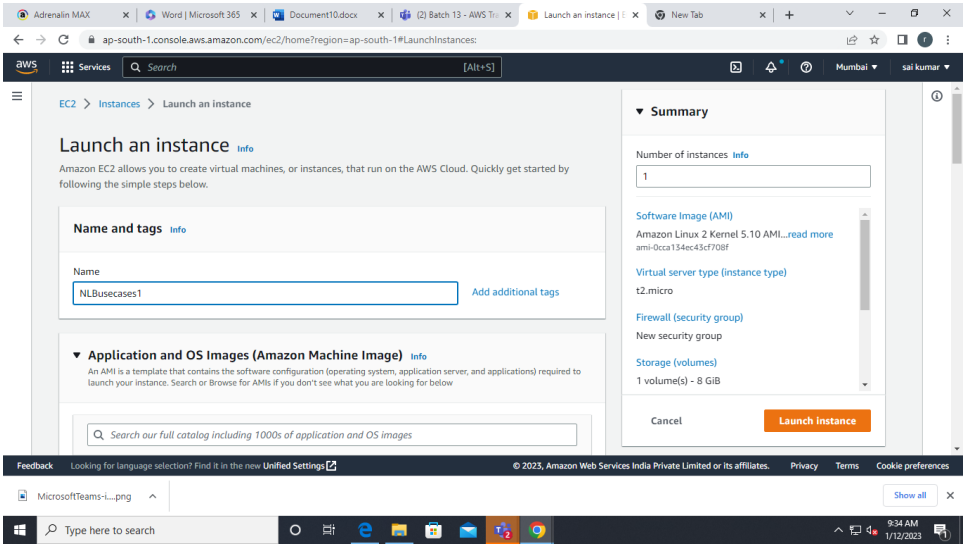
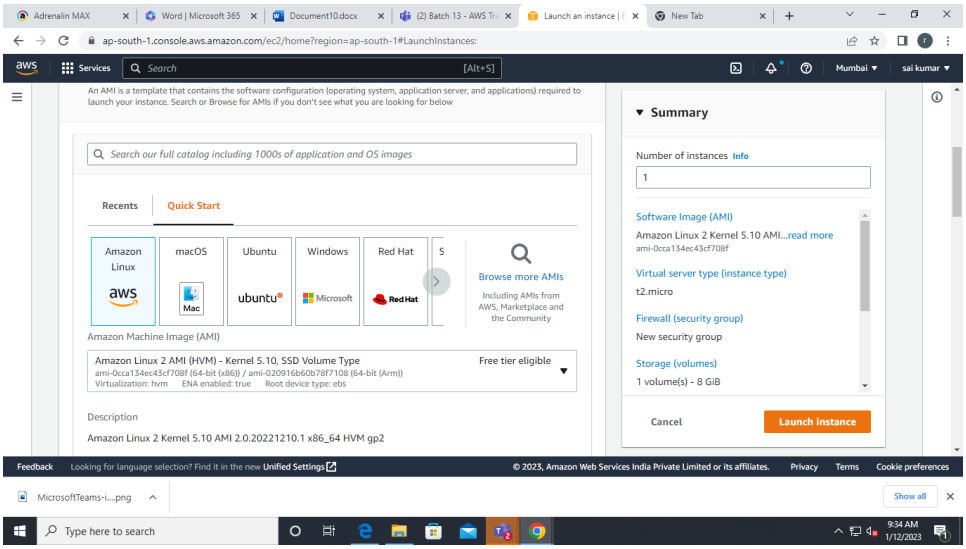
Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

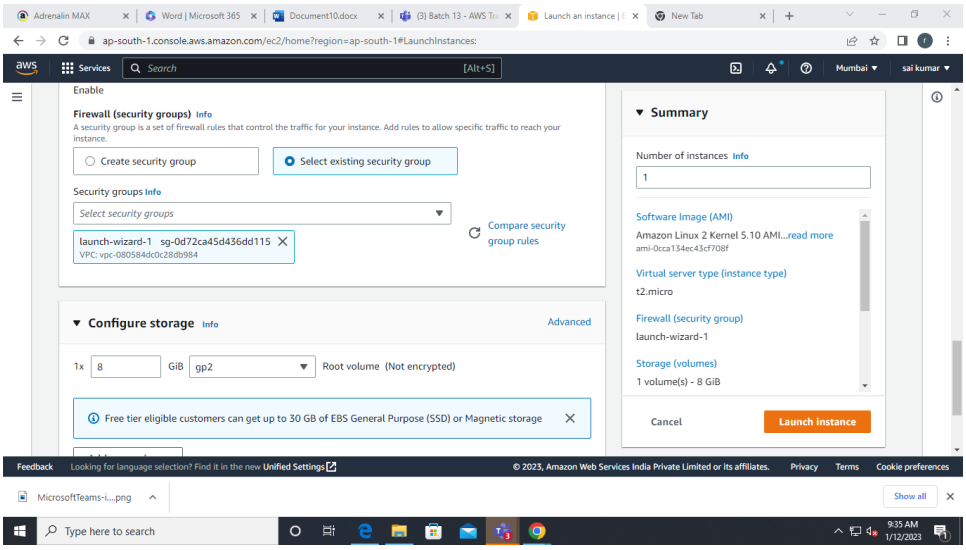


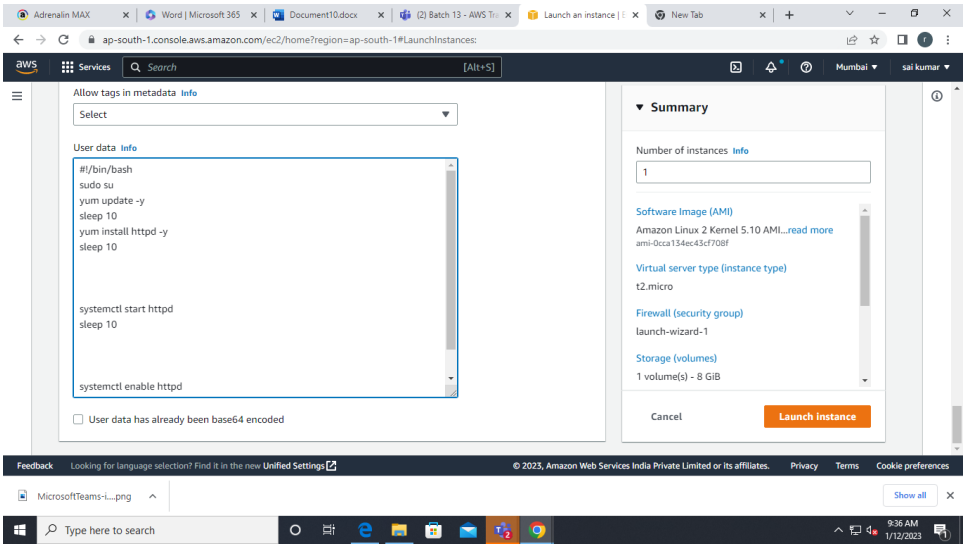
Launch an instance select Linux machine



Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

Select the security group and then select the Advance settings there will be text box will be open and write Apache user data code. Finally launch the instance.

