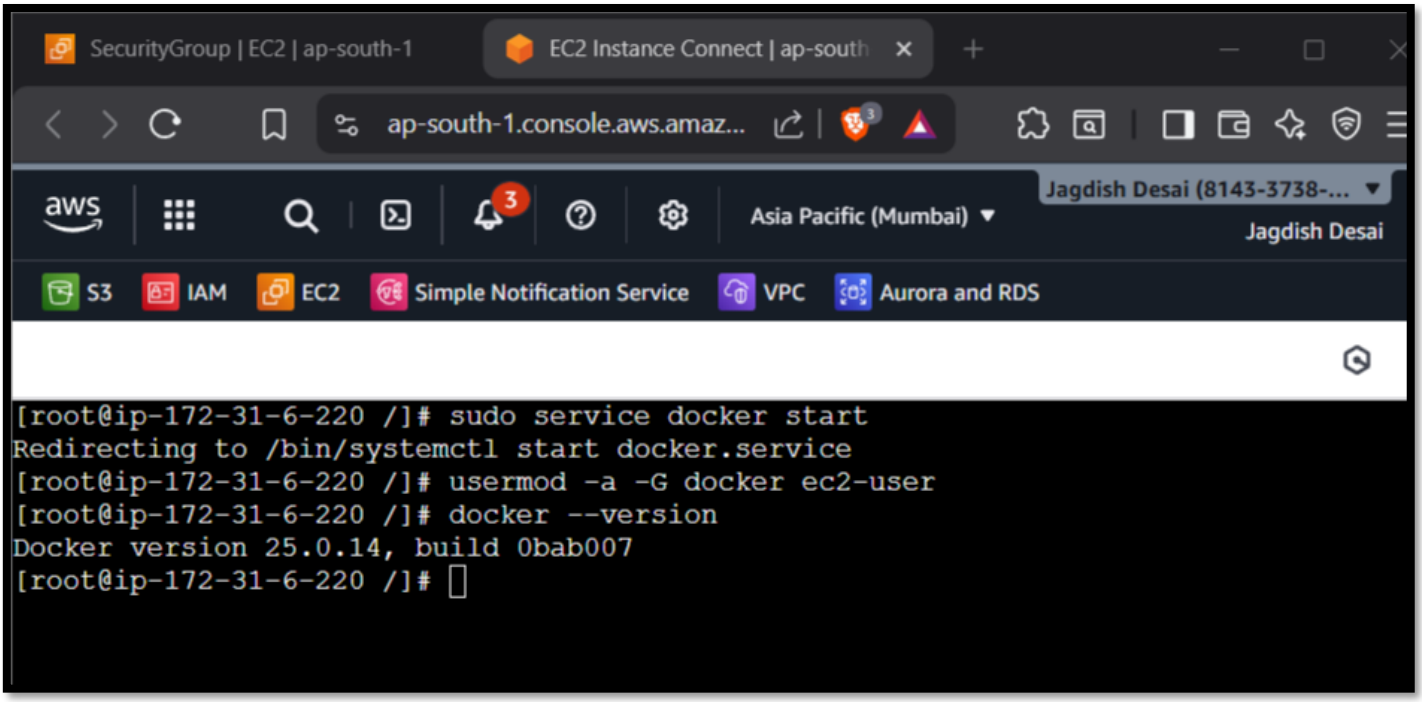
sudo service docker start

Allow EC2 user to run Docker without sudo (optional):

sudo usermod -a -G docker ec2-user

Test Docker:

docker --version



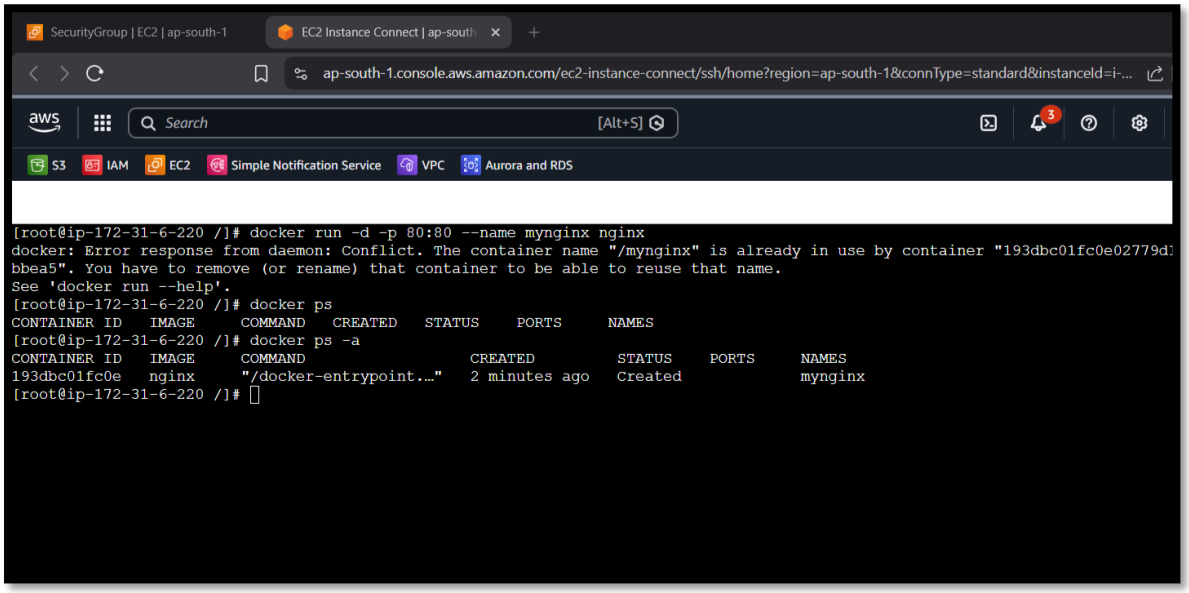
Step 2: Run a Docker Container

Example: Nginx web server on port 80

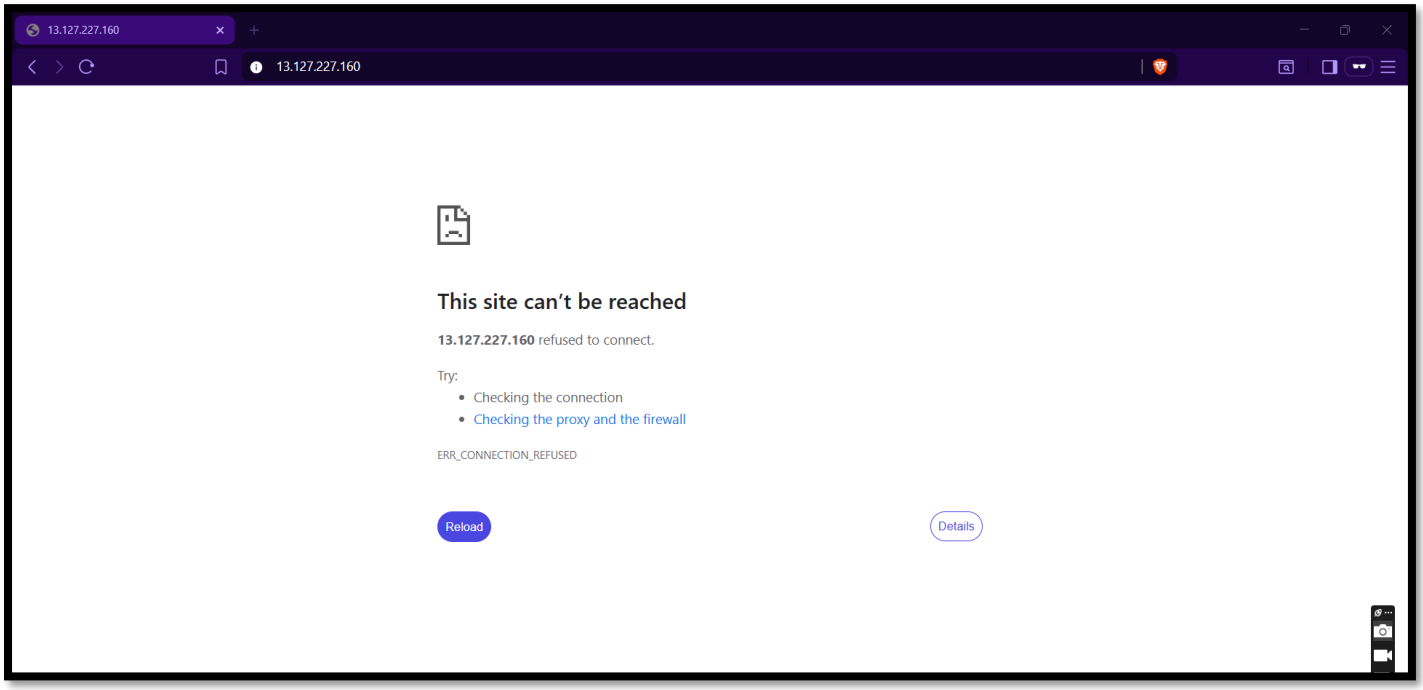
docker run -d -p 80:80 --name mynginx nginx

