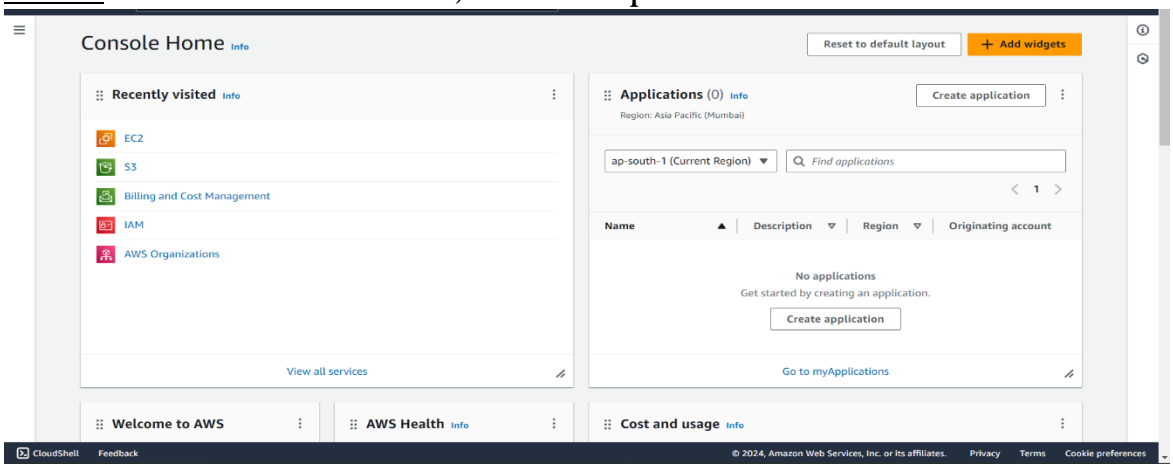
ASSIGNMENT -> 11

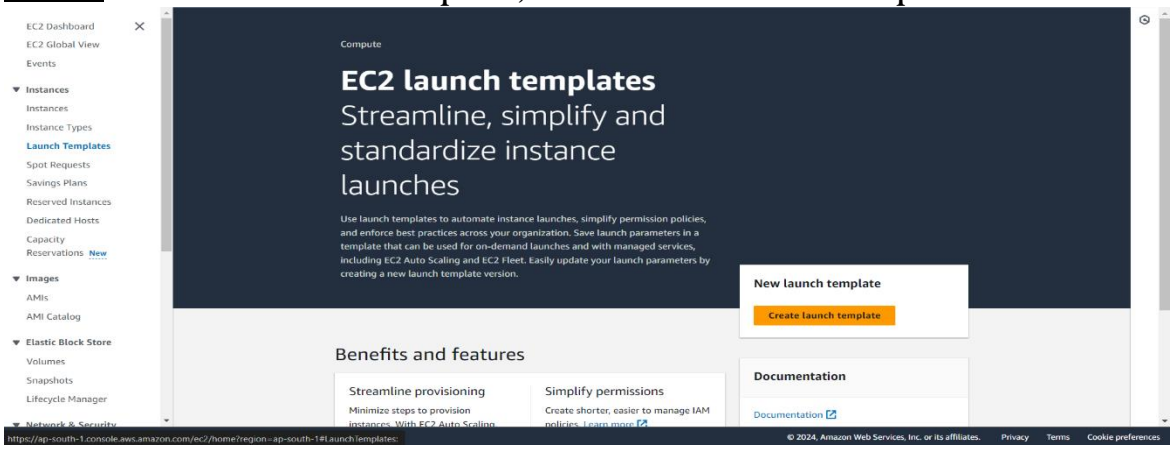
PROBLEM STATEMENT ->

Build scaling plans in AWS that balances the load on different EC2 instances.

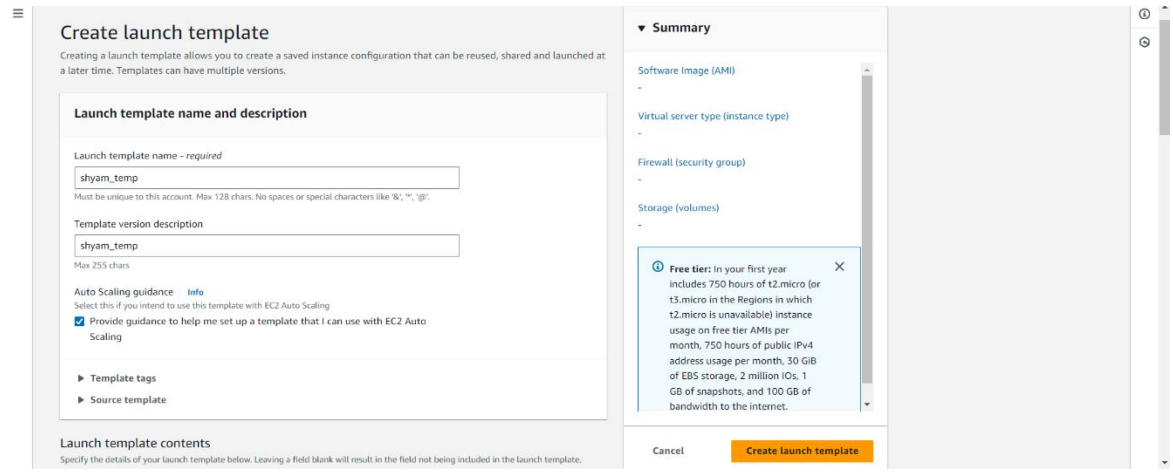
STEP 1-> From AWS home screen, select EC2 option.



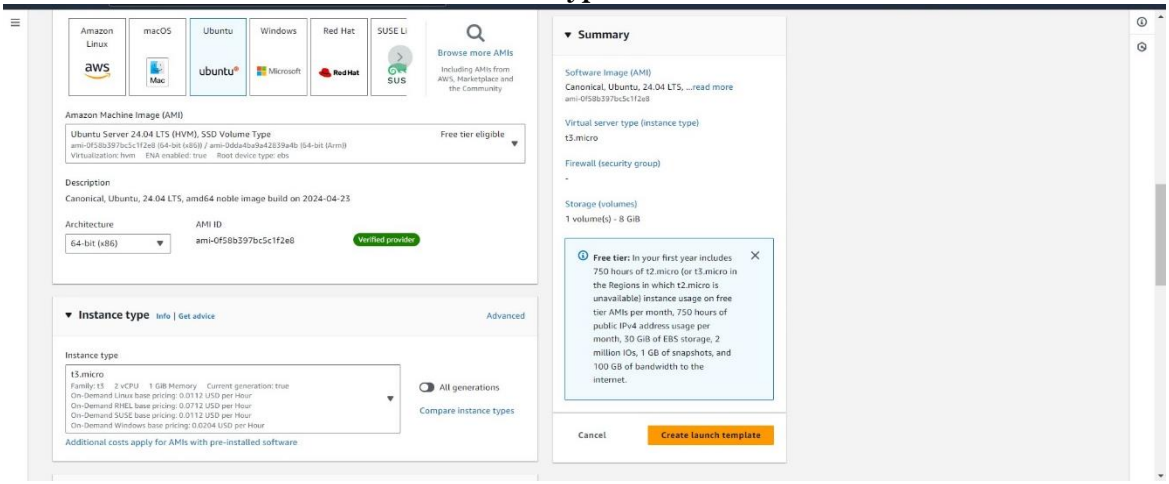
STEP 2-> Under the Launch Templates, click on Create Launch Template



