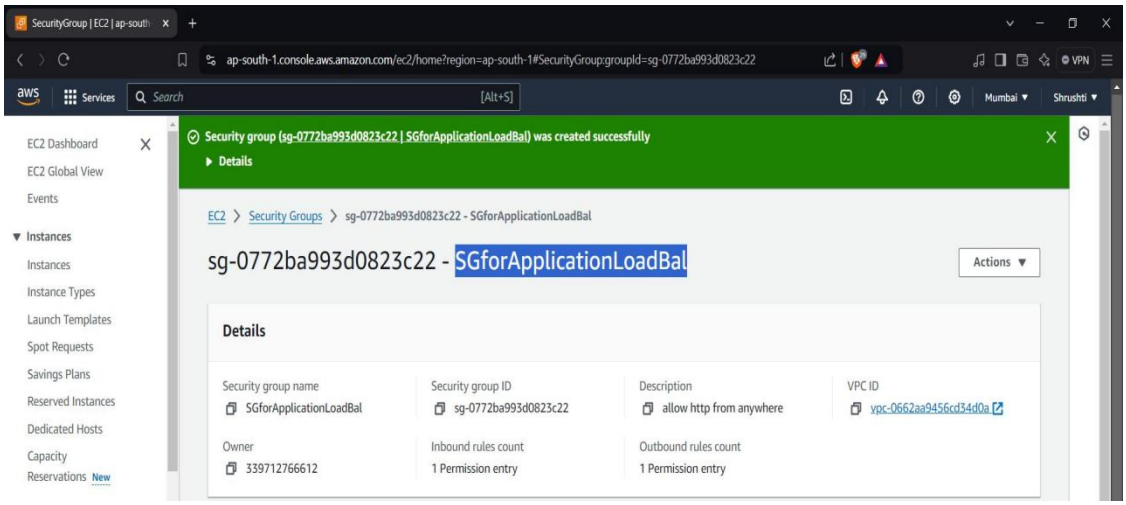
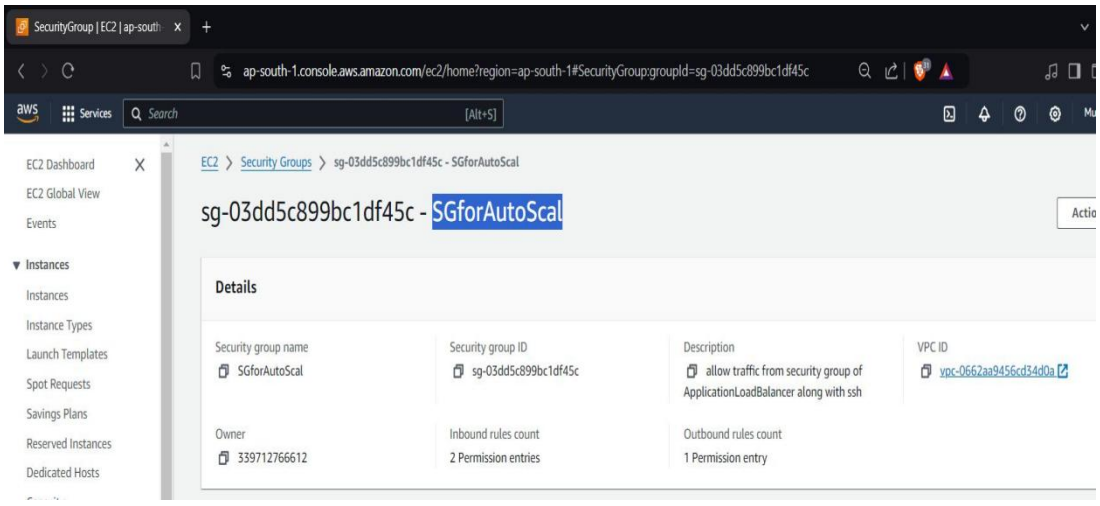
Name of the Student: **Shrushti Krishna Shrivastav** **PRN: 20220801024**

Title of Practicle : Creating an Application Load Balancer and Auto Scaling Group in AWS

Step1: create one security group for application load balancer and one for

autoscaling





ALB--inbound--http from anywhere

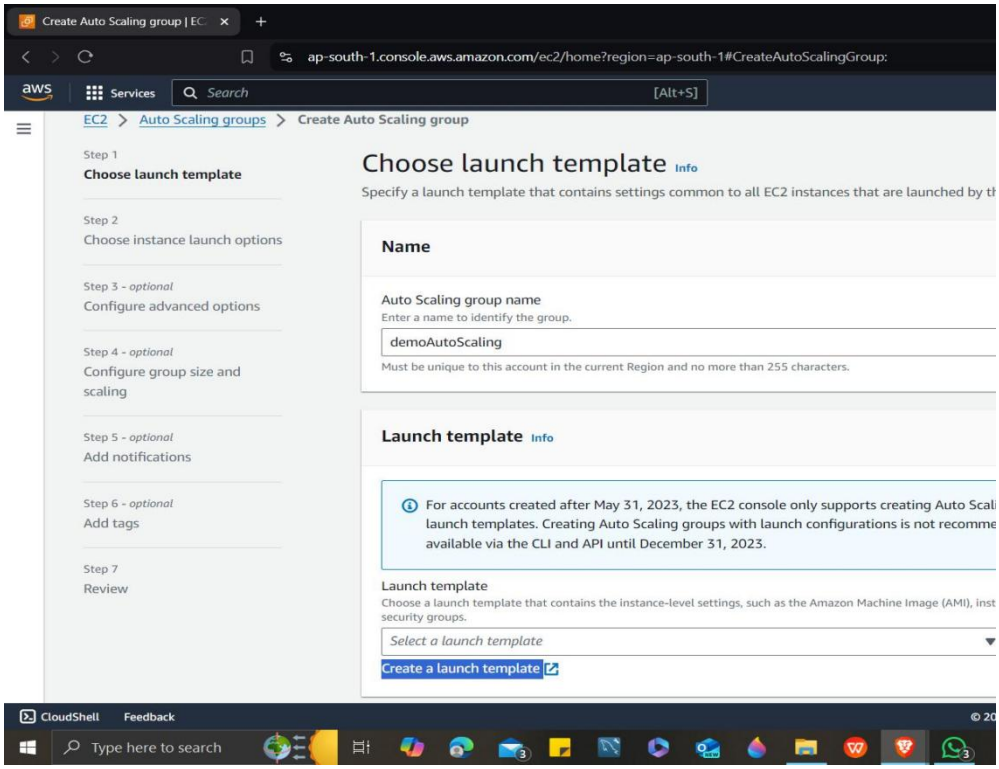
AutoScaling--inbound--ssh from anywhere and AllTCP from source of ALB

Step2: create autoscaling:

A--

Name

Launch template-- create(new tab will be opened)



Name ; AMI ; Instance ; KeyPair ; Security group ;

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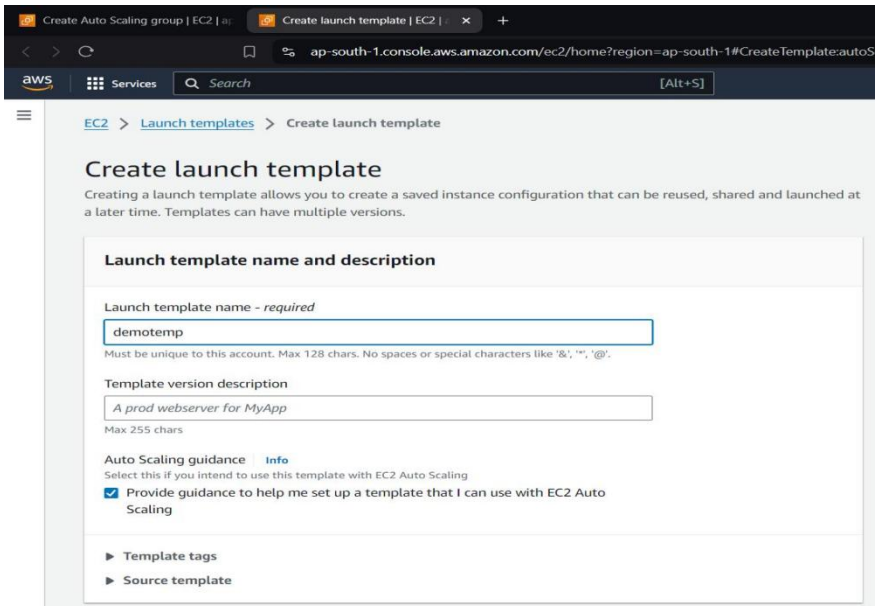
Title of Practicle : Creating an Application Load Balancer and Auto Scaling Group in AWS

