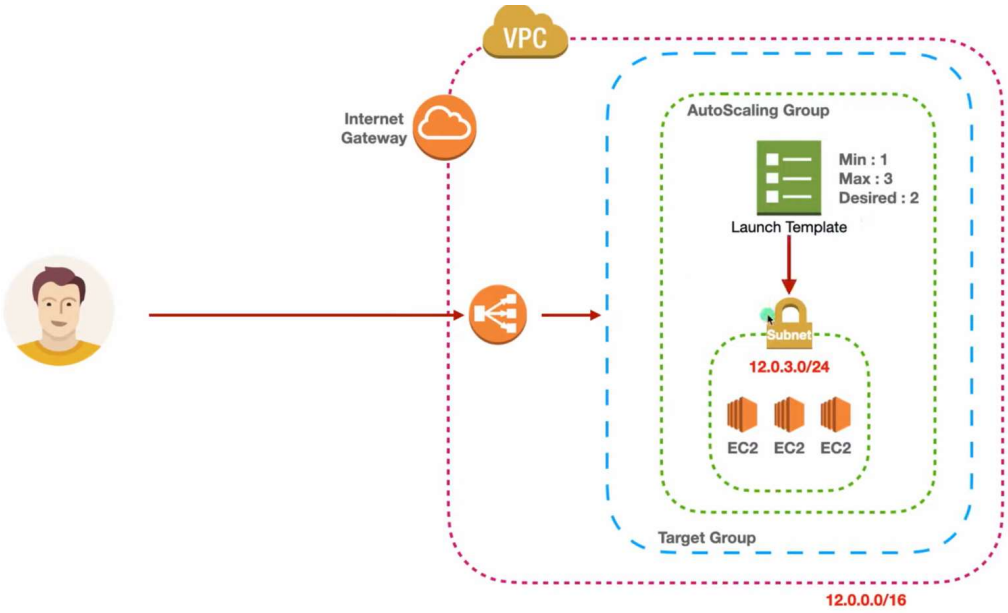
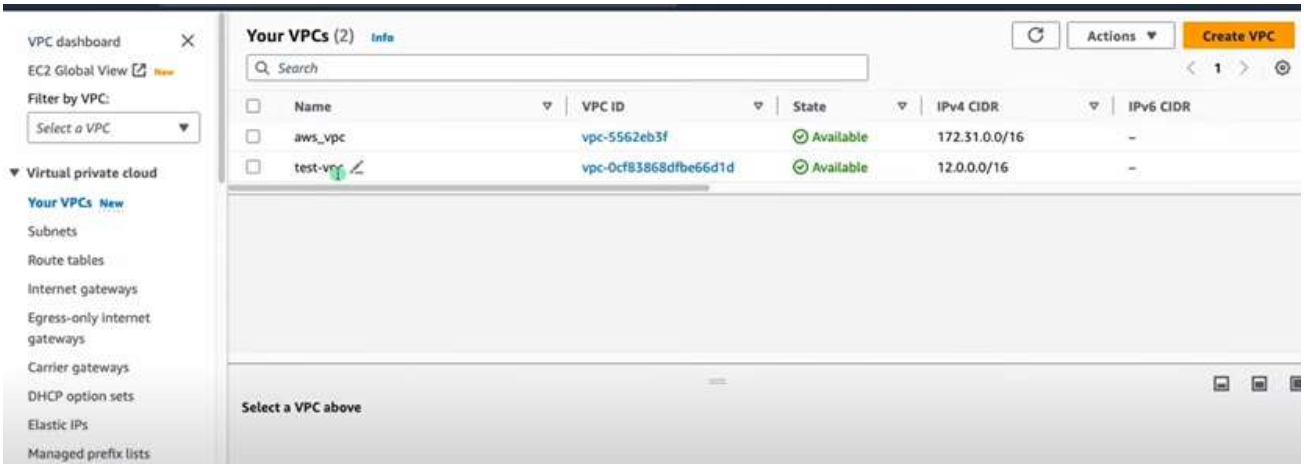
Cloud Computing
TA - 1

Name : Dhanshree Dharpure
Roll no. : 03
Batch : B1

Building a Fully Scalable and Secure AWS Infrastructure from scratch.

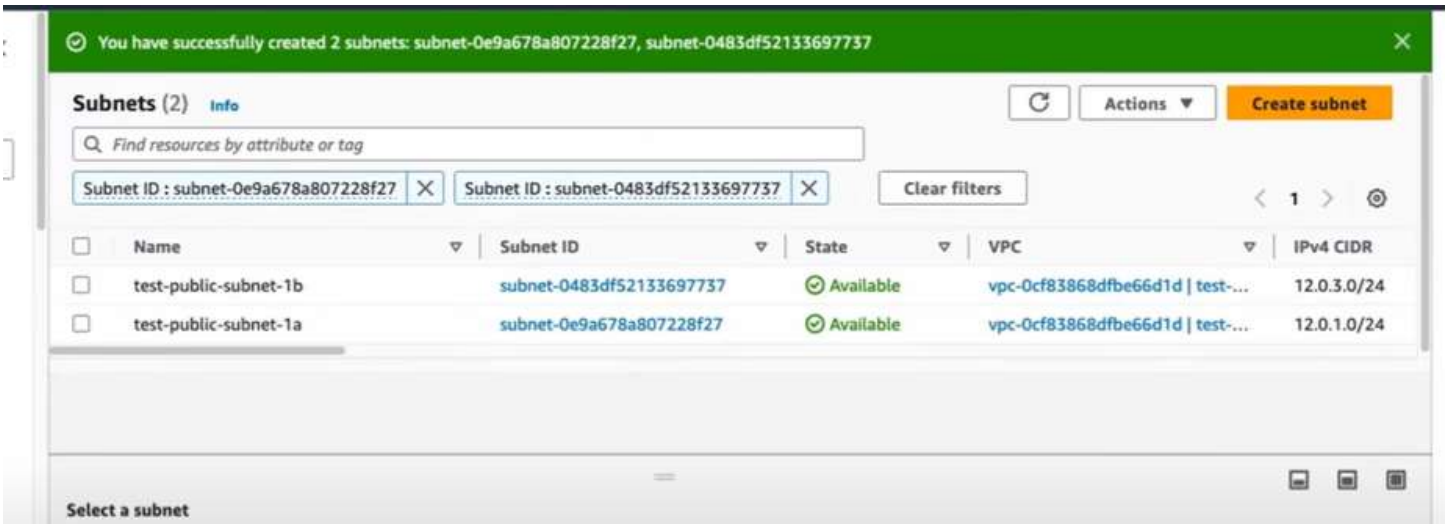


Creating VPC



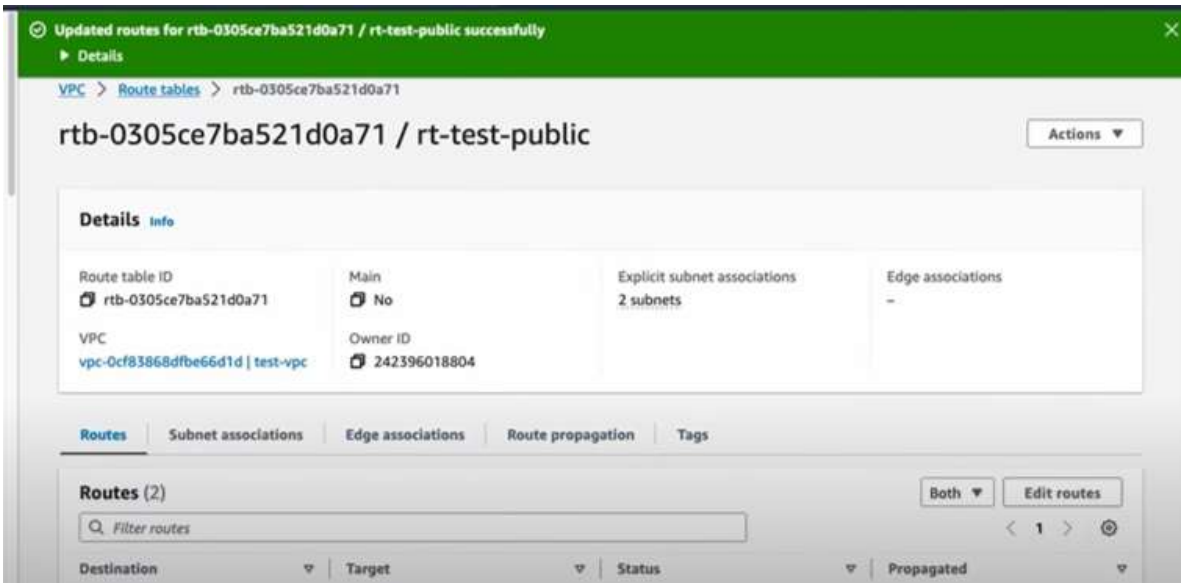
Created an internet gateway and attached it to vpc for internet traffic inside the vpc.

Created subnets in 2 availability zones.