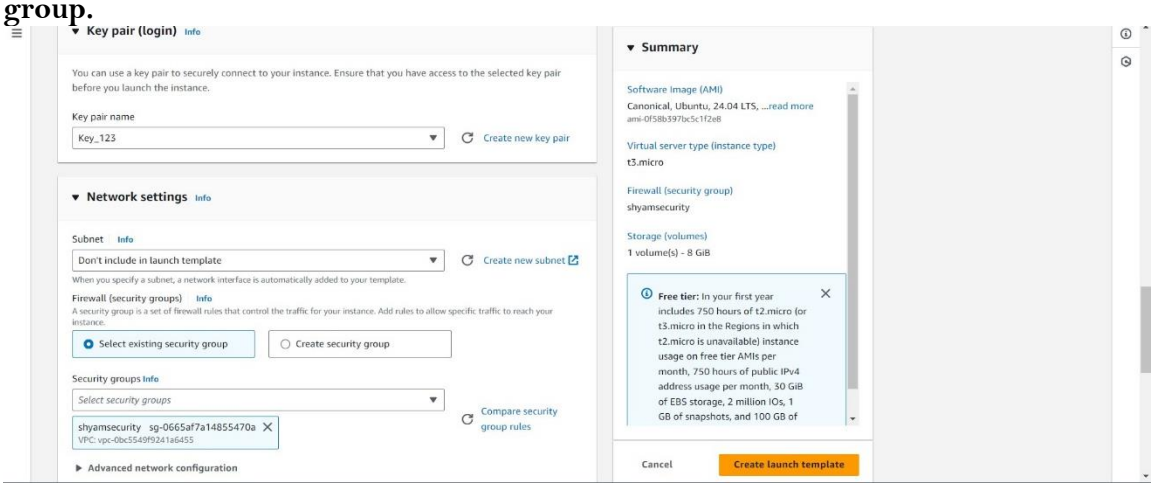
STEP 3-> Give a name and description to the template. Check the Auto Scaling Guidance checkbox.



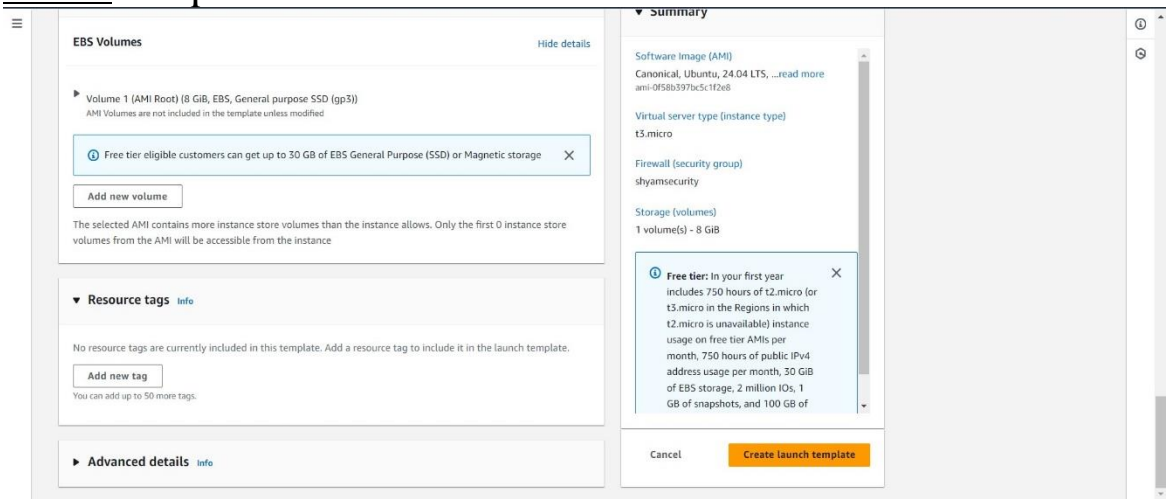
STEP 4-> Select Ubuntu & under instance type, select t3.micro .



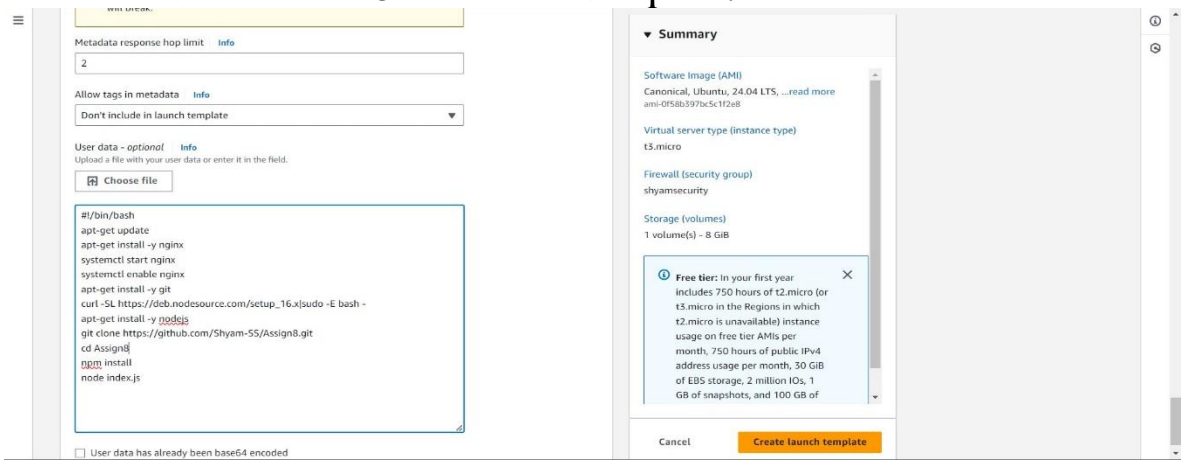
STEP 5-> Under key pair, select an existing key and select the user created Security group.