Adv detail: (at bottom)-- user data -- add script



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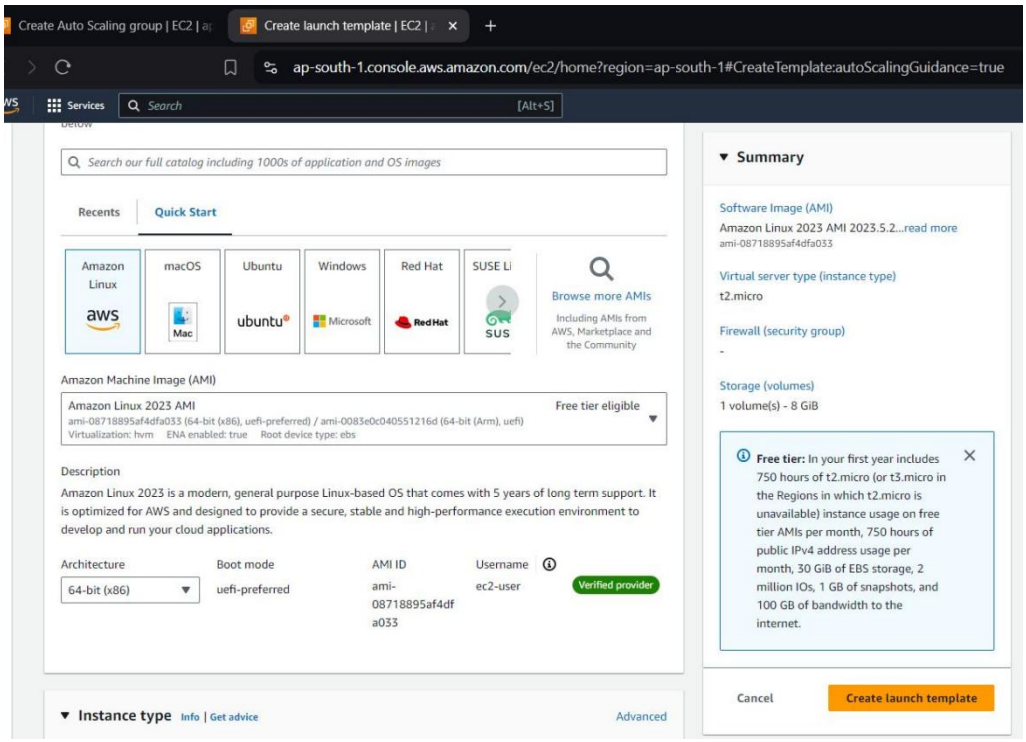

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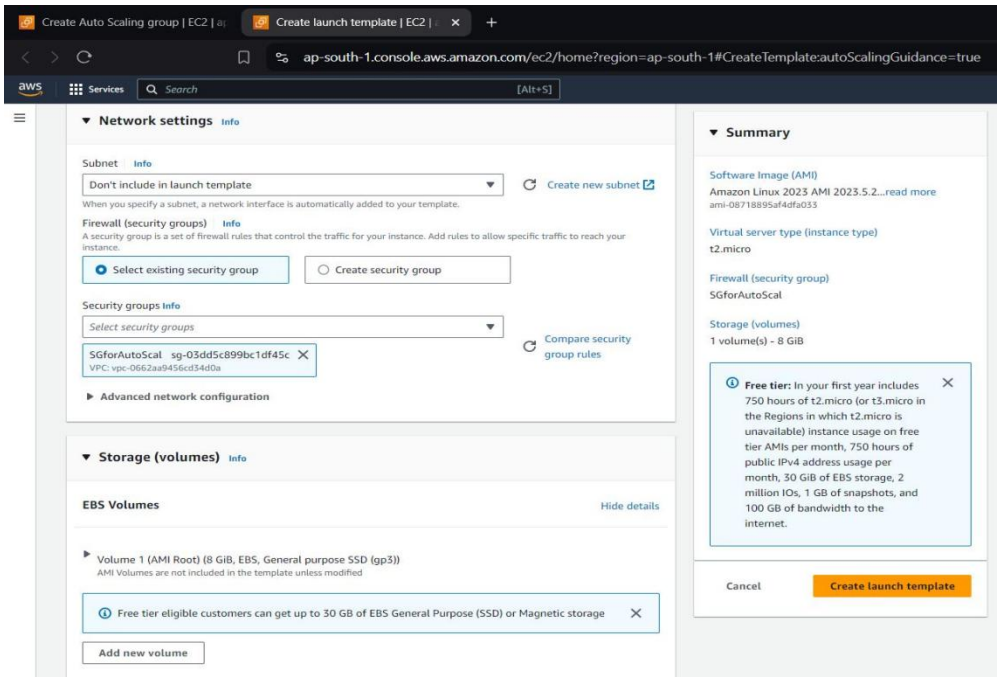
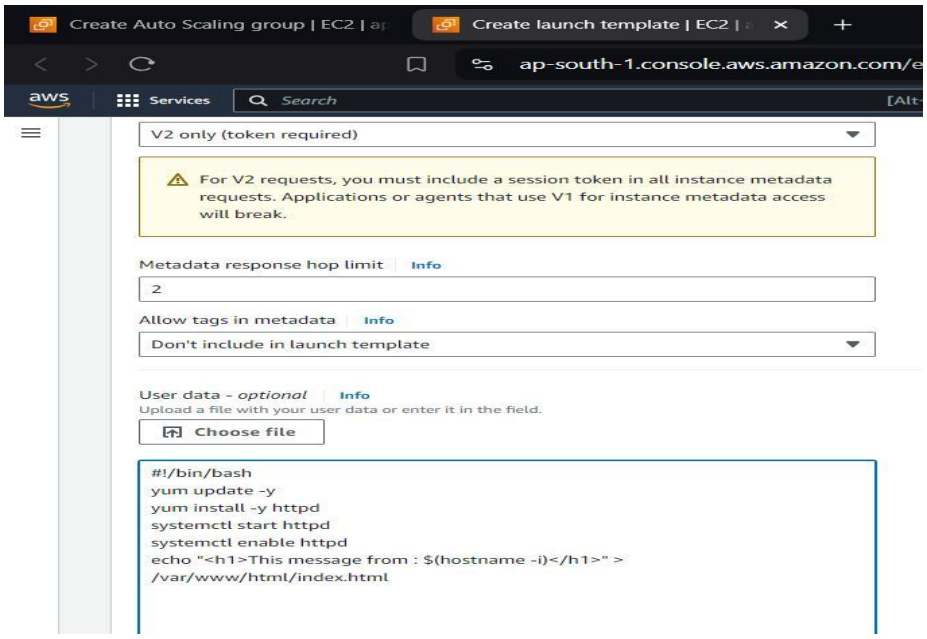
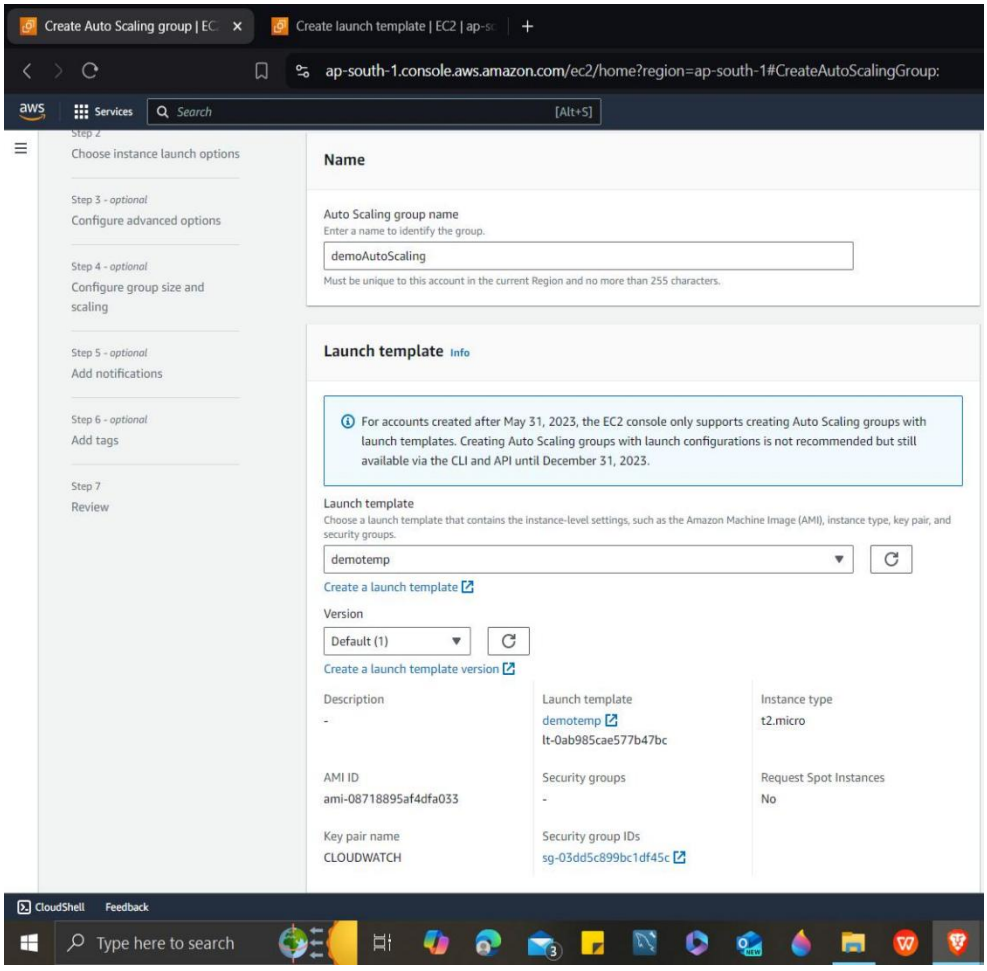