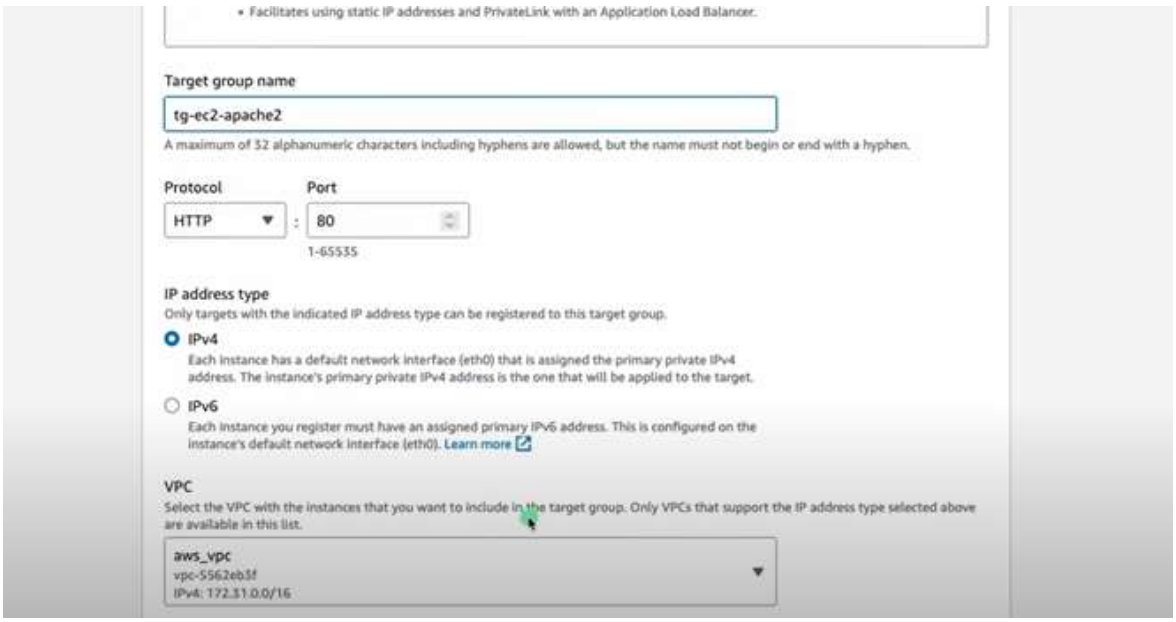


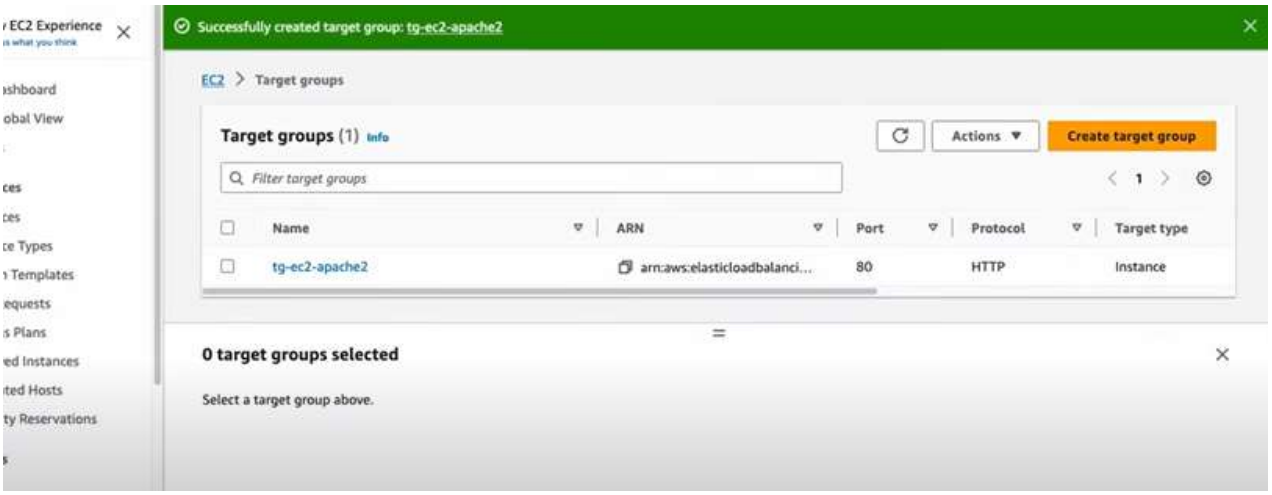
Created route table names as rtb

Updated the routes for internet gateway.