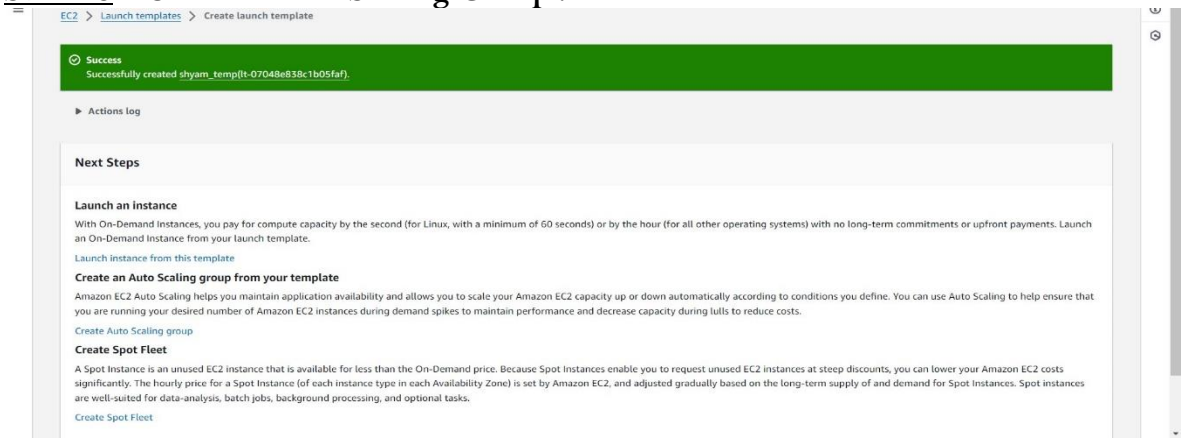
STEP 6-> Expand the Advanced Details tab.



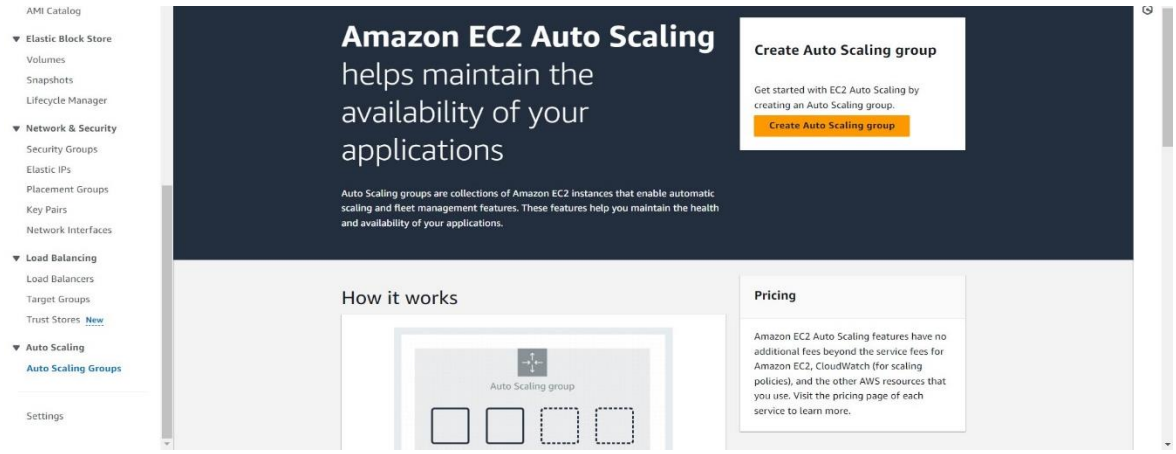
STEP 7-> Scroll down to the bottom, in the bash console type the following commands: Then click on Create Launch Template .



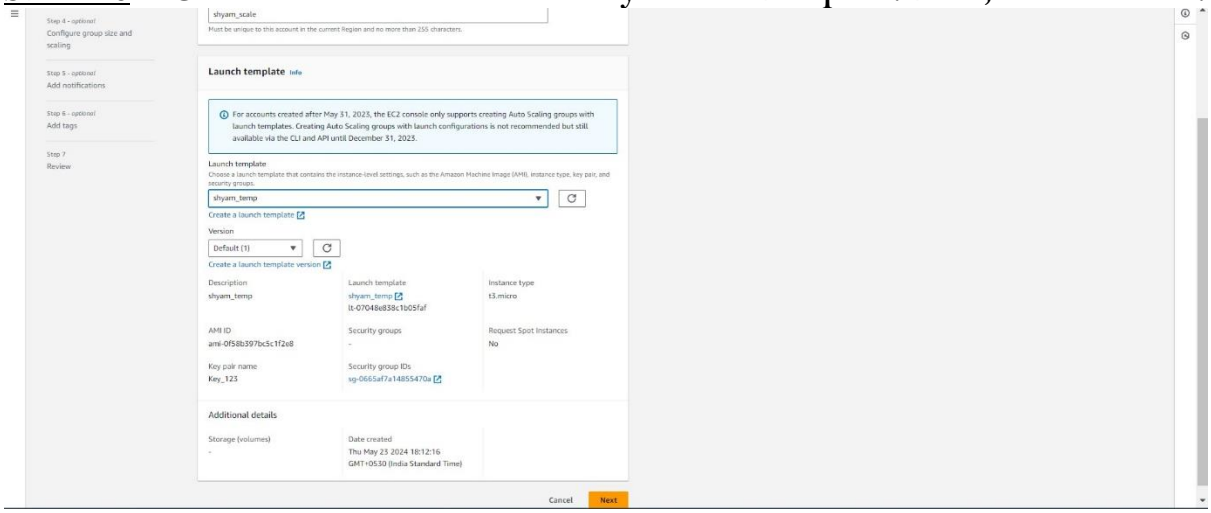
STEP 8->Click on Auto Scaling Group .



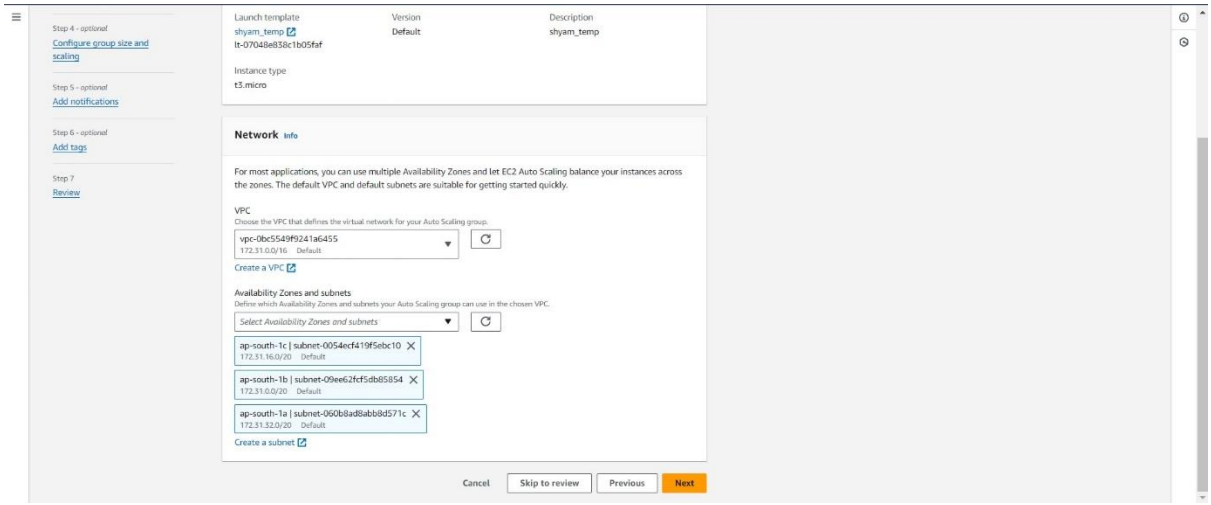
STEP 9-> Click on Create Auto Scaling Group .



