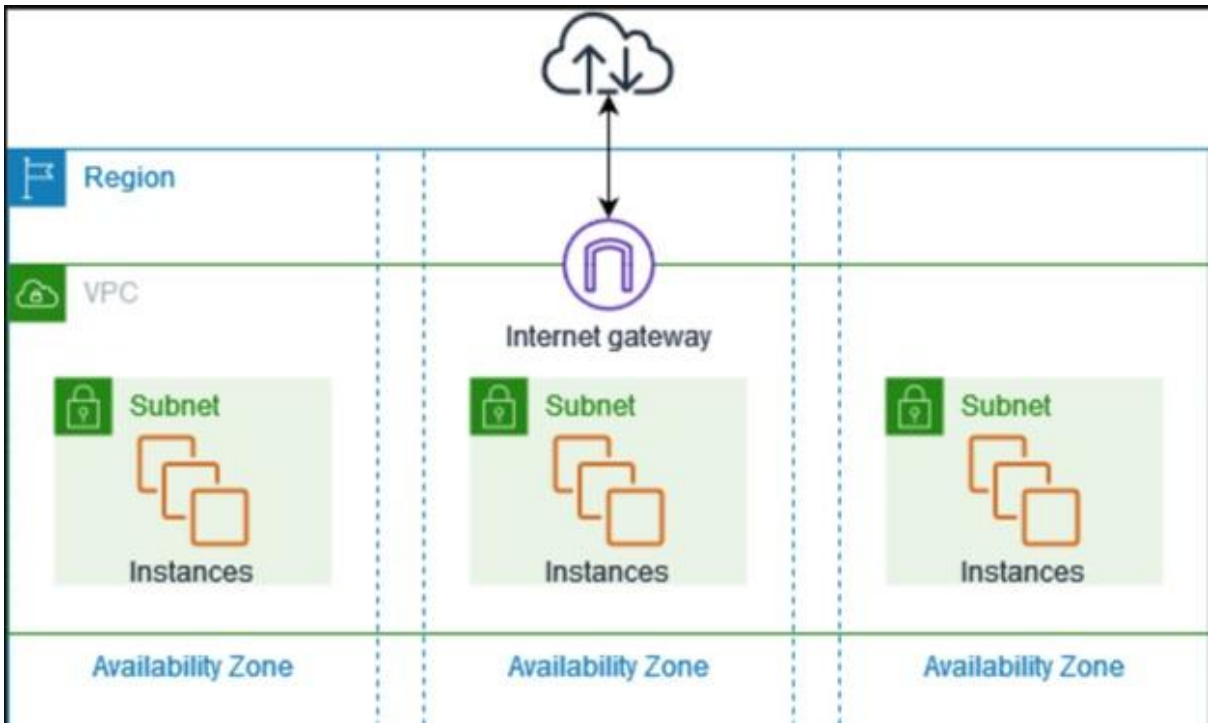
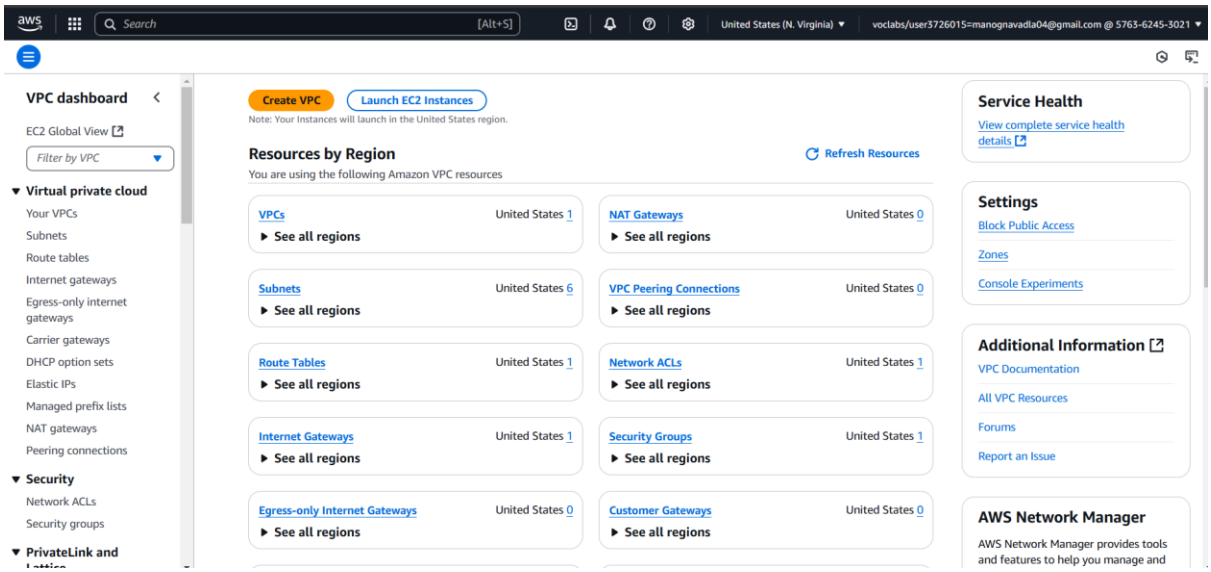
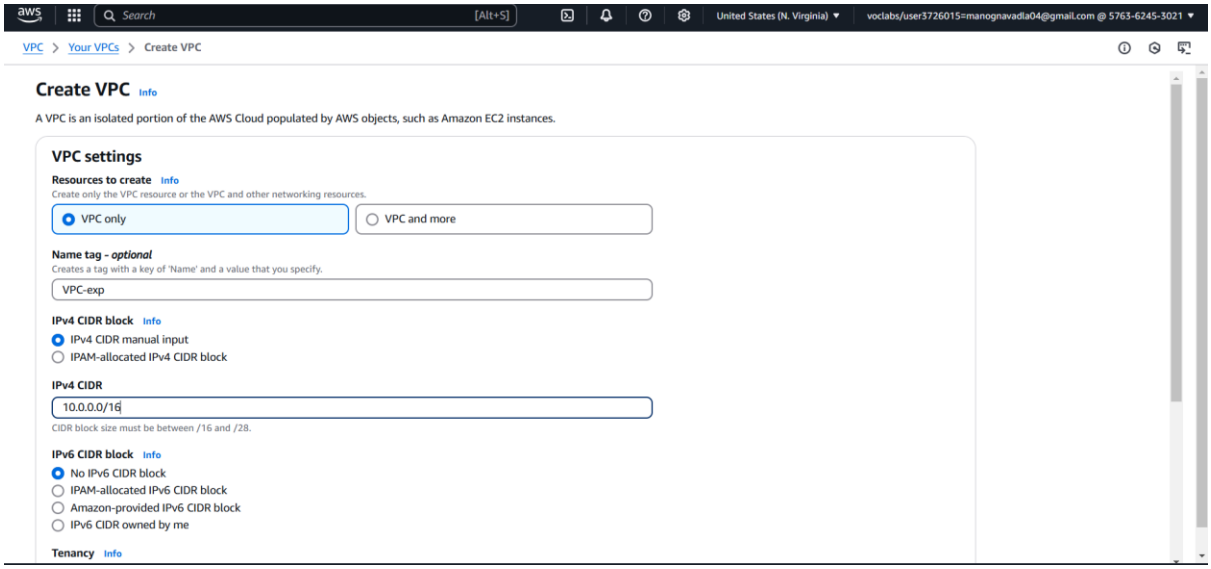
VPC Experiment



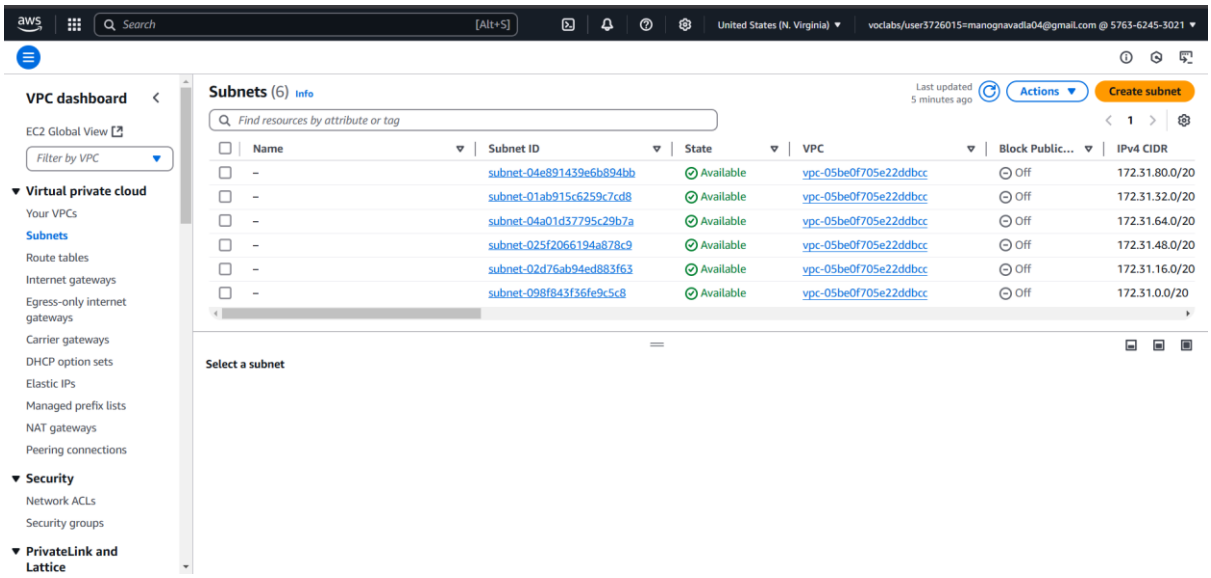
Navigate to VPC dashboard.



