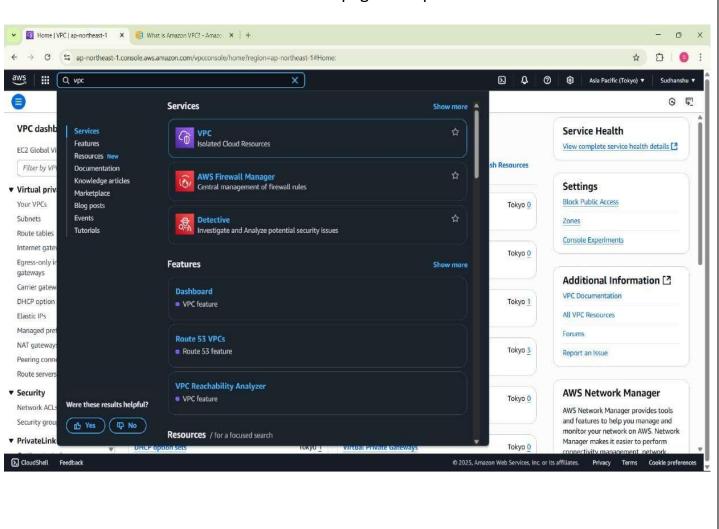
Amazon VPC (Virtual Private Cloud)- With Amazon Virtual Private Cloud (Amazon VPC), we can launch AWS resources in a logically isolated virtual network that we've defined. This virtual network closely resembles a traditional network that you'd operate in your own data center, with the benefits of using the scalable infrastructure of AWS.

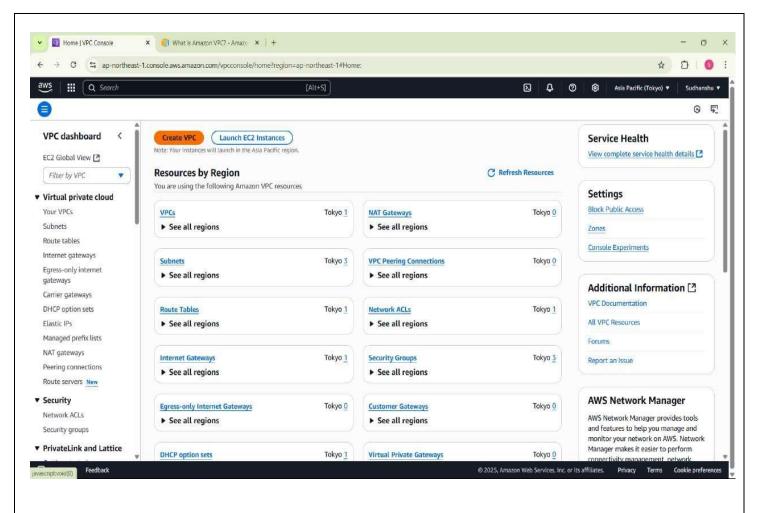
It gives us full control over our virtual networking environment, including resource placement, connectivity, and security. Get started by setting up our VPC in the AWS service console.

For now, we are going to connect instances using Internet Gateway.

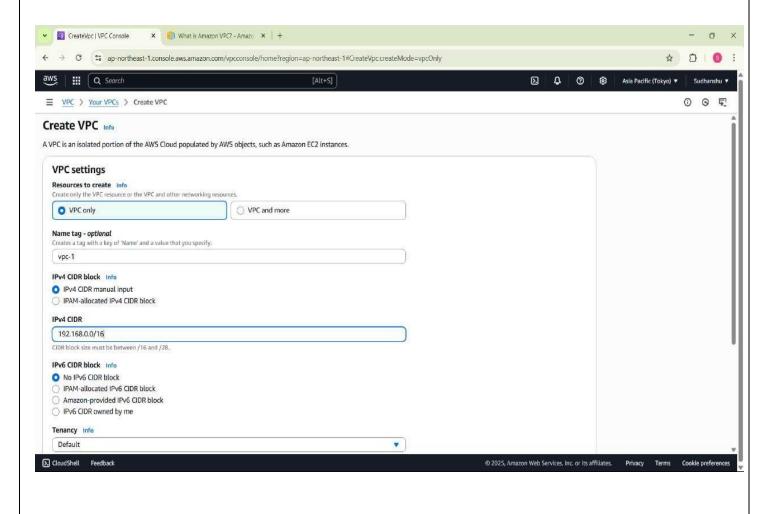
Creating VPC

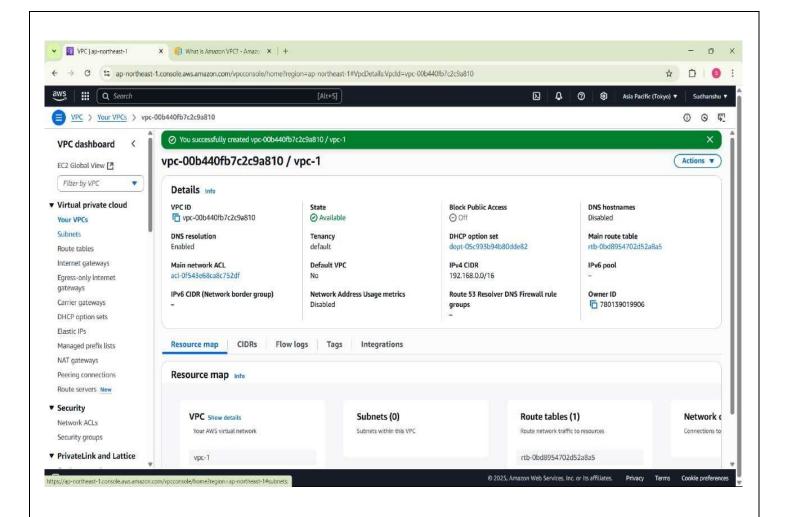
• Search VPC → Click on it → VPC page will open. → Click on create VPC