Create launch template

Now go back to previous tab of autoscaling group----

In launch template attach the created one.



Next

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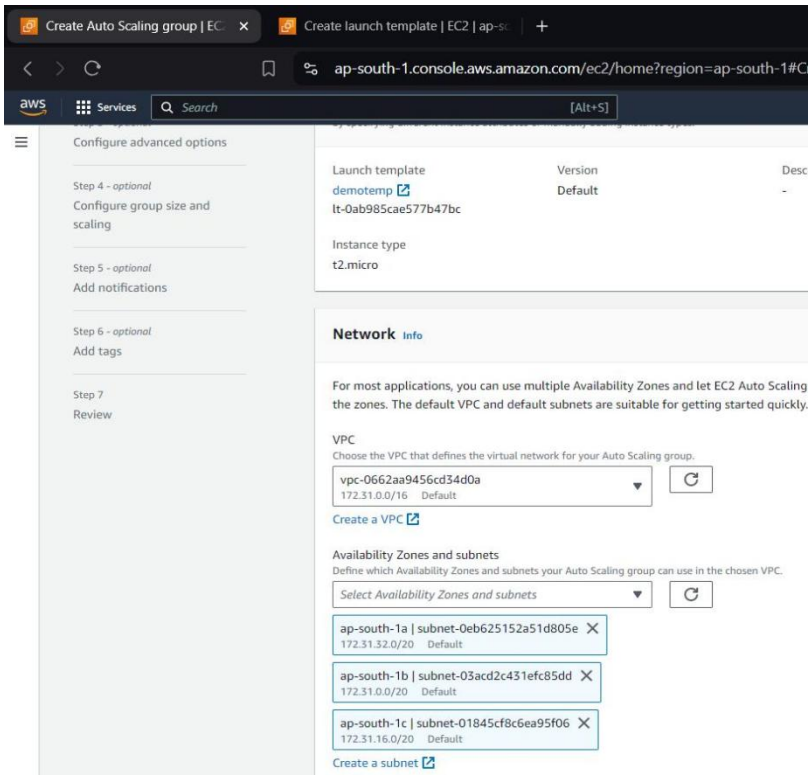
B--

Select all AZ



C--

Attach new loadbalancer

Application load balancer

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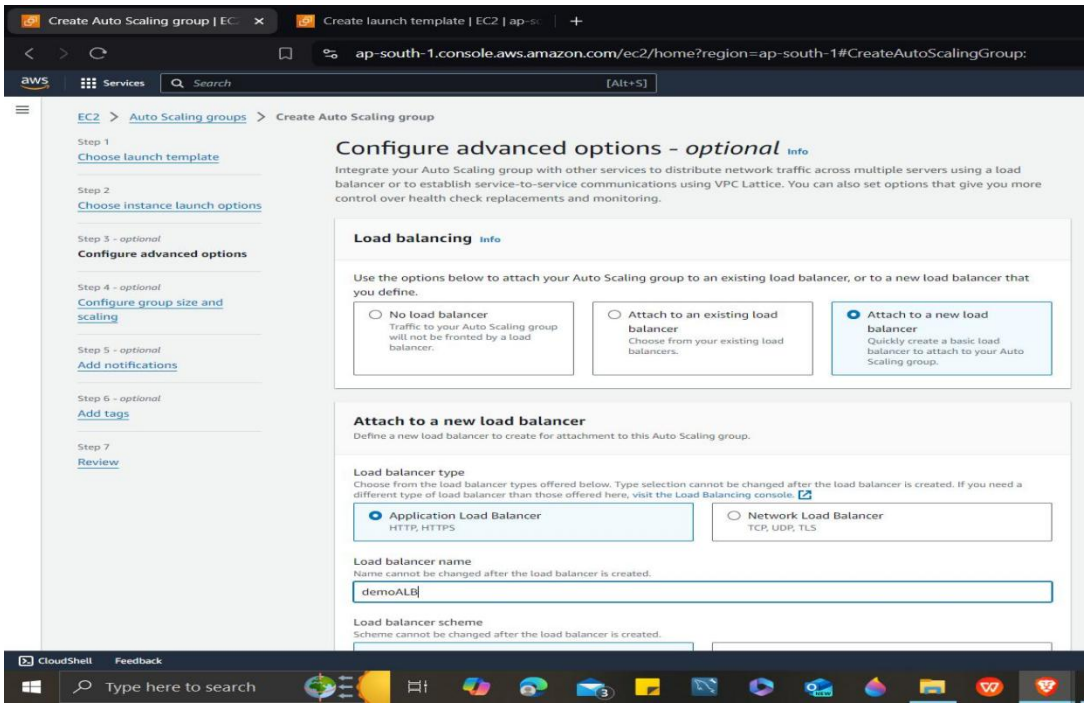
Name