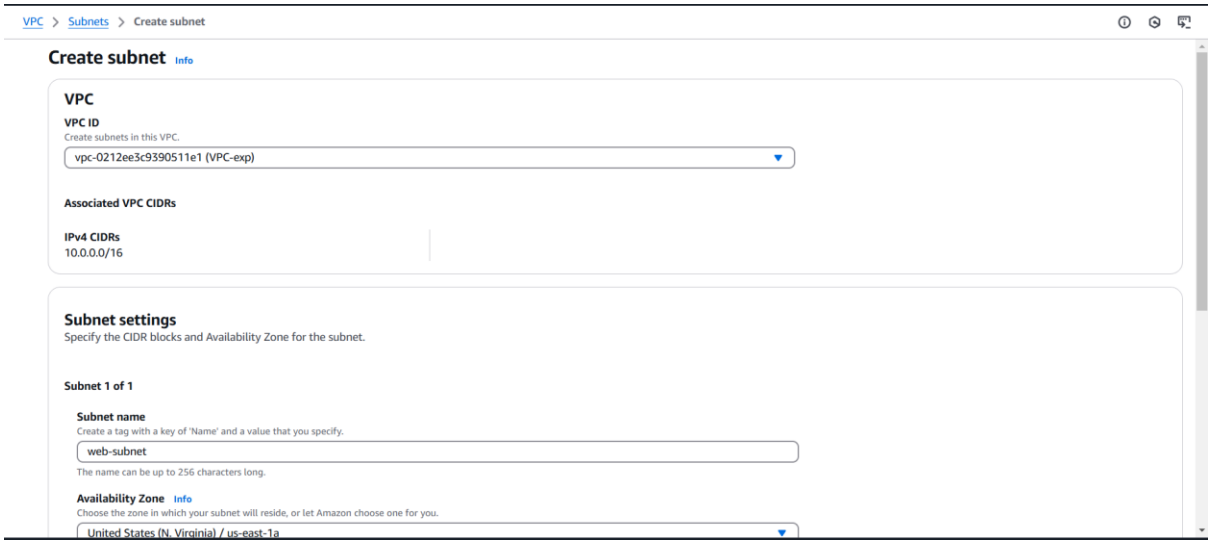
Create a VPC with custom name and IPv4



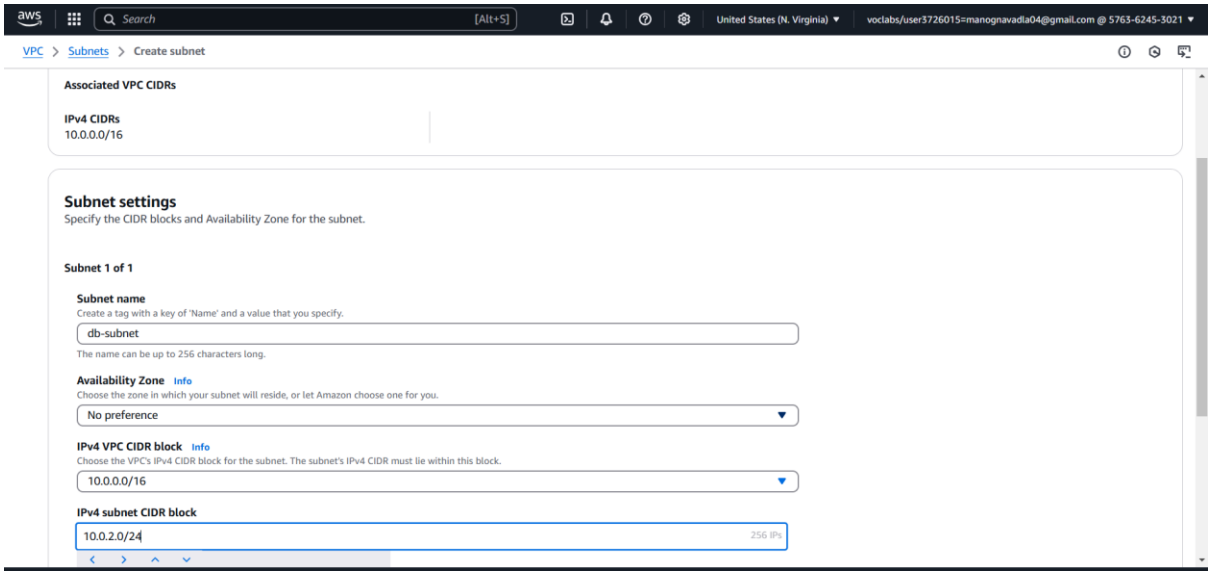
Now head to subnets section and create two subnets