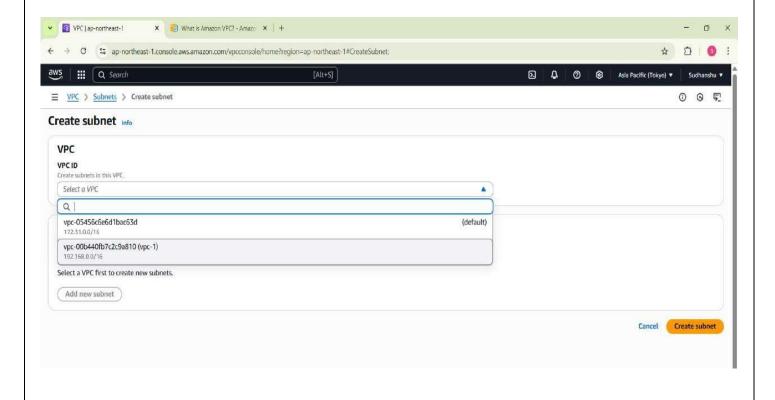


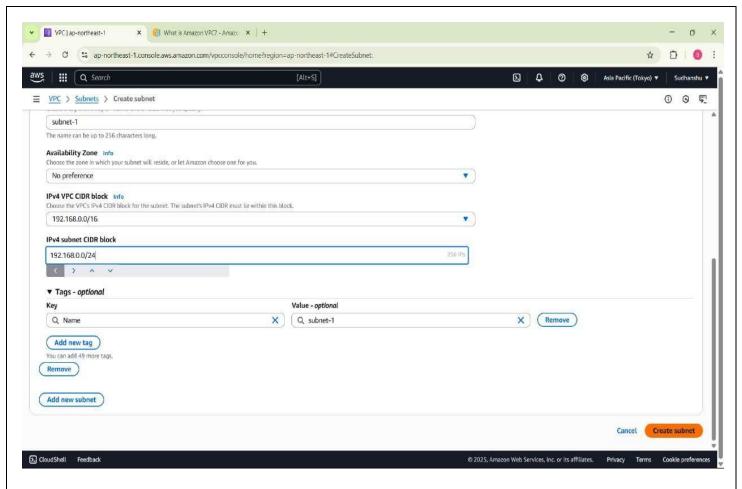
• Enter the VPC name and IPv4 → scroll down and create VPC



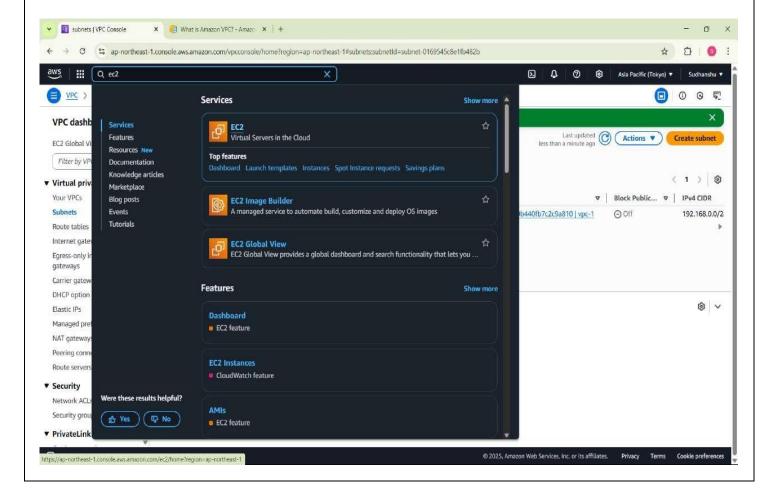


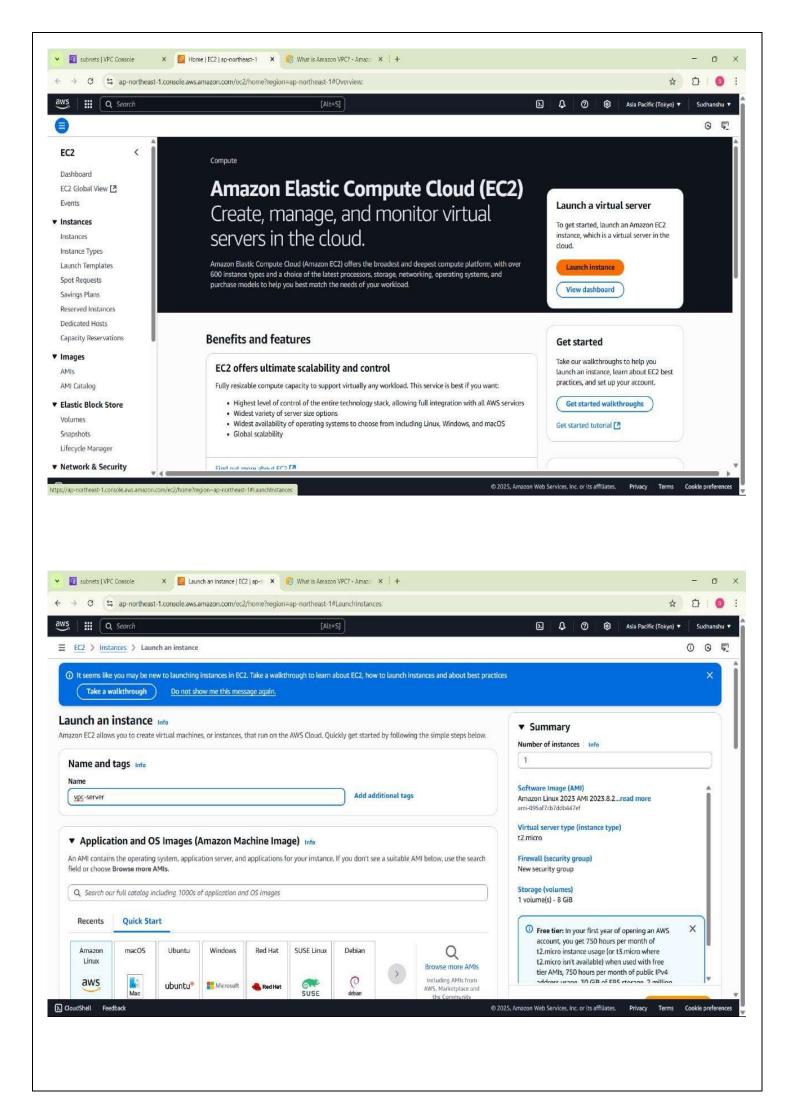
- Now after VPC is created we need to create a Subnet
- Click on Subnets → Click Create Subnet → Enter the newly created VPC id and follow the steps → Assign IPv4 Subnet CIDR Block (in this case we use 192.168.0.0/24) → Click Create Subnet.