Internet facing

Creat target group



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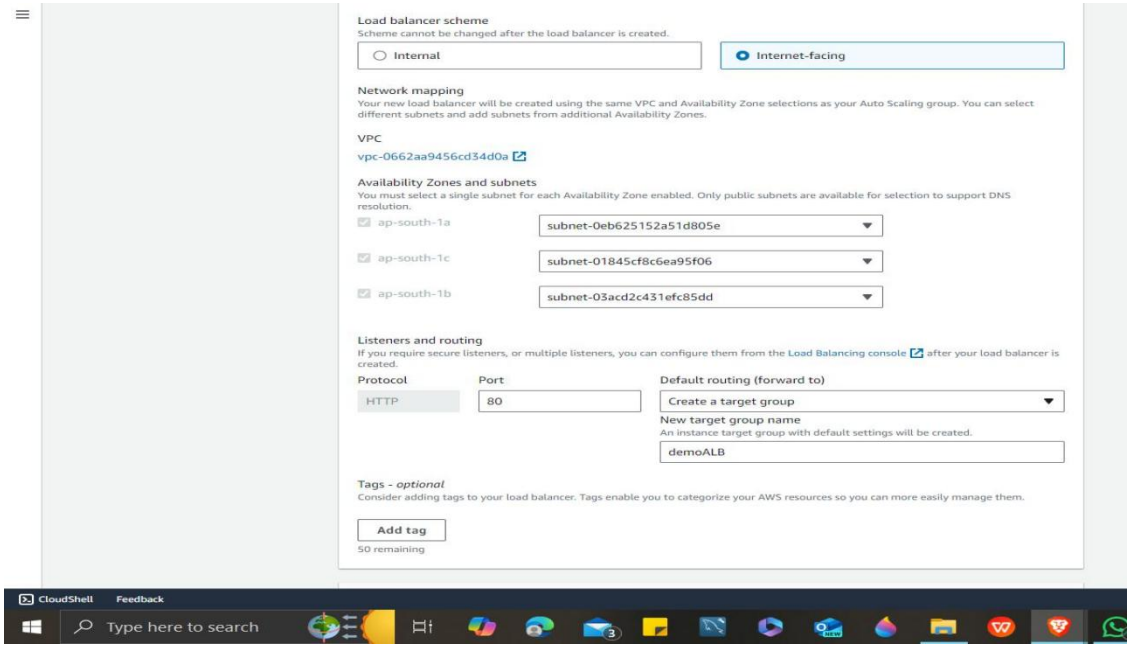

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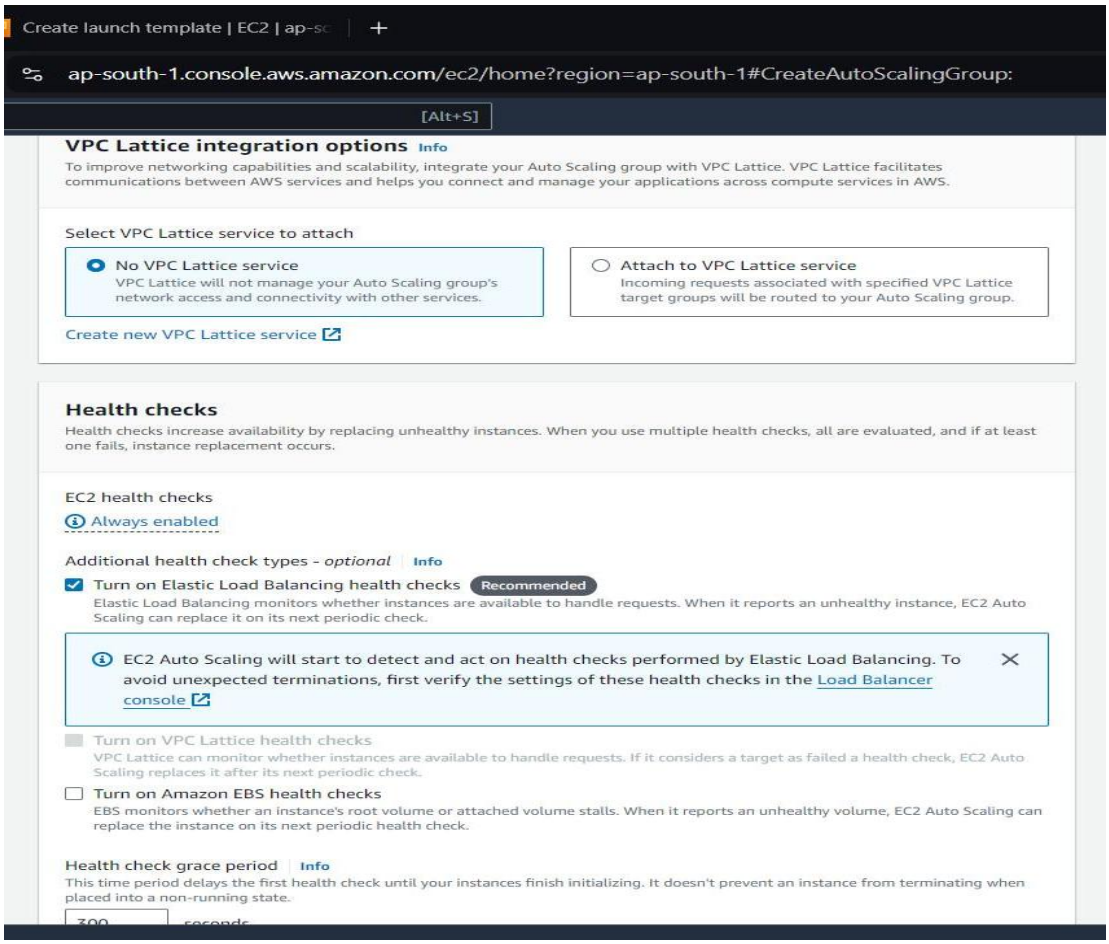

Ensure to check 'turn on elastic load balancing health check'

Next

D--

Desired: 1 --- min: 1 ----- max: 2

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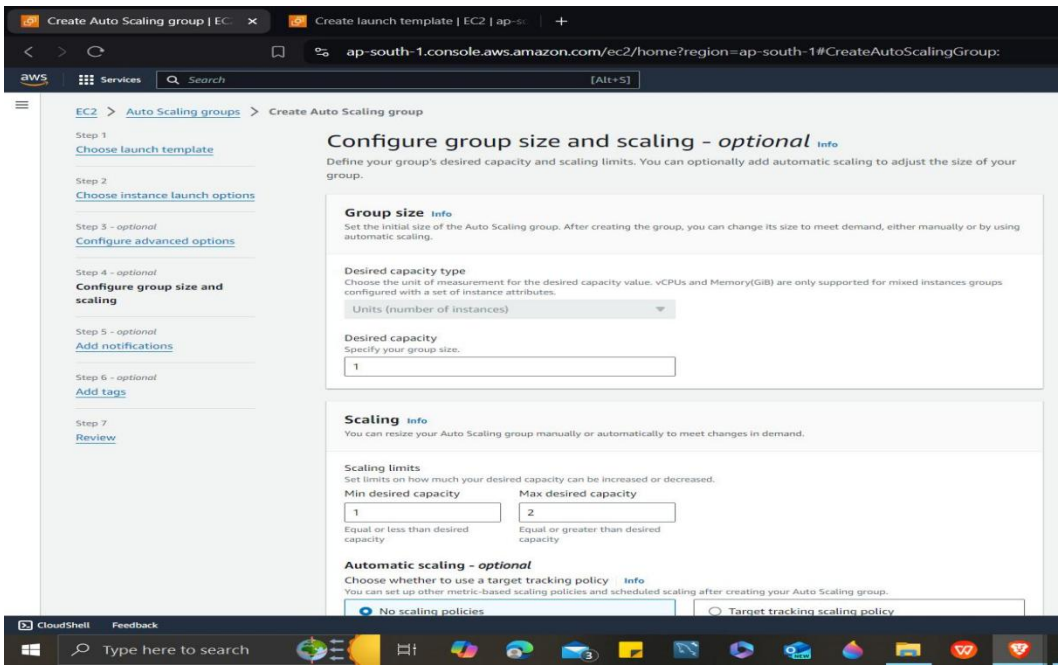