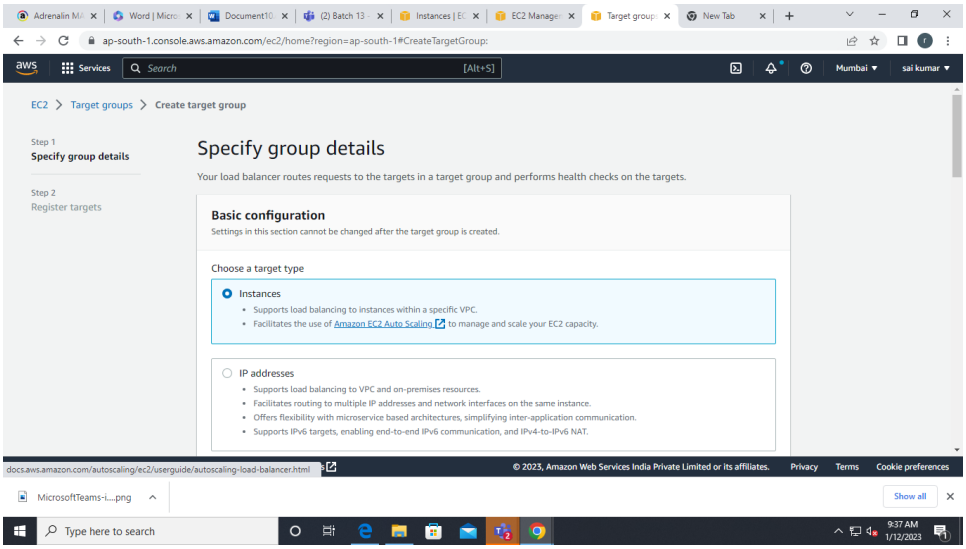


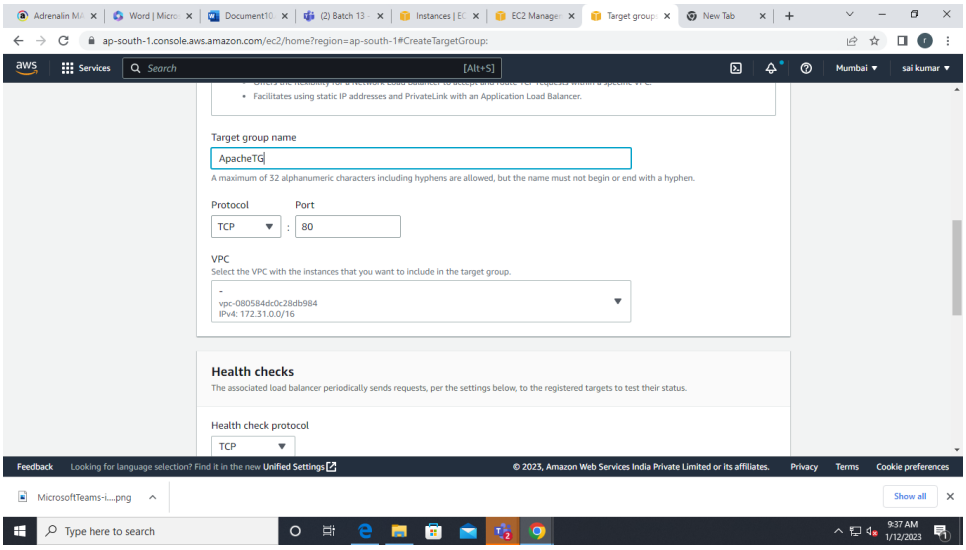


Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

Now navigating to Target Groups then mention the Target Group name,protocol and port for Apache Target Group.