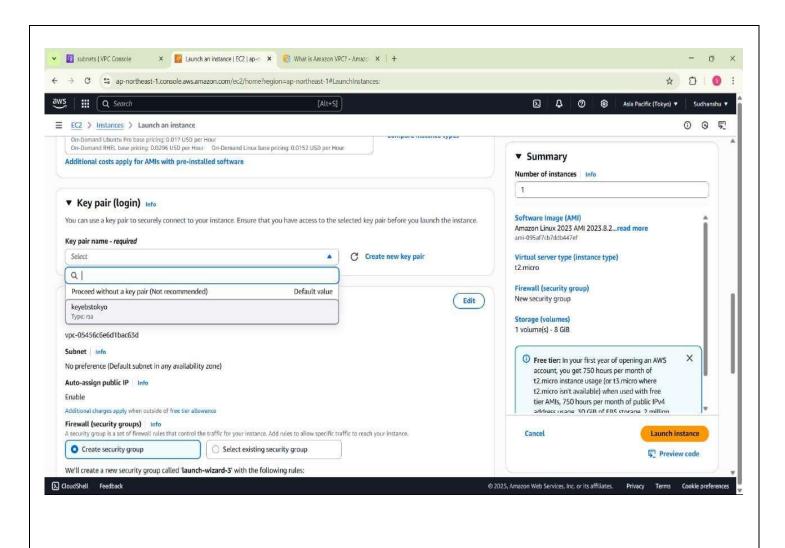


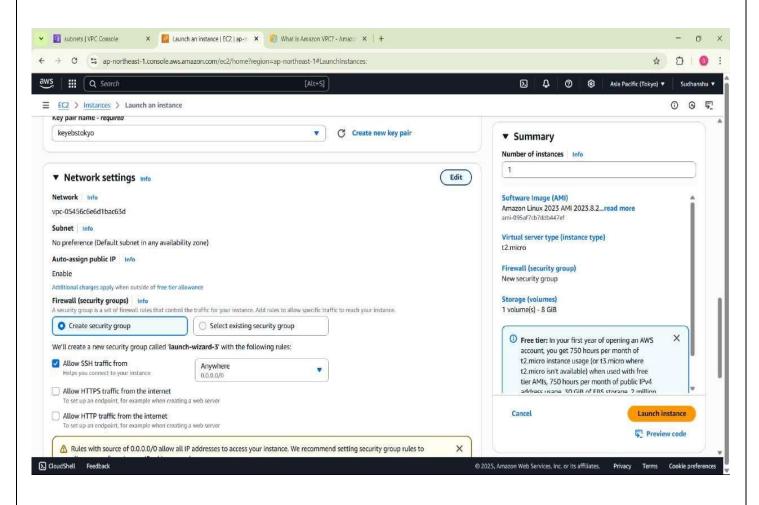


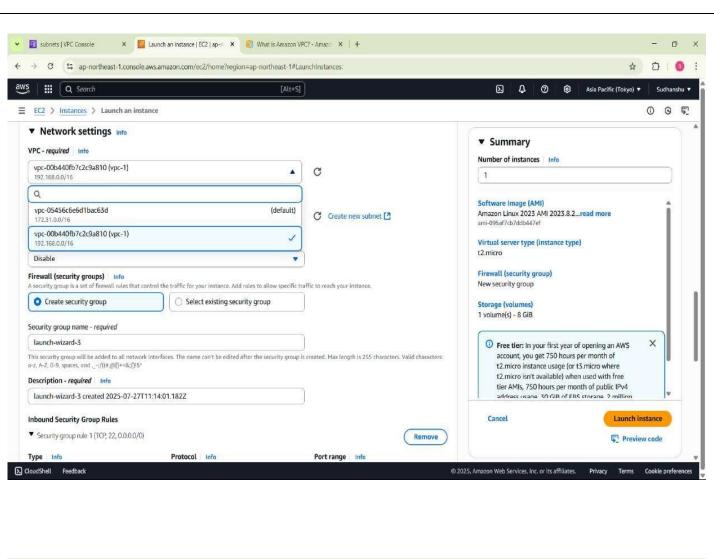
- After Subnet is created, we have to launch an instance with some changes in network settings and security groups.
- Following steps will go through launching an instance.