Check container status:

docker ps

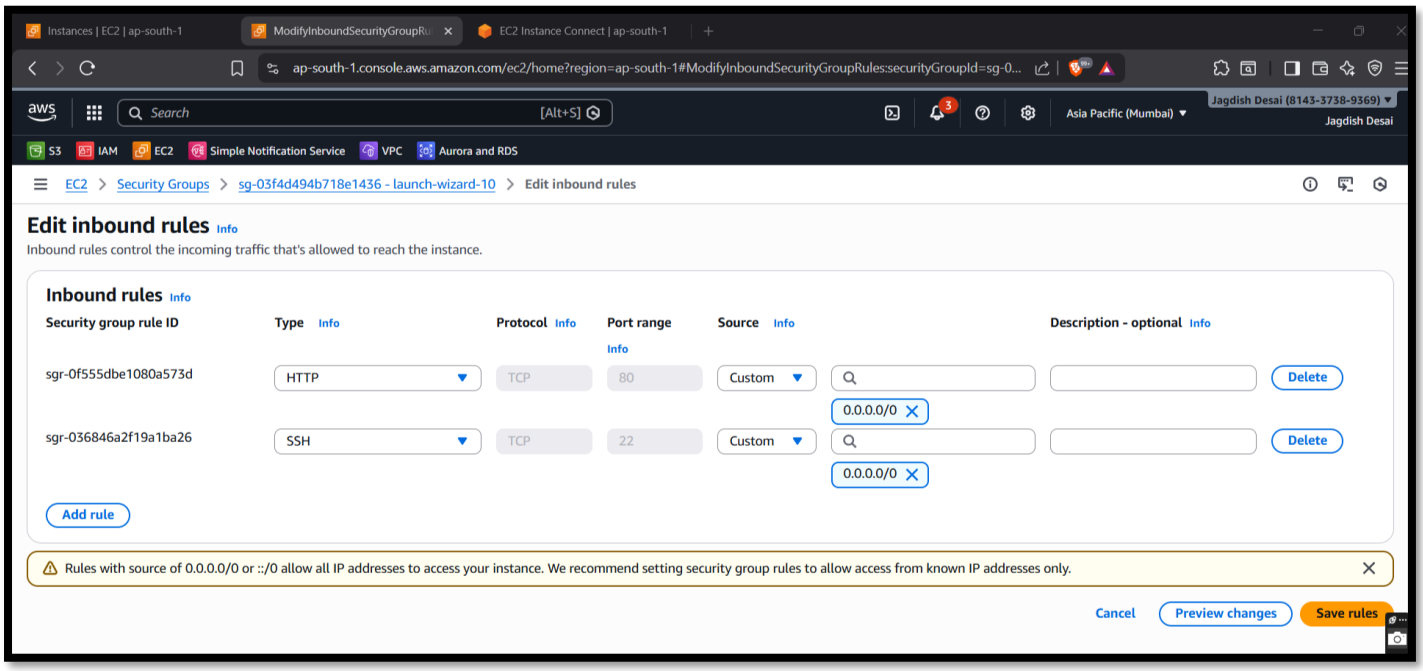


Step 3: Try Accessing From Browser



Step 7: Troubleshooting “Port Not Reachable”

1. **Checking Security Group**
    - Port 80 must be open for **0.0.0.0/0**.



remove container and rerun with:

docker rm -f mynginx

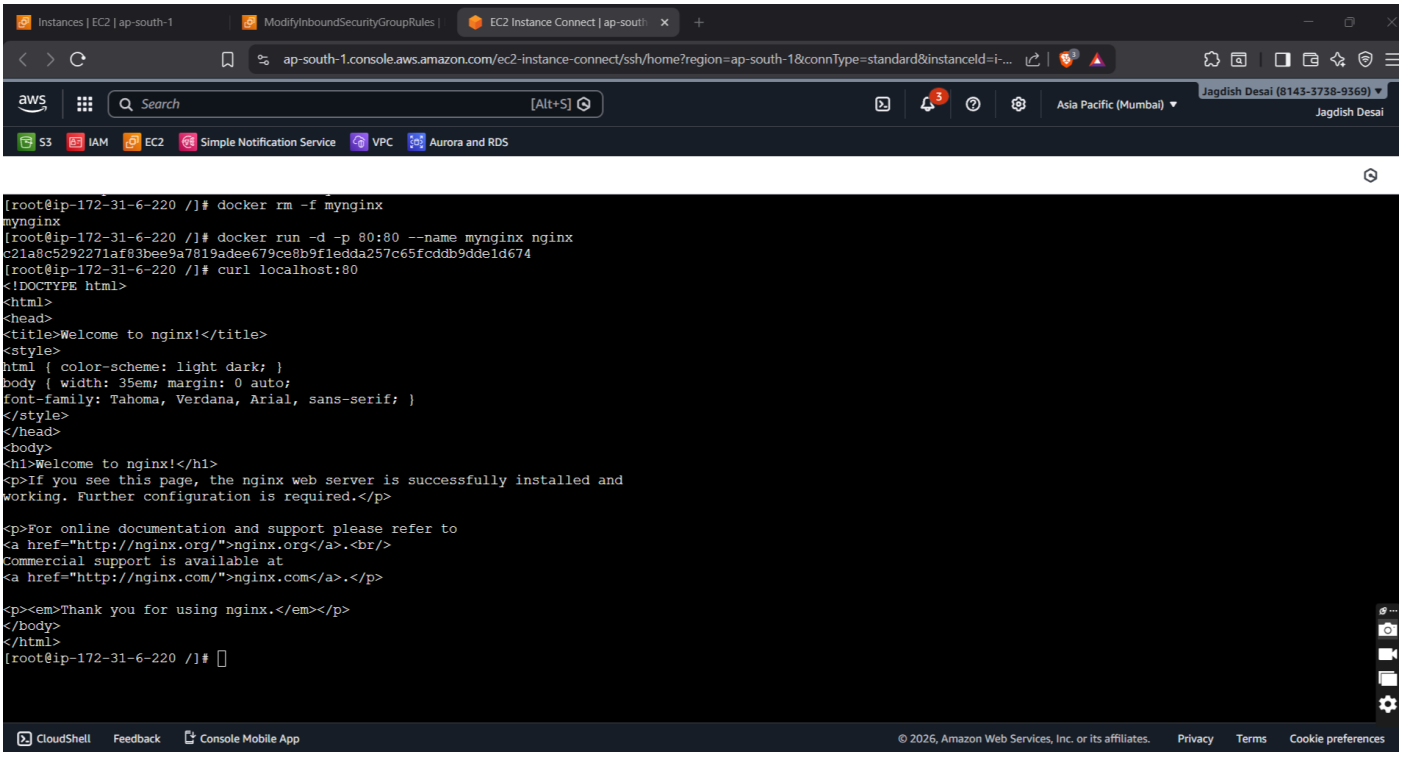
docker run -d -p 80:80 --name mynginx nginx