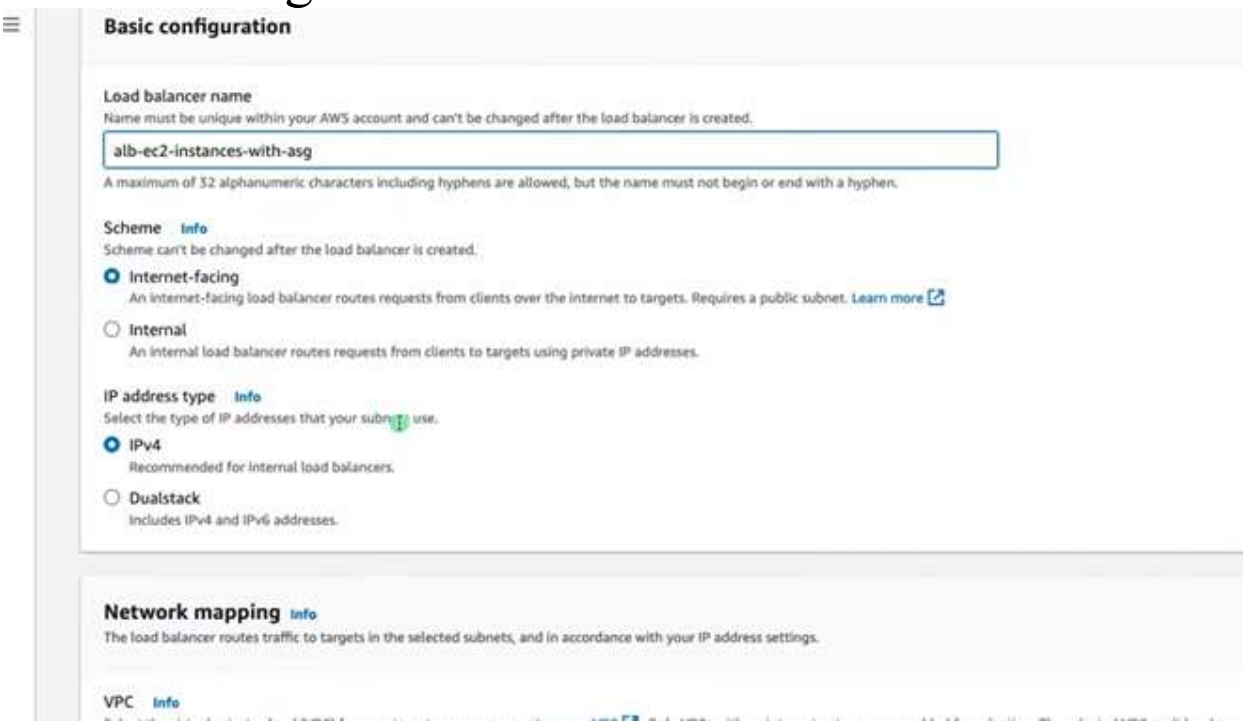


Now configuring the target group for load balancer

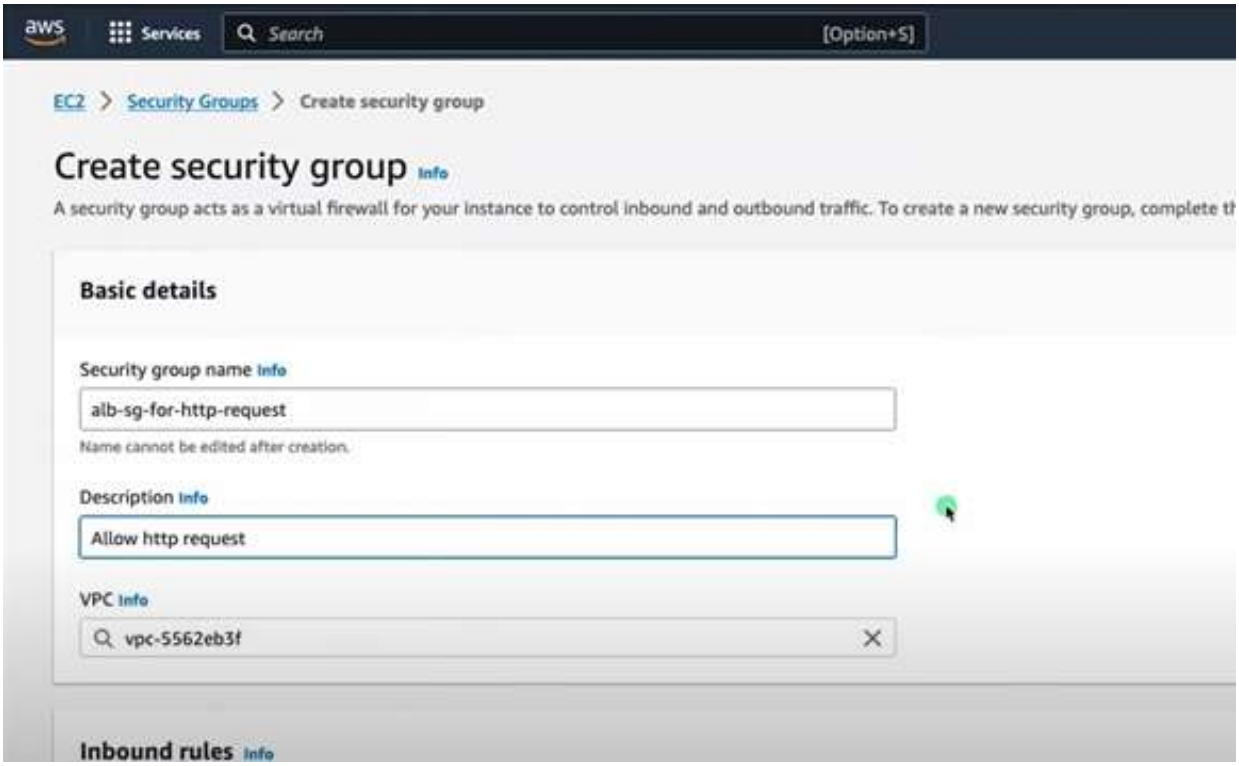


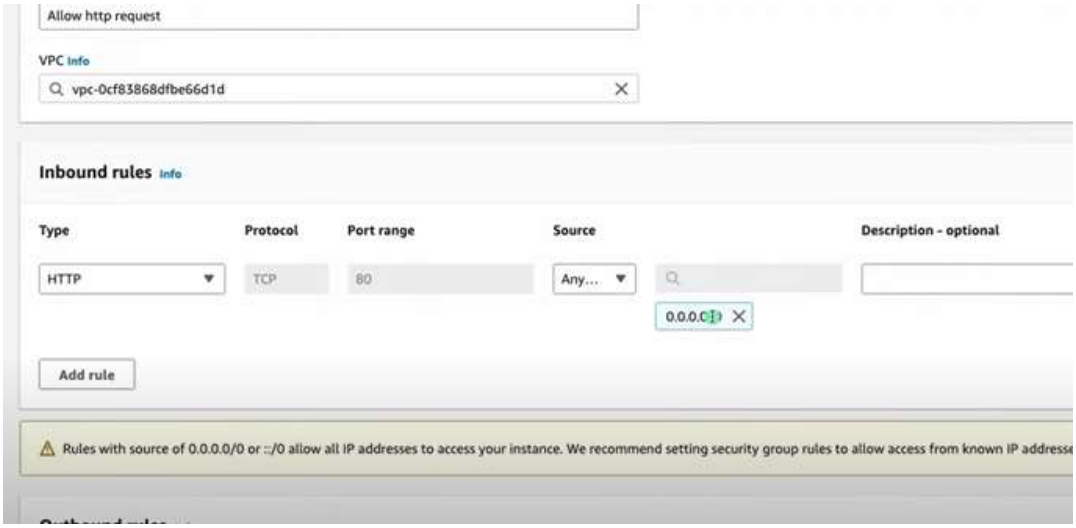


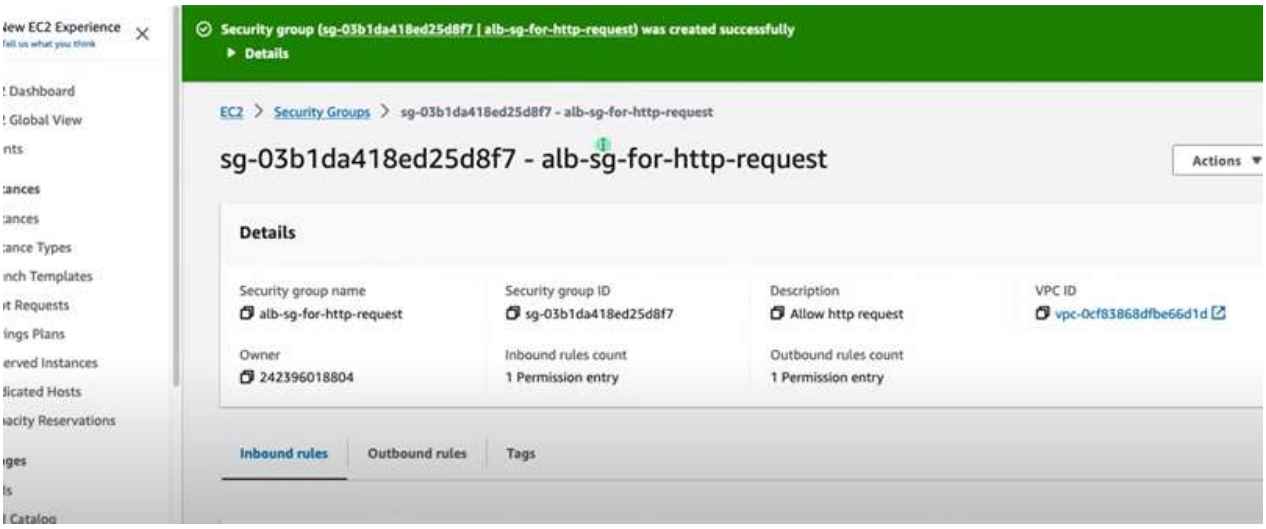
Now creating load balancer



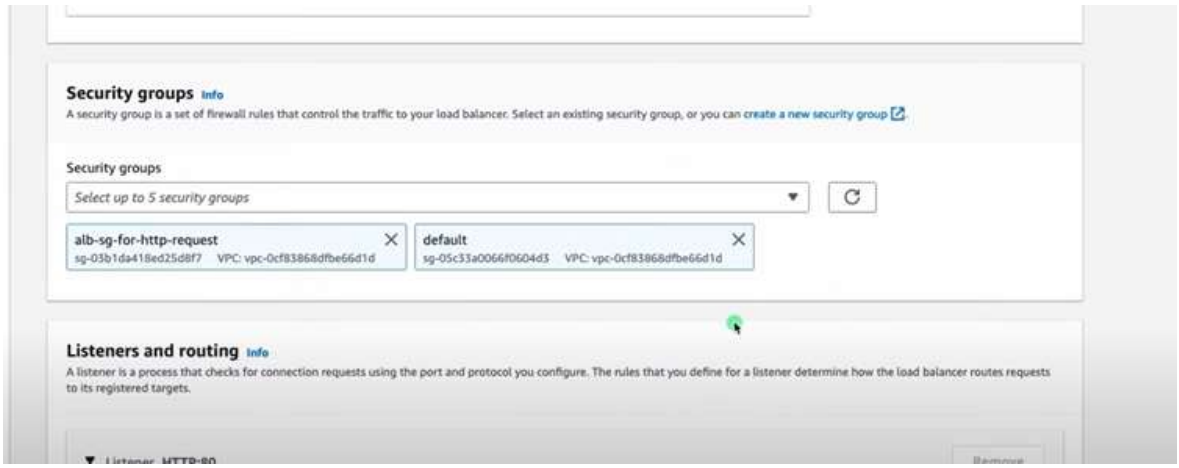
For load balancer creating customized security group


aws
Services
Search
[Option+S]
EC2 > Security Groups > Create security group
Create security group Info
A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete th
Basic details
Security group name Info
alb-sg-for-http-request
Name cannot be edited after creation.
Description Info
Allow http request
VPC Info
vpc-5562eb3f
Inbound rules Info

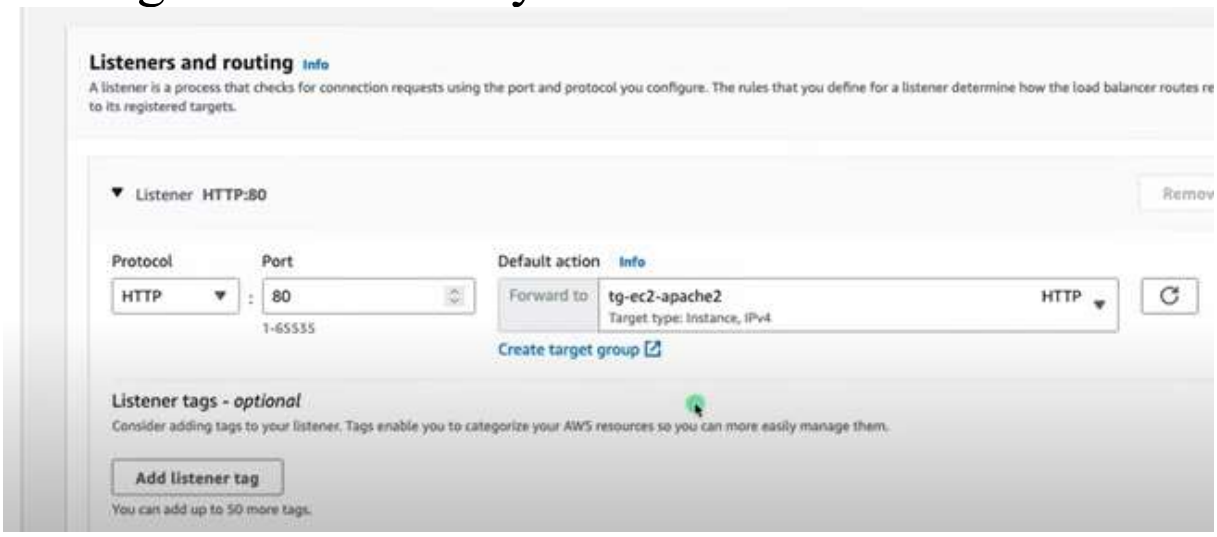

Allow http request
VPC Info
vpc-0cf83868dfbe66d1d
Inbound rules Info
Type
Protocol
Port range
Source
Description - optional
HTTP
TCP
80
Any...
0.0.0.0/0
Add rule
Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresse



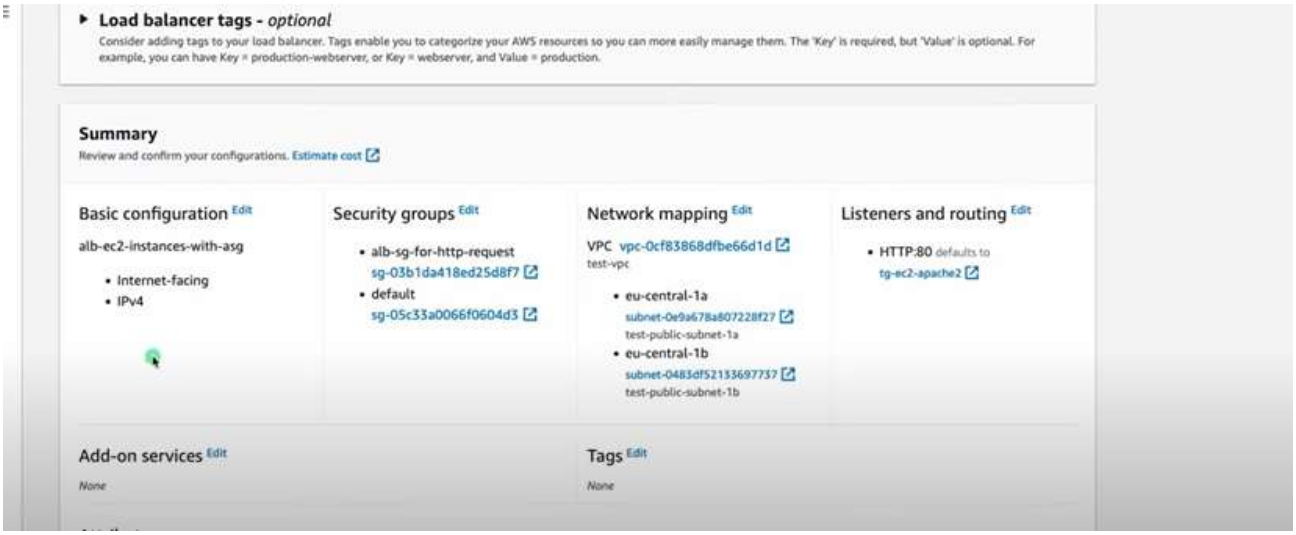
Attaching the customized security group to load balancer