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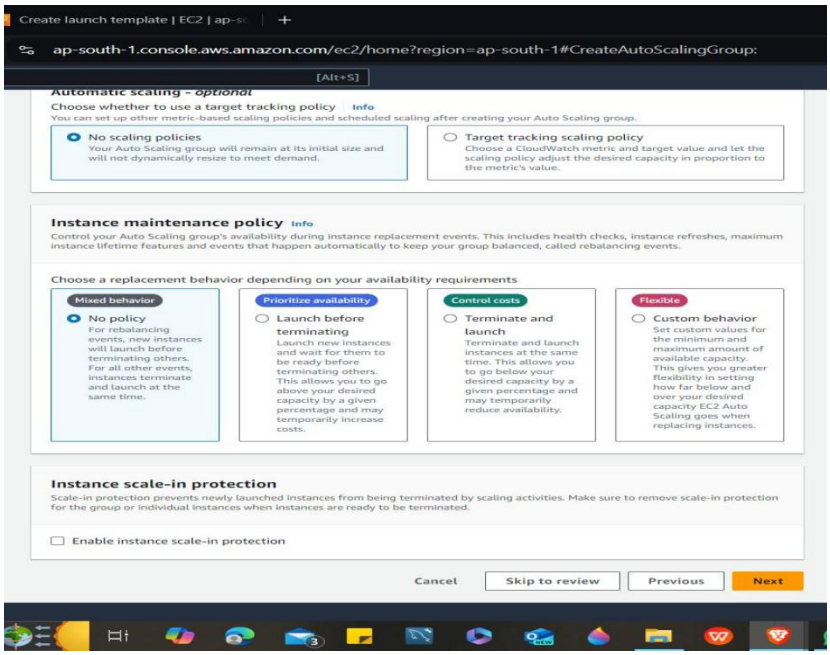

Next

No changes for rest of the steps.

Last step: review

Now create autoscaling group.

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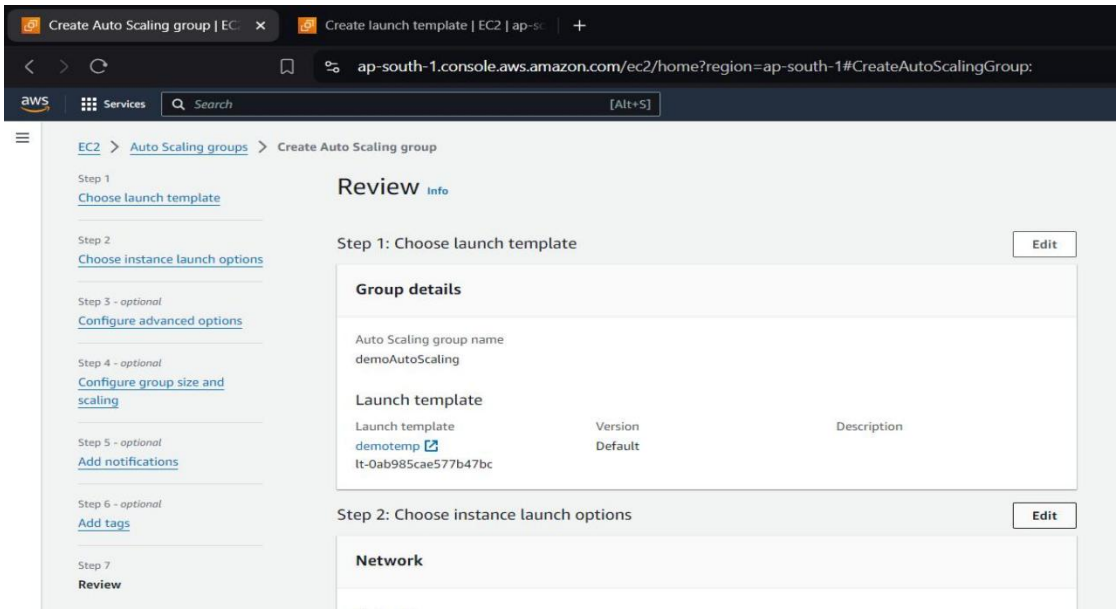
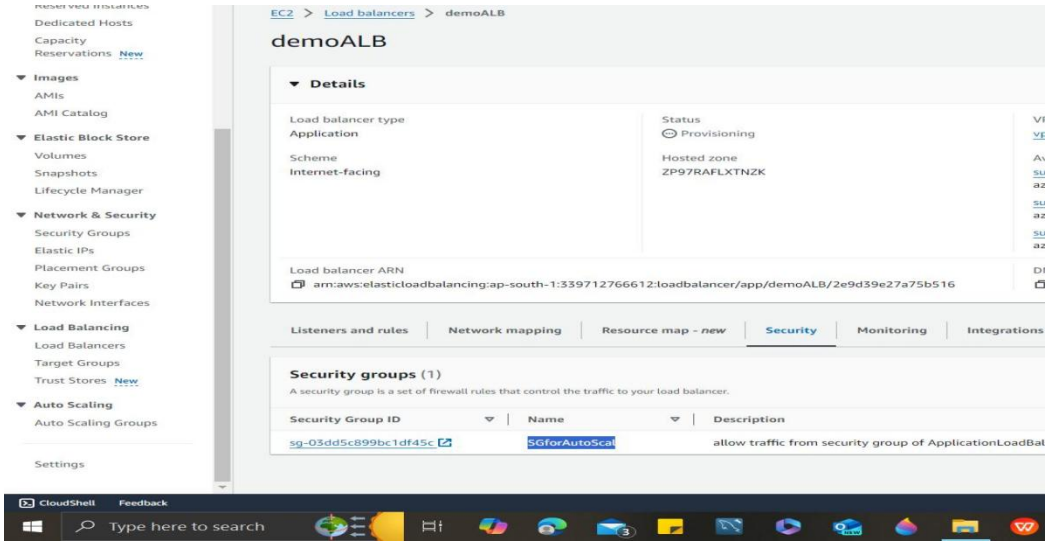
Title of Practicle : Creating an Application Load Balancer and Auto Scaling Group in AWS



Step 3: load balancer

Loadbalancer will be automatically created now edit it. Select SGforALB



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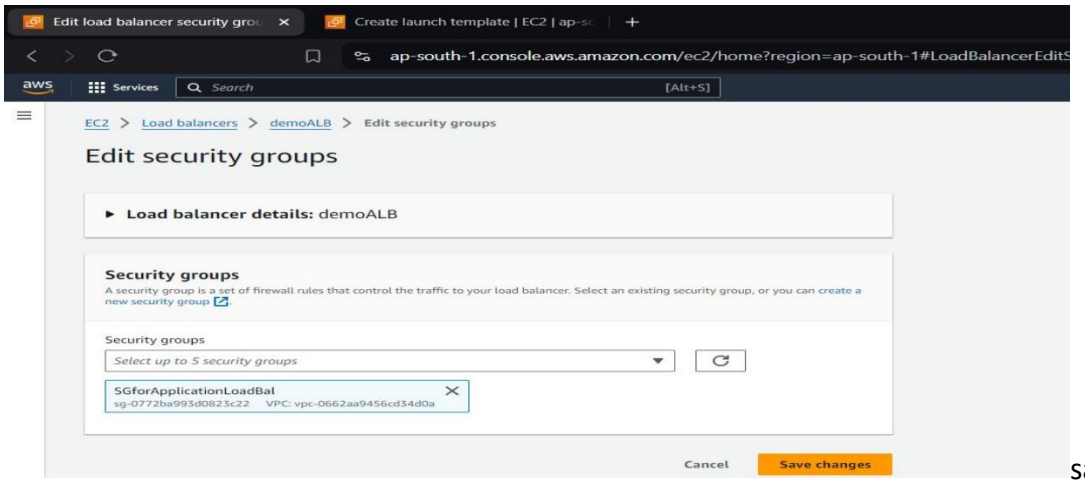

save.