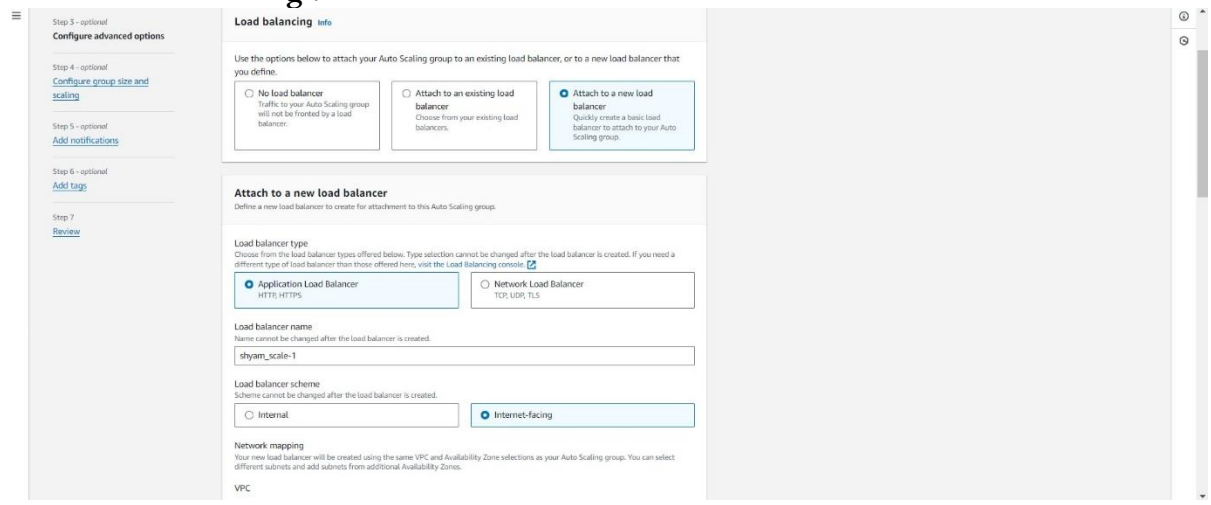
STEP 10-> Give a name and select the newly created Template. Then, click on Next .



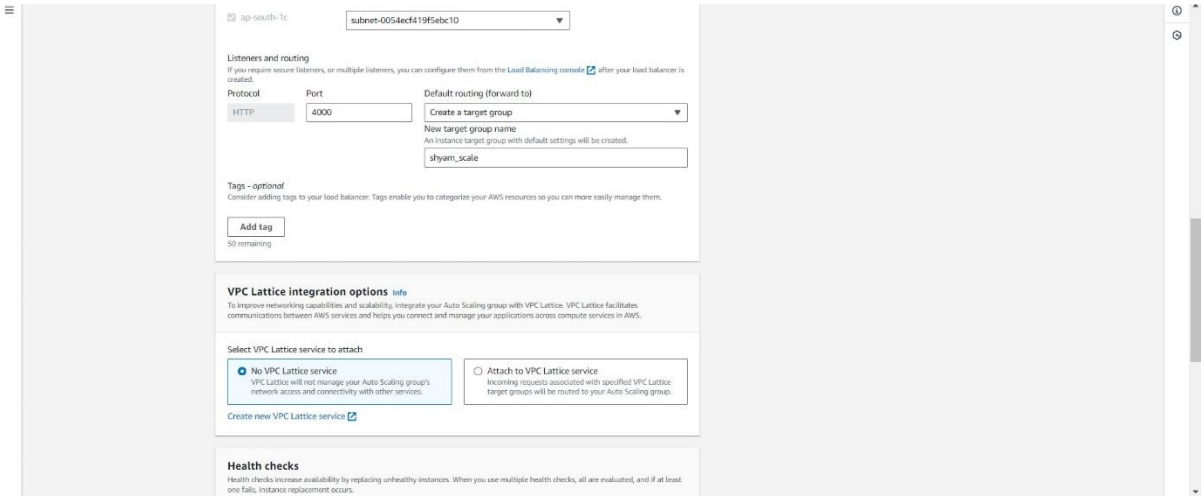
STEP 11-> In Network tab select all the available zones. Then click on next.



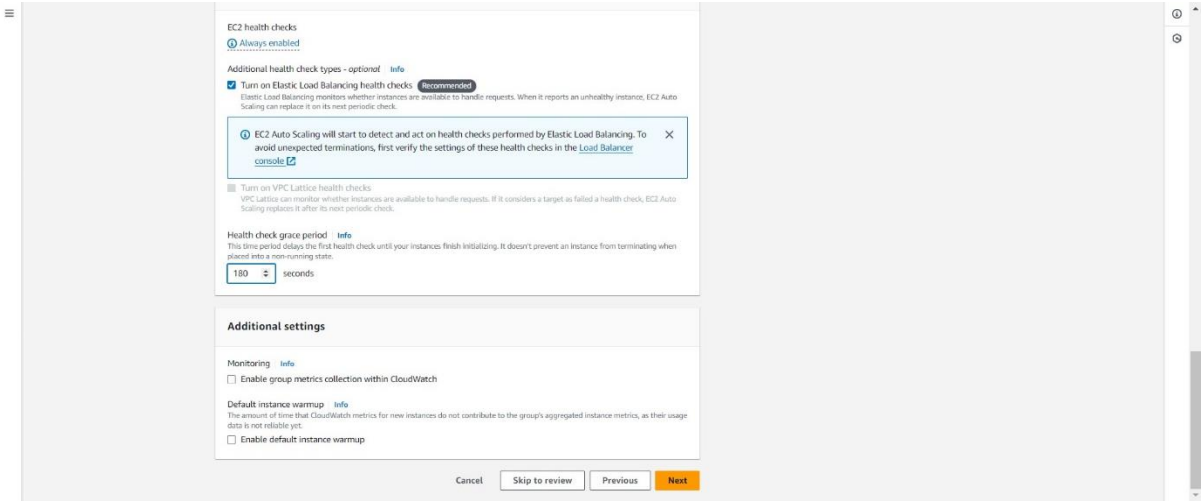
STEP 12-> Select Attach a new load balancer , select Application Load Balancer & select InternetFacing .