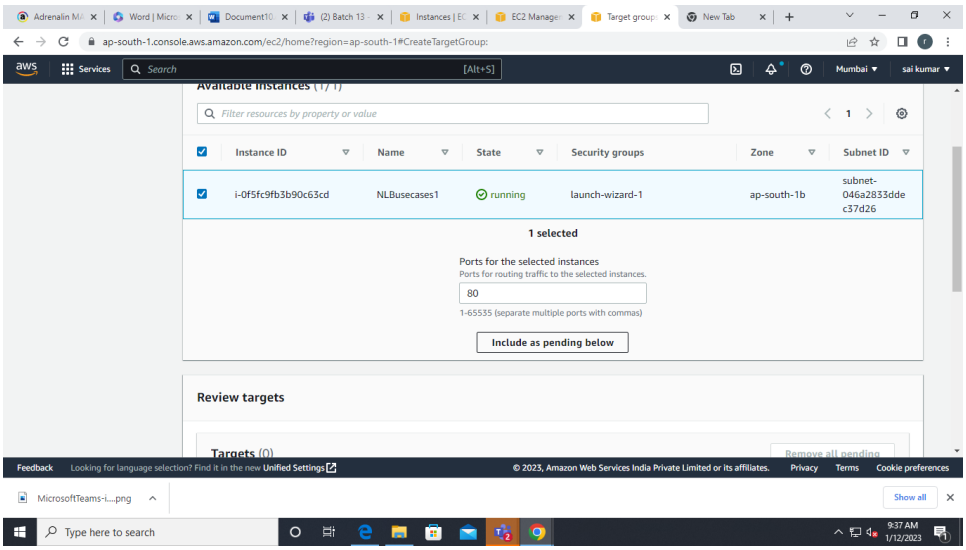
Protocol –TCP; Port -8080

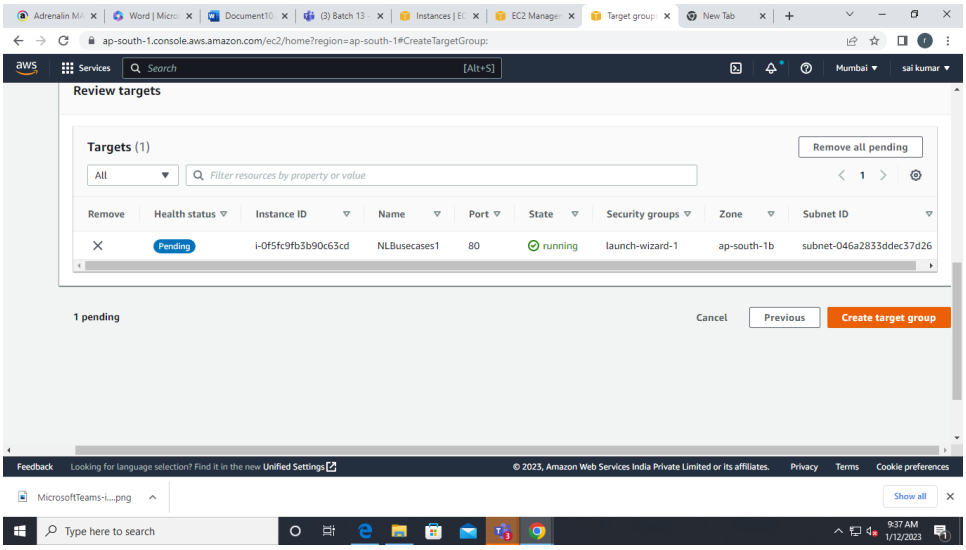




Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

Then Register the targets and create the target group

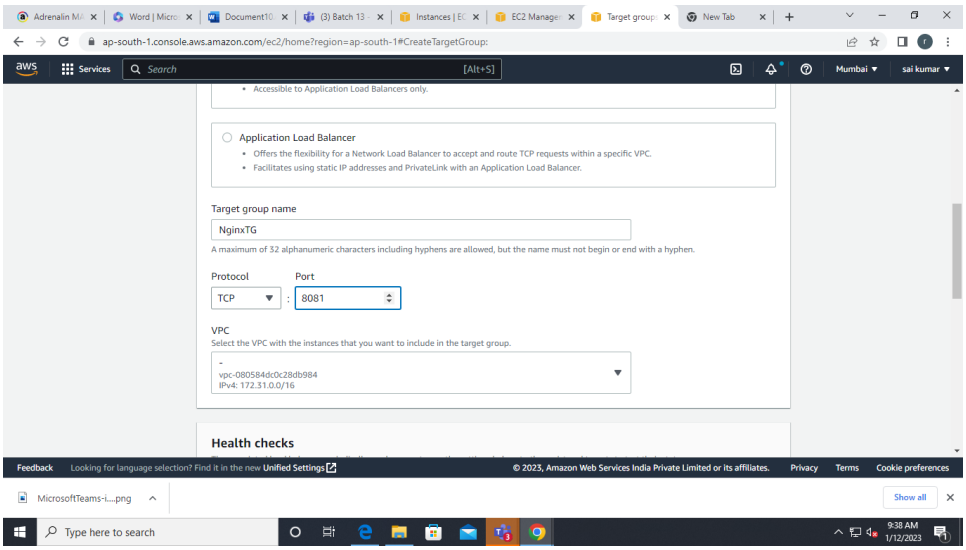


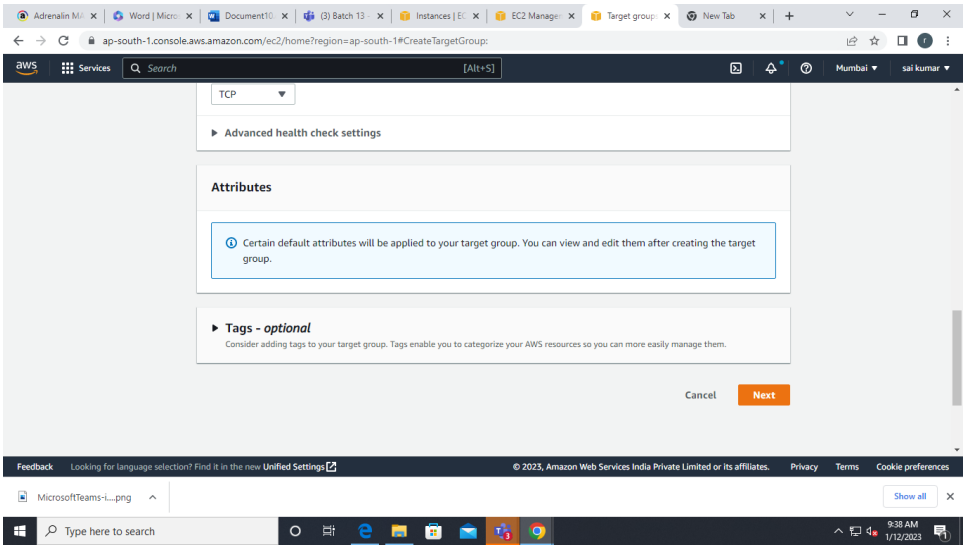


Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

Now create the second Target Group name,protocol and port for Nginx Target group

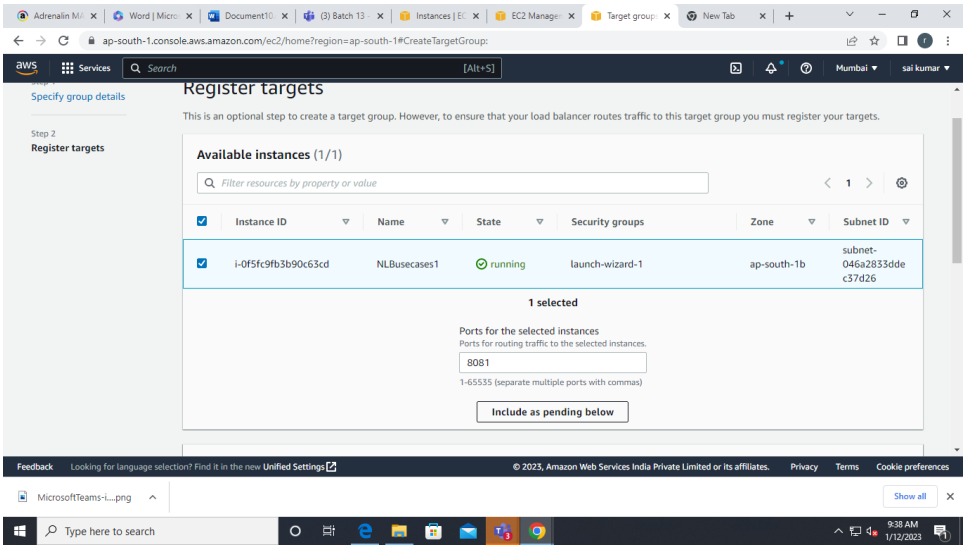
Protocol –TCP; Port -8081

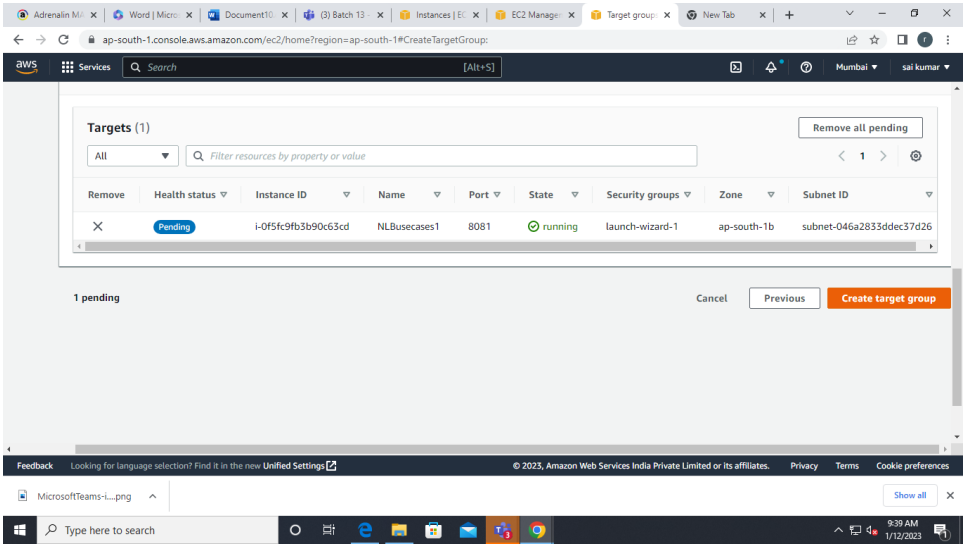




Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

Then Register the targets and create the target group

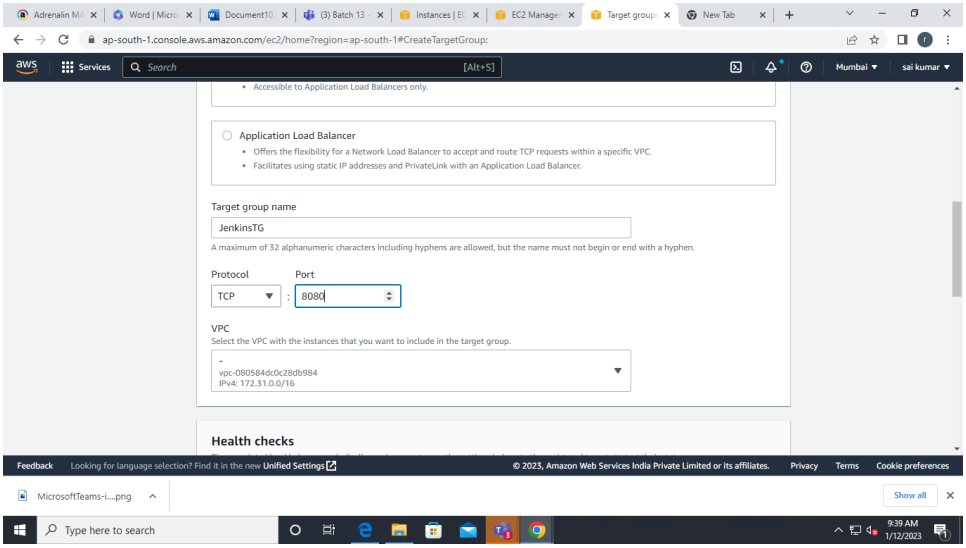


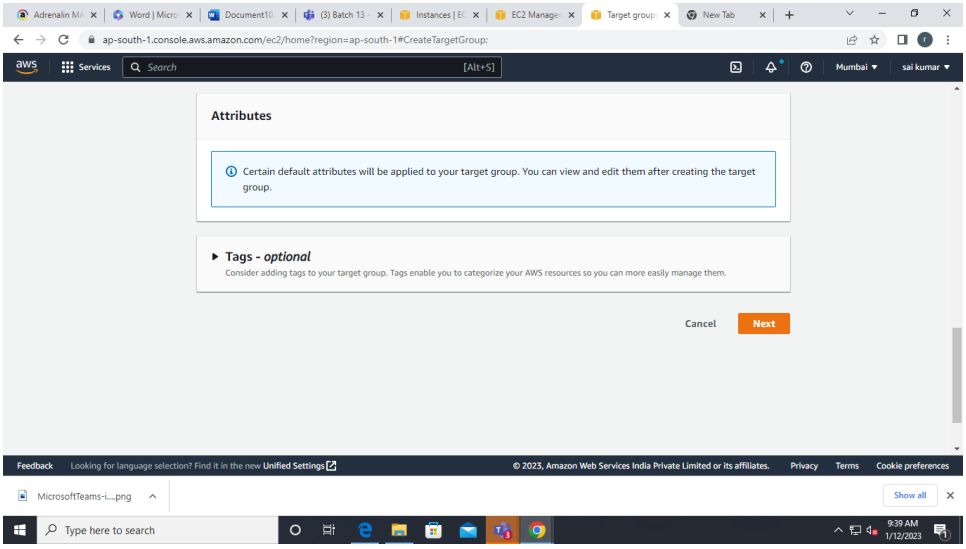


Now create the Third Target Group name,protocol and port for Jenkins Target group