Step4: autoscaling group

ASG-- activity -- now view what it is doing

Instance management --- to view if instance is created

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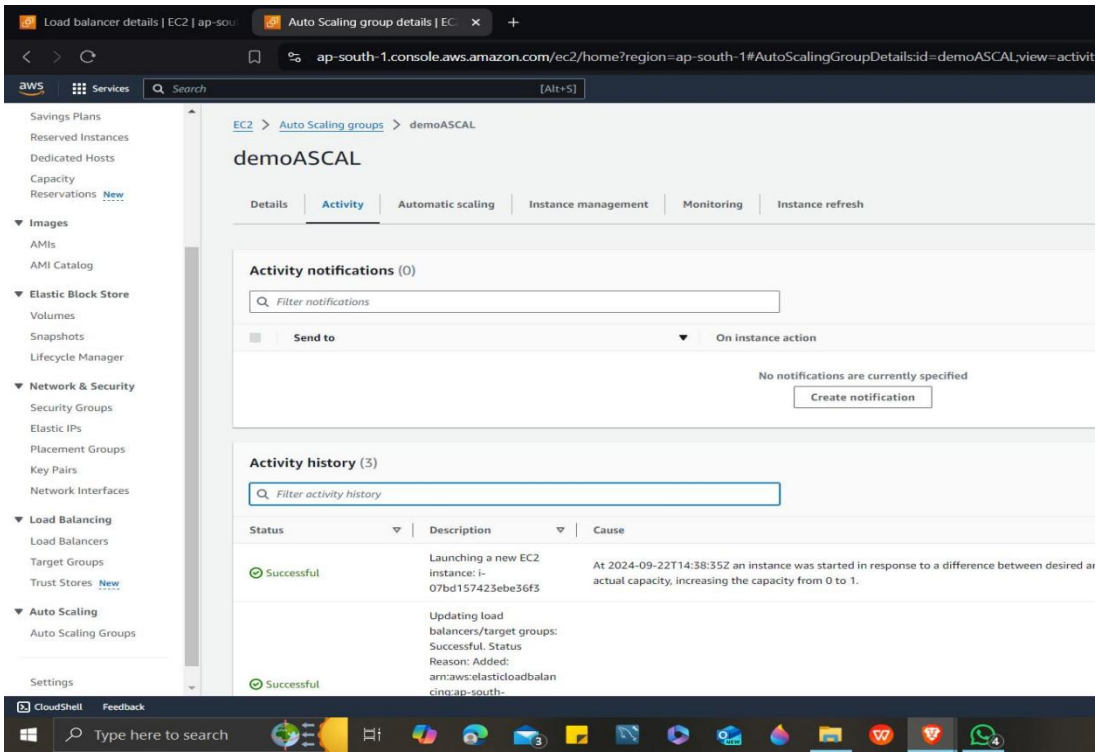

Step5: load balancer

Copy DNS name and paste on browser

Should get msg ----- ‘this msg from ip-address’

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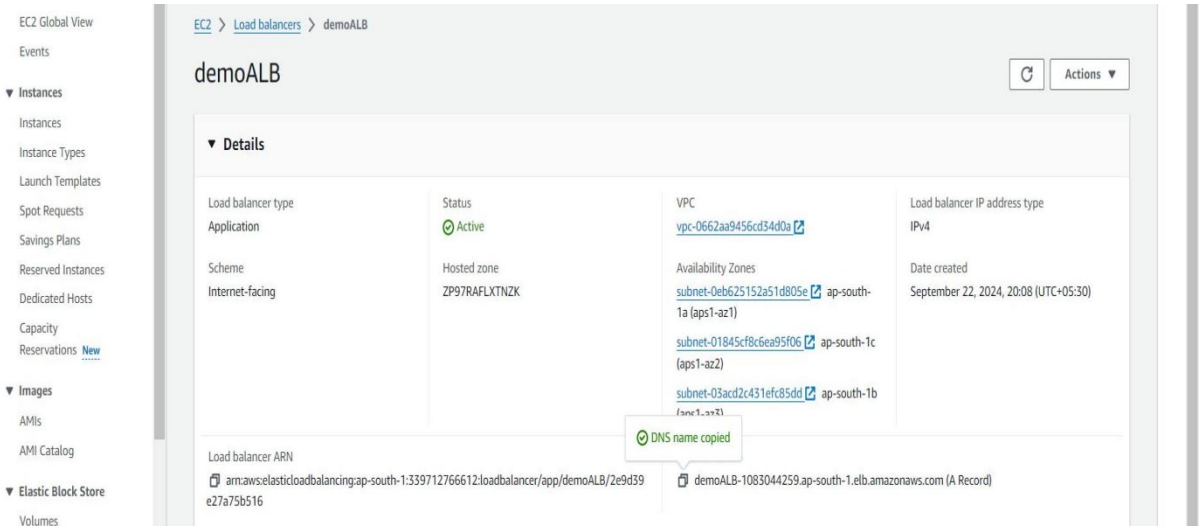