Check EC2 Security Group

- HTTP port 80 → 0.0.0.0/0 ✅

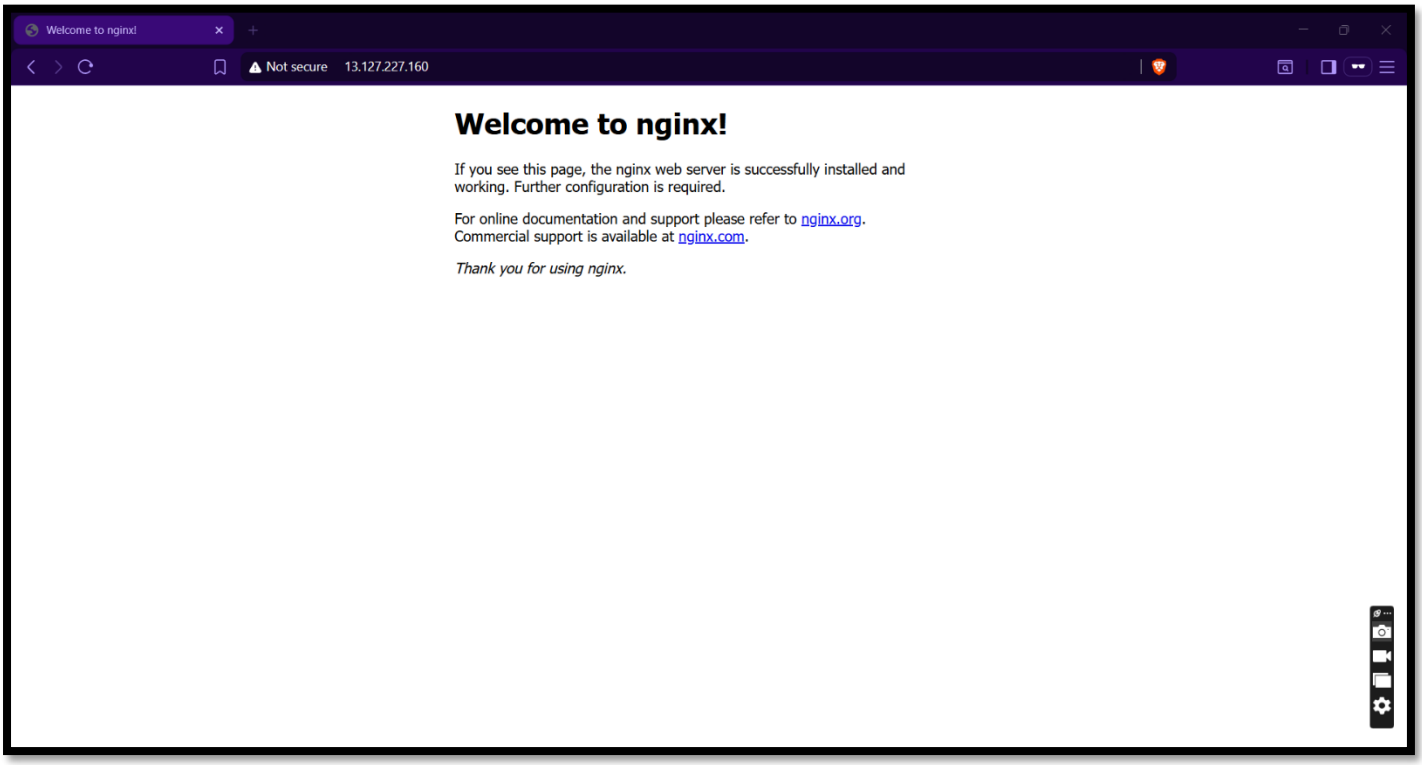
Test locally on EC2

curl localhost:80



4. Test externally from browser

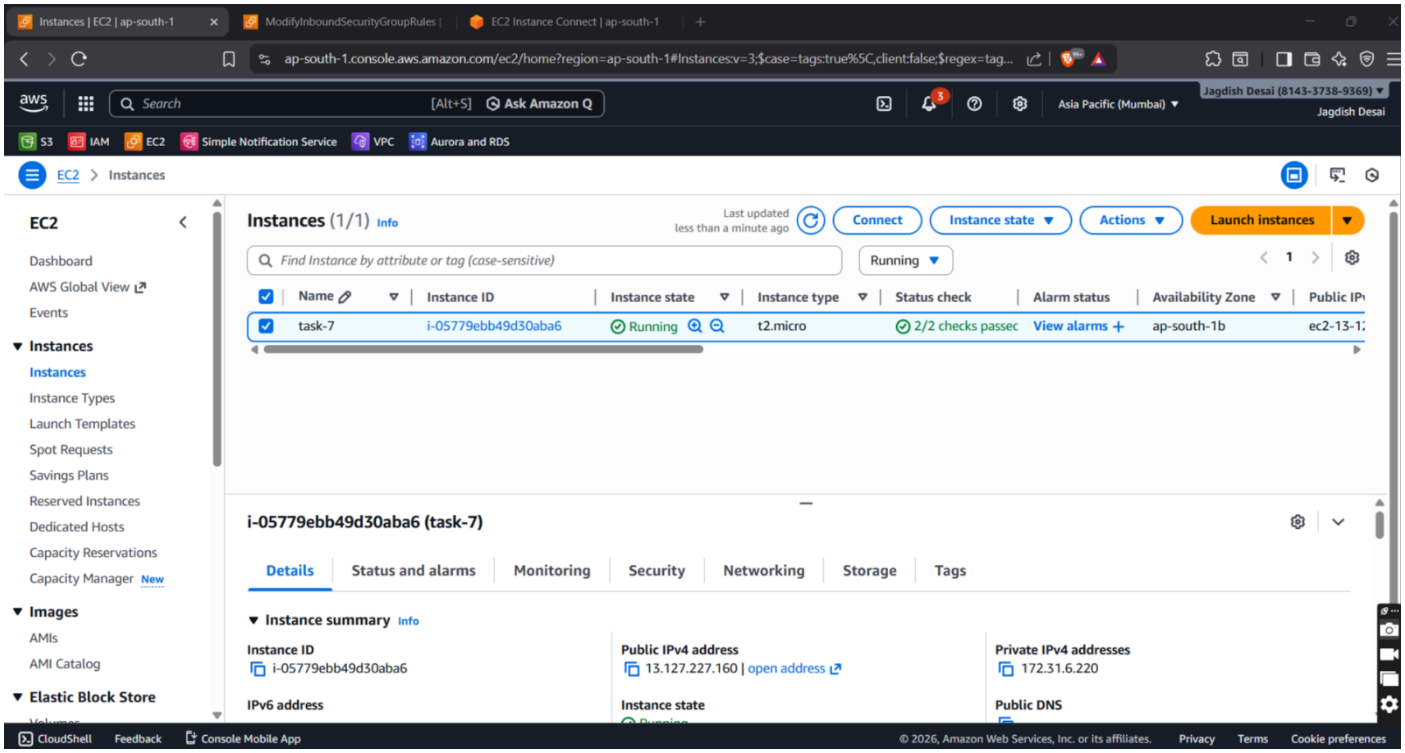
http://13.127.227.160/



It works Properly.