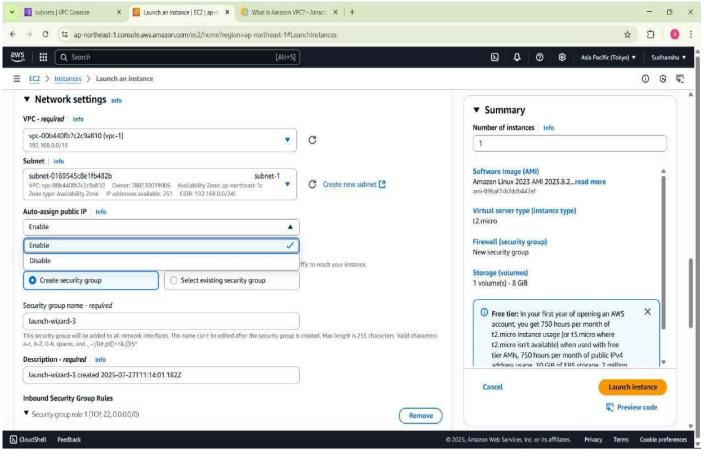


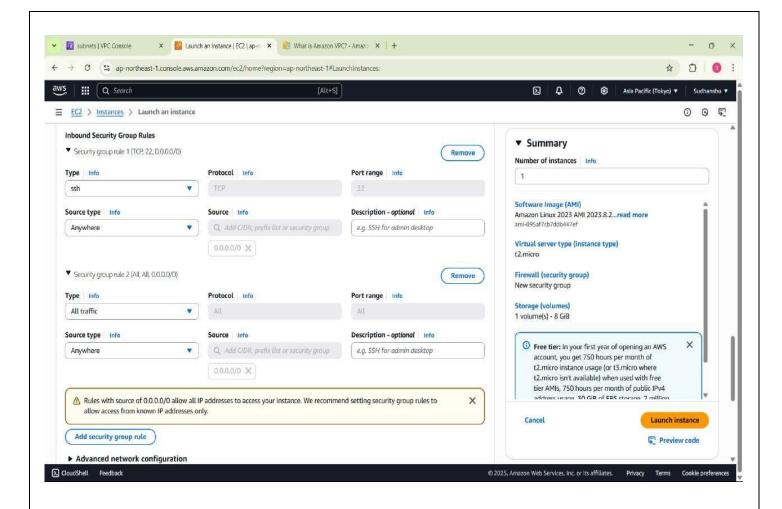




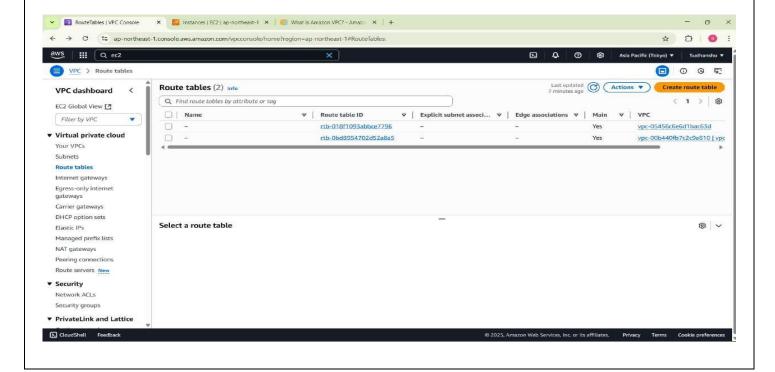


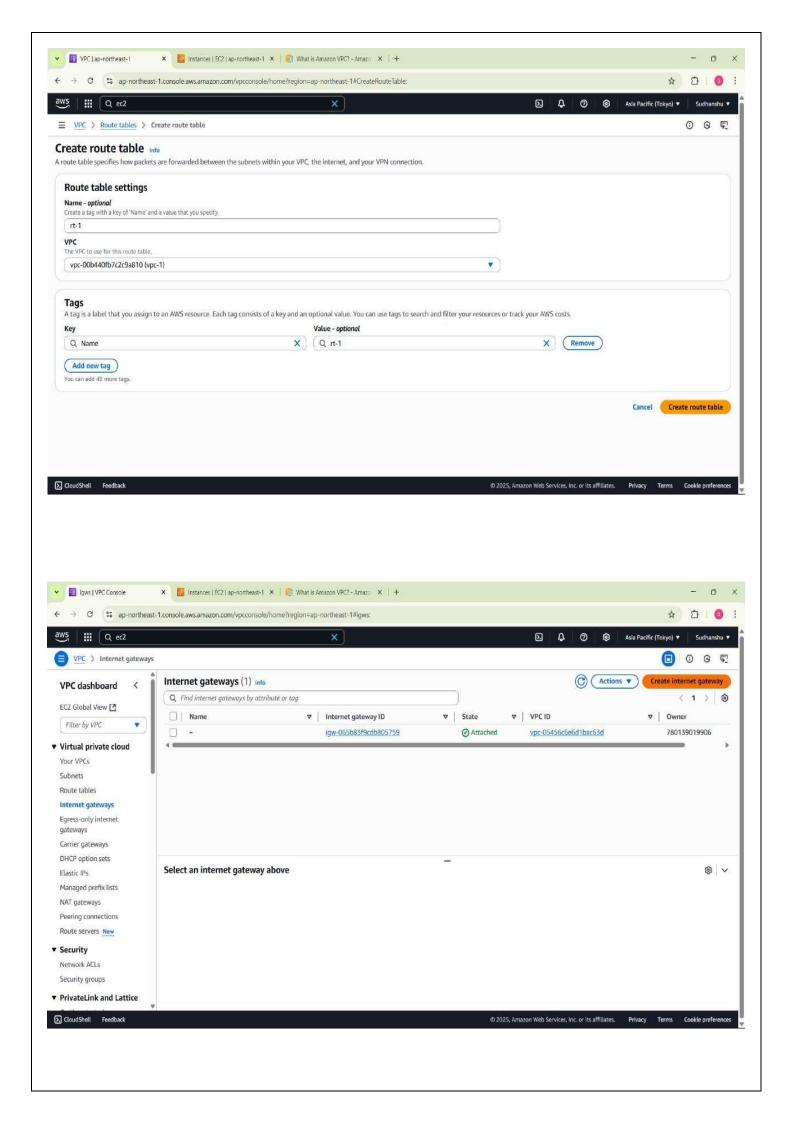


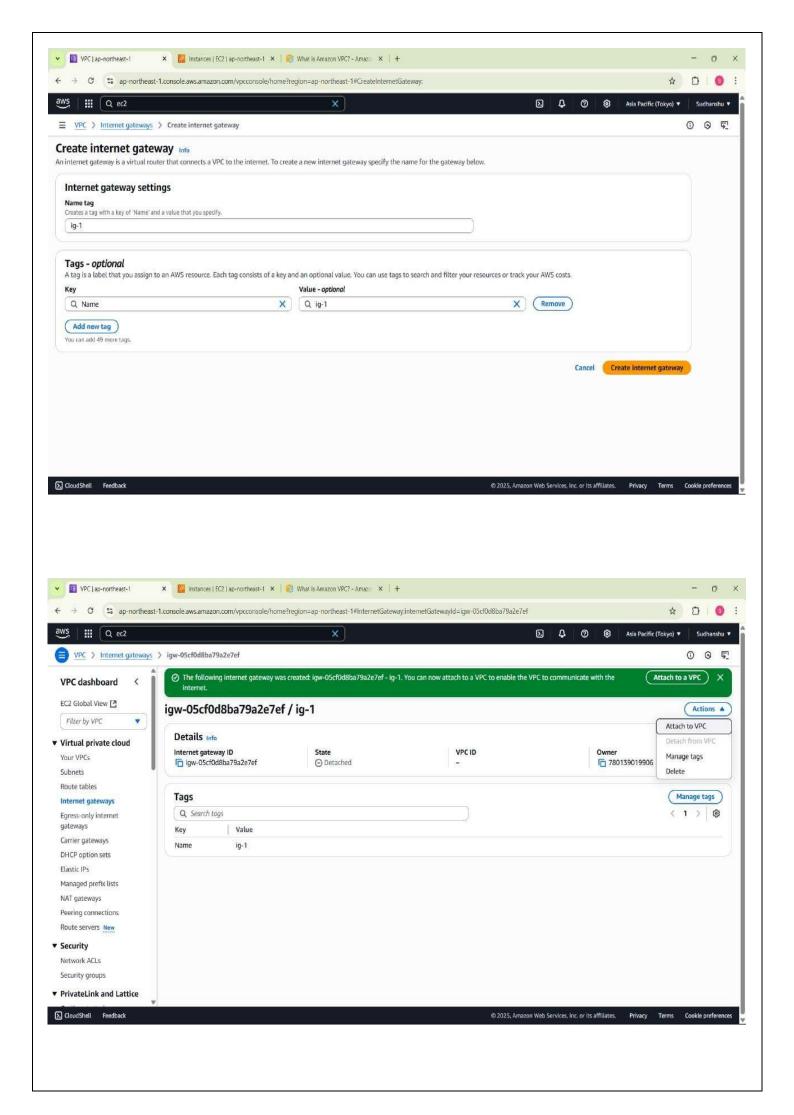


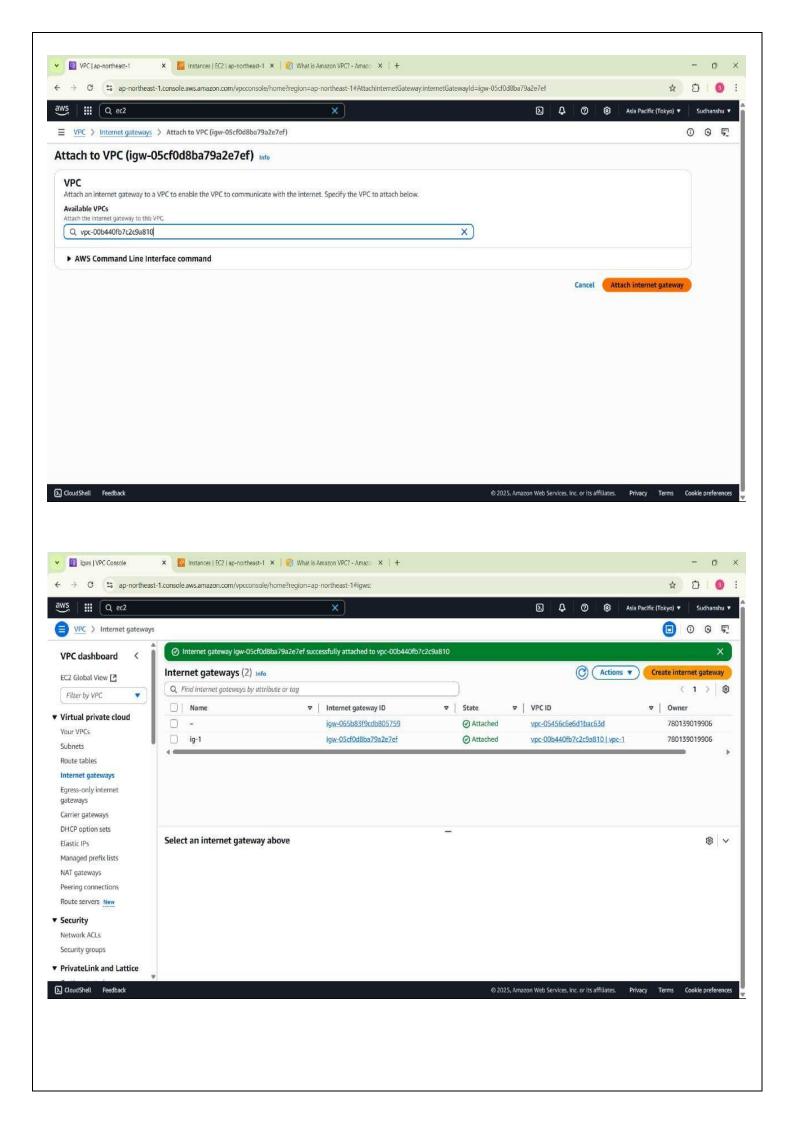


- Click on launch Instance and go back to VPC and create a Route Table.
- Click on create route table → Enter name and VPC that is created and click Create route table.
- Once Route table gets created → Go to Internet gateways and click on Create Internet gateway → Click Internet gateway enter gateway name and create Internet gateway.
- After Internet gateway gets created go to Actions and Attach to VPC.