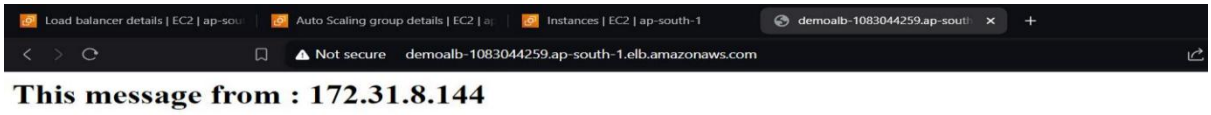

This message from : 172.31.8.144

Step6: autoscaling

Dynamic scaling policy --

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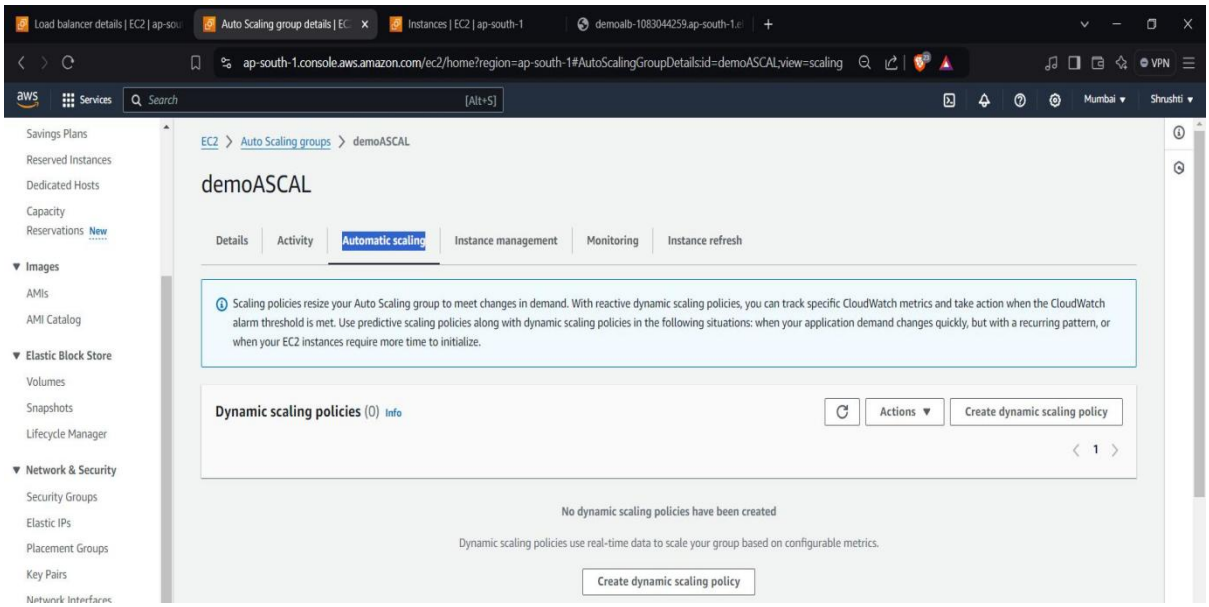
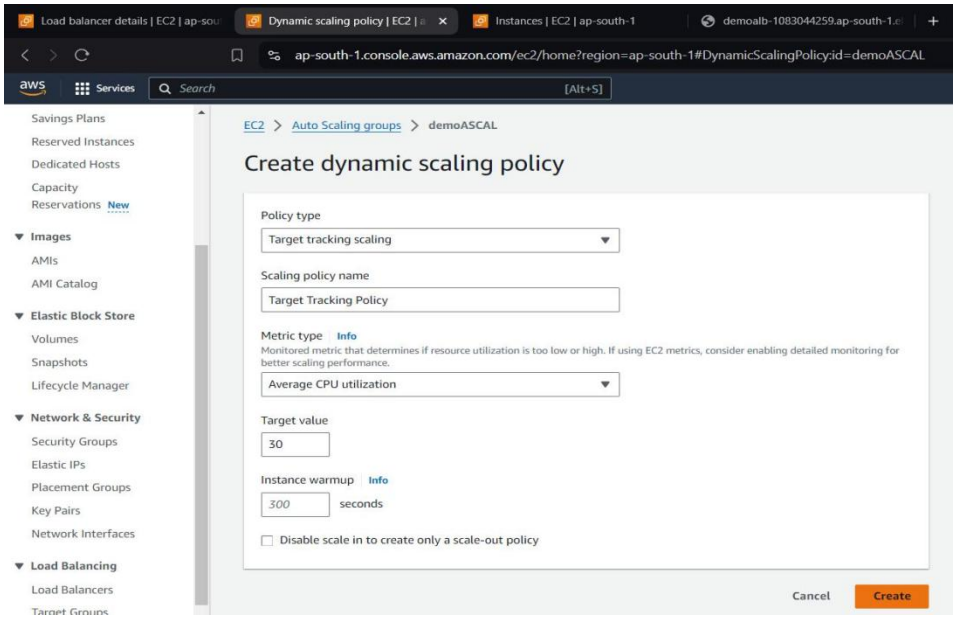
Title of Practicle : Creating an Application Load Balancer and Auto Scaling Group in AWS

target tracking scaling -----avg cpu utilization ----- 30(target value)





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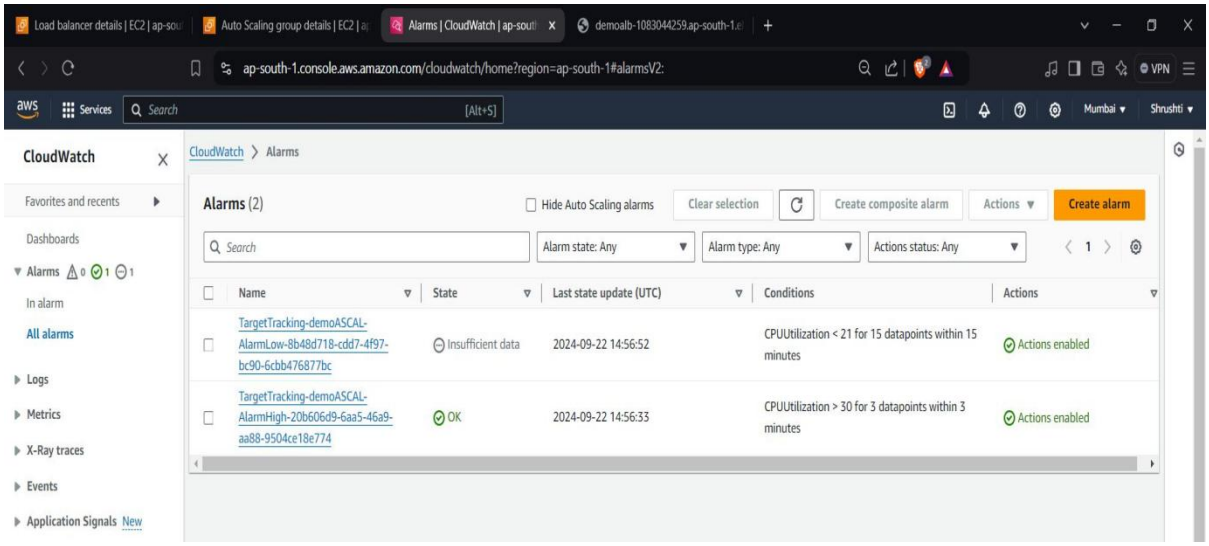
Title of Practicle : Creating an Application Load Balancer and Auto Scaling Group in AWS

Step7: cloud watch

Check 2 alarm are created



Now test the policy

Step8: autoscaling

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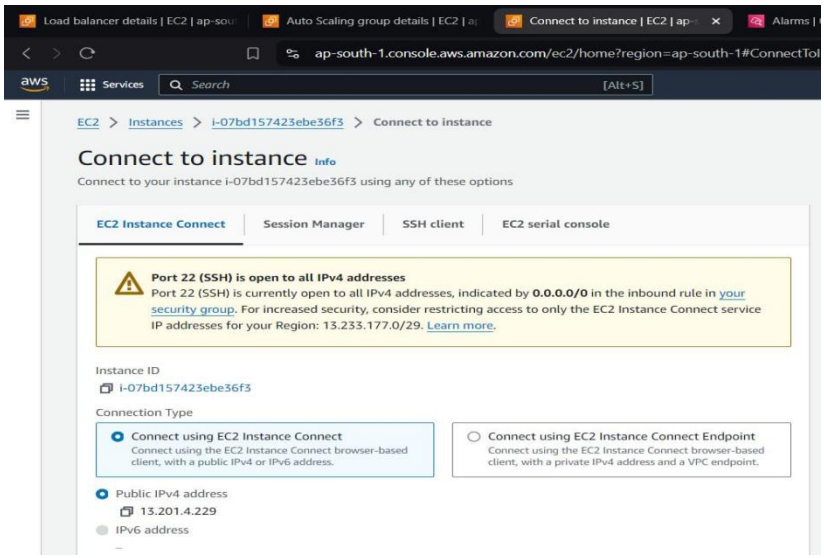
Title of Practicle : Creating an Application Load Balancer and Auto Scaling Group in AWS



Commands followed are :