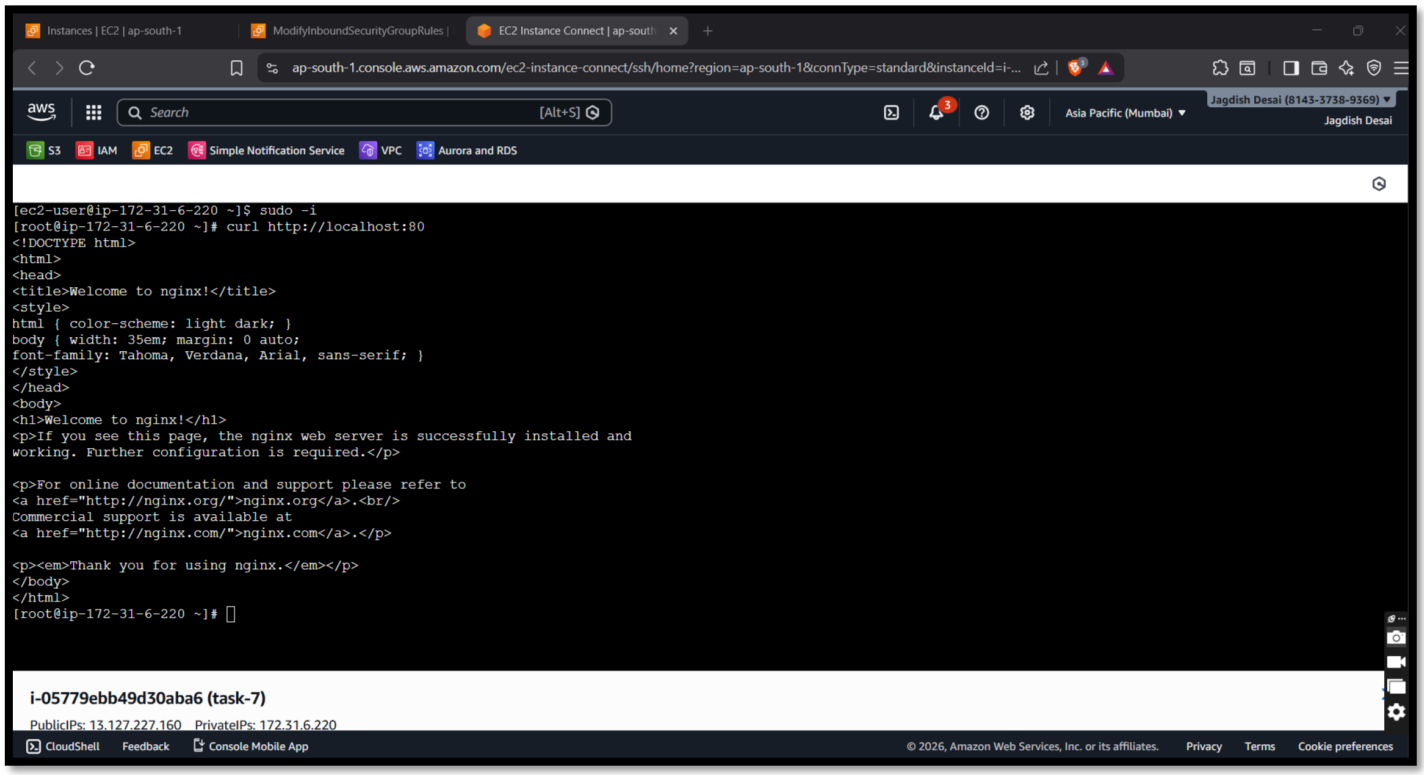
Troubleshooting ALB health check failures

Step 1: using our existing Ec2 instance

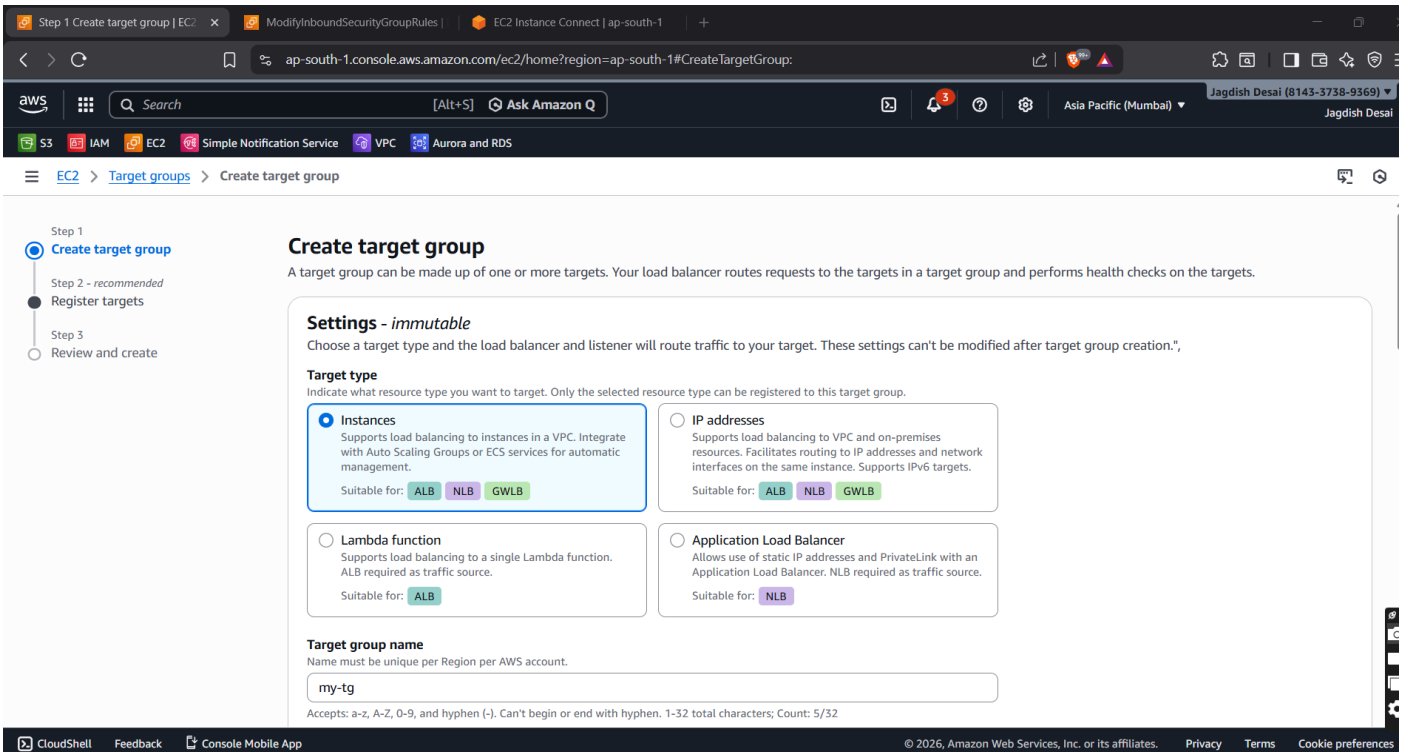


Step 2: Verified our existing nginx app is running:

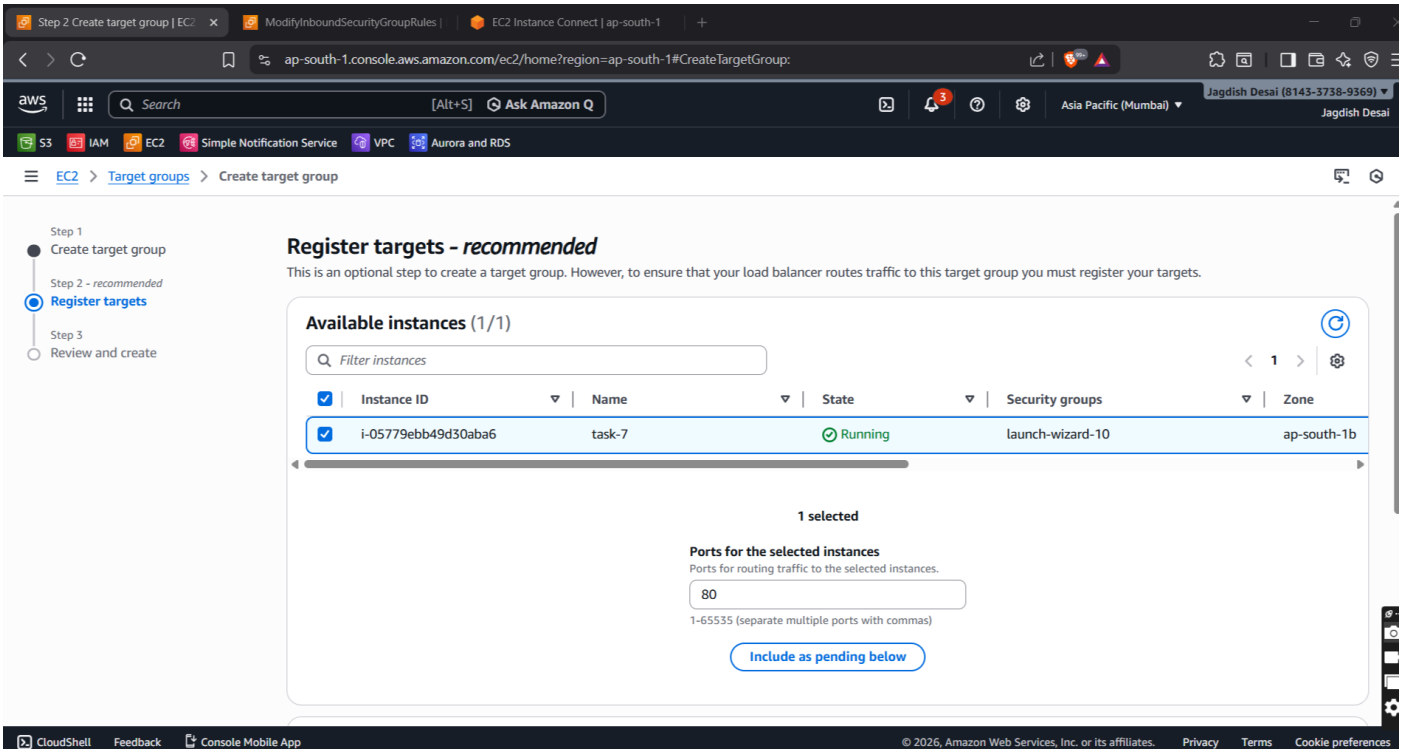
curl http://localhost:80



Step 2: Created Target Group

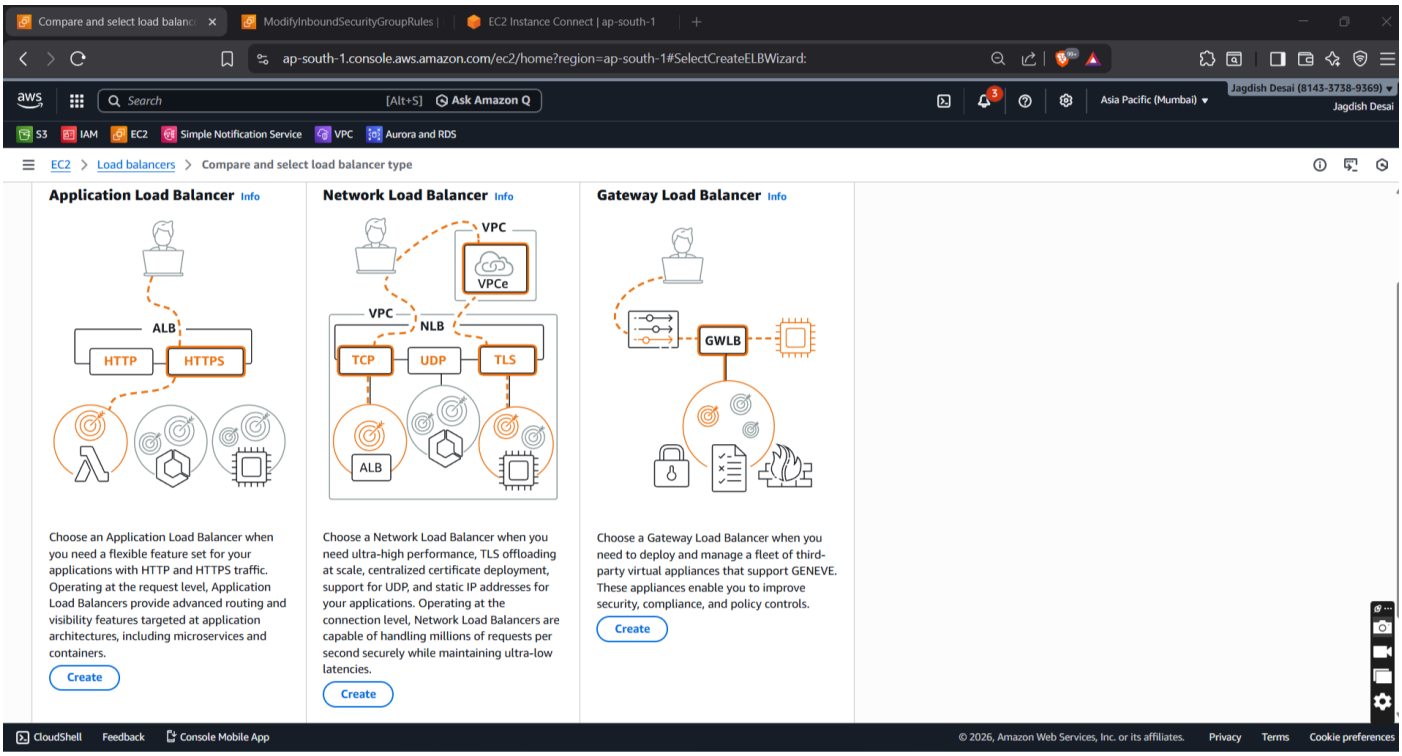


Register Targets:

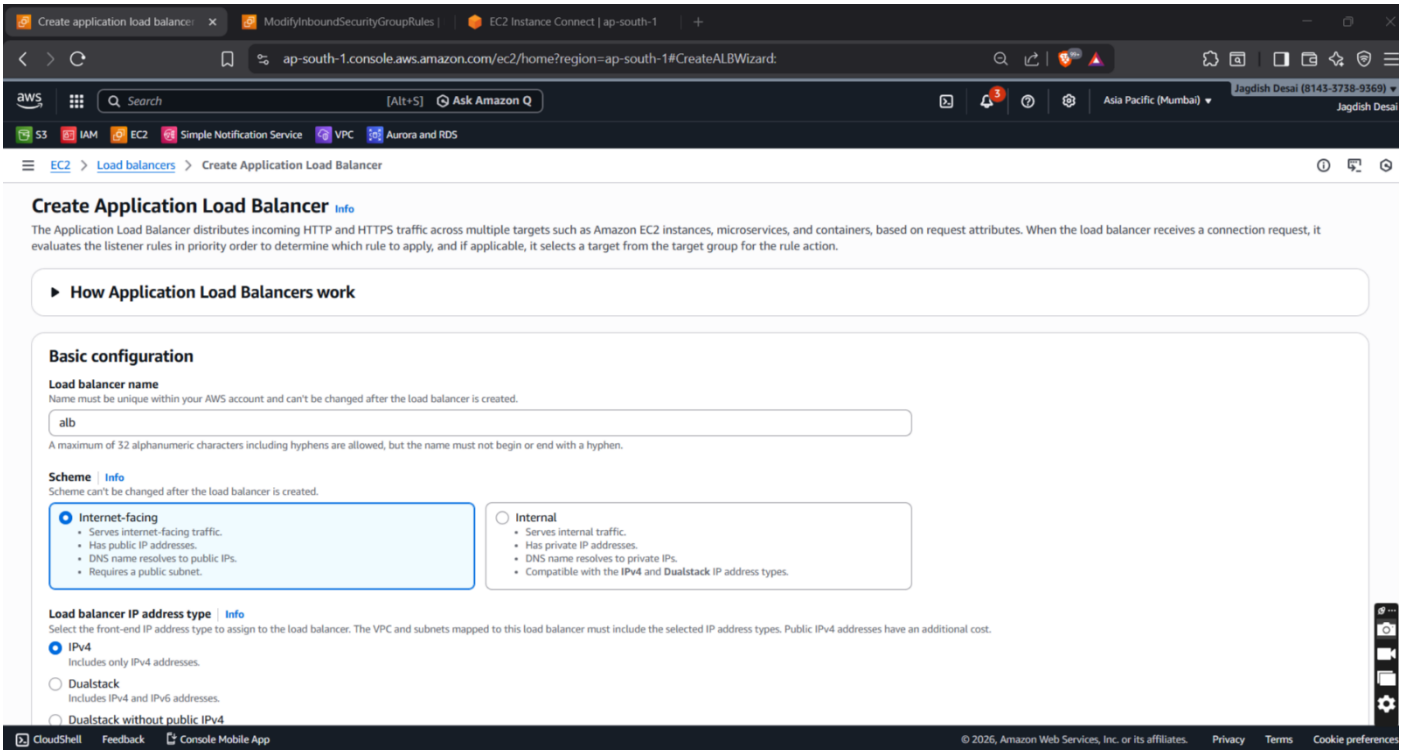


Click Create Target Group.

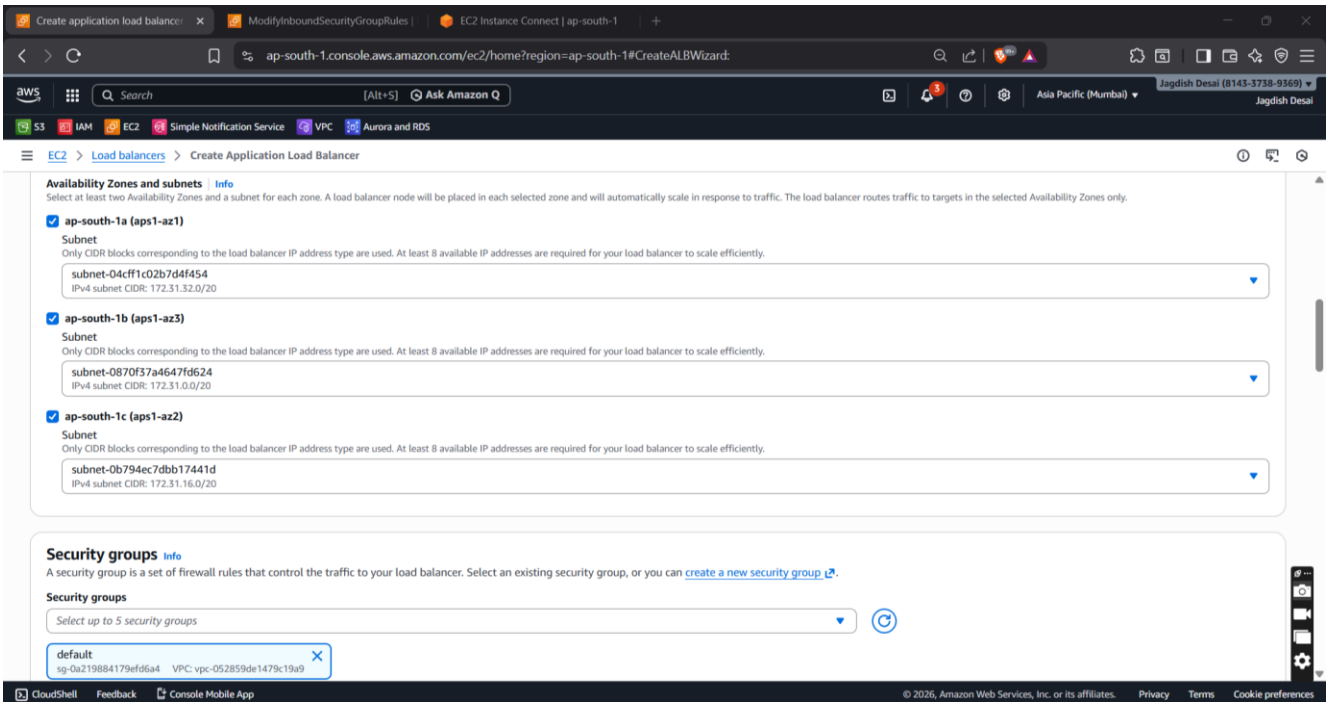
Step 4: Create Application Load Balancer (ALB)



select **internet-facing**, IPv4, and subnets



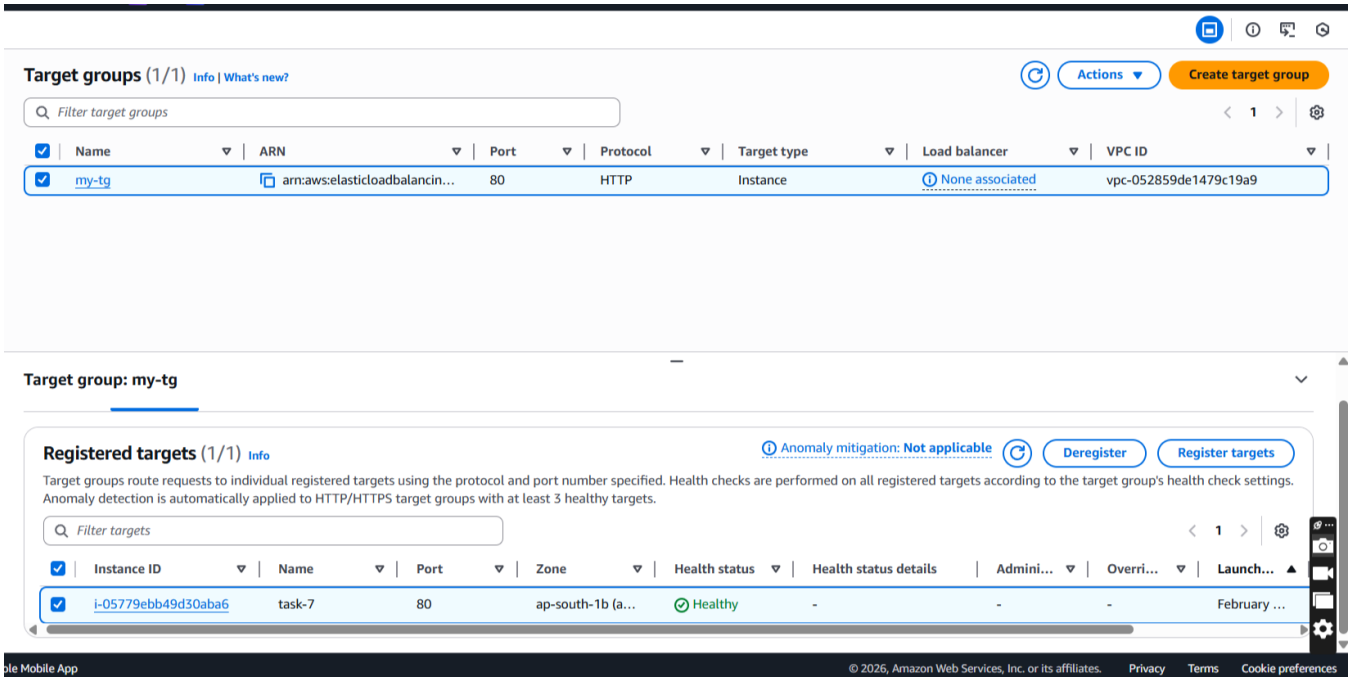
Configure **Security Group**: allow HTTP (80)



Click on Create Load Balancer.