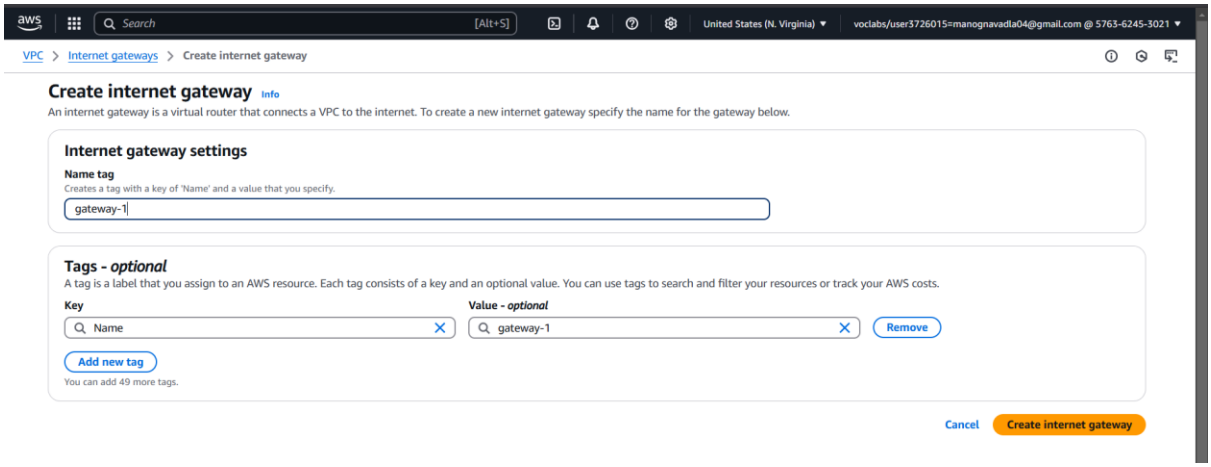
This Is a public subnet for web server



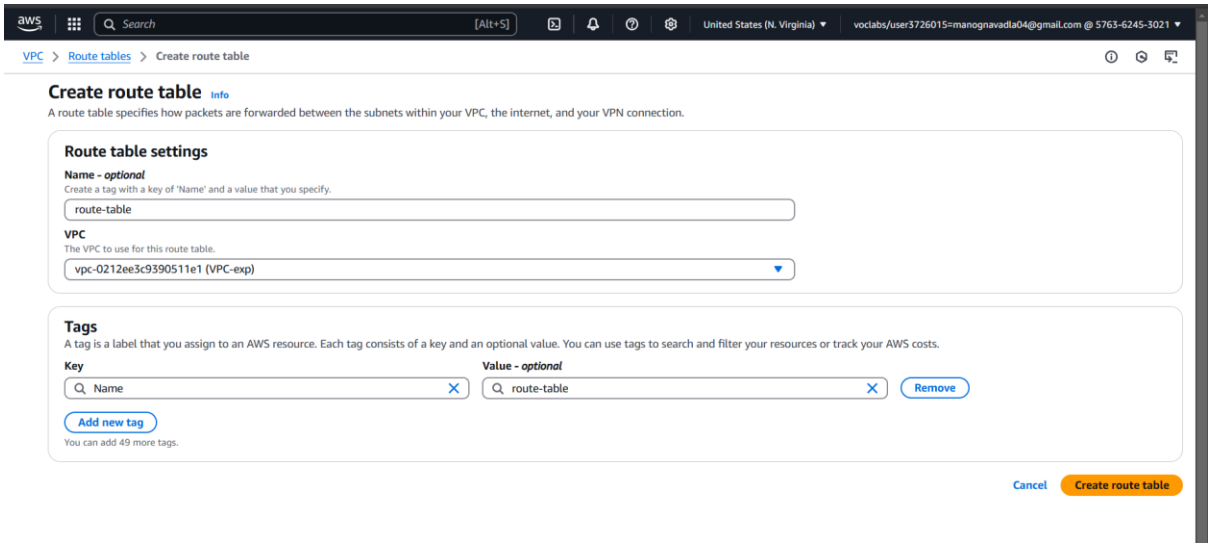
This is a private subnet for DB



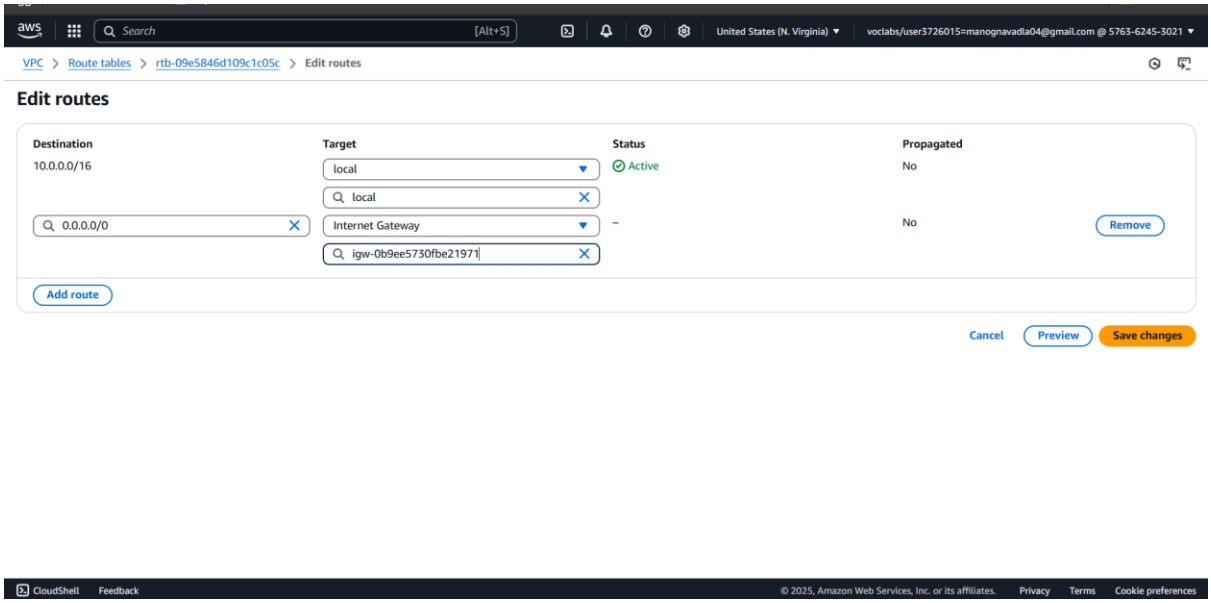
Now we are creating a Internet Gateway: provide a name to it.



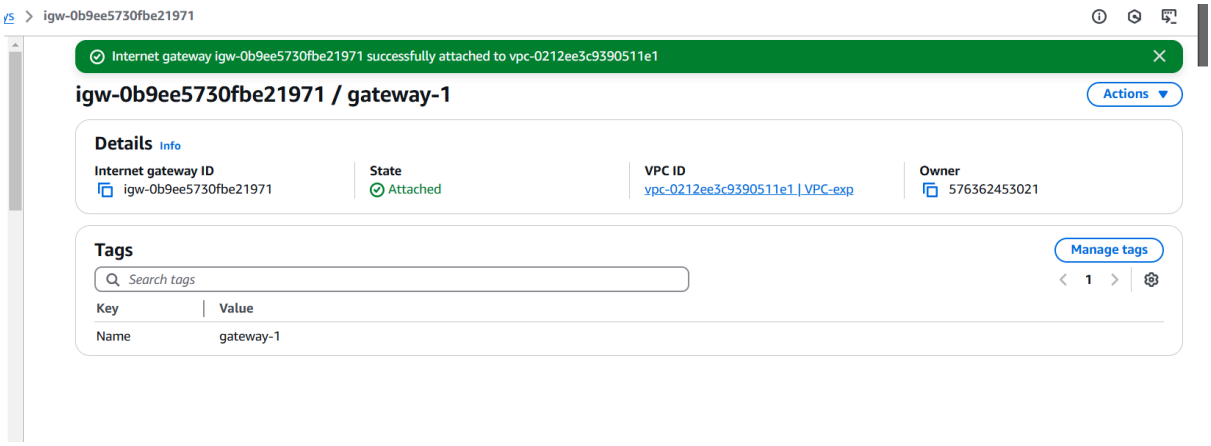
Then create a Route Table



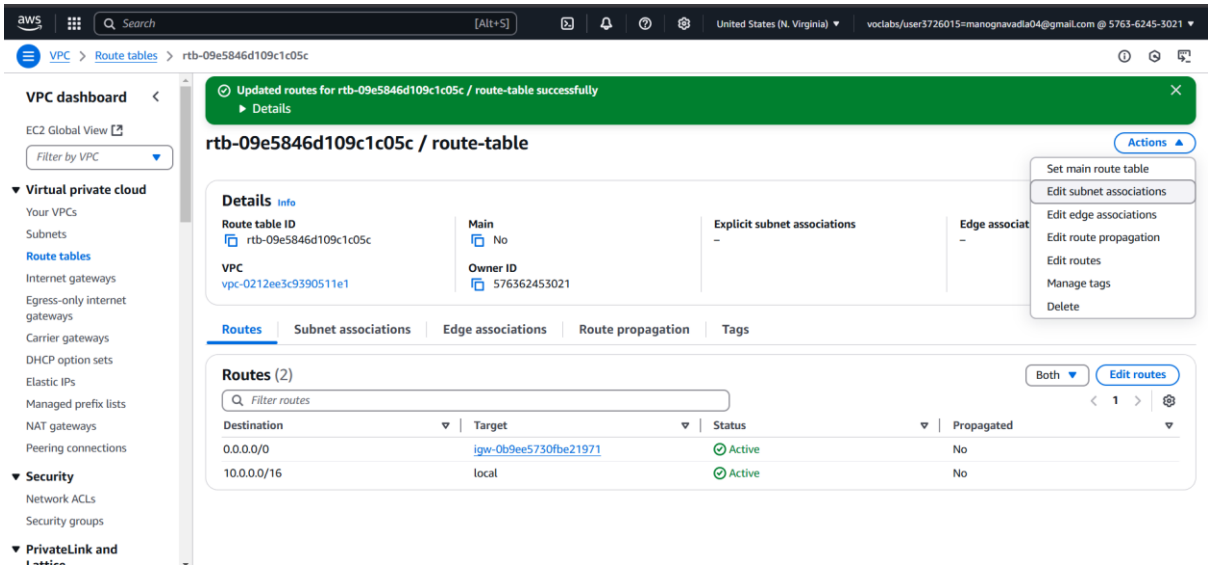
Now we should edit routes for that and add a rule. i.e add Internet Gateway and provide your gateway.



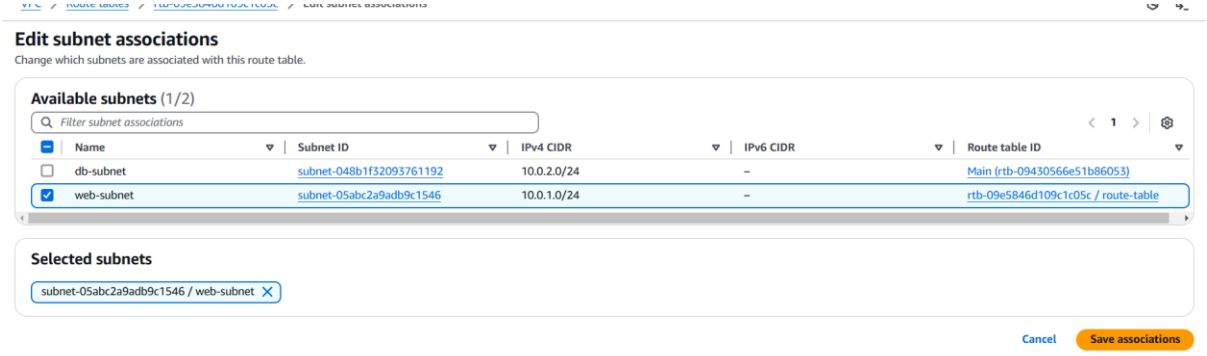
now we should connect our VPC to our gateway.