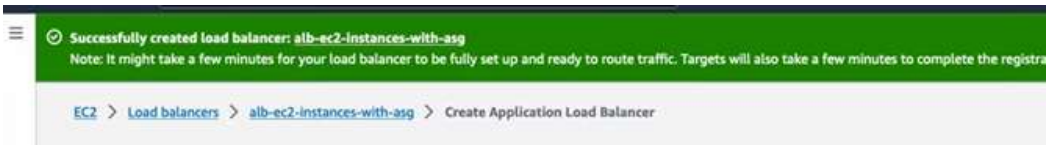
Setting listeners for my load balancer

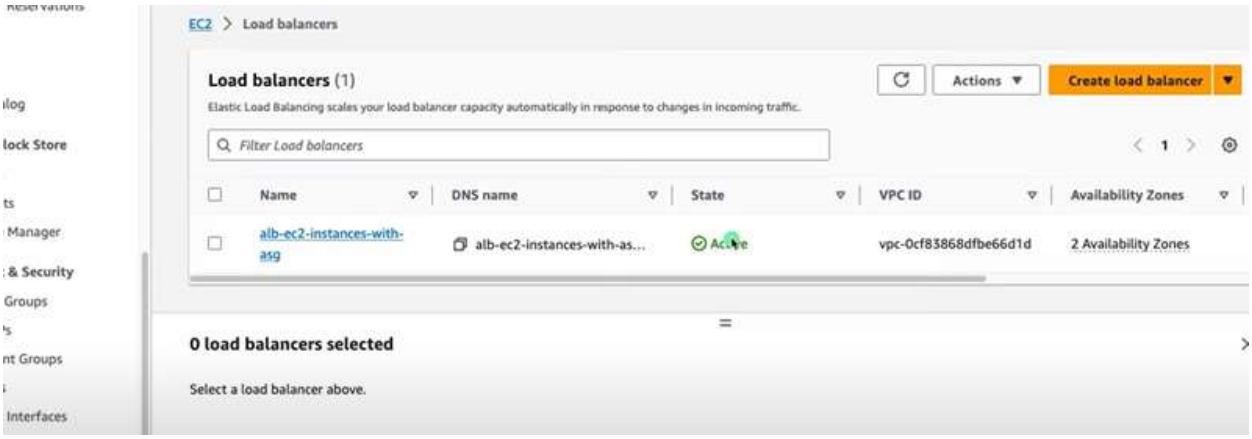


Summary of load balancer

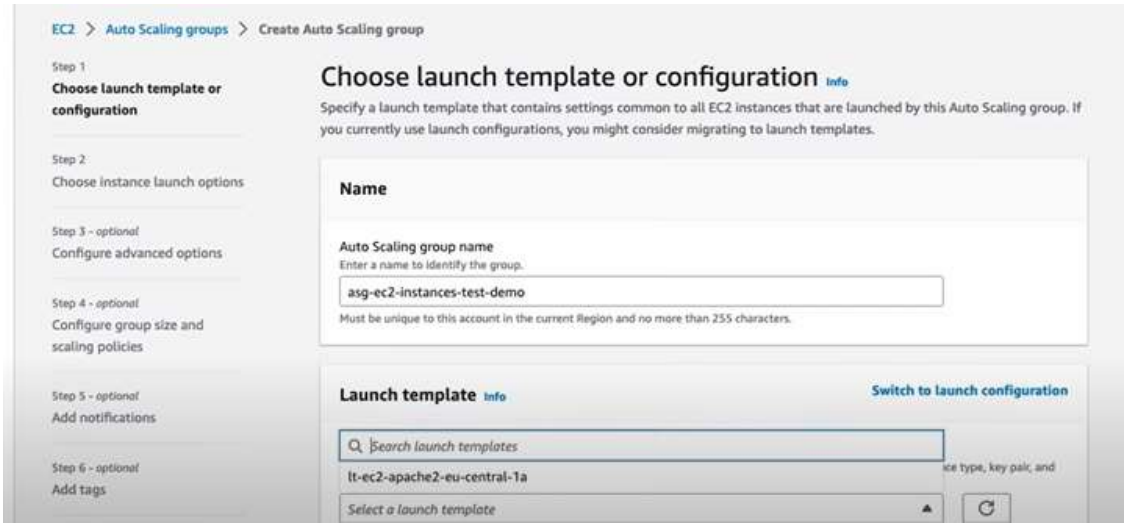


Load balancer created successfully

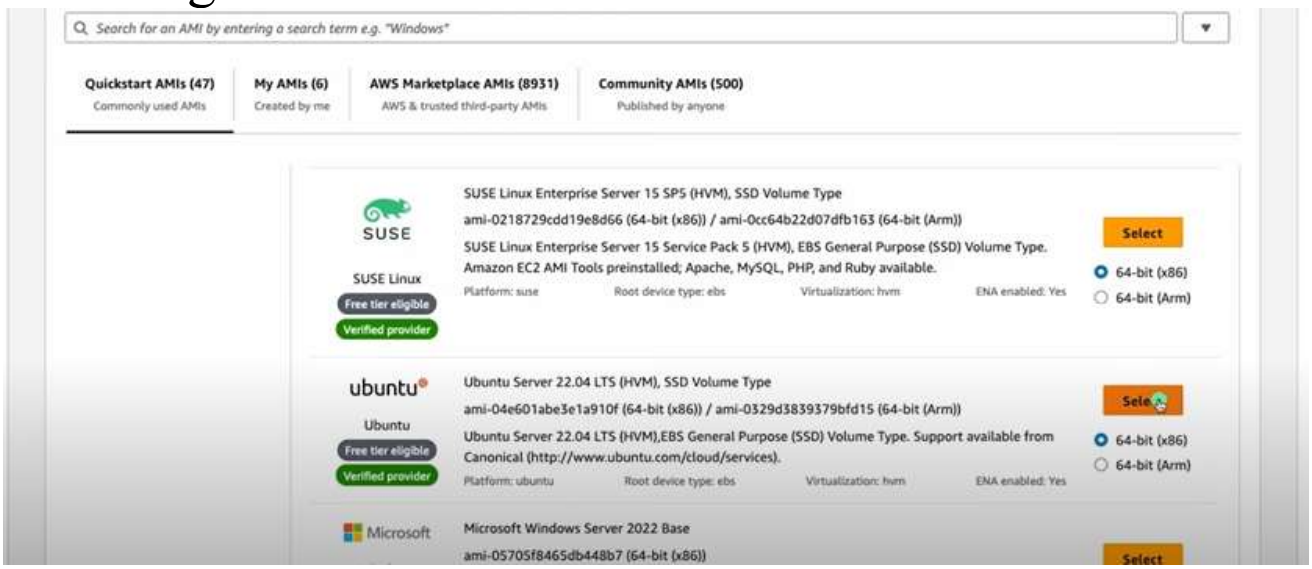




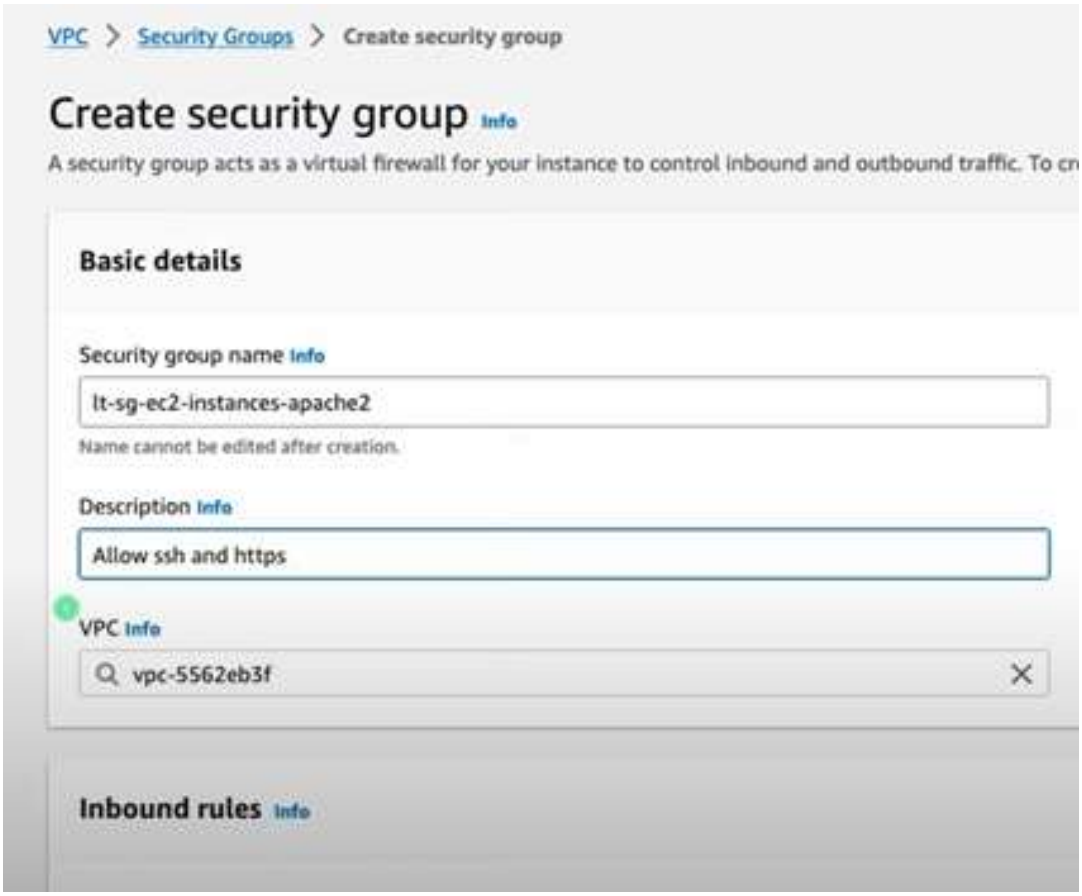
Now configuring the autoscaling groups named as Asg-ec2-instances-test-demo