Sudo yum install stress -y

Sudo stress --cpu 12 --timeout 240

Sudo yum install stress -y

Sudo stress --cpu 12 --timeout 240s

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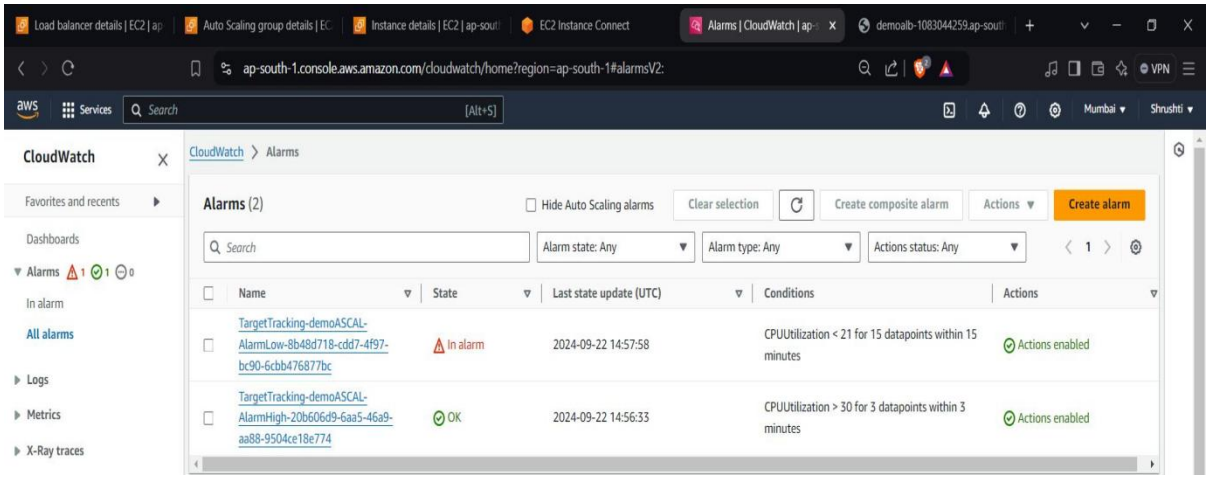
```
[ec2-user@ip-172-31-8-144 ~]$ sudo yum install stress -y
Last metadata expiration check: 0:34:03 ago on Sun Sep 22 14:39:07 2024.
Package stress-1.0.7-2.amzn2023.0.1.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-8-144 ~]$ sudo stress --cpu 12 --timeout 240s
stress: info: [28390] dispatching hogs: 12 cpu, 0 io, 0 vm, 0 hdd
```

Step9: go to alarm and check

IN-ALARM



Step10: autoscaling instance management

New instance will be launched

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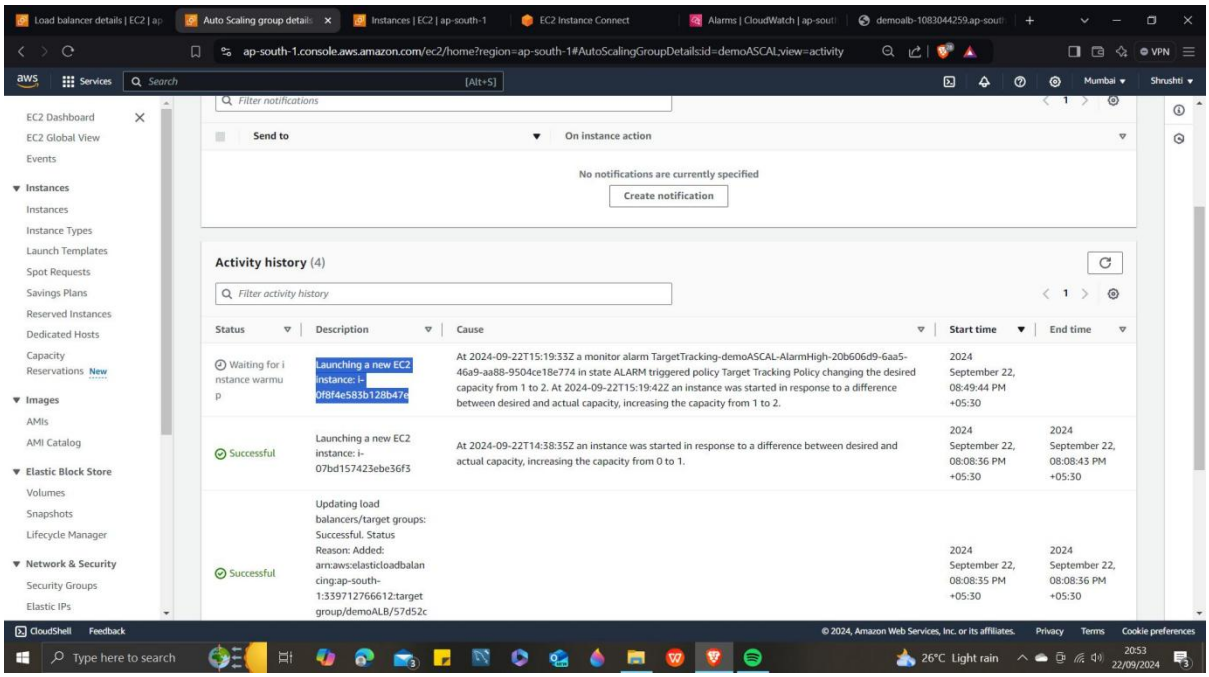
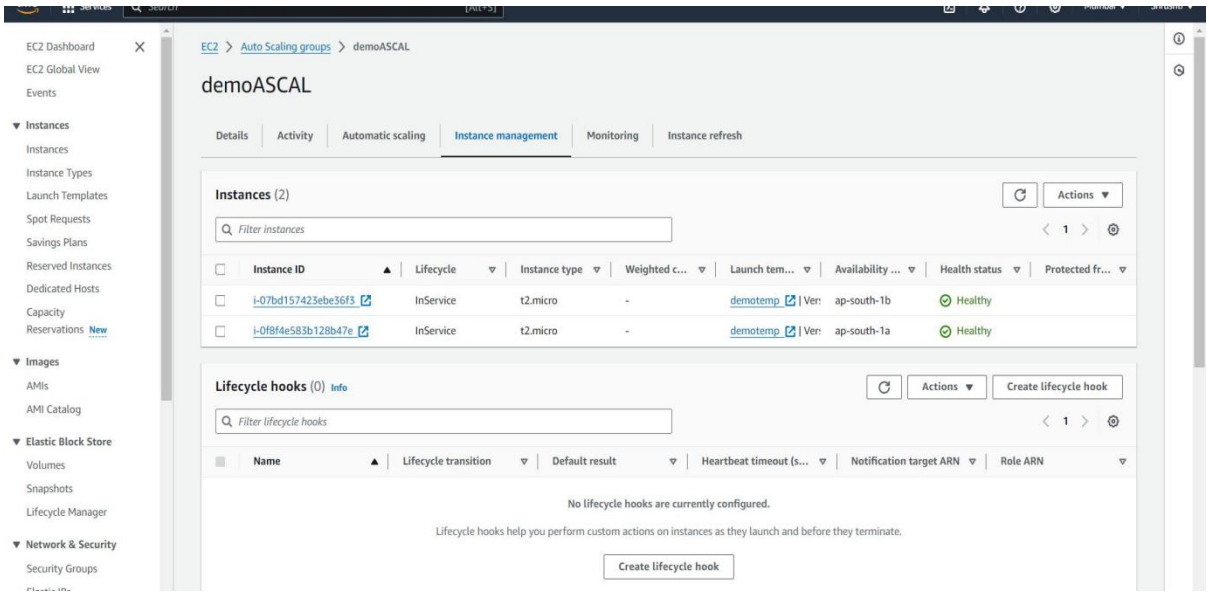
Title of Practicle : Creating an Application Load Balancer and Auto Scaling Group in AWS





Step11: now refresh the browser with DNS address

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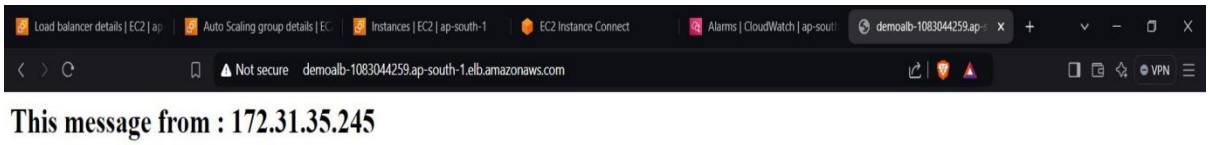

This message from : 172.31.35.245

New dns will appear which is of new instance

Steps to delete the set-up:

1:loadbalancer

2:Autoscaling

3:instance

4:launch template

5:security group

6:target group

Done.