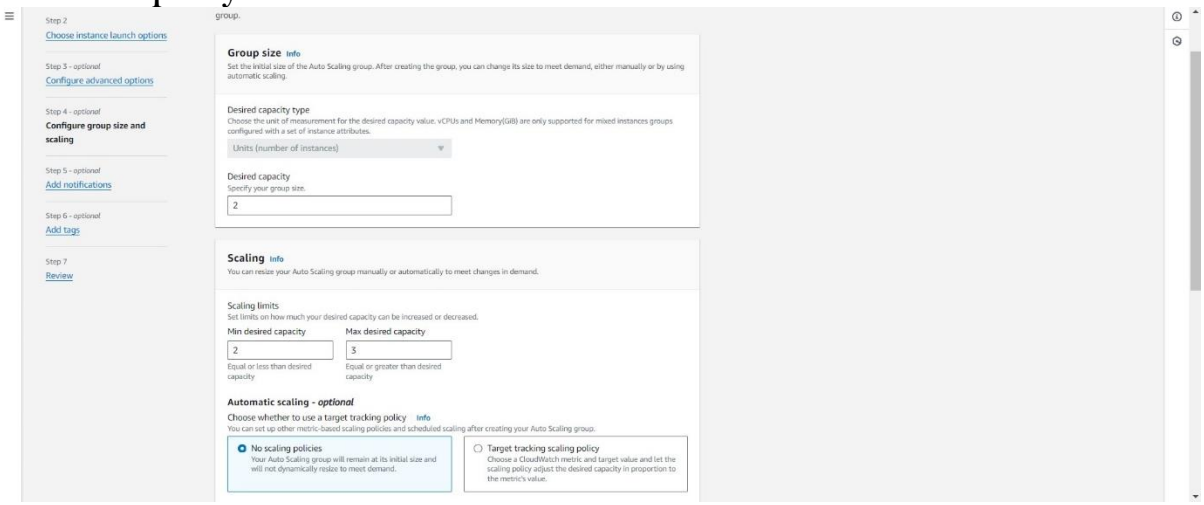
STEP 13-> Give the port no. 4000 & select Create a target group. Then select No VPC Lattice Service.



STEP 14-> Check the Turn on Elastic Load Balancing Health checks checkbox. Give the Health Check Grace Period of 240 seconds. Click on NEXT .

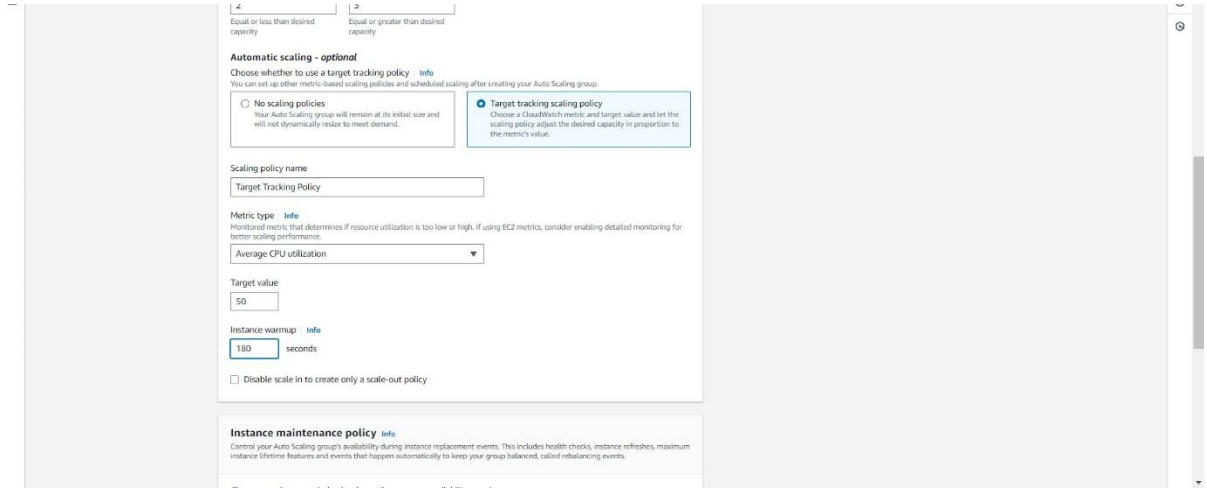


STEP 15->Under Desired capacity, give a size of 2.Under Scaling, give min capacity 2 & max capacity 3.

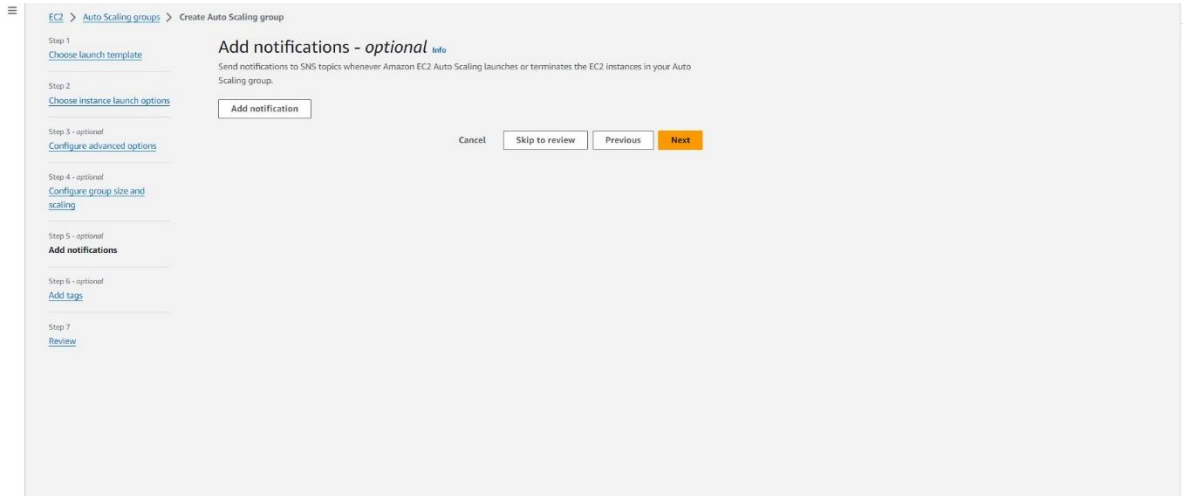


STEP 16->Select Target tracking scaling policy . And give the instance warmup time