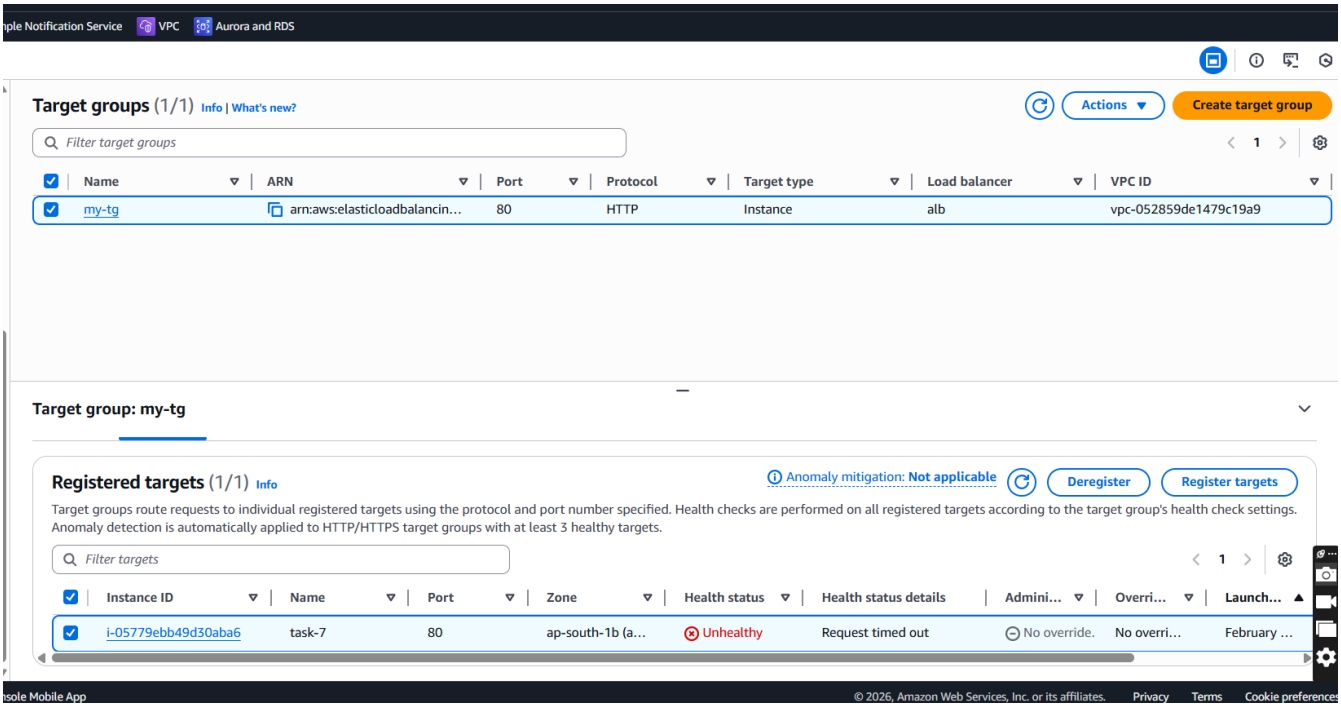
Step 5: Checking Health Status

1. **Go to Target Group → Targets tab**
2. **The Status column shows:**



- **Healthy → working fine**
- **Unhealthy → health check is failing**

After Removing Http inbound rule:



Unhealthy

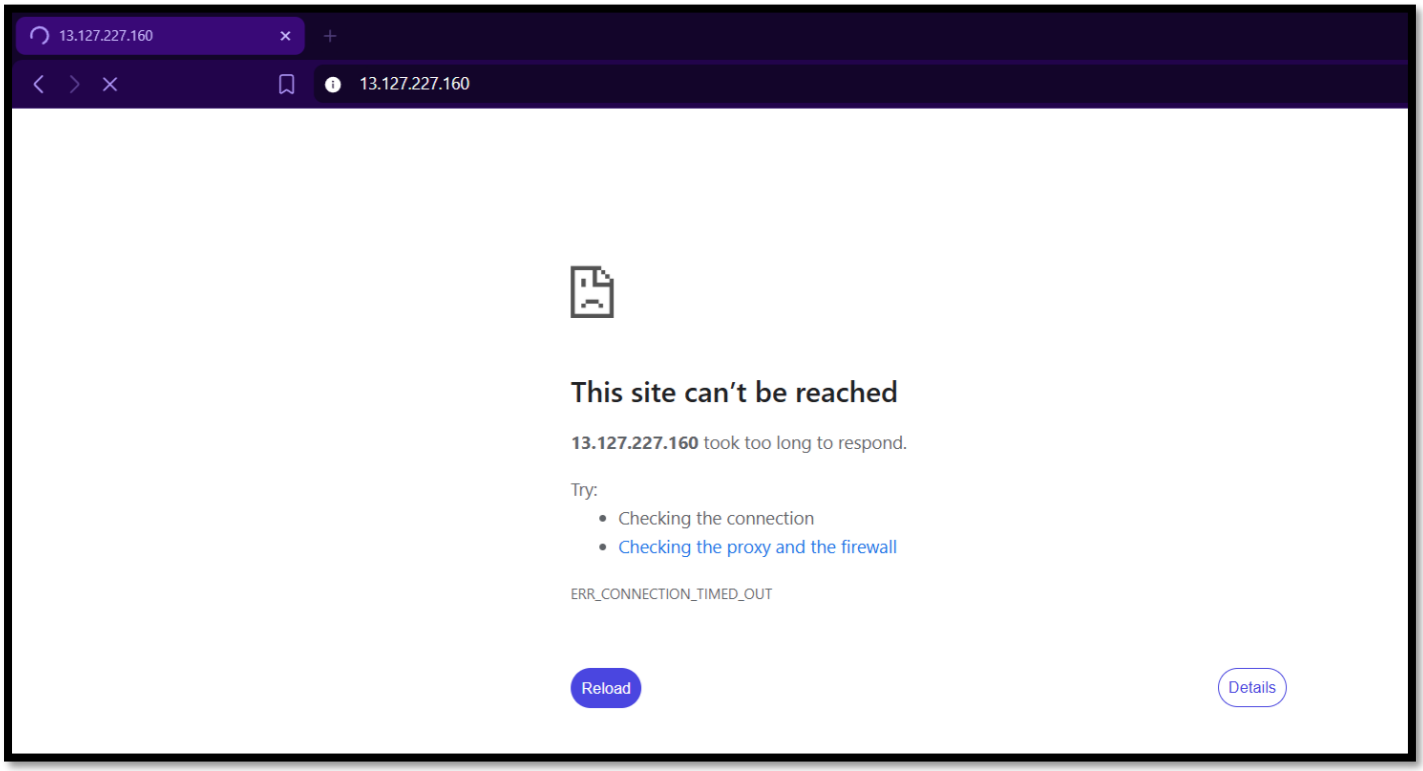
Command:

Curl http://localhost:80/

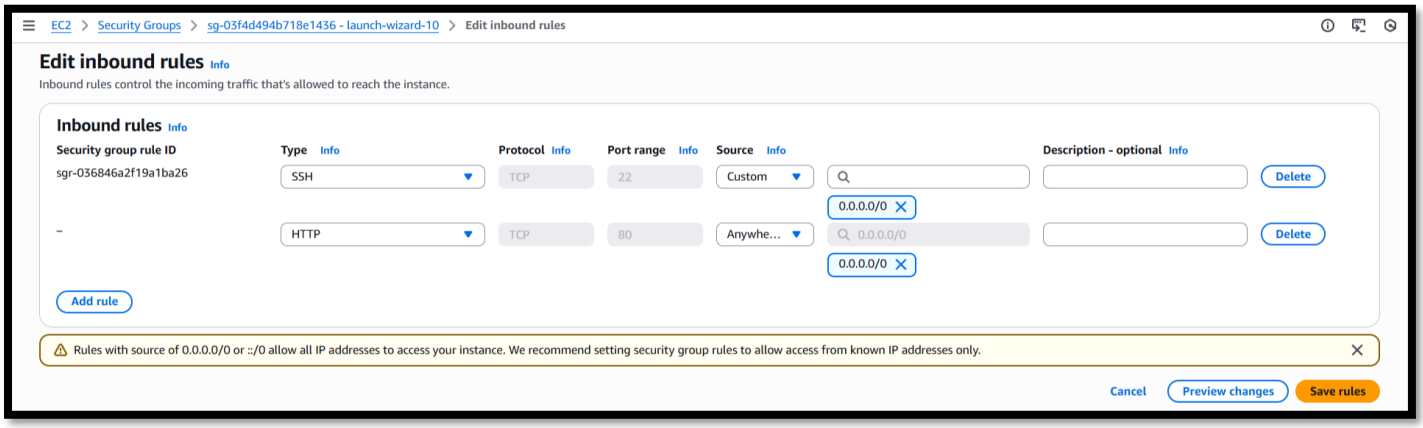
This accesses port 80 on your EC2 host locally.

After Target will become **healthy**, and traffic will be routed correctly.

Not working using public ip after removing http rule-

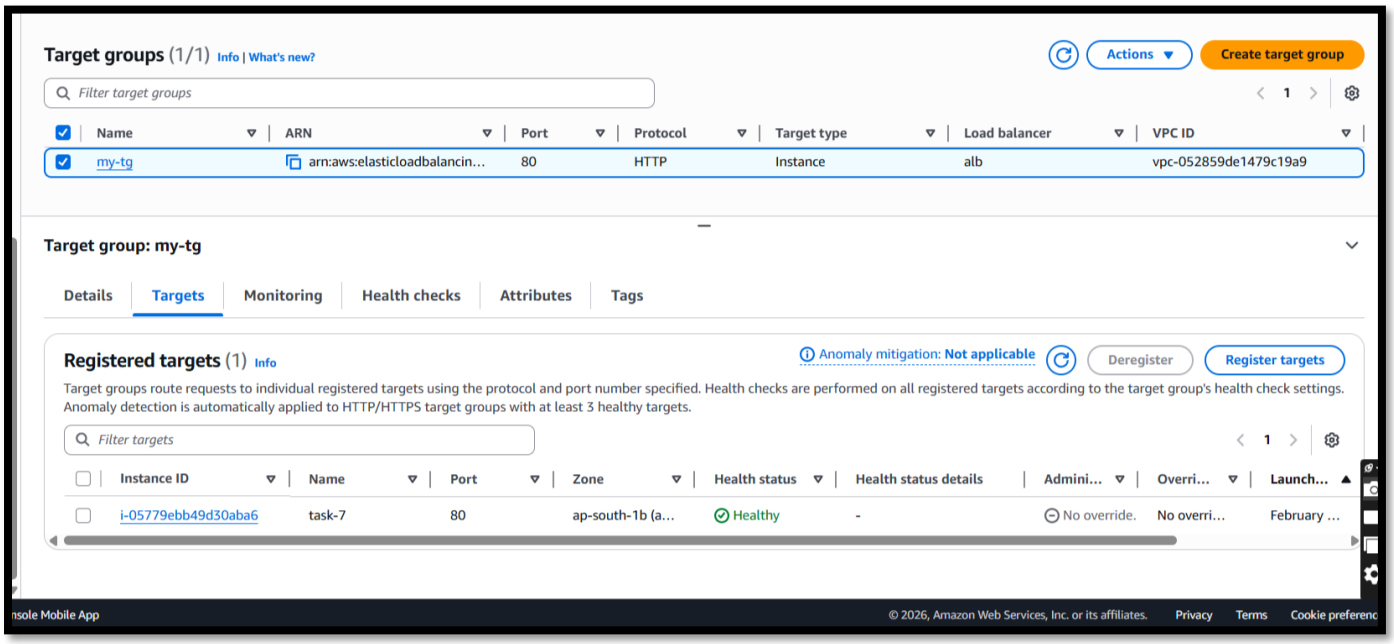


Allow Http Port in inbound rules



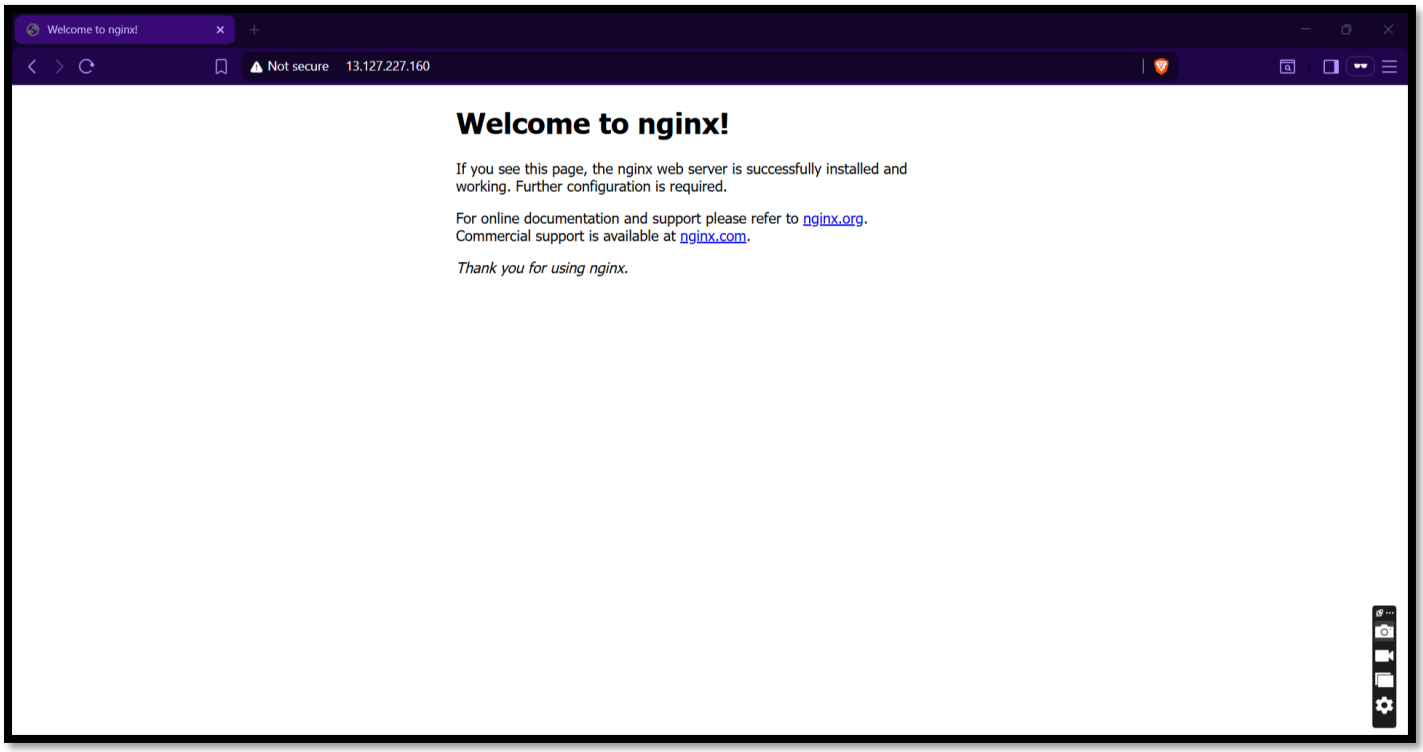
Save Rules

Again Go To Your Target Group Targets:



Now Showing Health Status Healthy. After allow 80 port.

Trying to access browser using public ip: http://13.127.227.160/



It Works Properly.