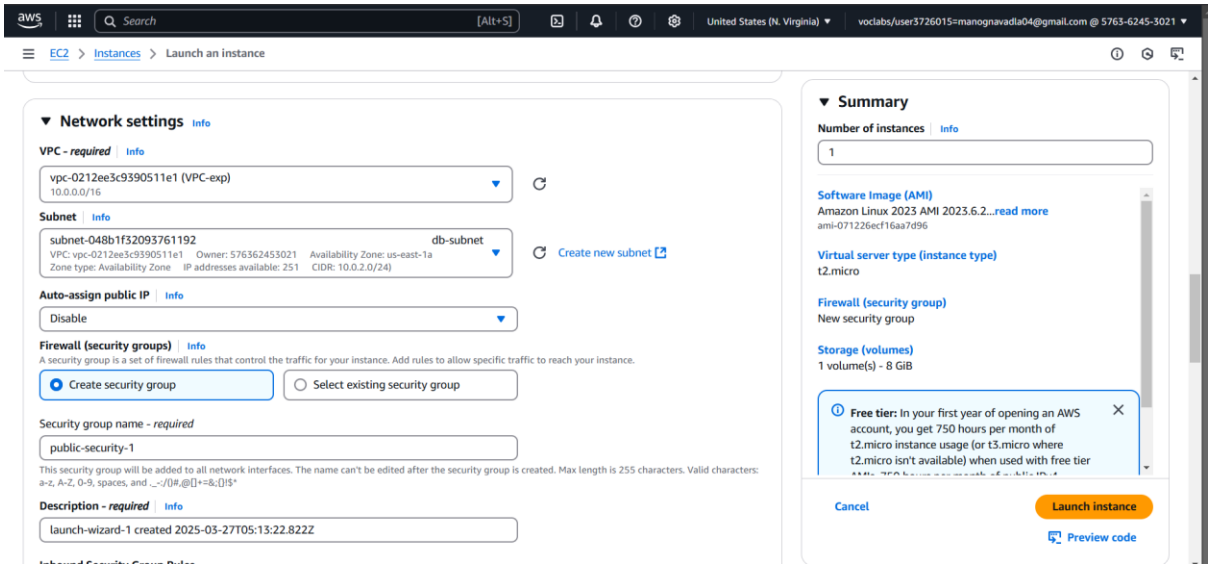
under route actions go for “edit subnet associations”



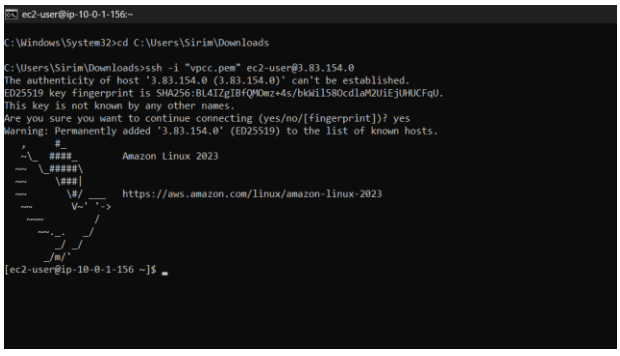
select your public subnet and save the association.

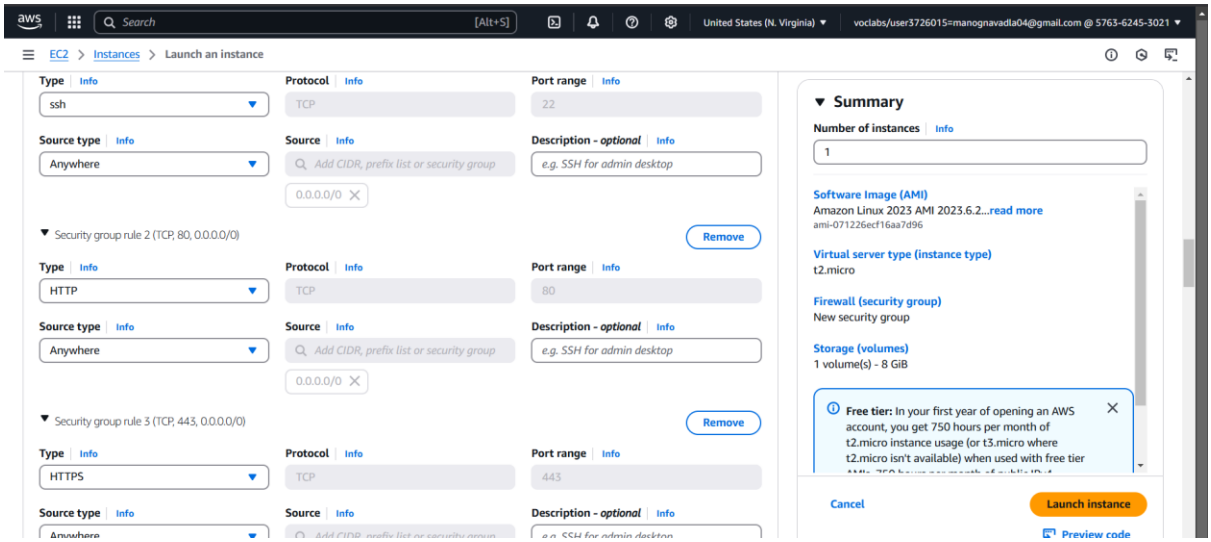


->create an EC2 instance for webserver and write the code under Additional Details.