Protocol –TCP; Port -8080

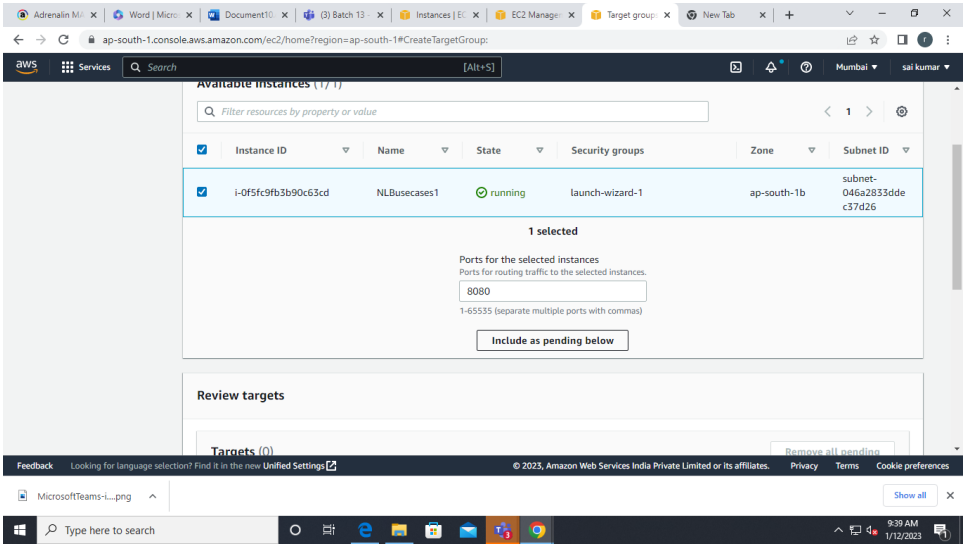
Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**



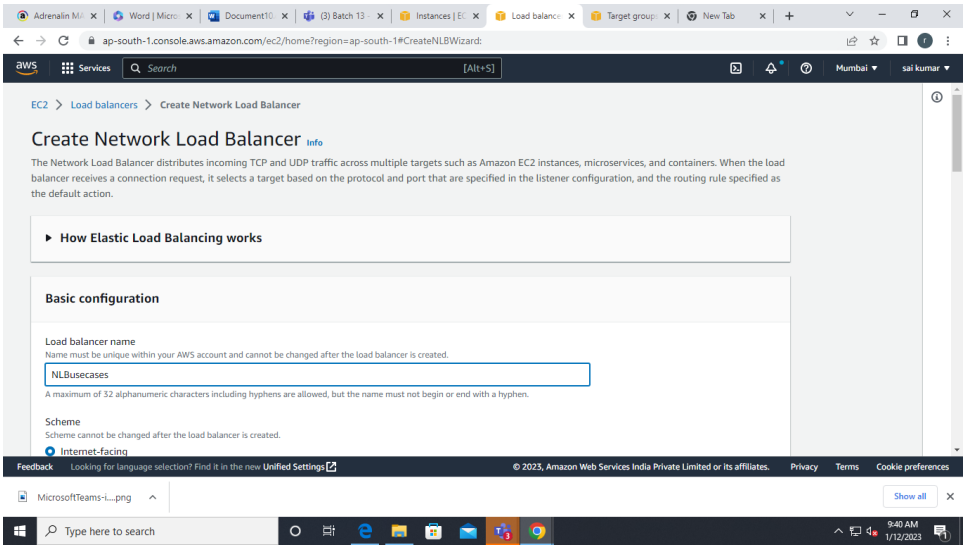


Then Register the targets and create the target group

Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

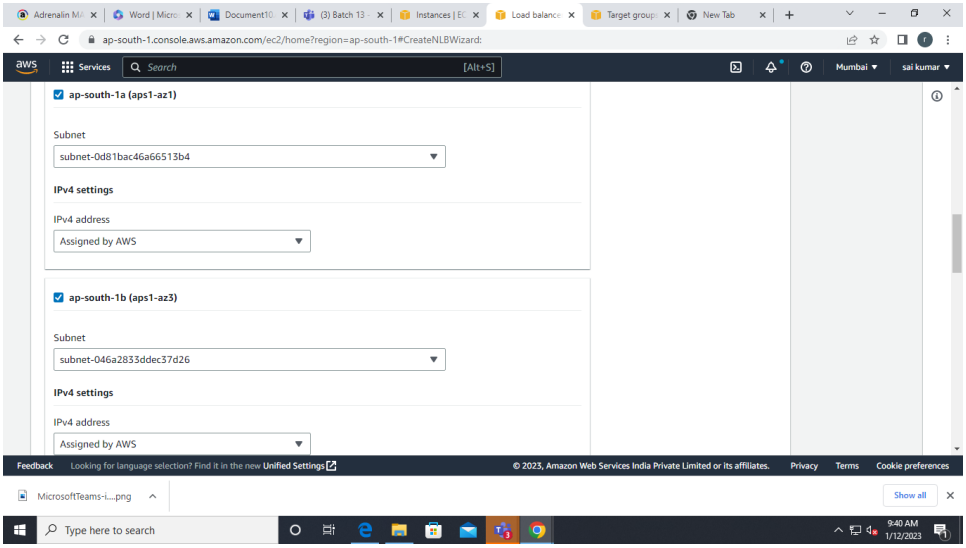


Create the Load Balancer

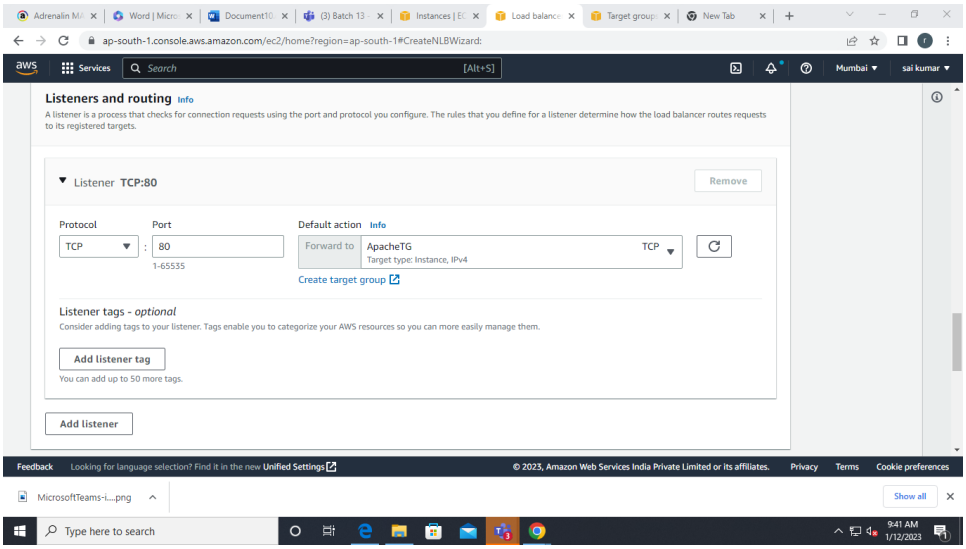


Select all the Availability Zones of the particular Region.

Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

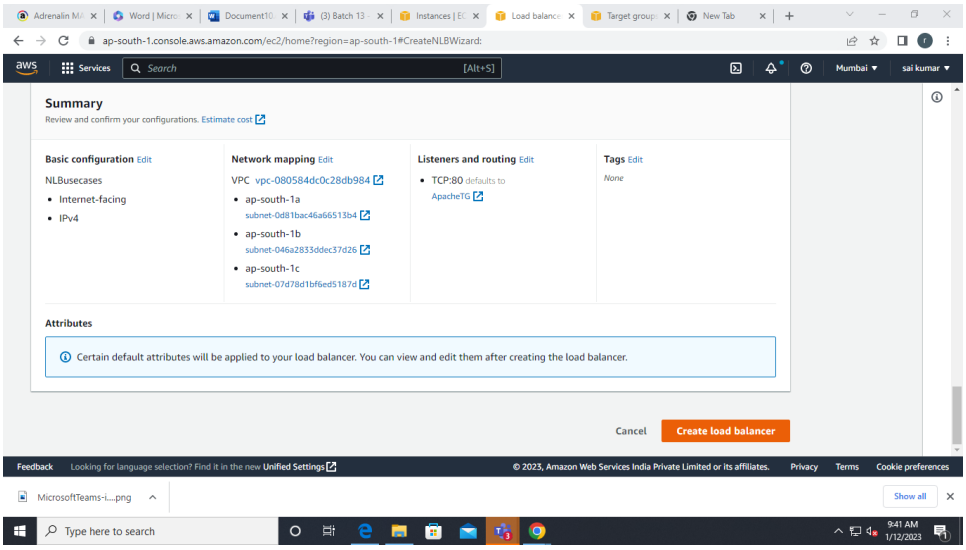


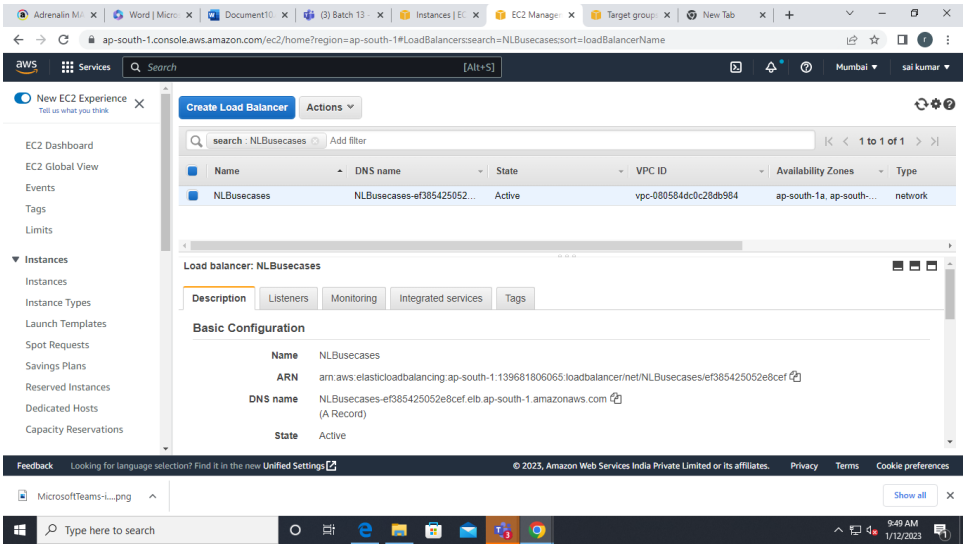
Select the port 80 and Default action is refresh and select the Apache Target Group



Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

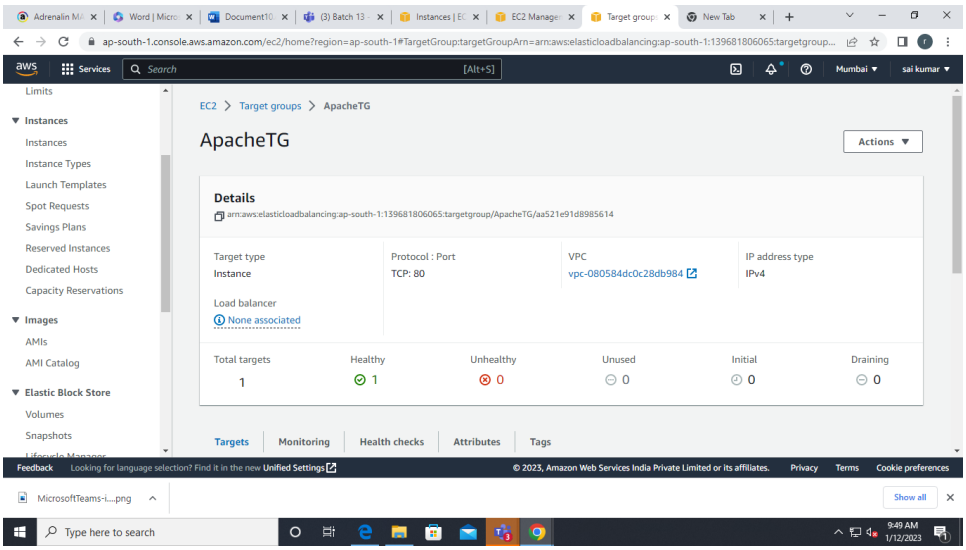
Finally Create the Load Balancer.Initially the load balancer is **provisioning state** and wait some time it converted into **Active state**

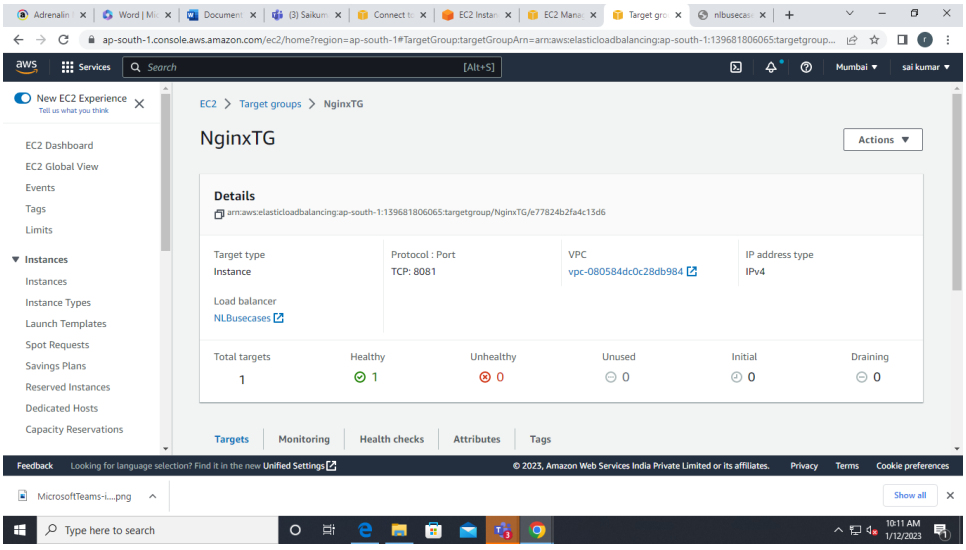




Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

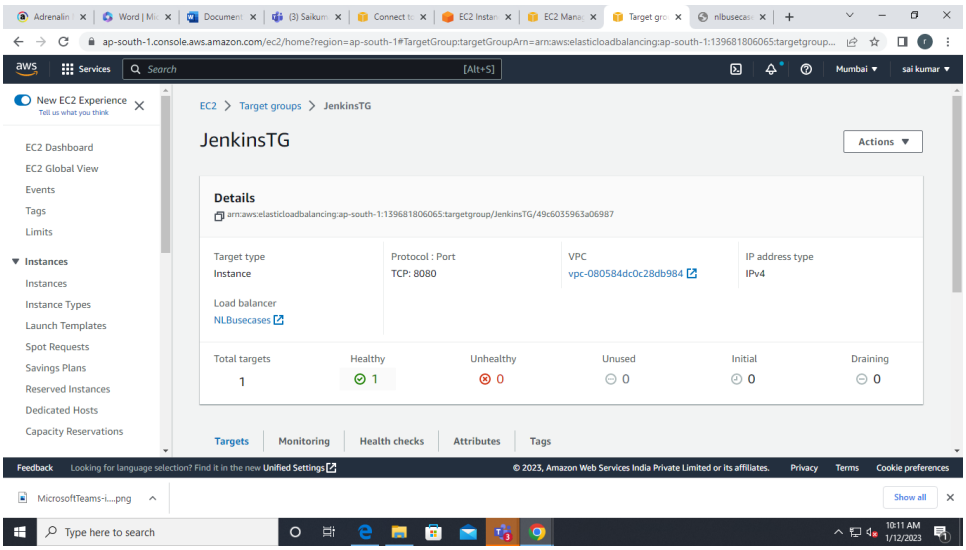
Select the each Target Group and check the health condition of the Target Group. Is they are healthy state or Unhealthy state.