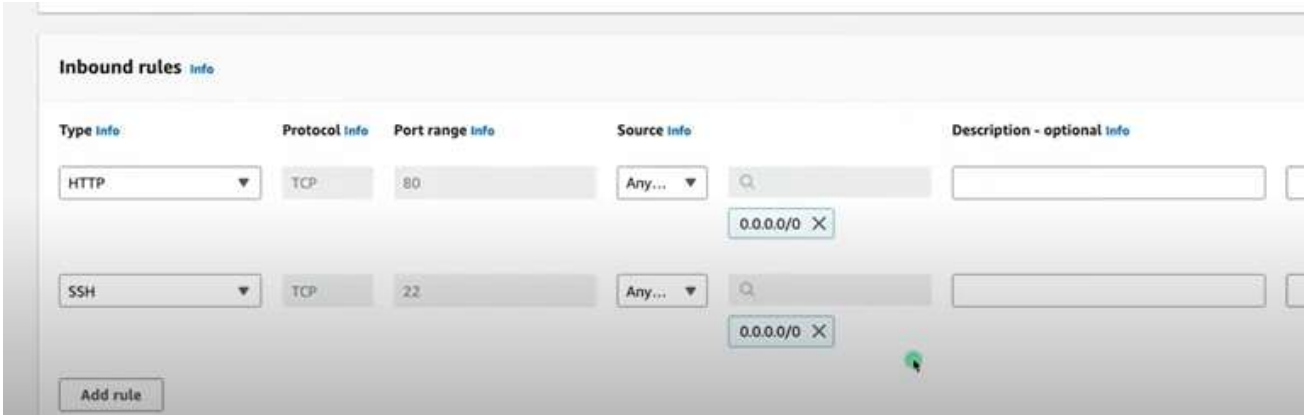


Selecting ubuntu ami

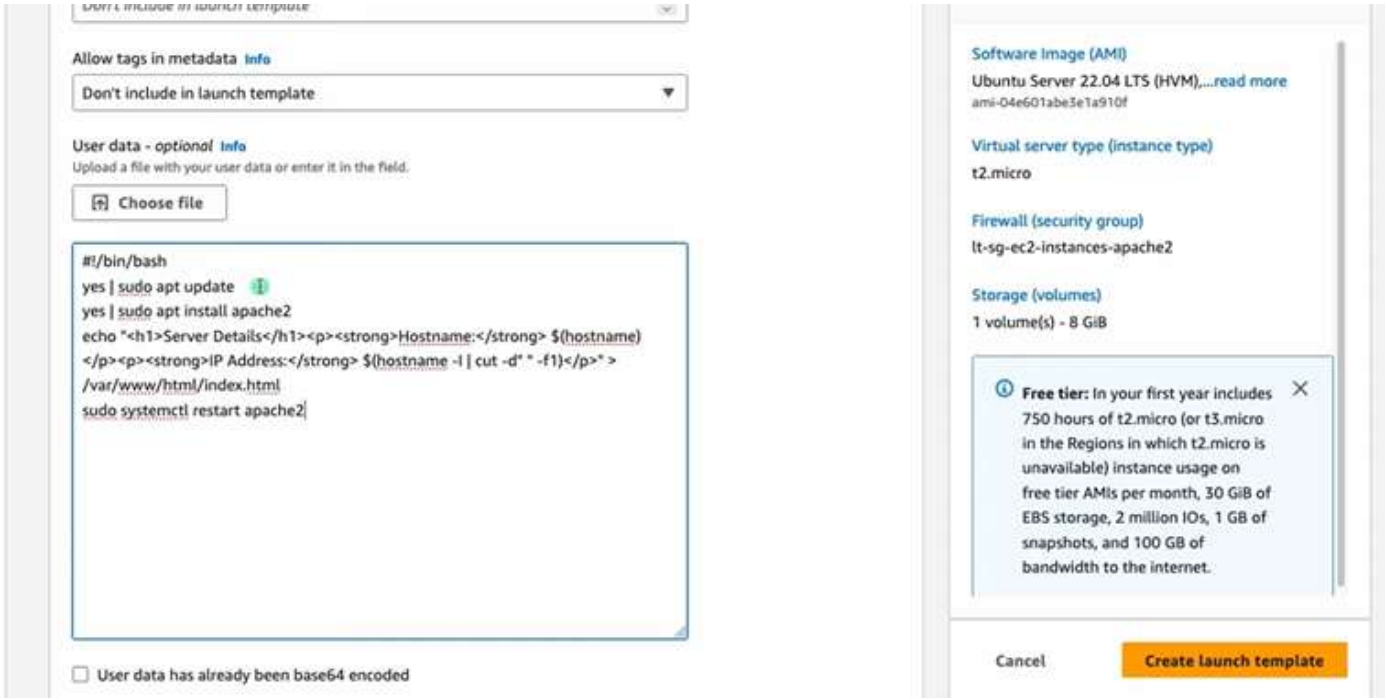


Creating customized security group for autoscaling groups which allow ssh and http traffic

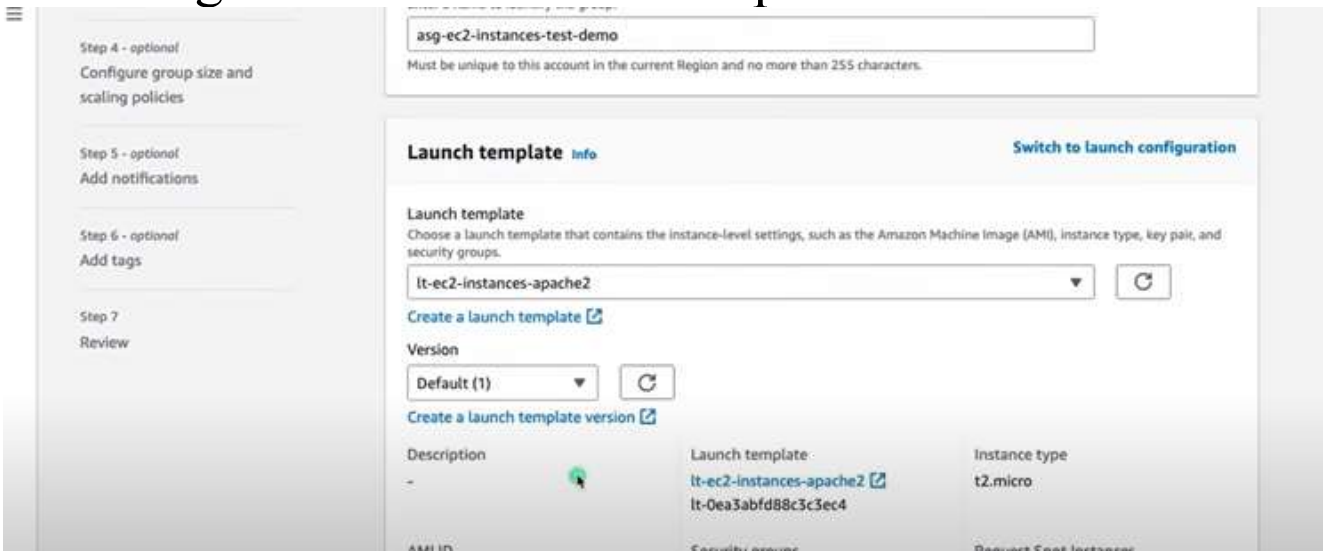

VPC > Security Groups > Create security group
Create security group Info
A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To cr
Basic details
Security group name Info
lt-sg-ec2-instances-apache2
Name cannot be edited after creation.
Description Info
Allow ssh and https
VPC Info
vpc-5562eb3f
Inbound rules Info


Inbound rules Info
Type Info
Protocol Info
Port range Info
Source Info
Description - optional Info
HTTP
TCP
80
Any...
0.0.0.0/0
SSH
TCP
22
Any...
0.0.0.0/0
Add rule

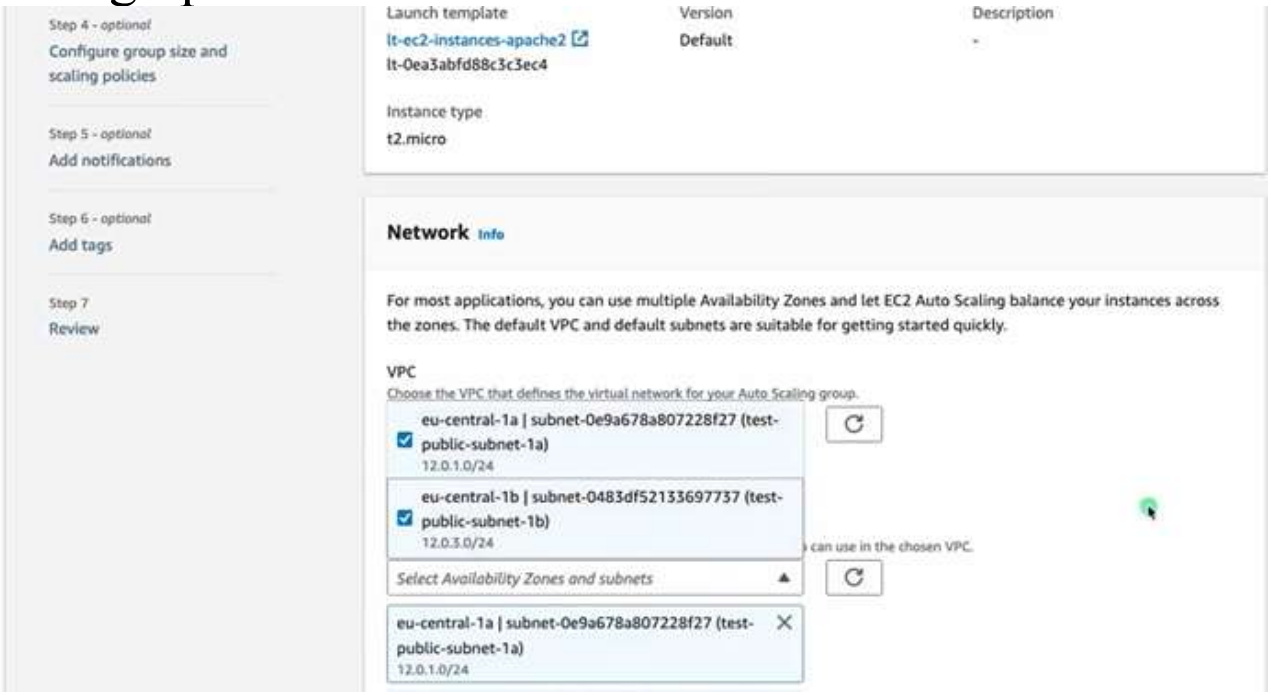
Now creating template for autoscaling group with Initial scripts to run for ec2 instances.