Connect to public client and connect to private db using ssh





#!/bin/bash

sudo su

yum update -y

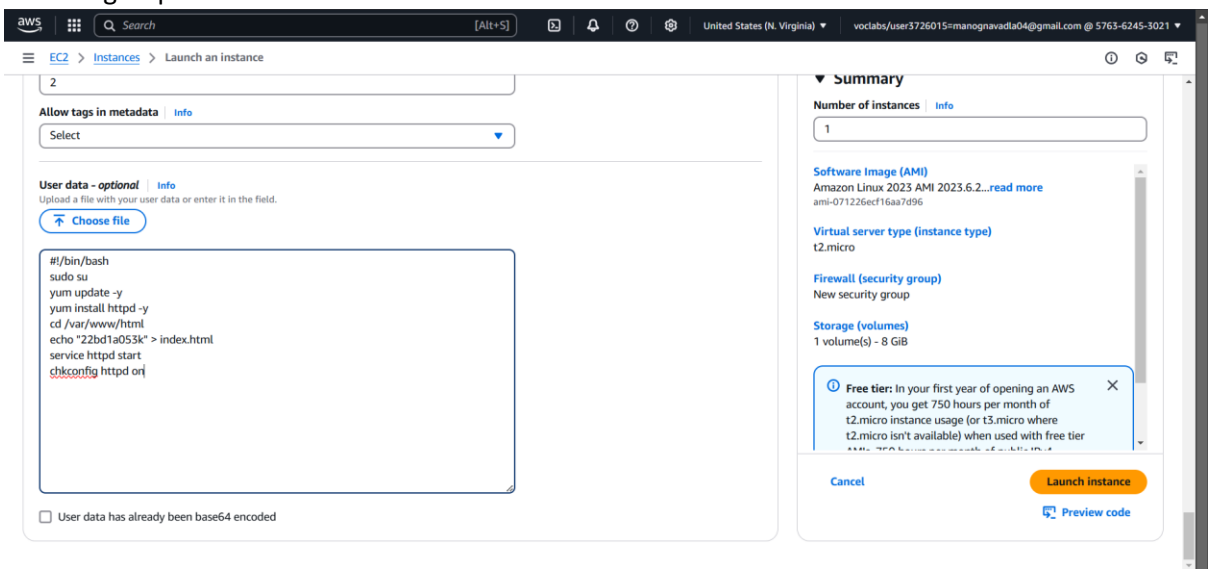
yum install httpd -y

cd /var/www/html

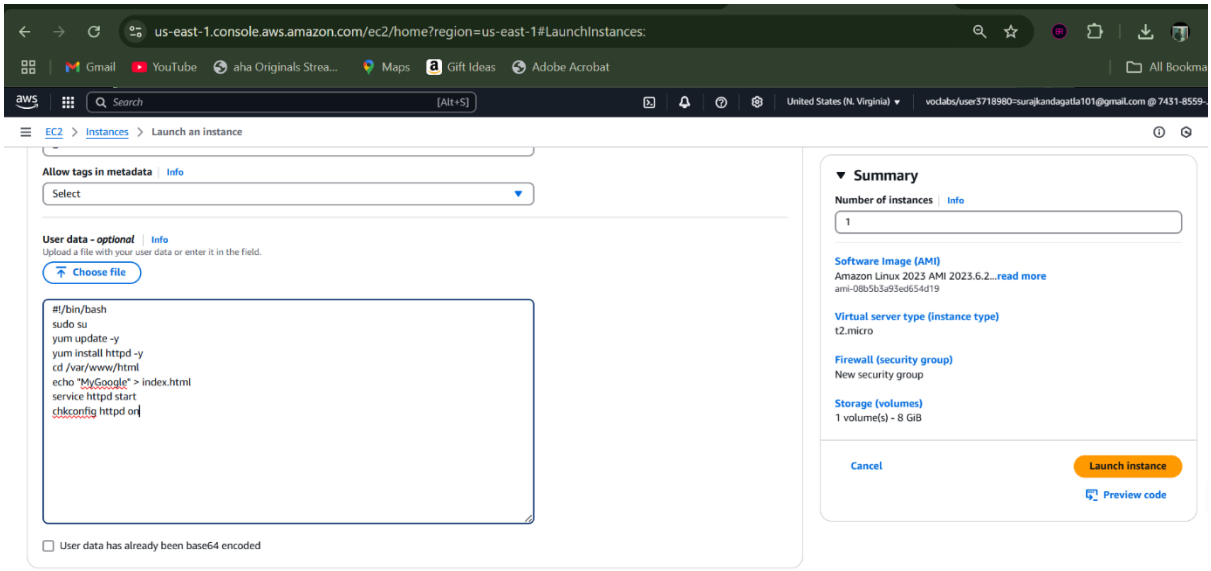
echo "MyGoogle" > index.html

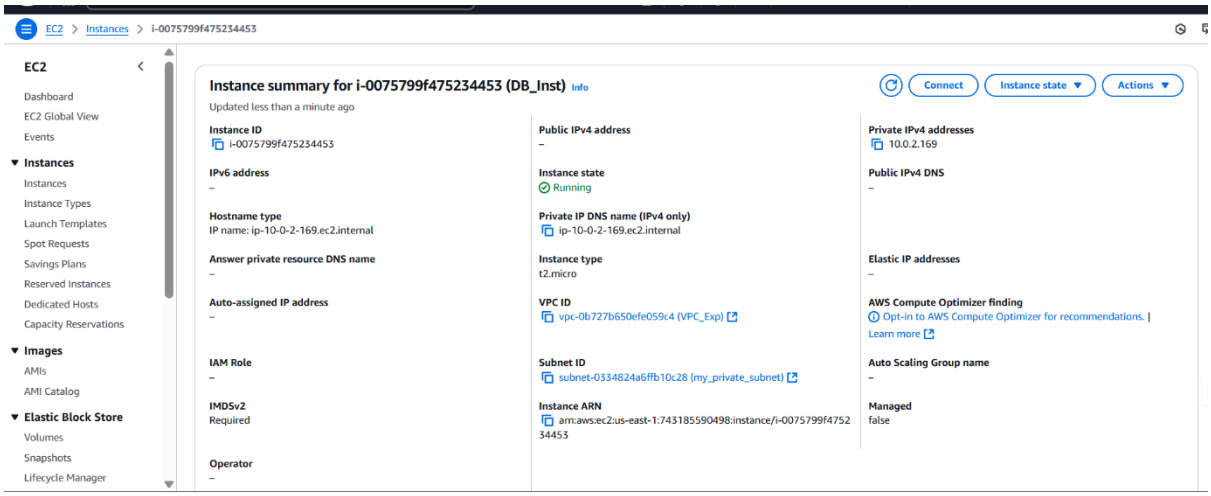
service httpd start

chkconfig httpd on

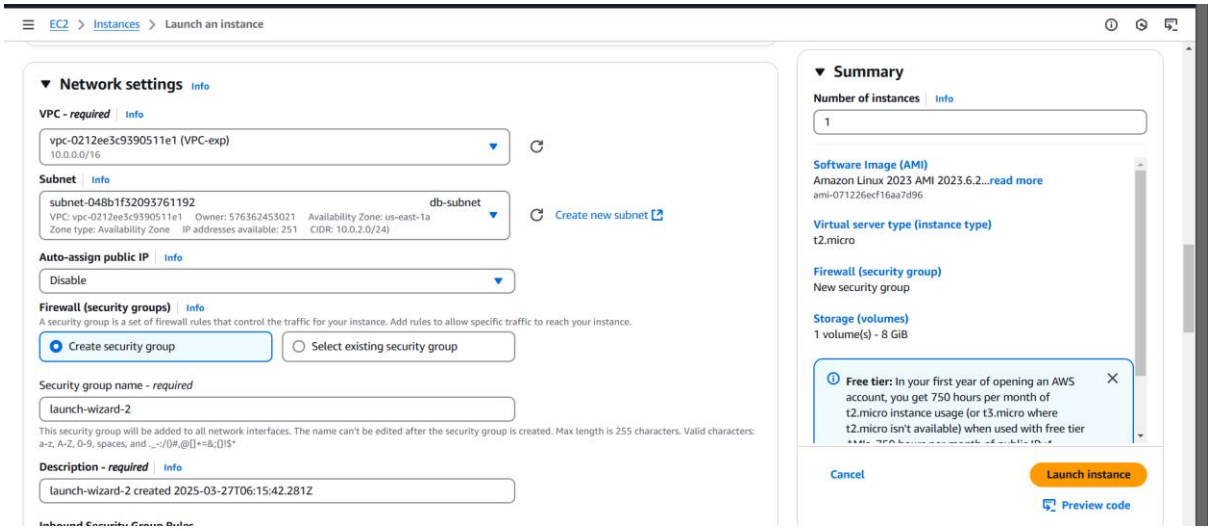


create an EC2 instance for DB server and write the code under Additional Details (same as previous).

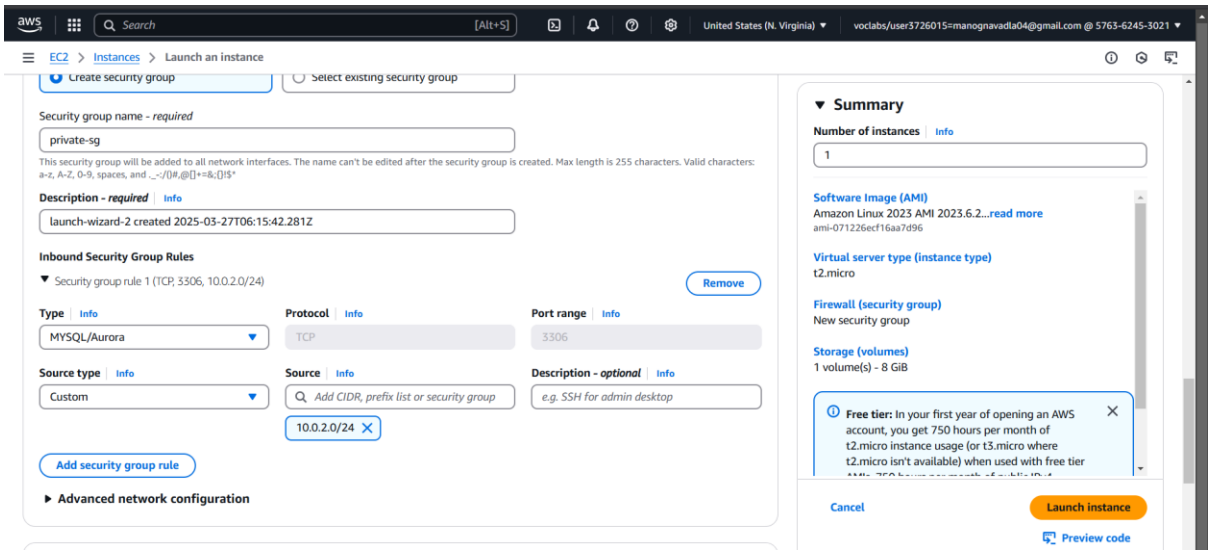




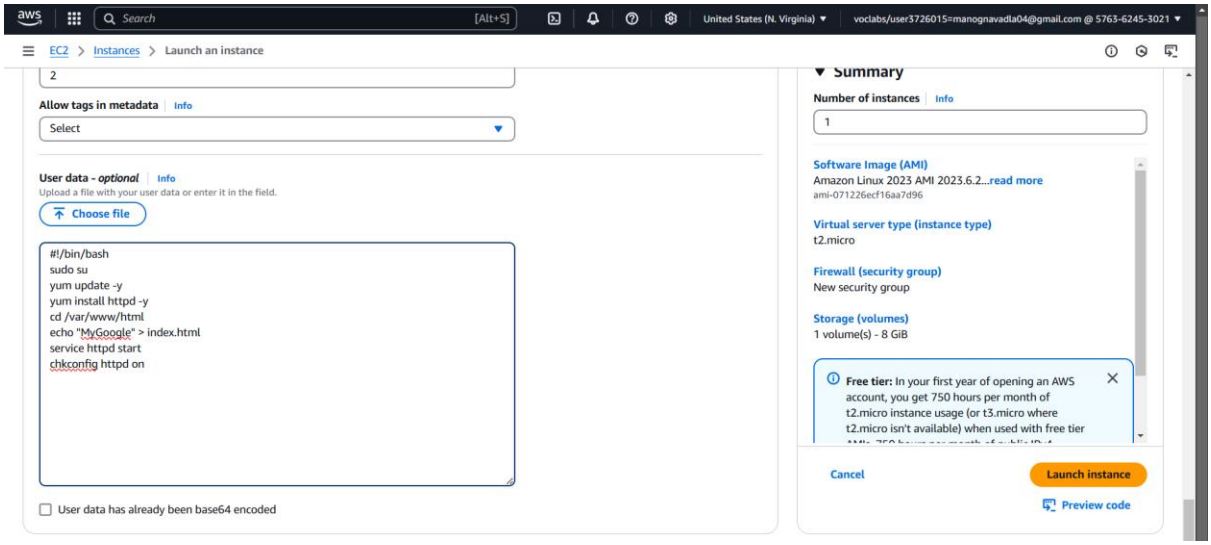
Now for privte db instance give name bootstrap-private-db, choose amazon linux AMI, choose t2.micro instance type, Use ppk keypair, in network setting, add vpc, choose db-subnet and name sg's



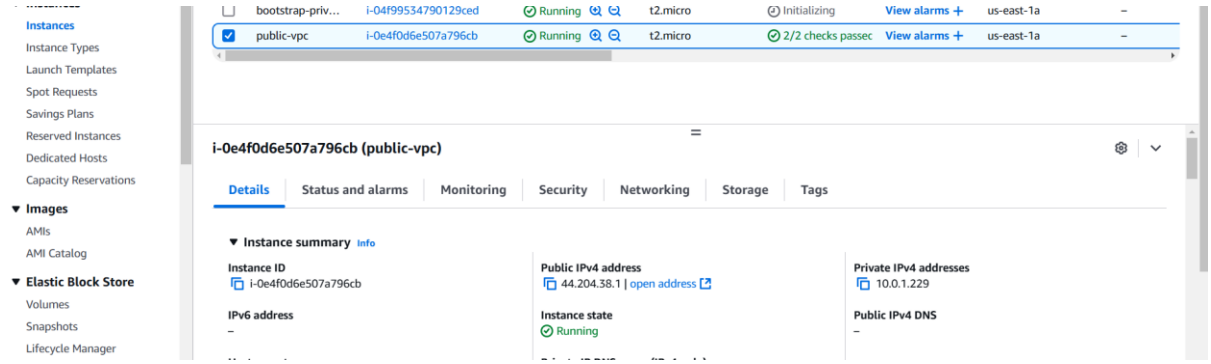
In the inbound security group rules, remove ssh and add MYSQL/Aurora, this will enable the range of communication in between the public and private subnet