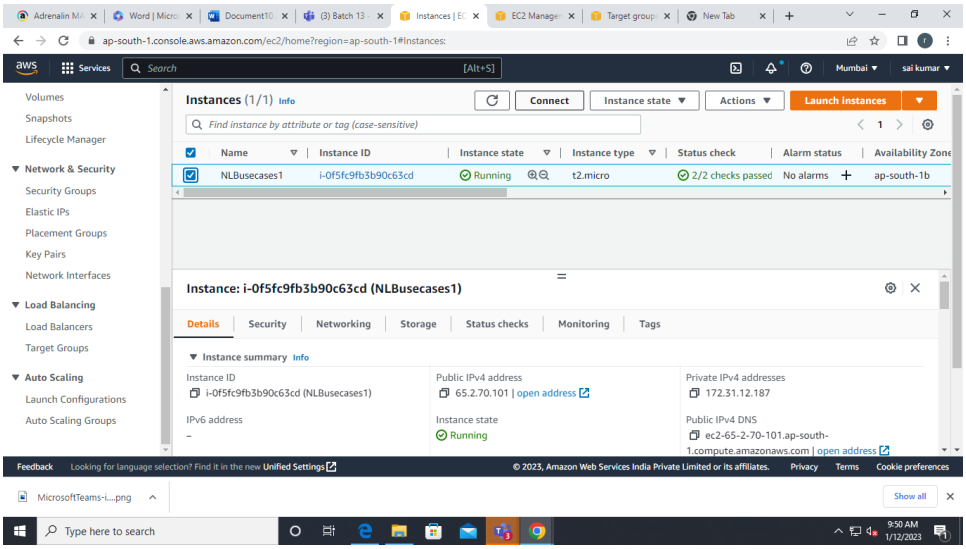




Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

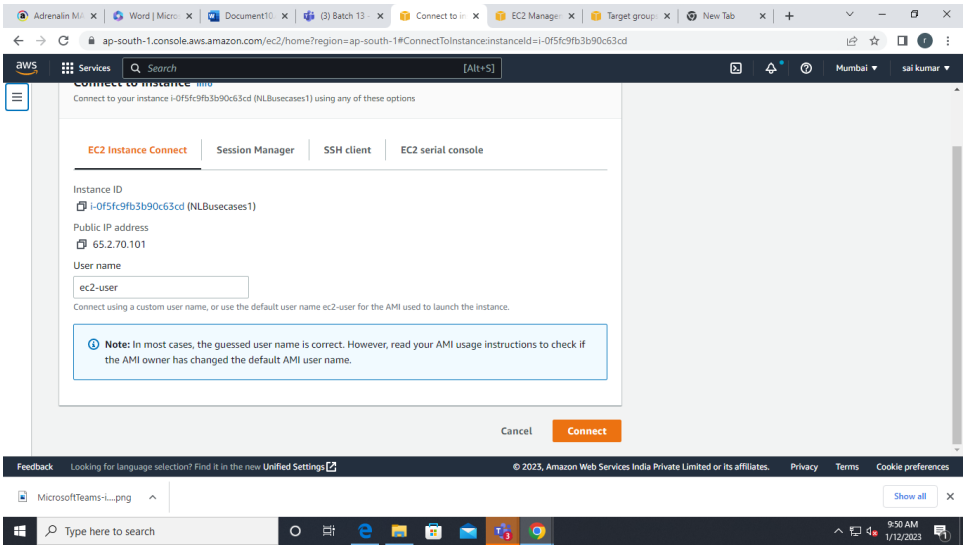
Now we can Select the EC2 instance and connect to Linux machine

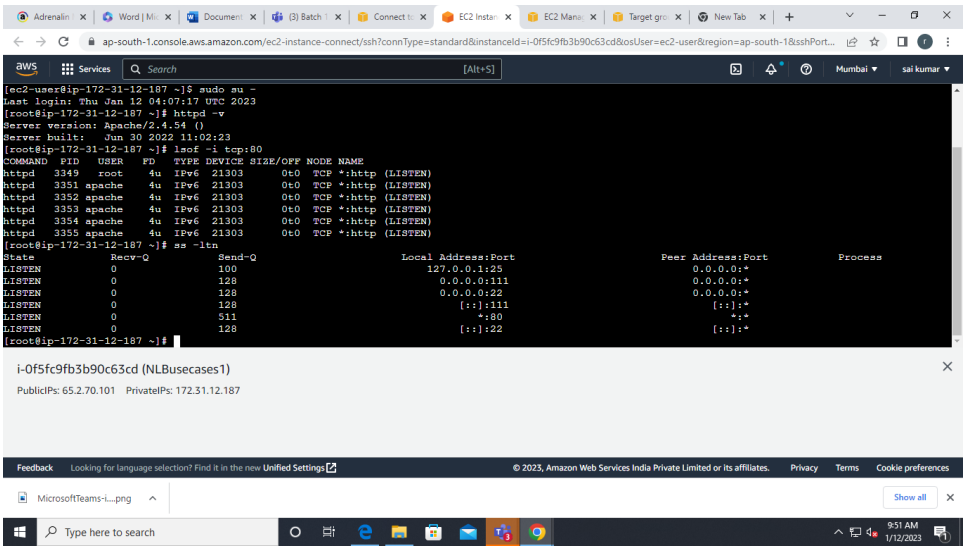




Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

Apply the commands regarding the Nginx server installation in Linux Machine





Emp Name:V.Sai Kumar | **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** | **Emp Id:6778**

Nginx installation commands:

Sudo su -

Httpd –v

lsof -I tcp:80

Sudo amazon-linux-extras install ngin1 –y

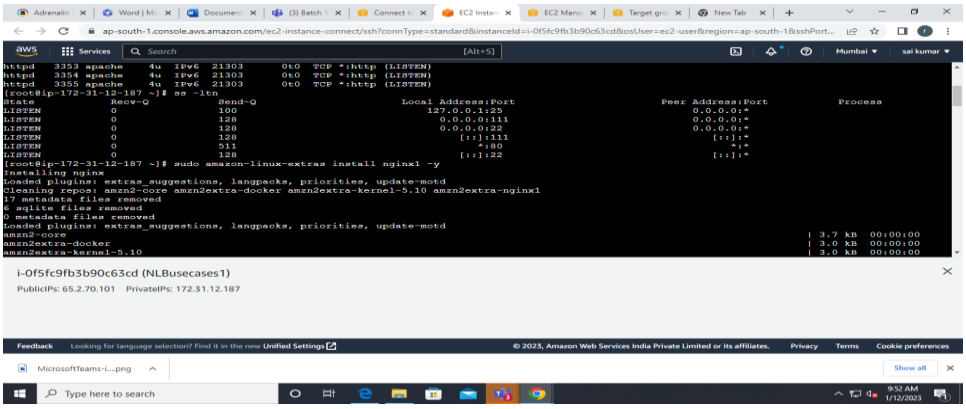
ngnix –v

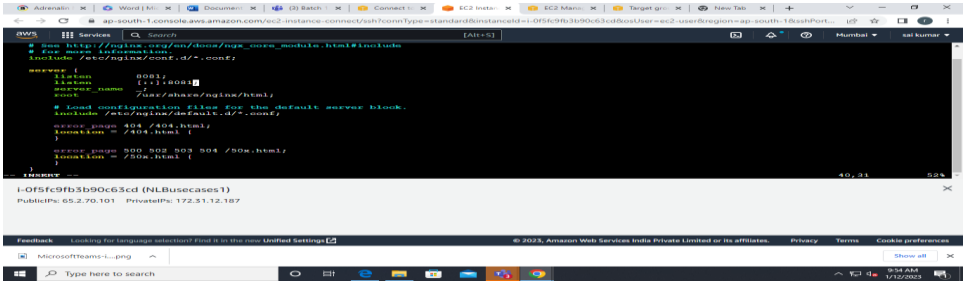
Cd /etc/nginx

vi nginx.conf

Press I for inserted mode

Changing the port 80 to 8081 then enter the esc+:+wq then enter



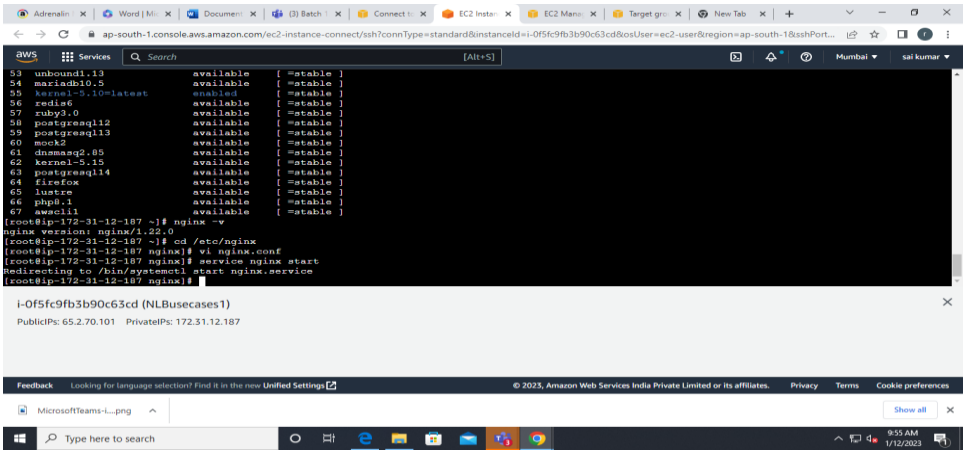


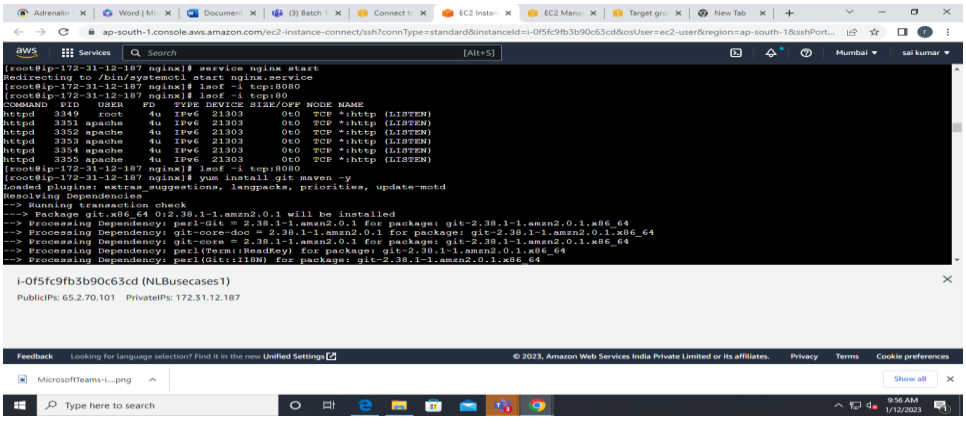
Then enter the command service nginx start

Now we can check the which port is assigned to which server and also checks the which servers are installed in linux machine.

lsof -i tcp:80

lsof -i tcp:8081





Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

Now we can install the Jenkins server by using the below commands

yum update –y

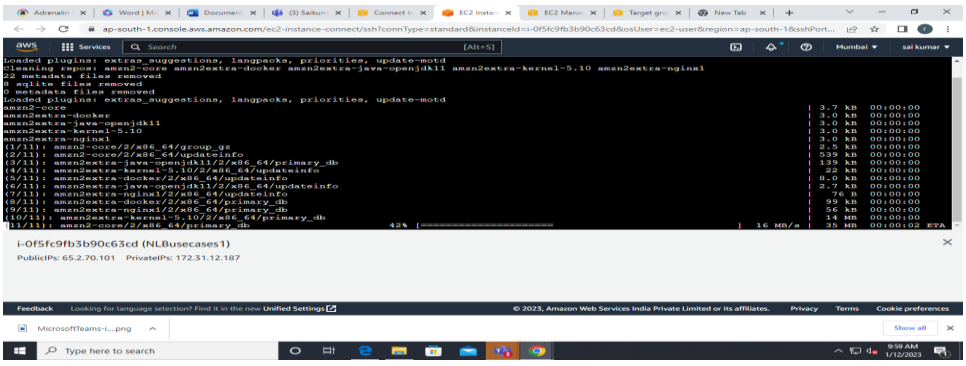
yum install git maven –y

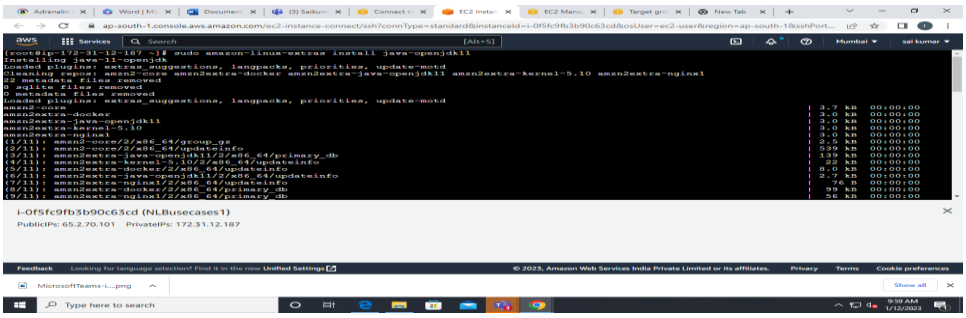
`sudo amazon-linux-extras install java-openjdk11`

`sudo yum install java-1.8.0-openjdk`

Wget https://get.jenkins.io/war-stable/2.375.2/jenkins.war

java –jar jenkins.war





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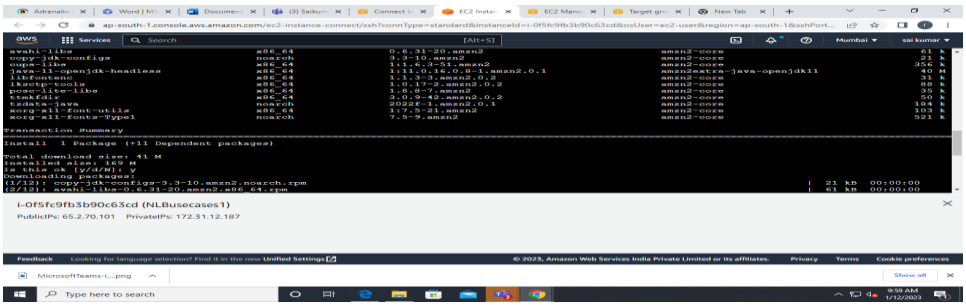