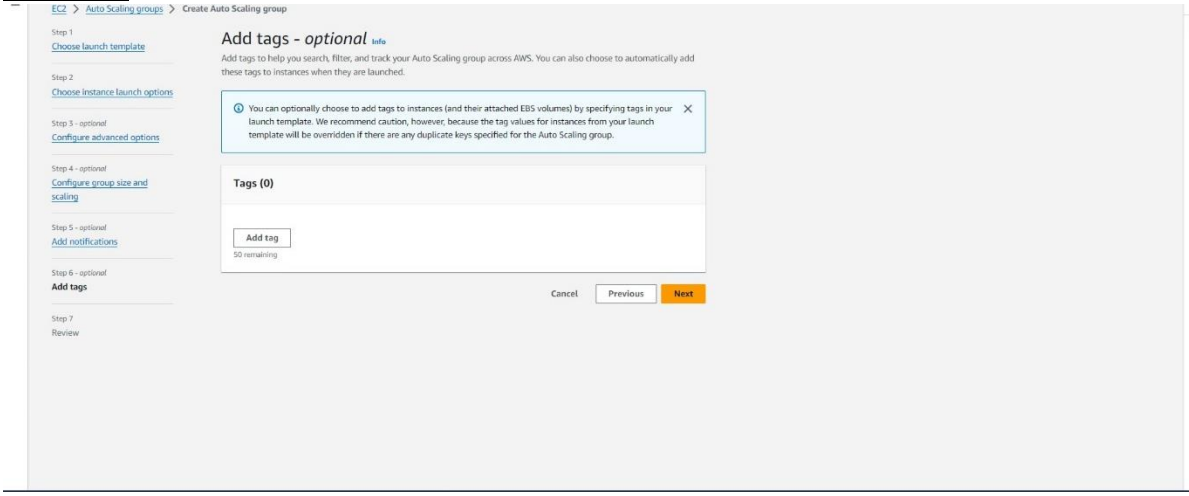
of 240 seconds. Then click on Next .



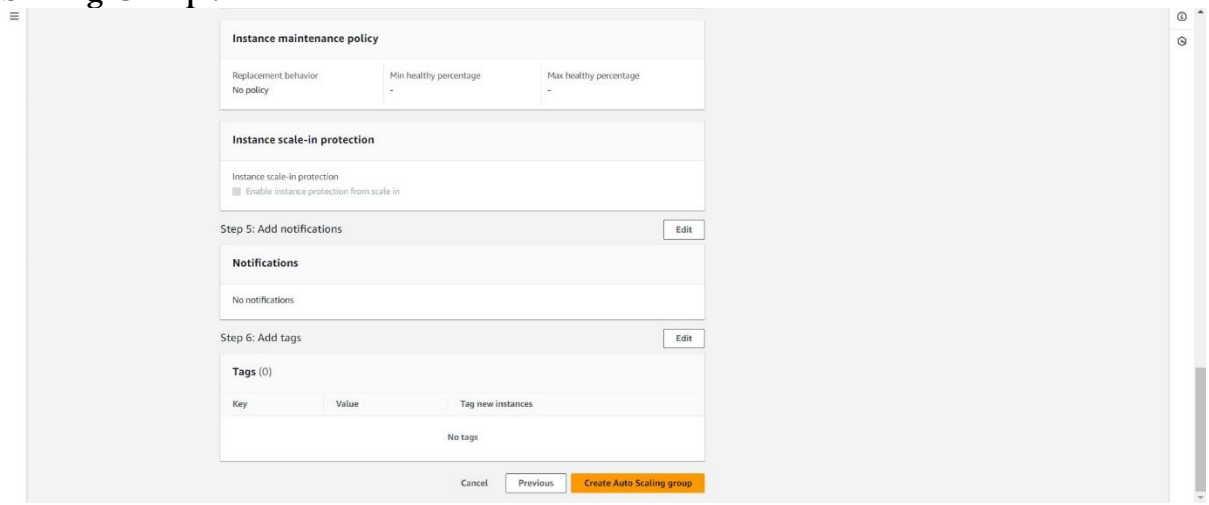
STEP 17-> Click on Next .



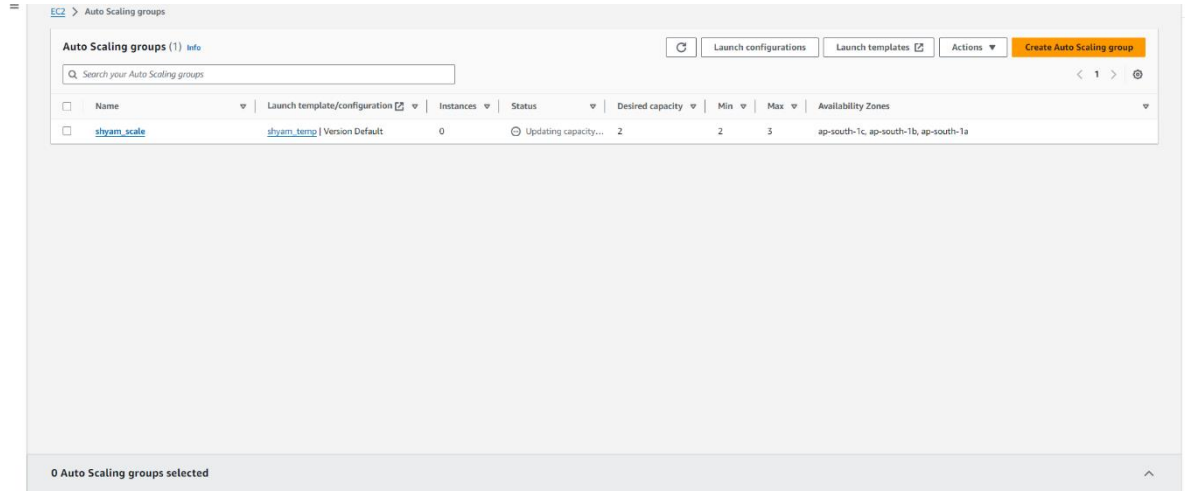
STEP 18-> Click on Next .



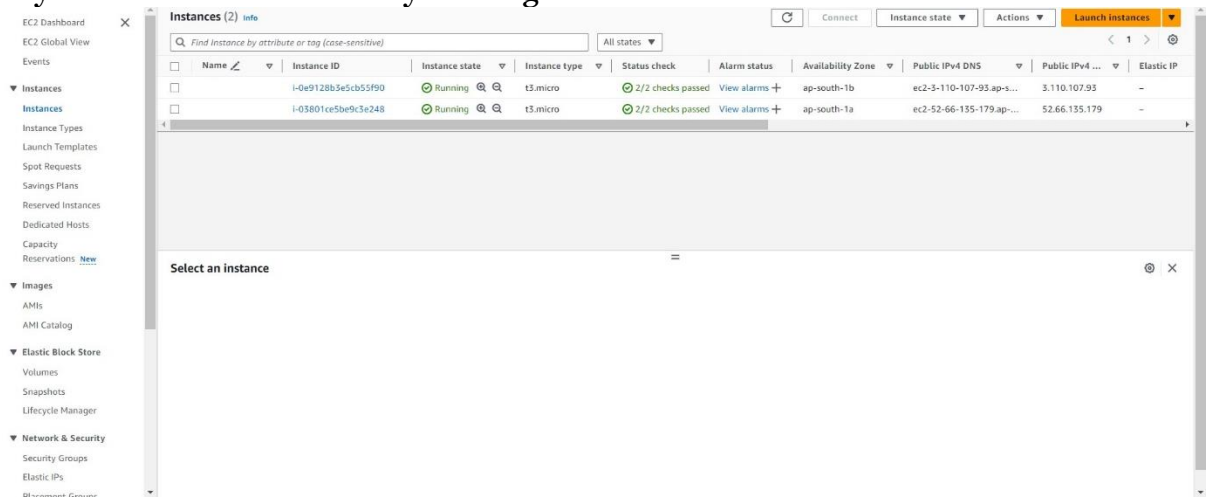
STEP 19-> Review all the data of the group to be created and click on Create Auto Scaling Group .