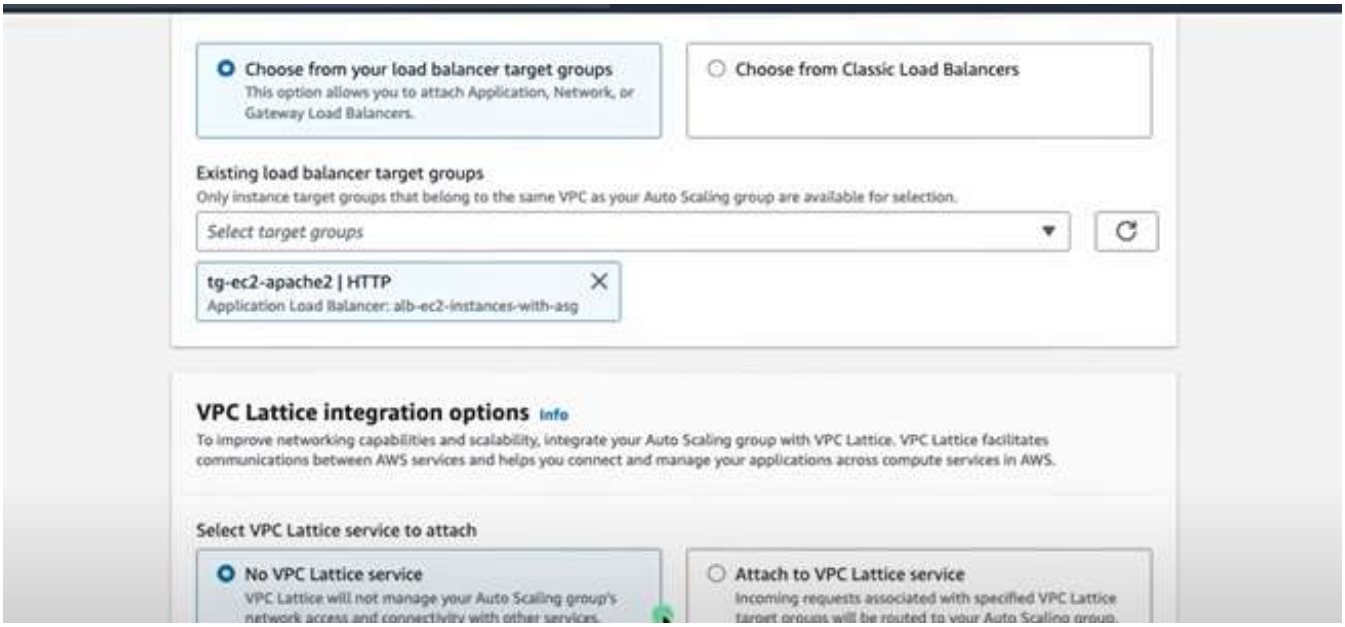
Choosing the created launch template



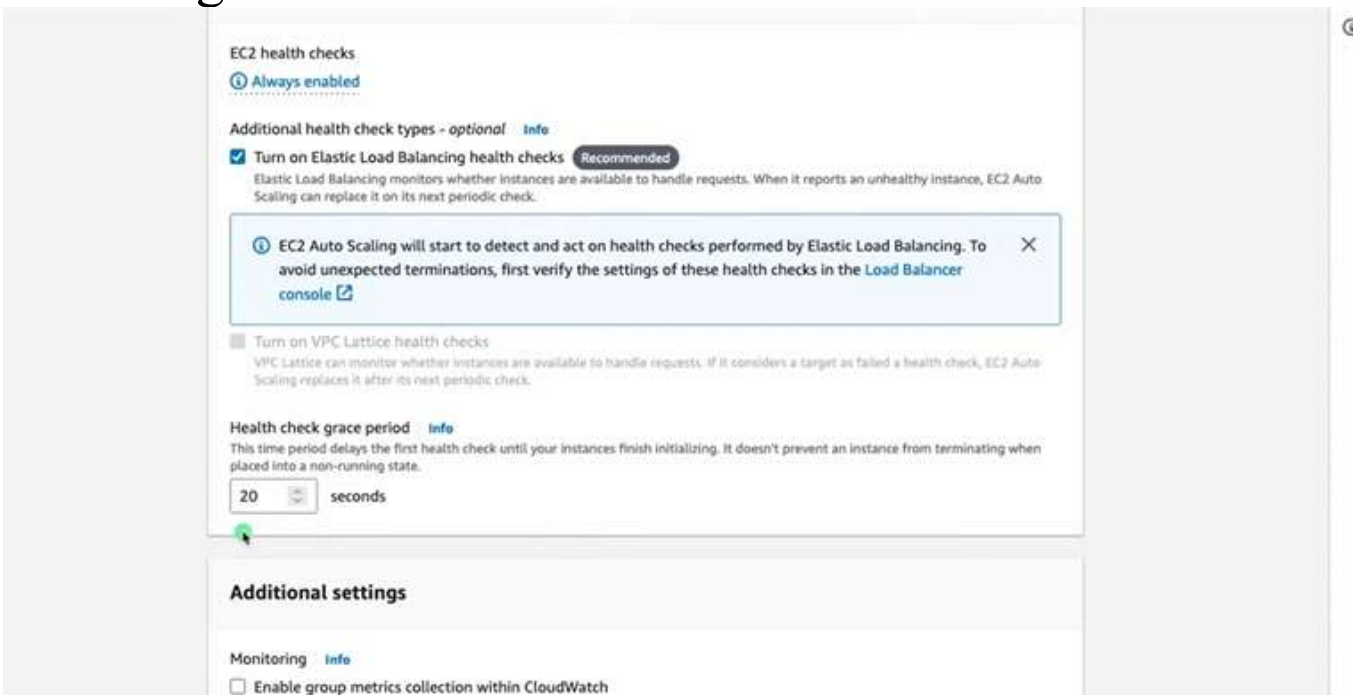
Setting up subnets



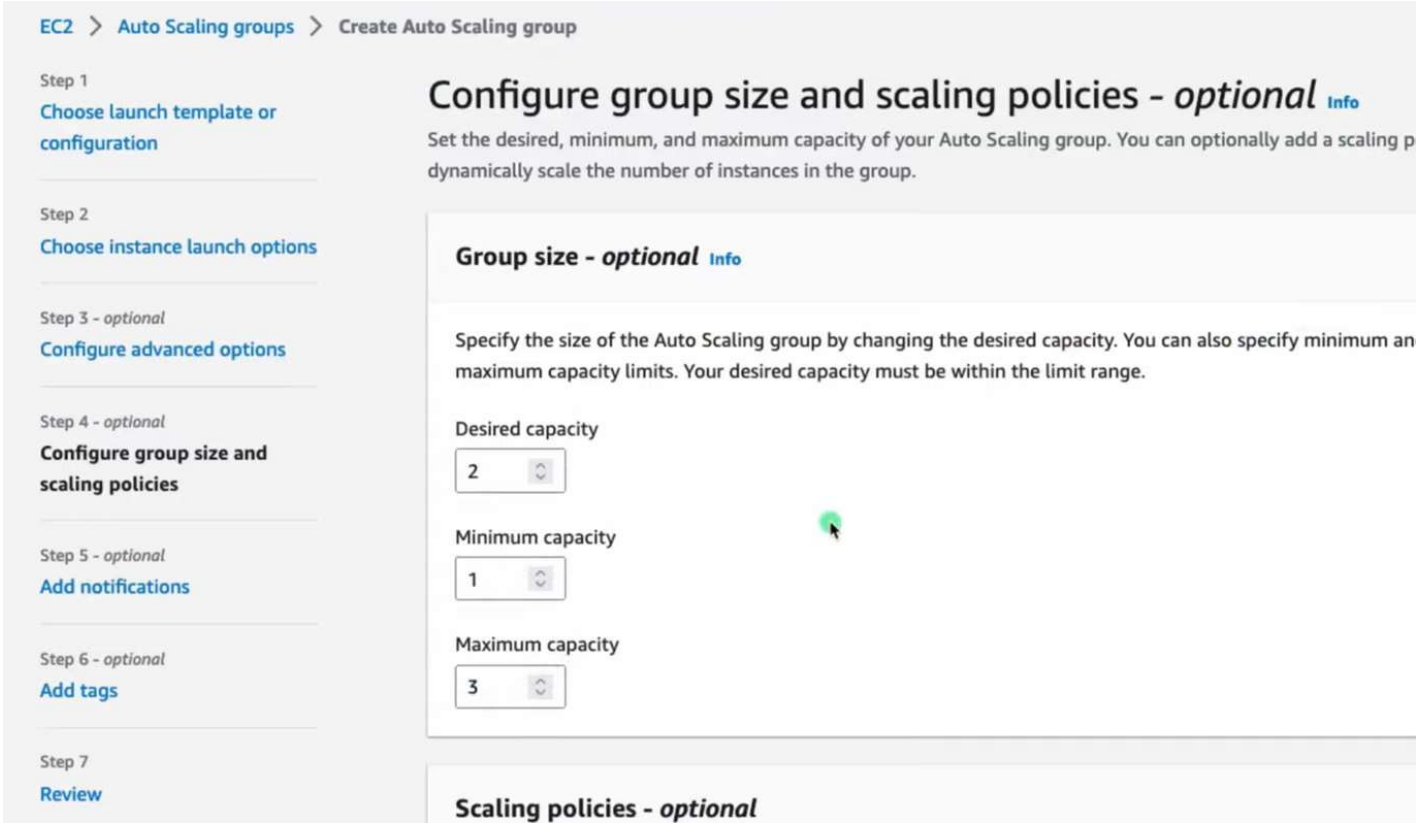
Attaching load balancer to autoscaling groups