In Advanced setting, scroll to the end and in user-data and add bootstrap script

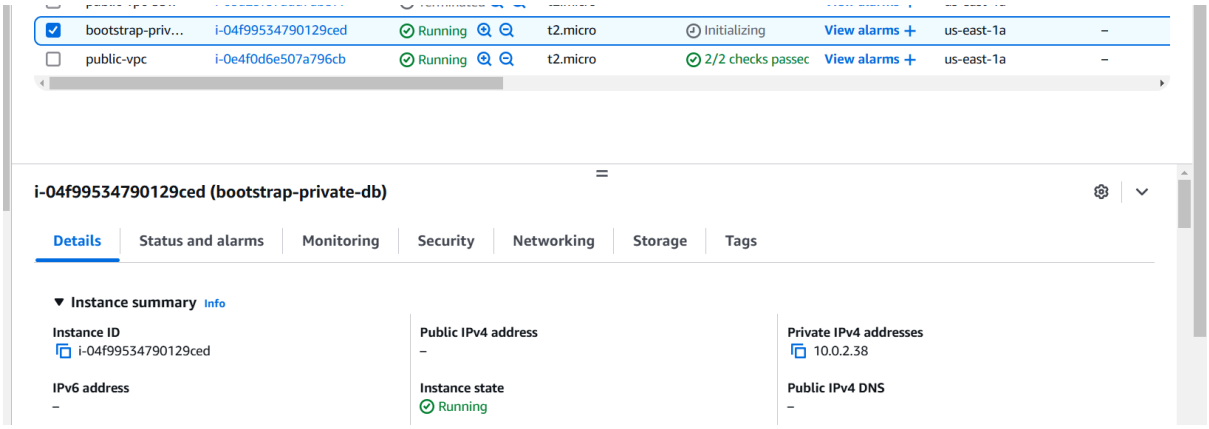


Now go to the public instance web-server2, now we can see the public IPv4 address and copy it

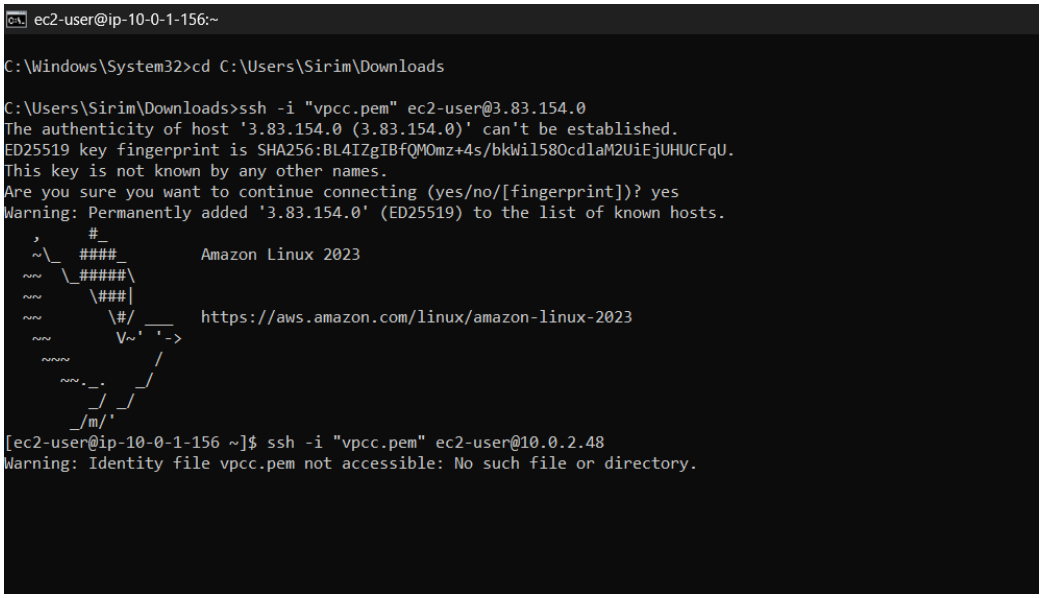


Go to : 44.204.38.1 search in browser, we can see the output, so it can be exposed

For private instance, we can see, there is no public IPv4 address given, that mean it is not exposed to the internet.