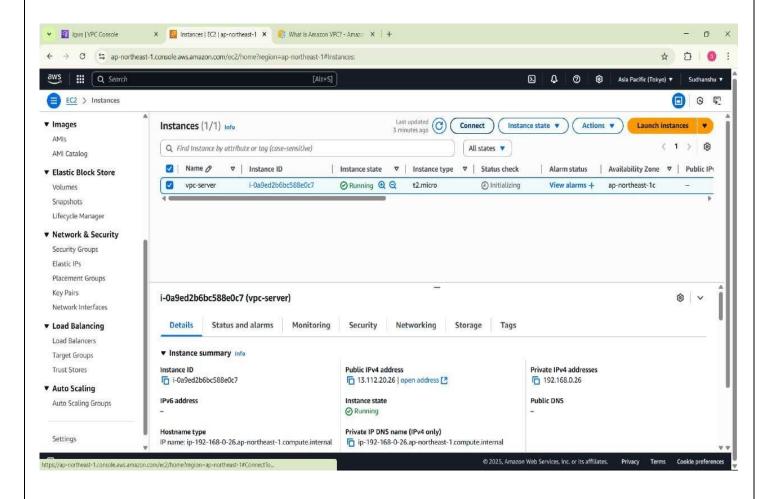


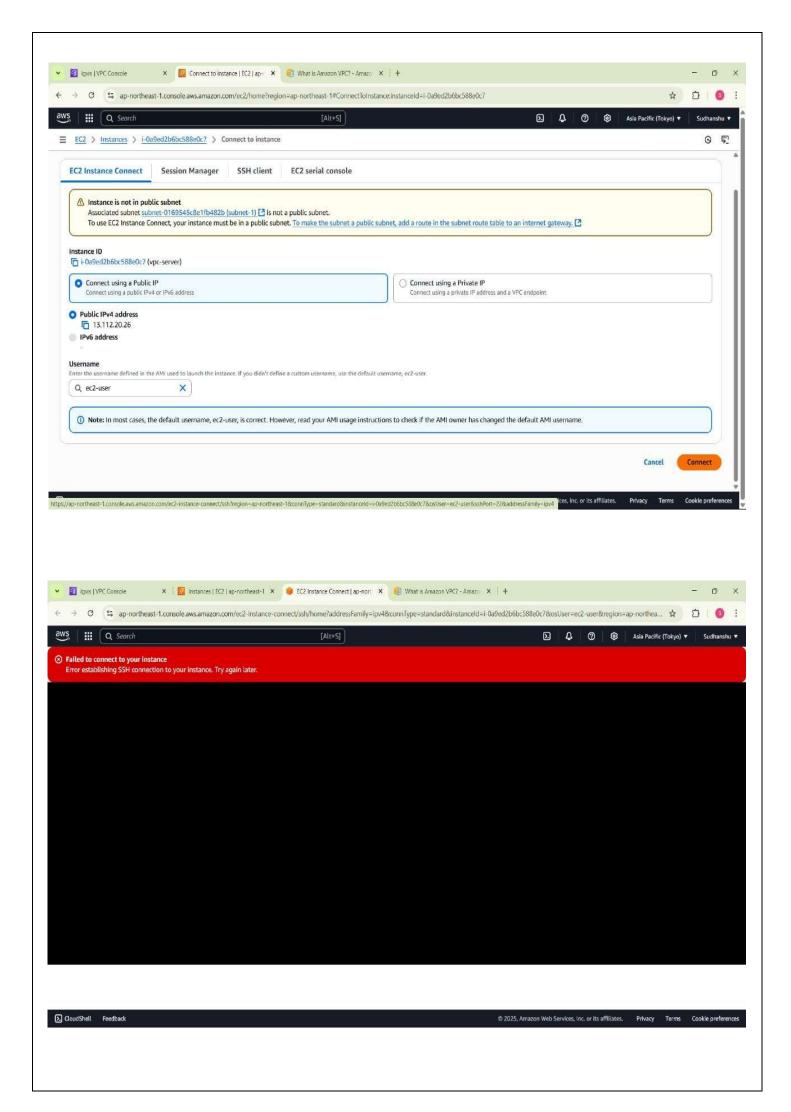


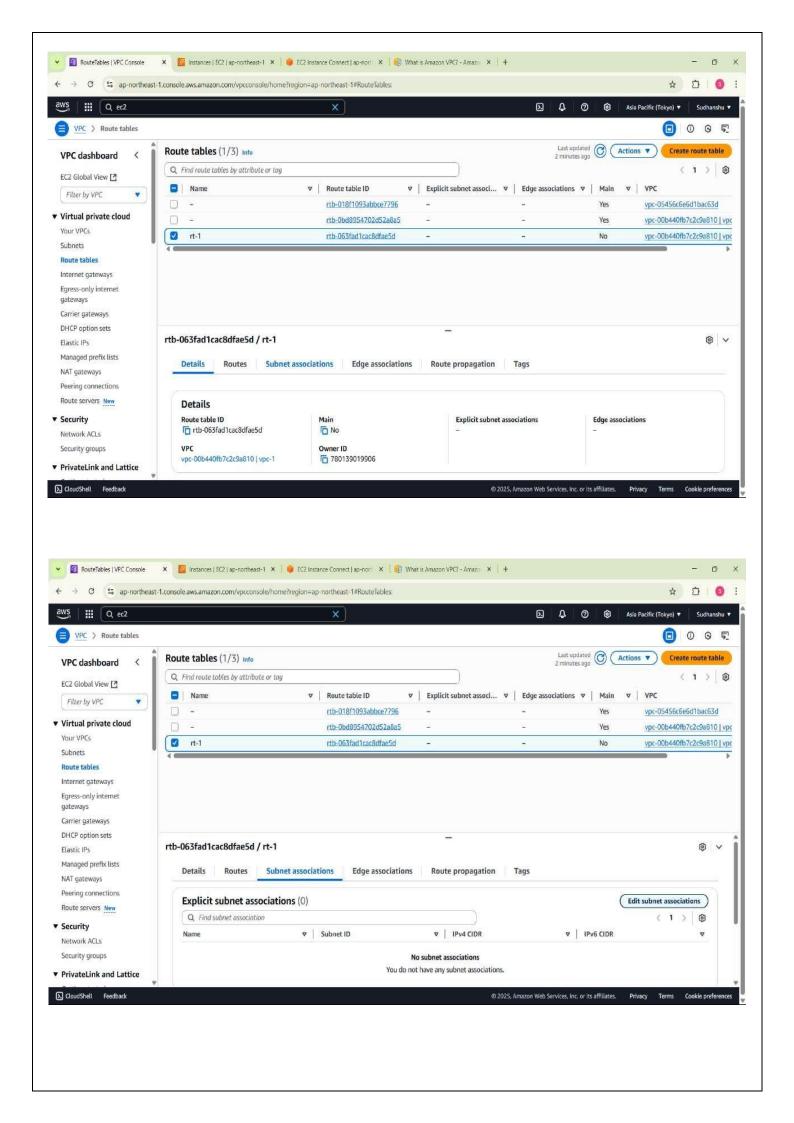


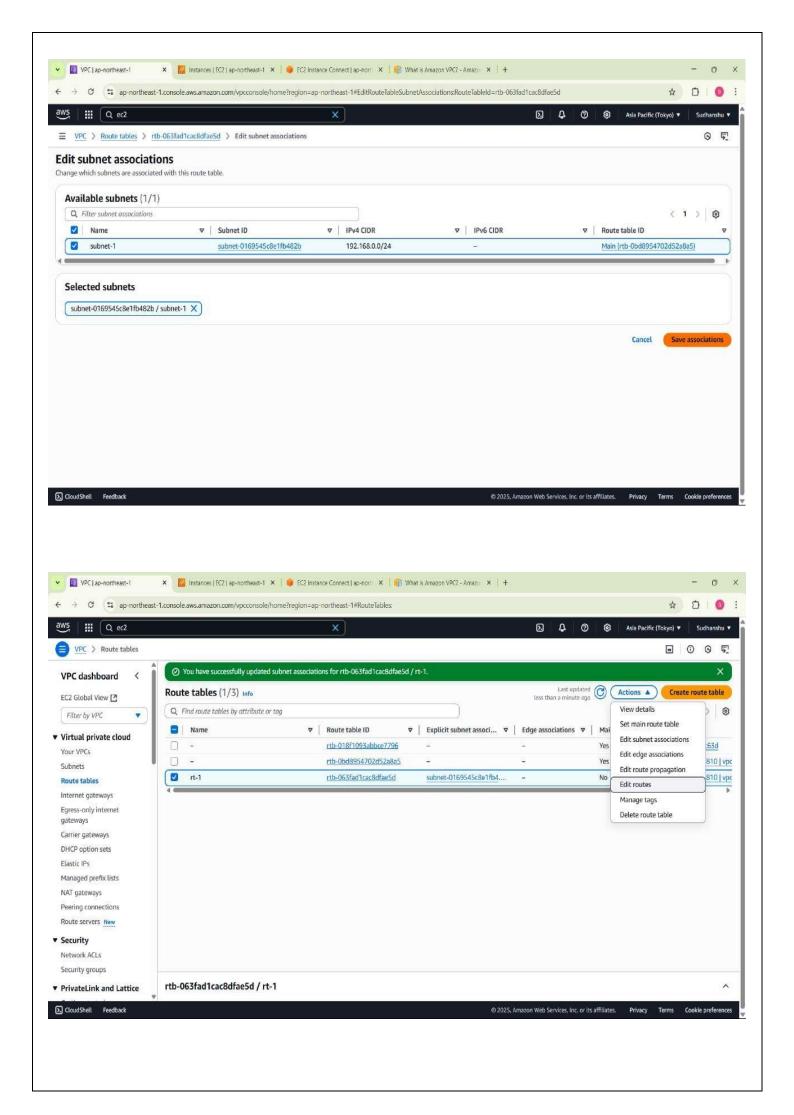


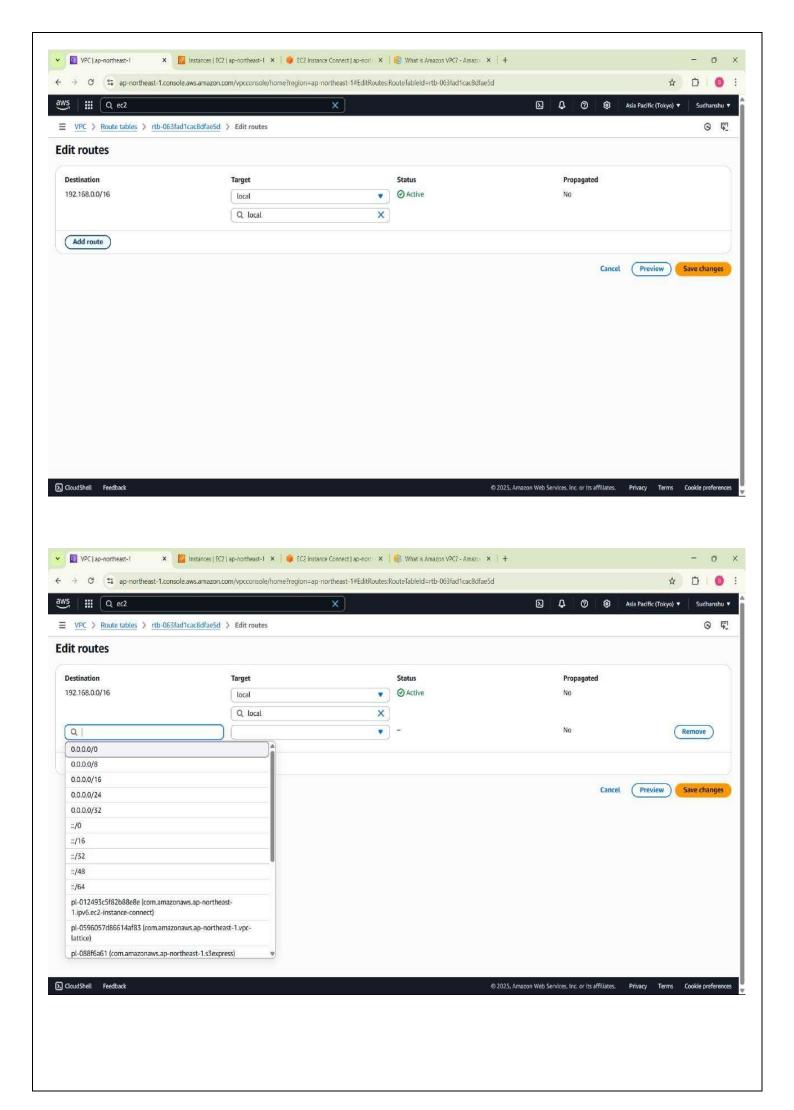
- Now try to connect the instance, it will not connect since we didn't edit the subnet associations and didn't route it to the Internet gateway.
- To edit subnet associations → Go to route tables and click the newly created route table → click on edit subnet associations and add the available subnet.
- On the route table, select the created route table and go to actions and click on edit routes. → Click on add route and enter the route IP and select it as Internet Gateway and choose the internet gateway i.e. created and click sae changes
- Now when we try to connect the instance then it will connect and to check whether it is communicating with the server we can write (ping 8.8.8.8).