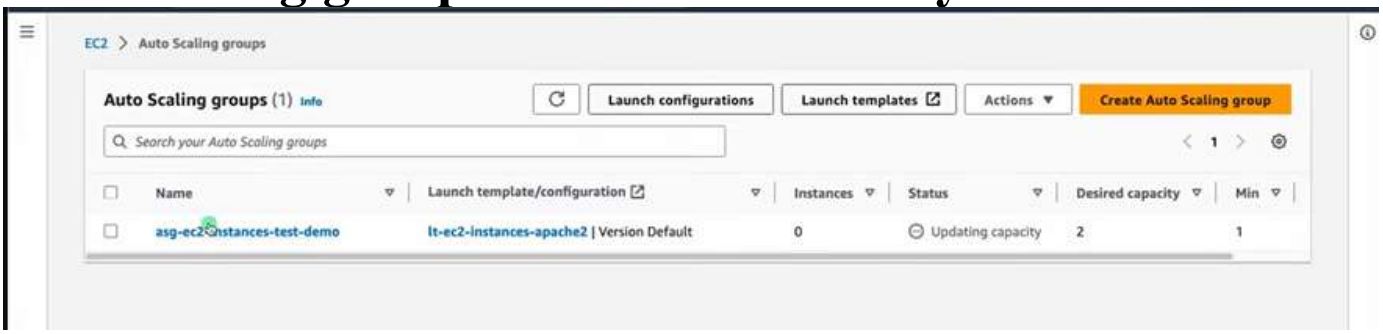
checking healths checks

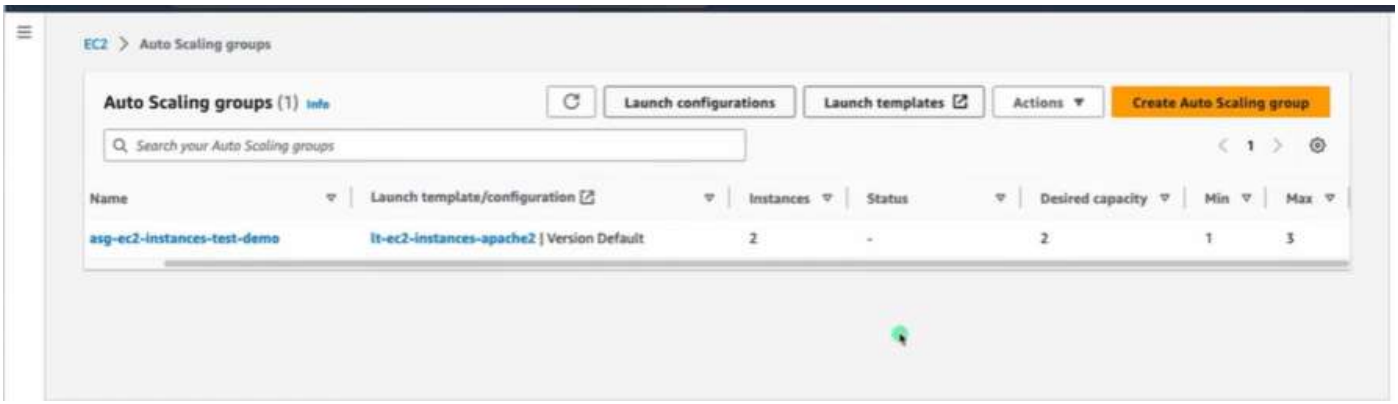


Configuring the capacity



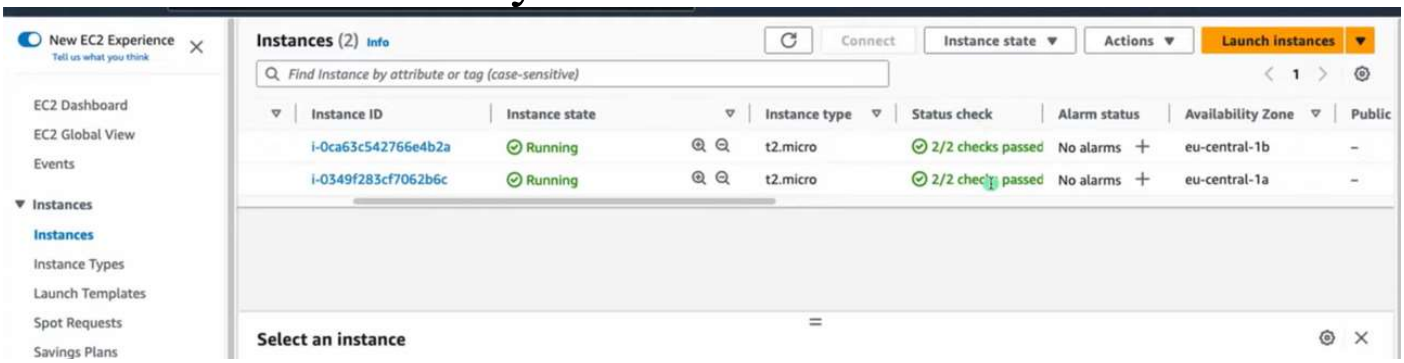
Auto scaling group created successfully





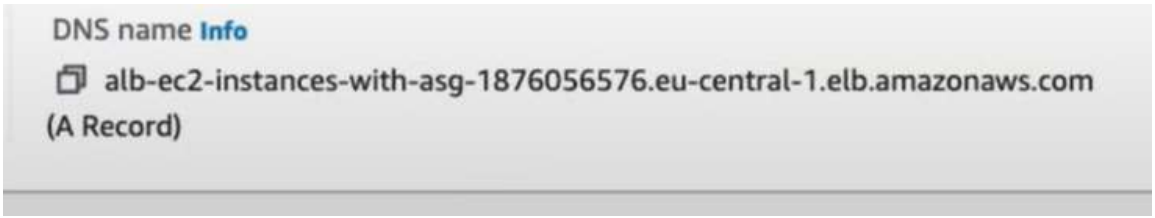
Auto scaling successfully lauched and it created desired

instances automatically.

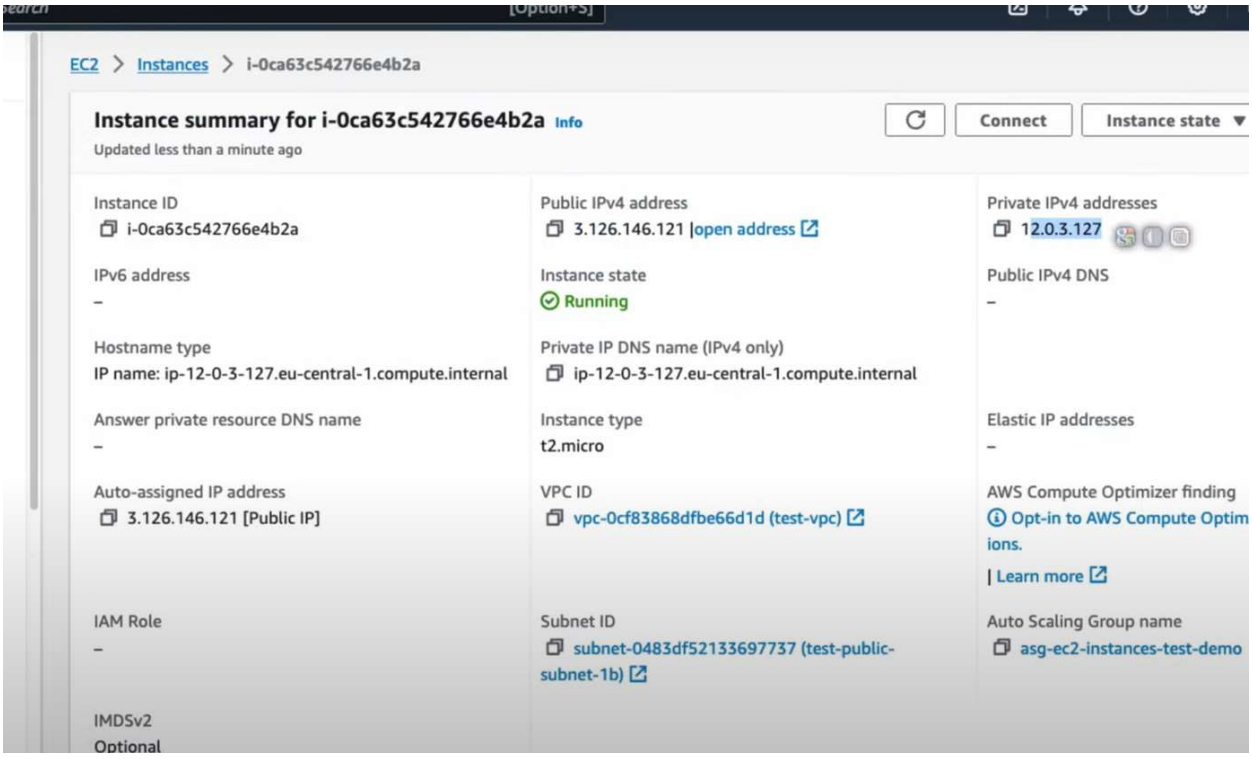


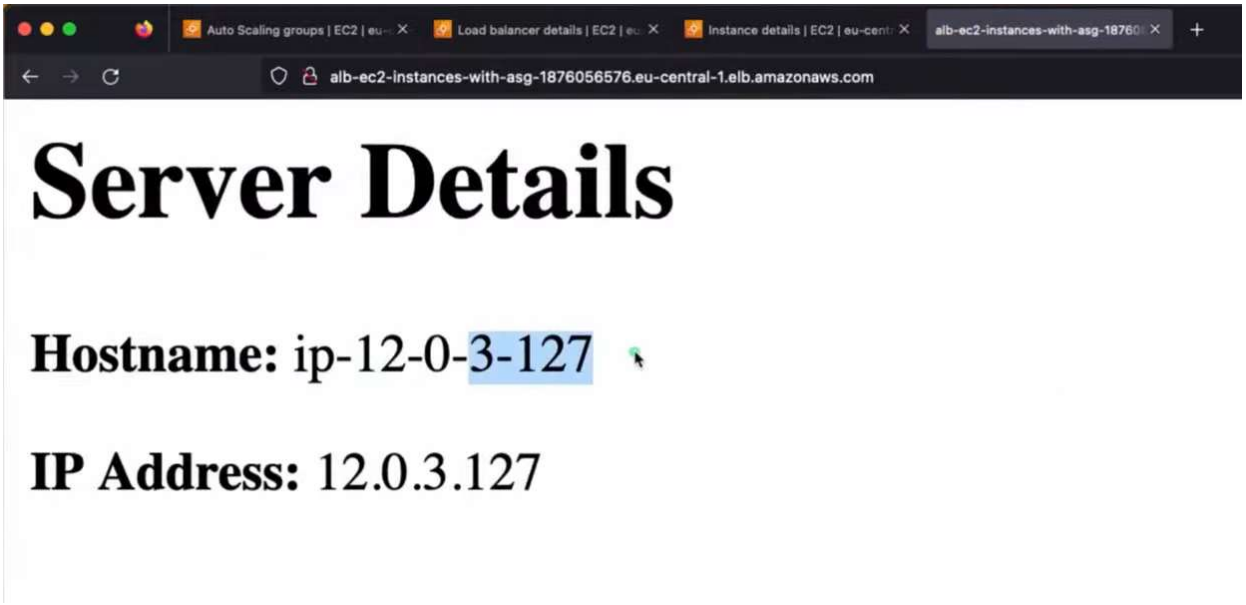
Checking if the load balancer is setup correctly or not