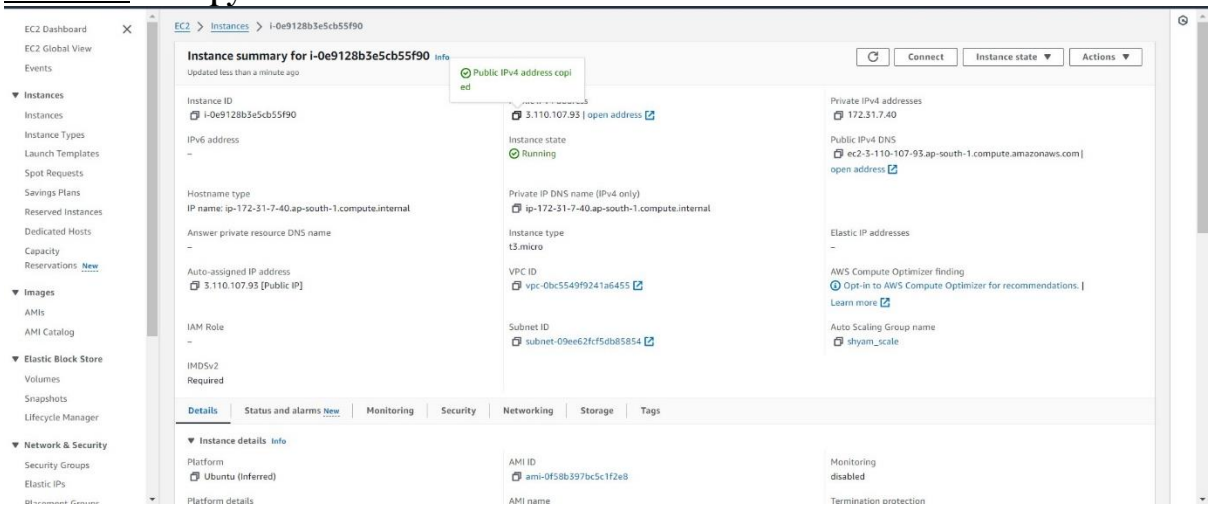
STEP 20-> After creating the scaling group, go back to Instances from the left side menu.



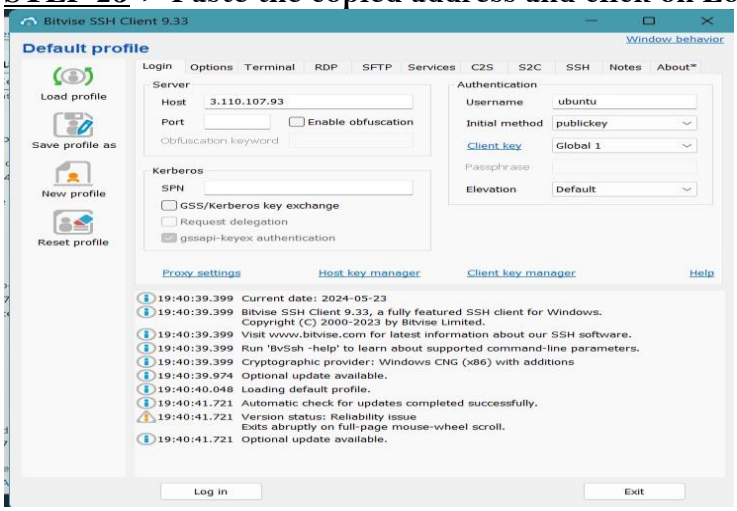
STEP 21-> Since the capacity was given as 2, two instances are created. Now open any one of the the instance by clicking on its id.



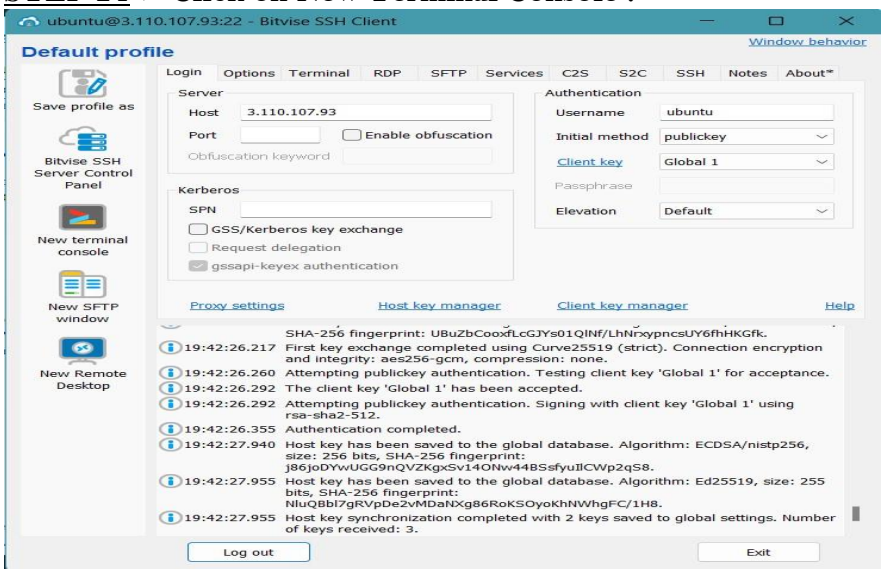
STEP 22-> Copy its Public IPv4 Address.



STEP 23-> Paste the copied address and click on Log in .



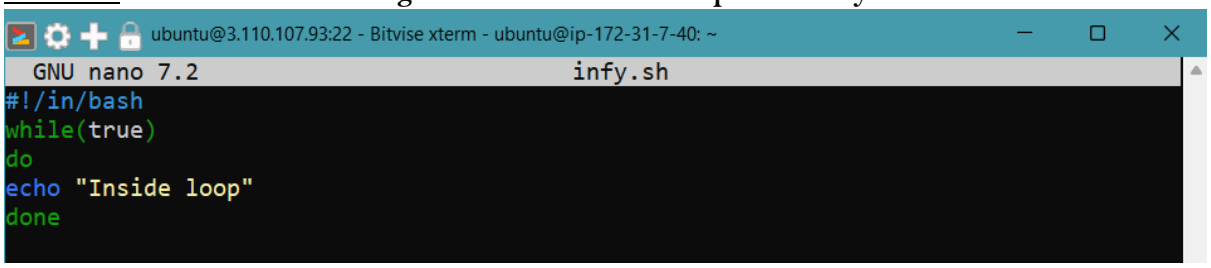
STEP 24-> Click on New Terminal Console .