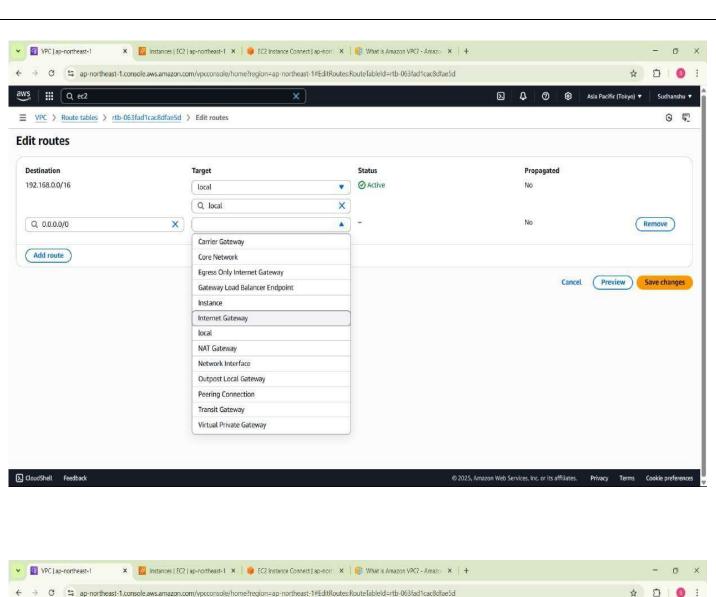


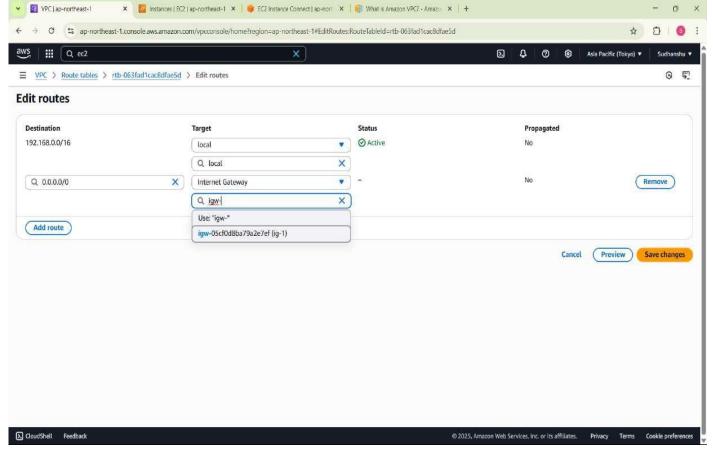


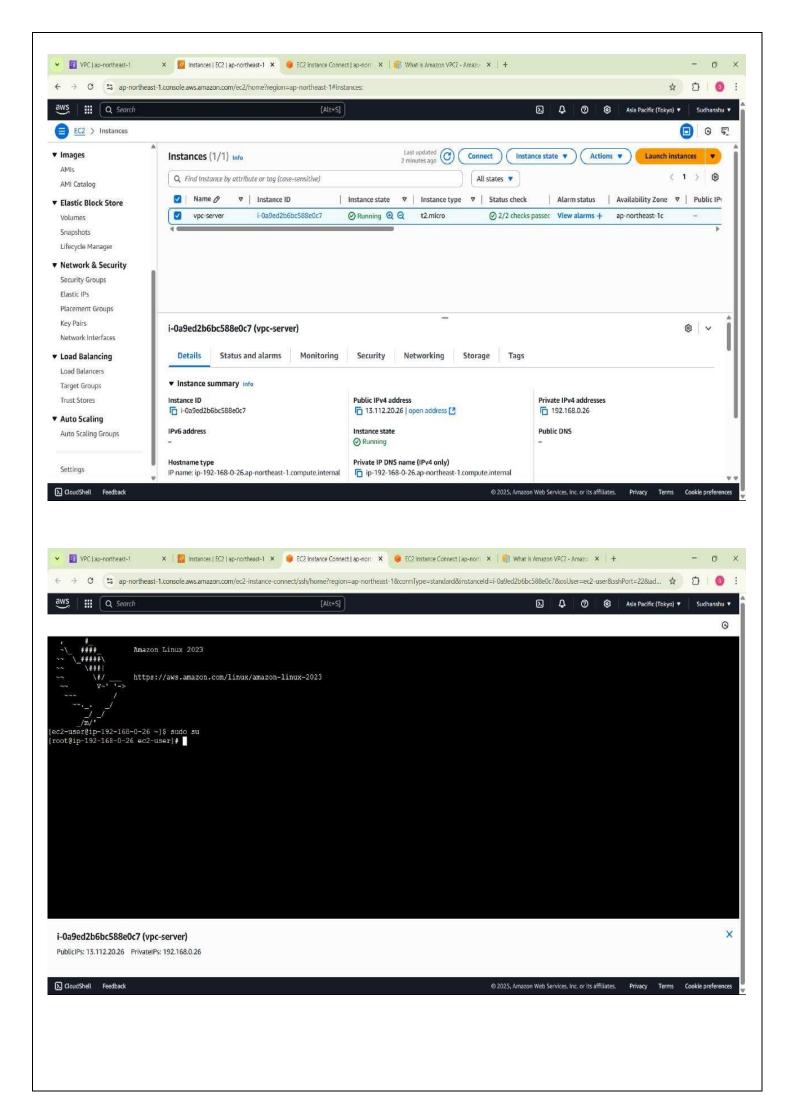


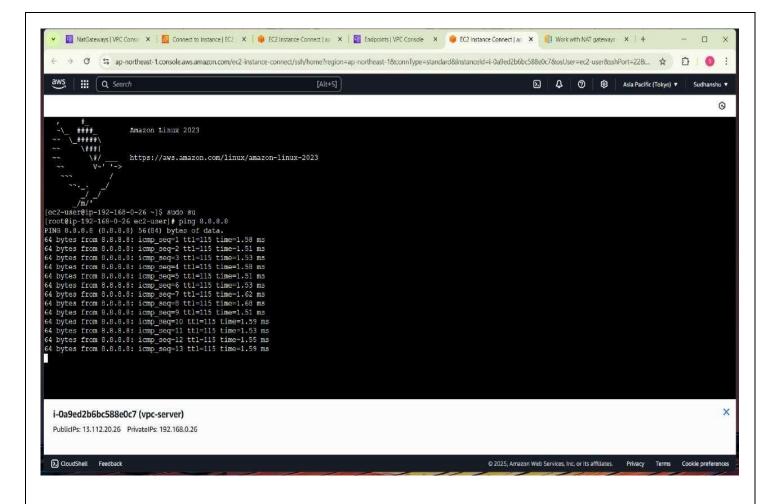












• Now terminate the instance and delete the VPC, on deleting VPC the associated subnets, route tables and internet gateways will also get deleted.