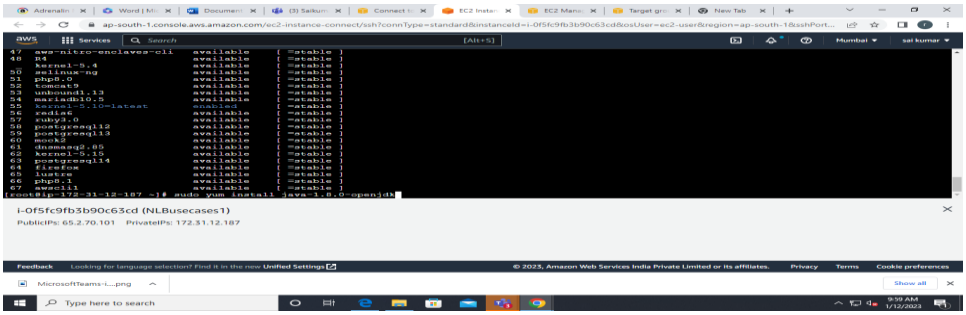

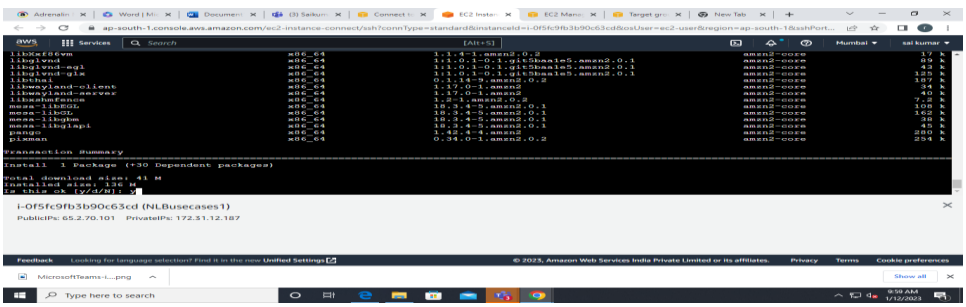

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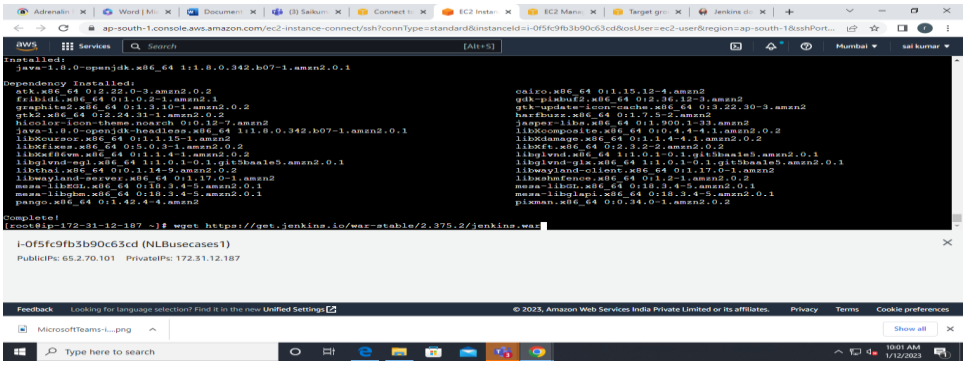

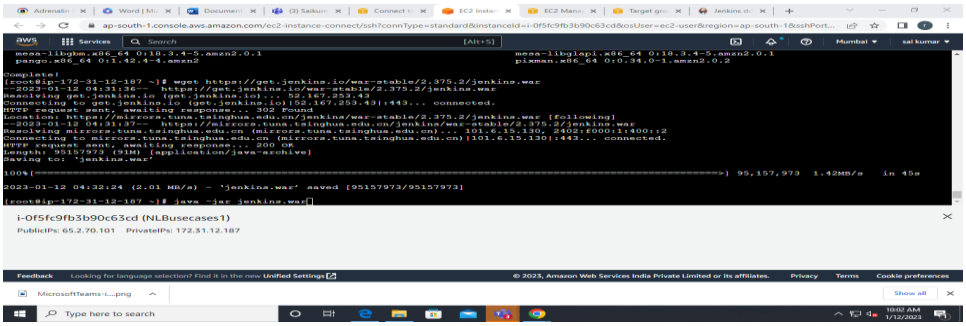

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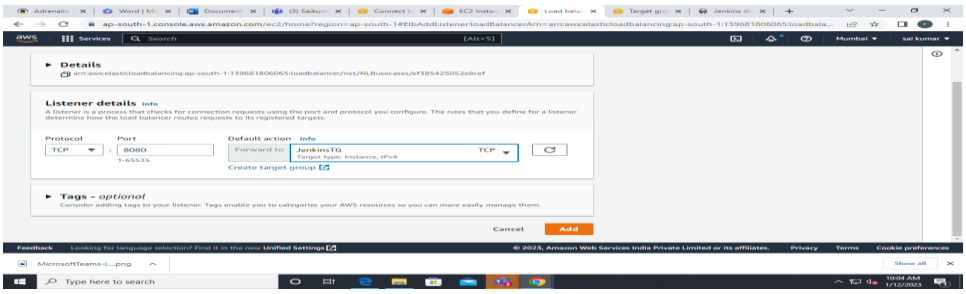
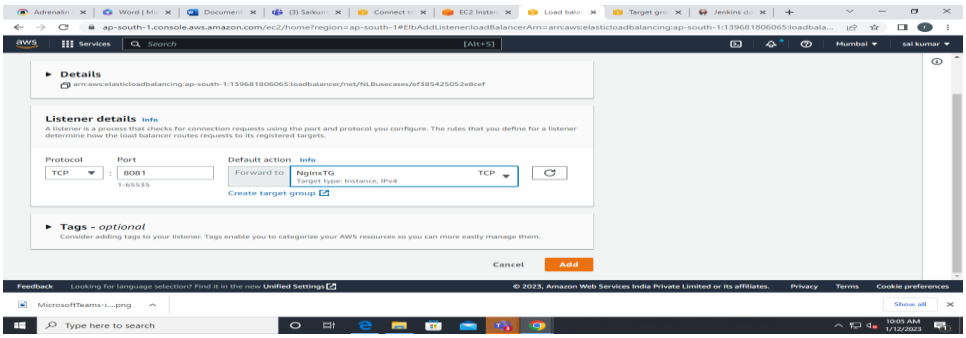


Add listeners to the Load Balancer and mention the ports and protocols

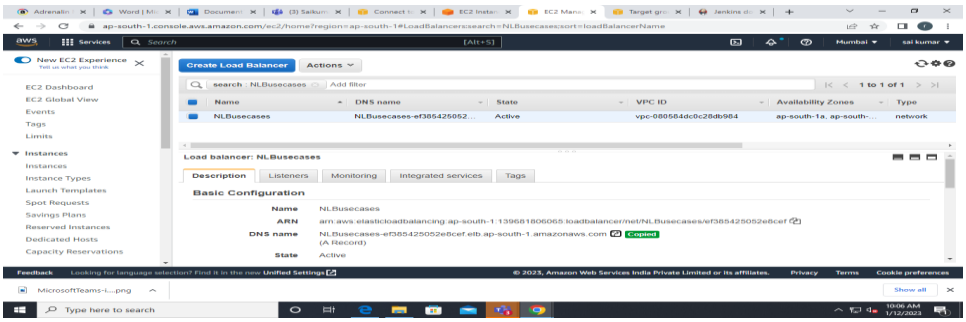
For Nginx: **For Jenkins:** **For Apache:**

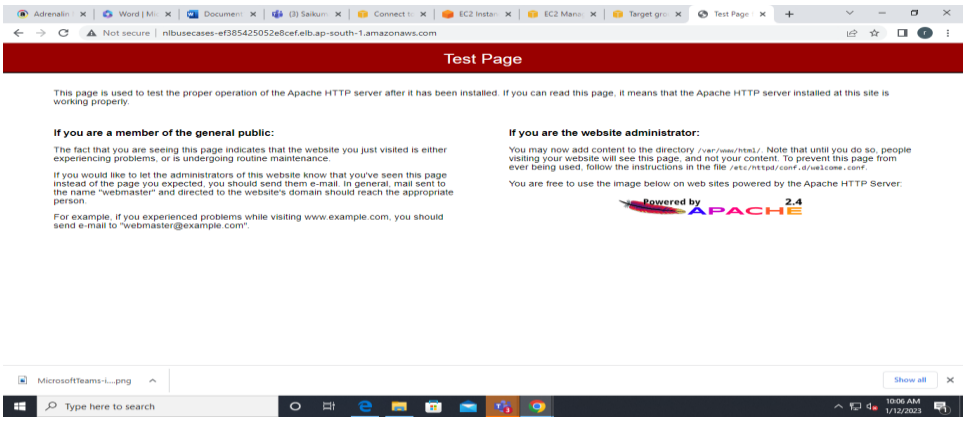
Protocol :TCP **Protocol :TCP** **Protocol :TCP**

Port :8081 **Port :8080** **Port :80**



Copy the Load Balancer DNS name and paste it into the new tab in browser then redirecting into the **Apache server**





Copy the Load Balancer DNS name,mention the port number with :8081 and paste it into the new tab in browser then redirecting into the **Nginx server**

Copy the Load Balancer DNS name,mention the port number with :8080 and paste it into the new tab in browser then redirecting into the **Jenkins server**

Emp Name:V.Sai Kumar **Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)** **Emp Id:6778**

Emp Name:V.Sai Kumar

Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)

Emp Id:6778

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Apache,Nginx and Jenkins installations using Network Load Balancers (NLB)

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