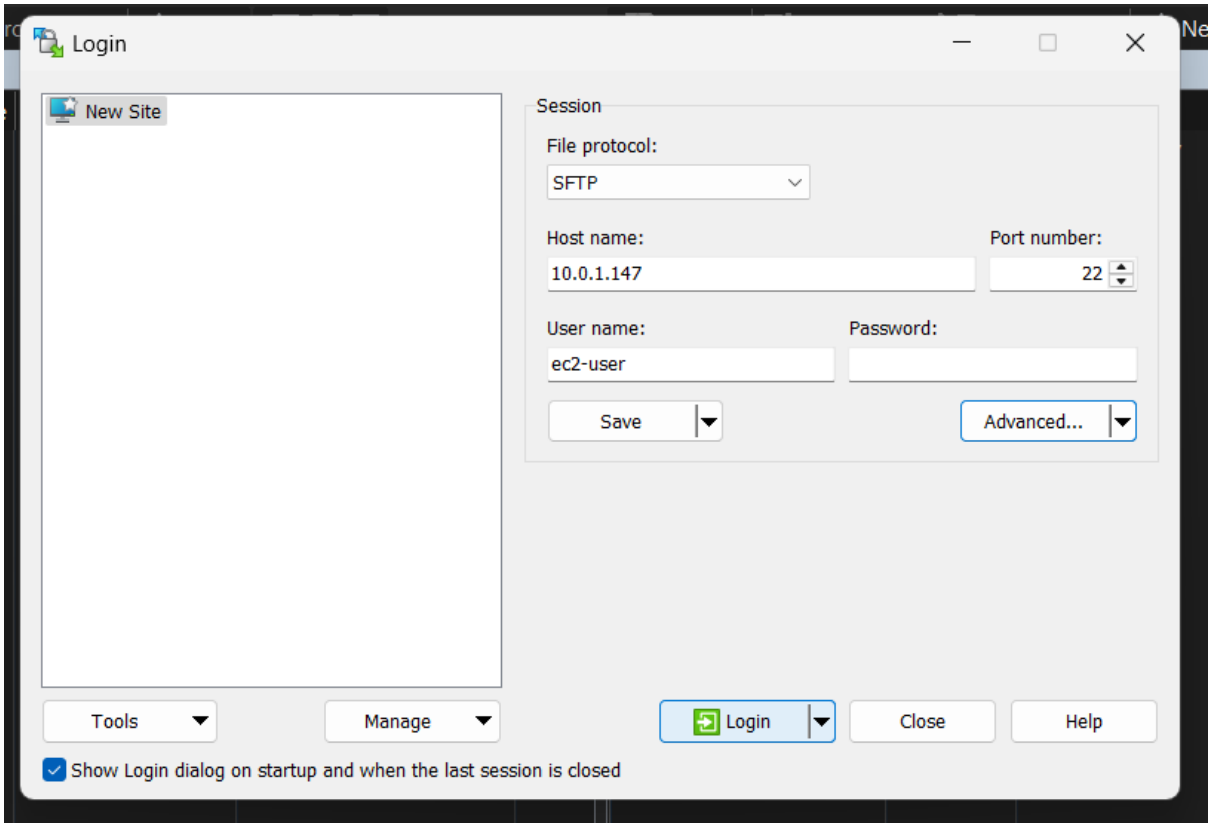


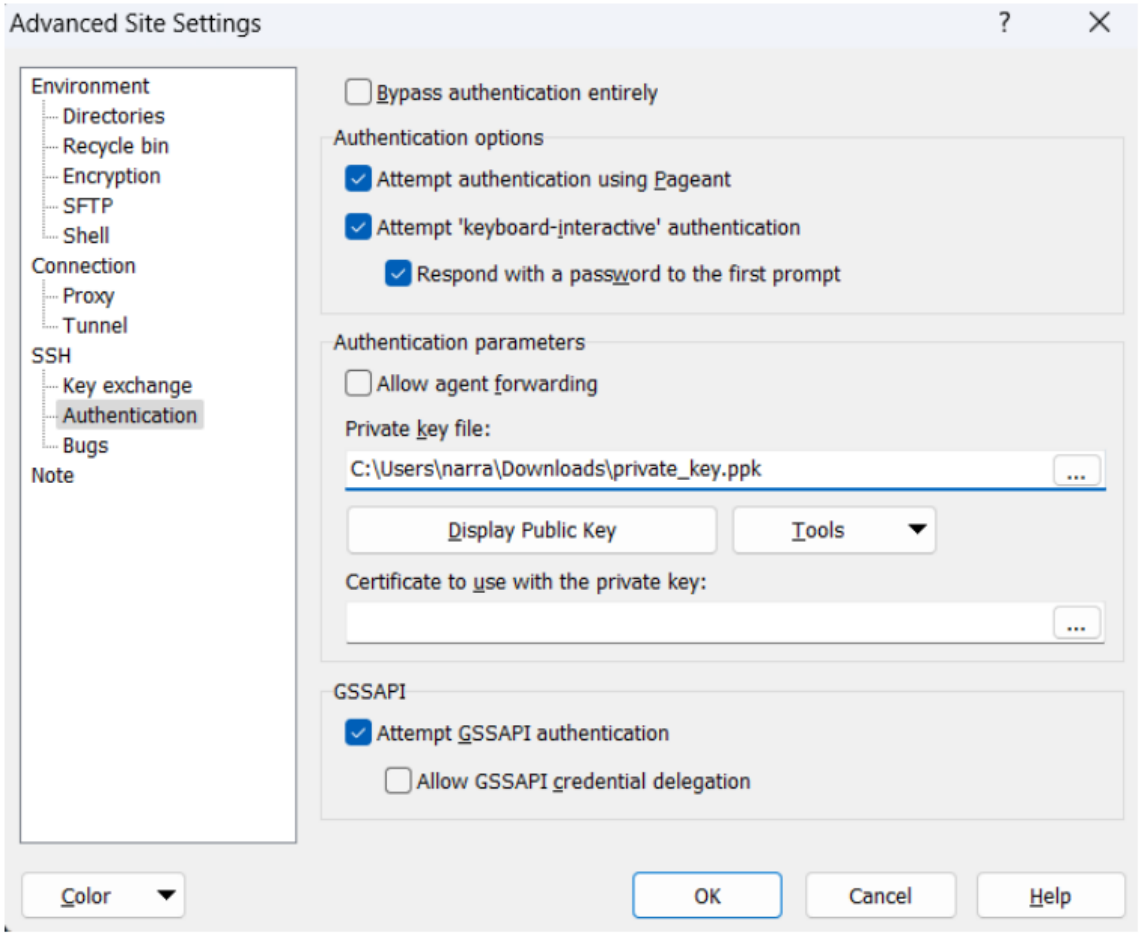
Connect to public client and connect to private db using ssh



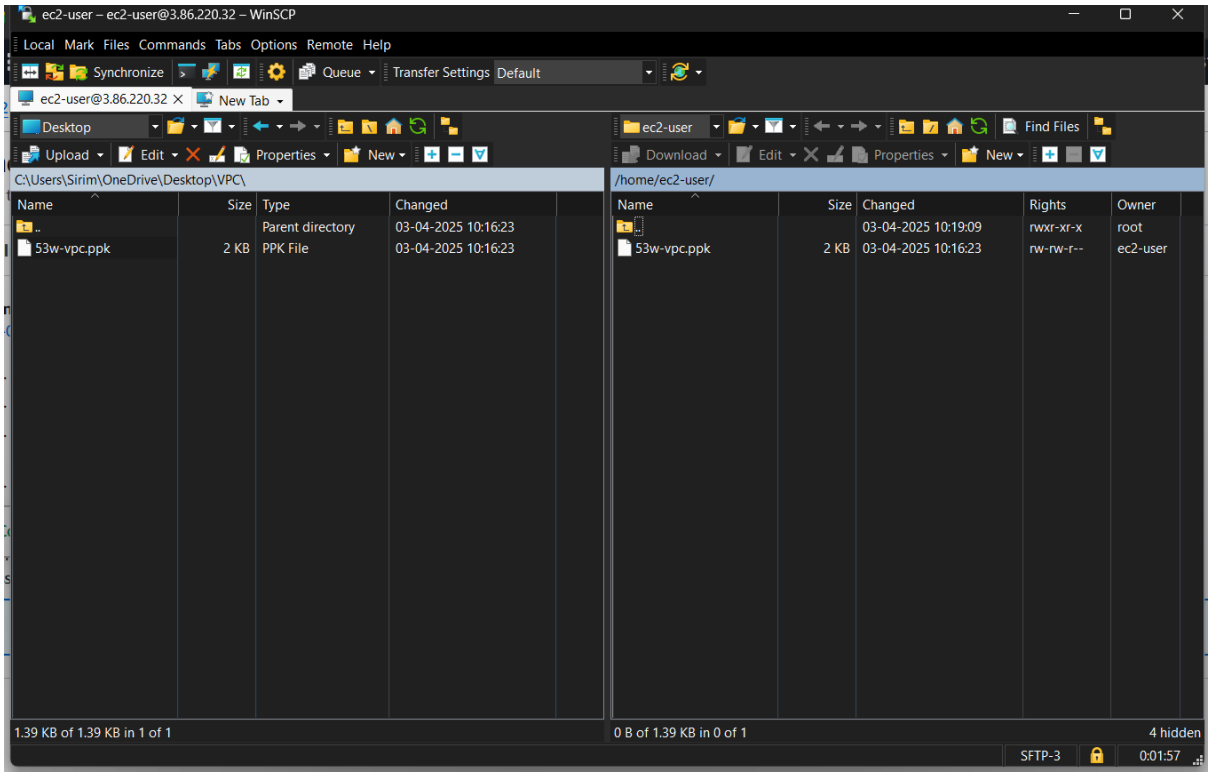
As the pem file is not present in the client ec2 instance, we have to copy the .pem file into the public ec2 instance using WinSCP

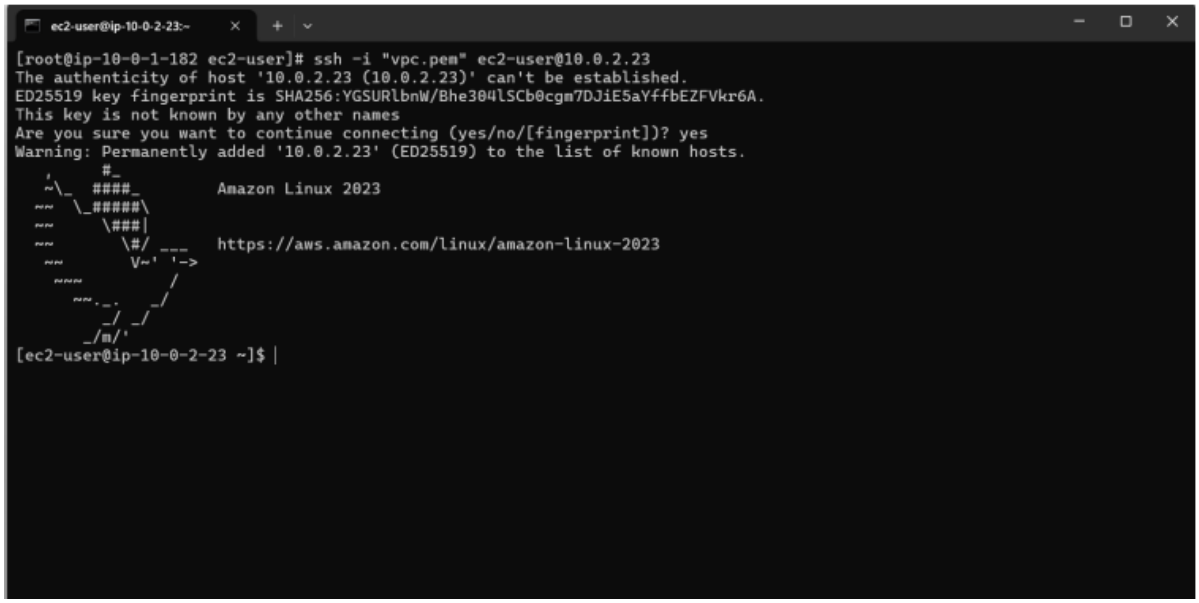
Copy the host name of public ec2 instance


Login
New Site
Session
File protocol:
SFTP
Host name:
10.0.1.147
Port number:
22
User name:
ec2-user
Password:
Save
Advanced...
Tools
Manage
Login
Close
Help
Show Login dialog on startup and when the last session is closed