Accessing the servers using dns of load balancer

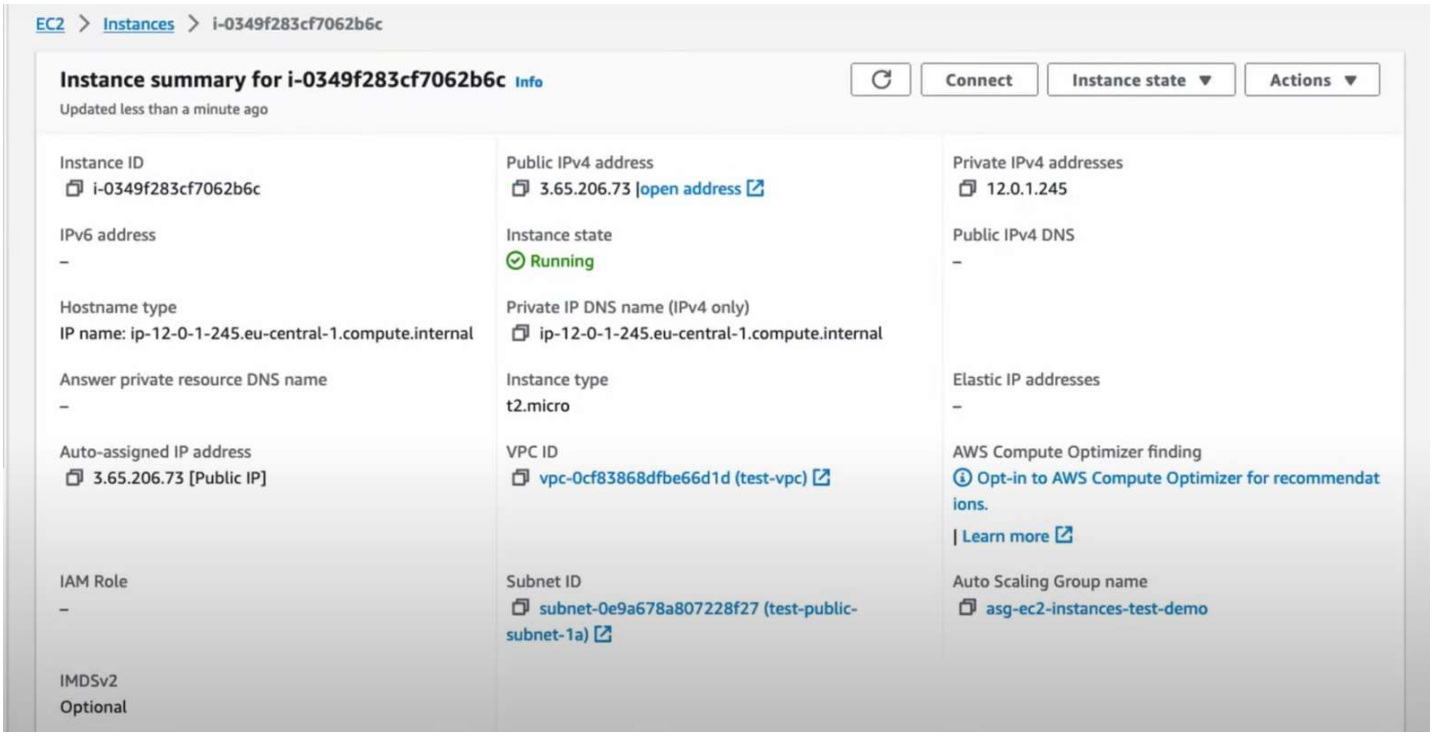


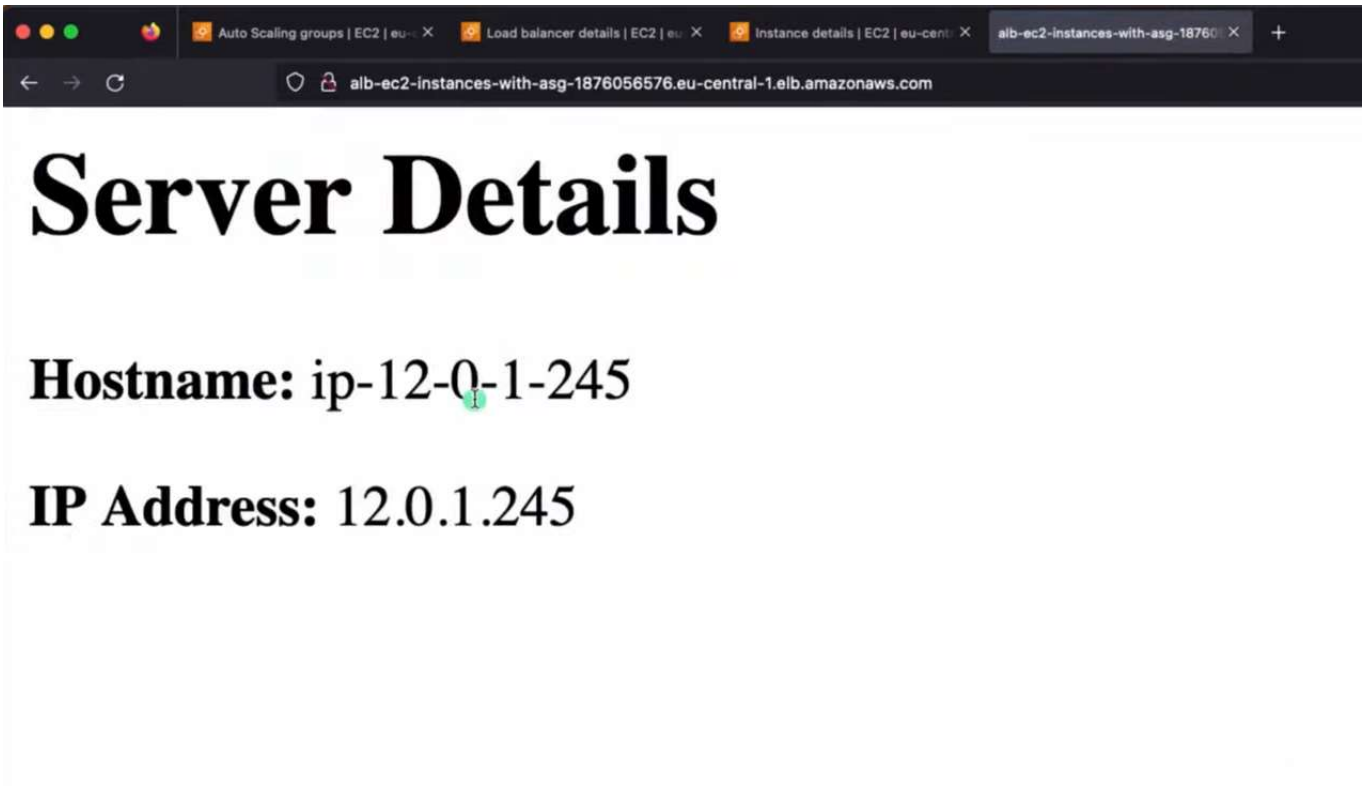
Private id of instance 1 is 12.0.3.127



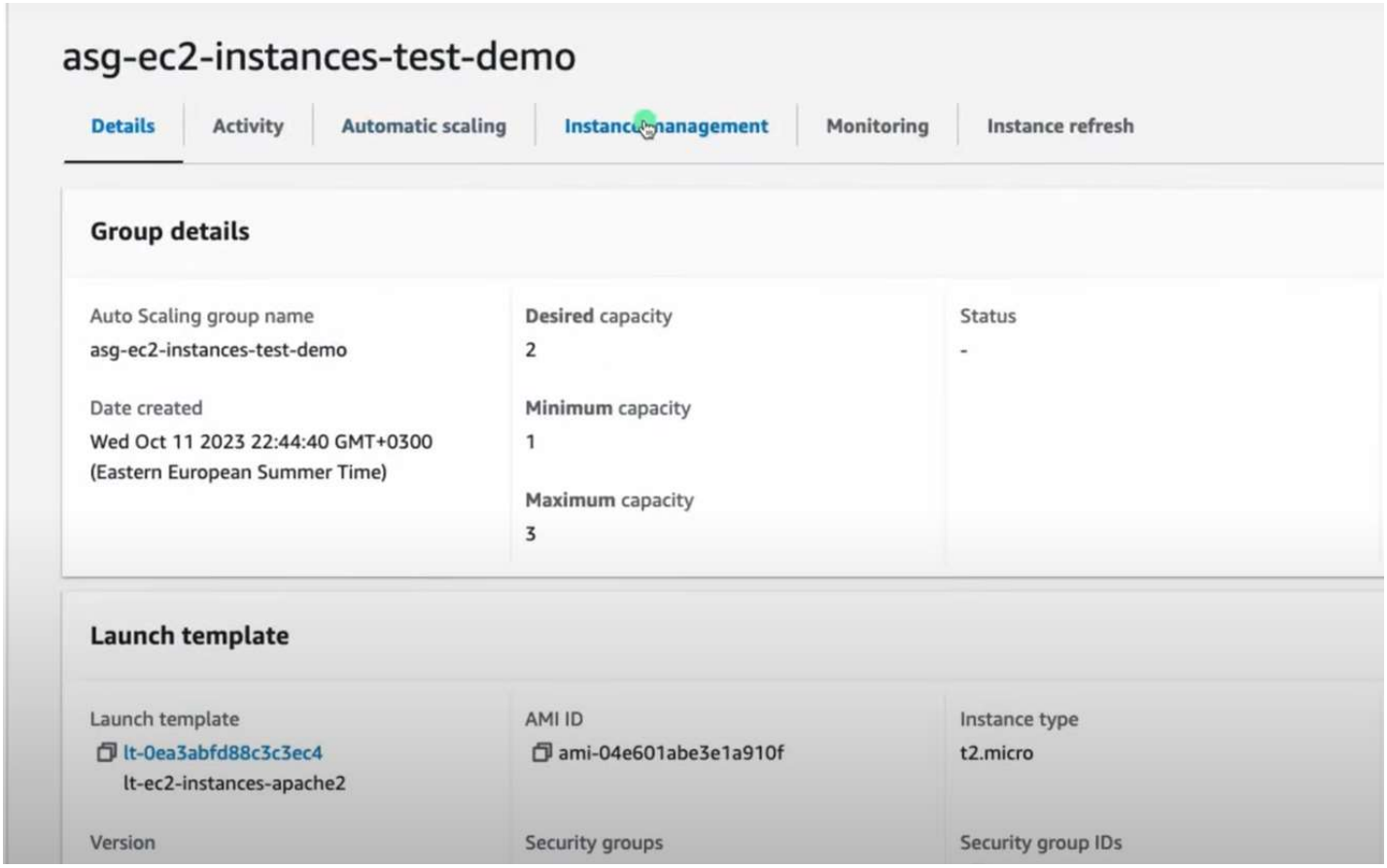


Private id of instance 2





Now checking the autoscaling group



Even if I manually terminated the ec2 instance it will automatically relaunch to maintain the desired capacity here 2