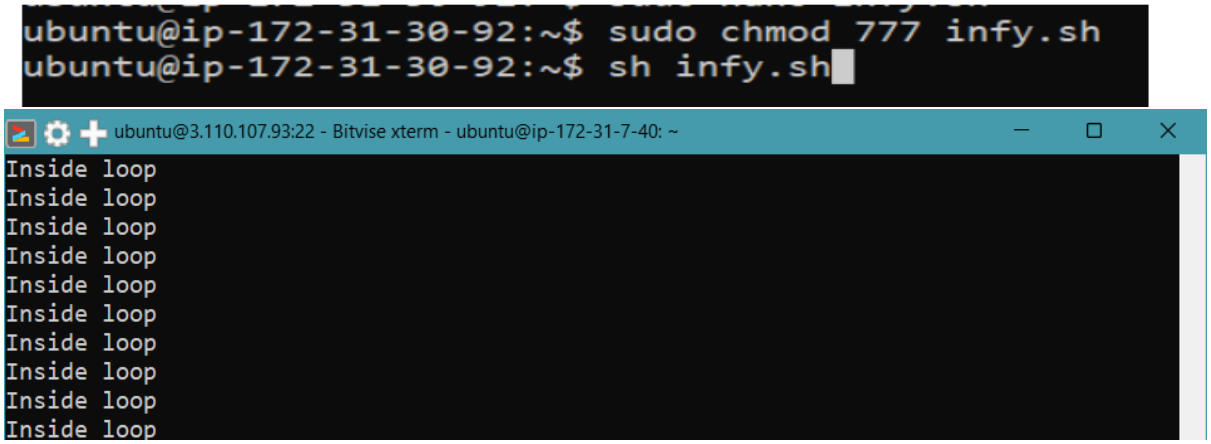
STEP 25-> Type the command:

```
ubuntu@ip-172-31-7-40:~$ sudo nano infy.sh
```

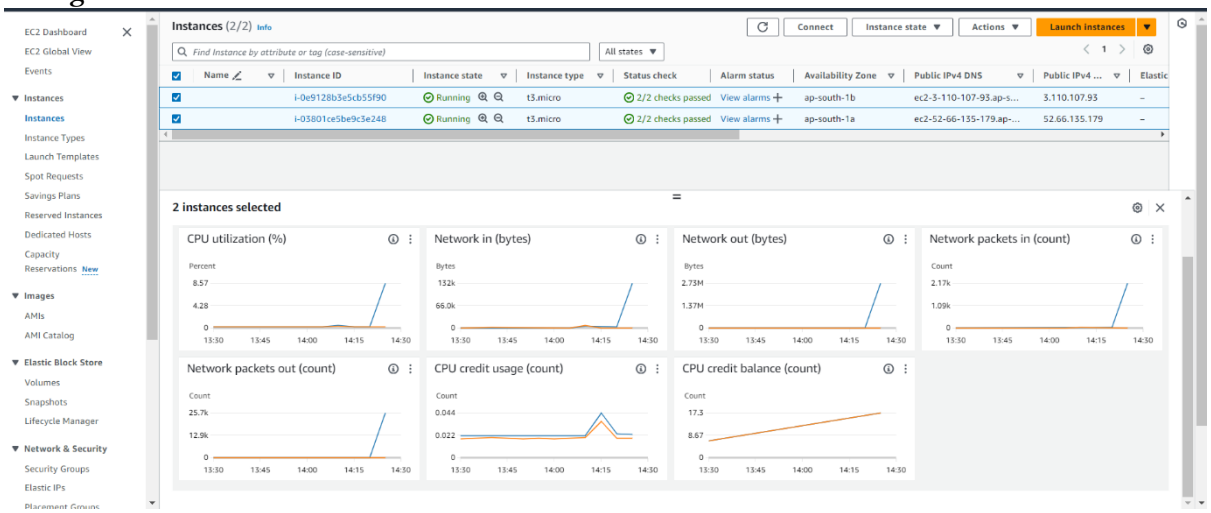
STEP 26-> Write the following code for an infinite loop in the infy.sh file.



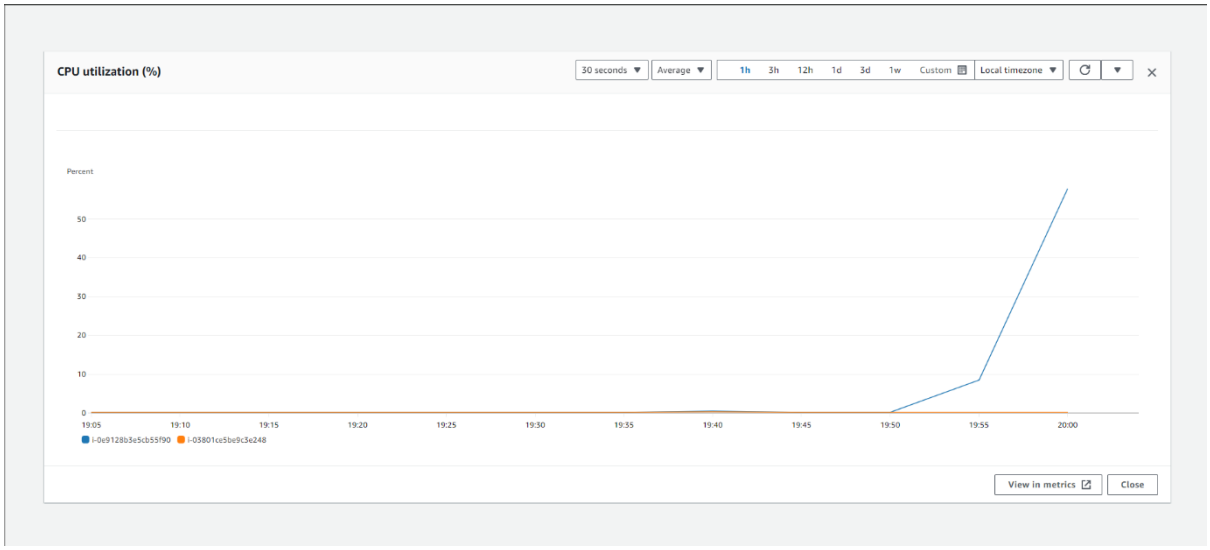
STEP 27-> Write the following commands in the terminal:



STEP 28-> Select both the instances, then under monitoring go to CPU utilization and enlarge it.



STEP 29-> The graph shows the CPU Utilization for both the instances.



When the CPU utilization exceed the limit for both the instances, a new instance will be created.