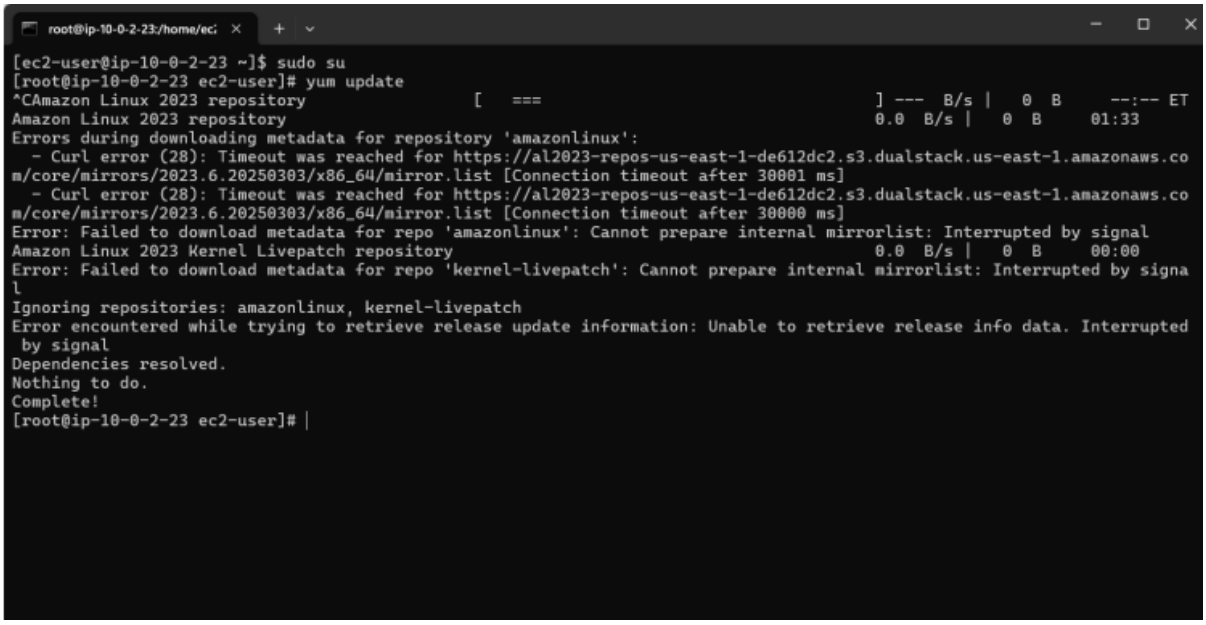

Advanced Site Settings
Environment
Directories
Recycle bin
Encryption
SFTP
Shell
Connection
Proxy
Tunnel
SSH
Key exchange
Authentication
Bugs
Note
Bypass authentication entirely
Authentication options
Attempt authentication using Pageant
Attempt 'keyboard-interactive' authentication
Respond with a password to the first prompt
Authentication parameters
Allow agent forwarding
Private key file:
C:\Users\narra\Downloads\private_key.ppk
Display Public Key
Tools
Certificate to use with the private key:
GSSAPI
Attempt GSSAPI authentication
Allow GSSAPI credential delegation
Color
OK
Cancel
Help

Copy the ppk file to the ec2 instance

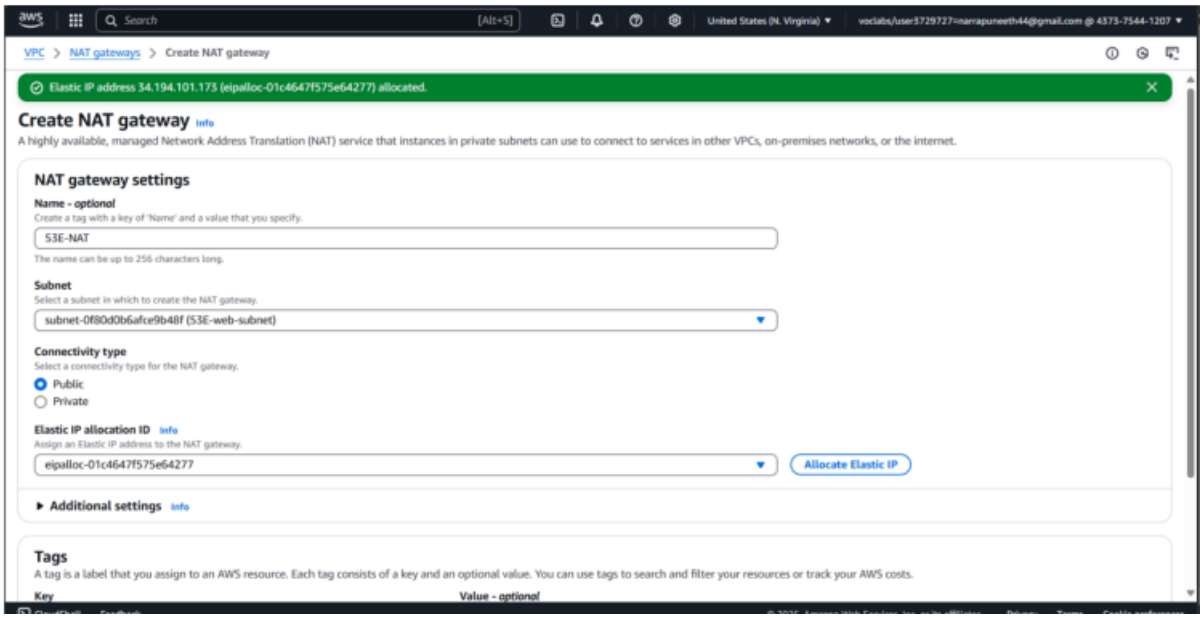




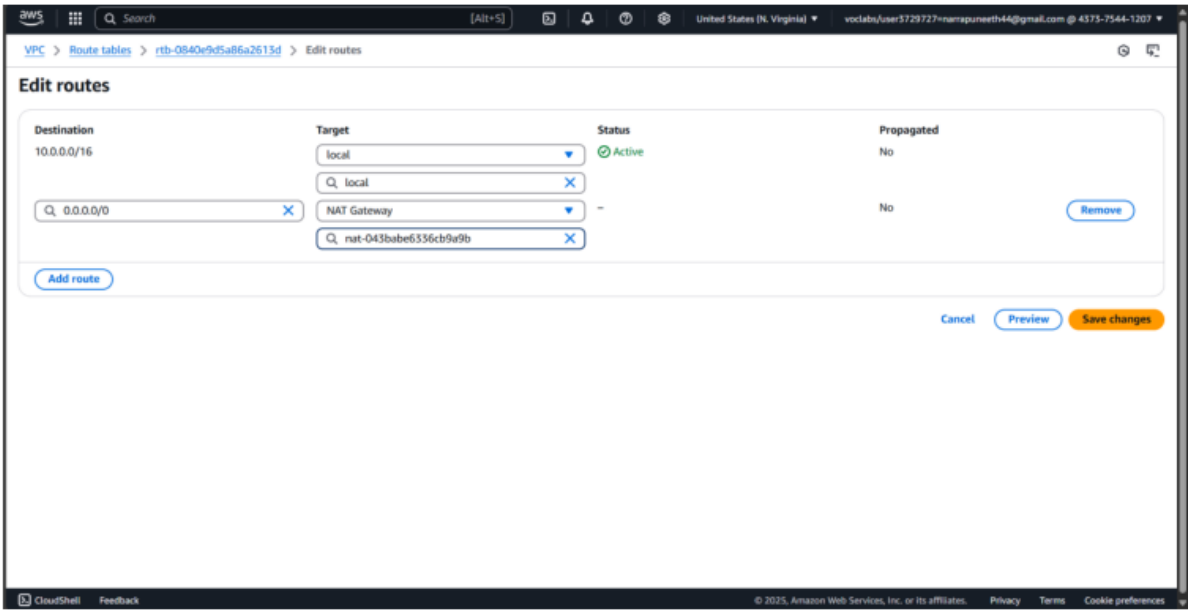
On yum update as there is no internet connection the update has failed



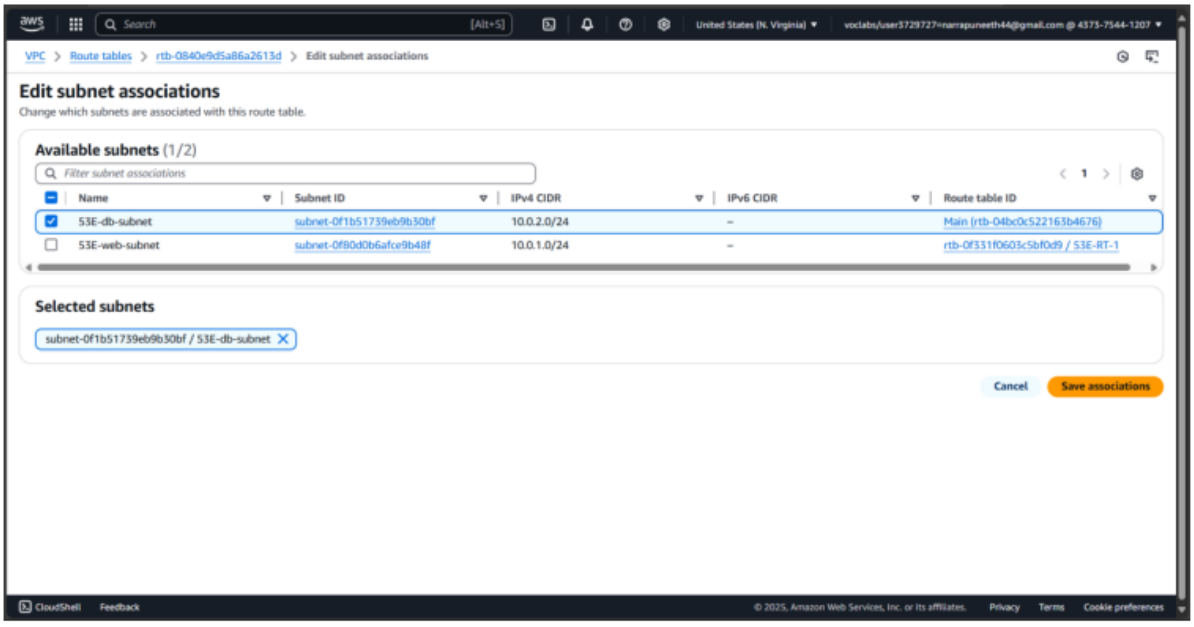
To get internet connection we have to setup a NAT gateway in the public subnet



Create a route table and edit the routes to add destination as 0.0.0.0 and the target as the NAT gateway



Add the subnet association to the route table and select the private subnet



After the NAT gateway and the route table are created the private database can access the internet and the update is successful.