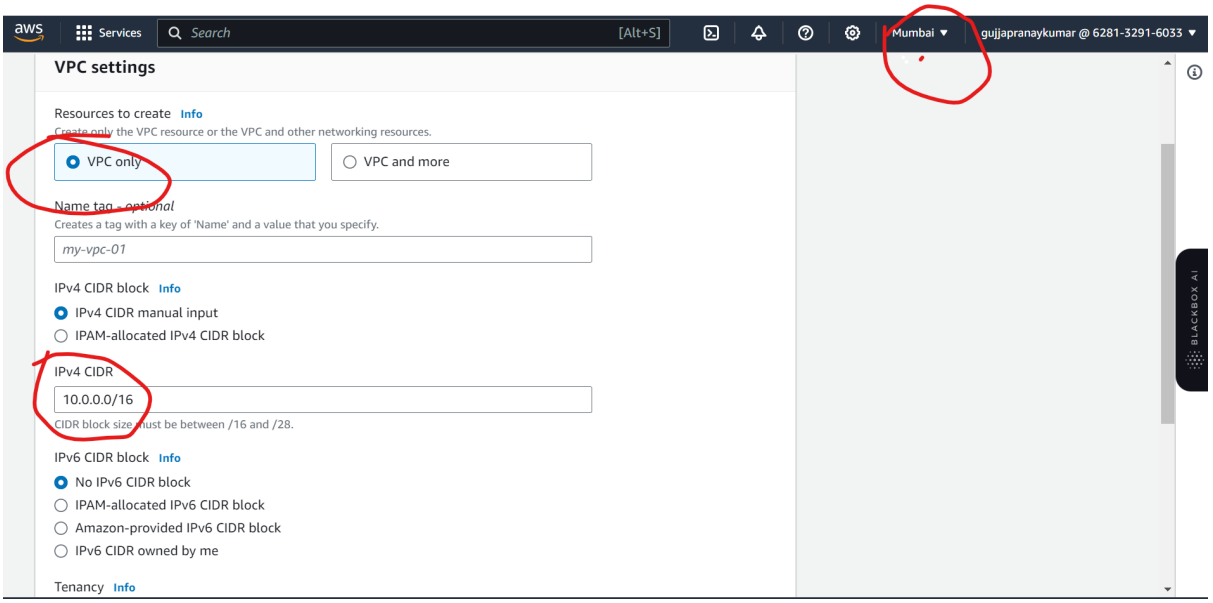
ASSIGNMENT 1
Configure and launch EC2 public instance in AWS

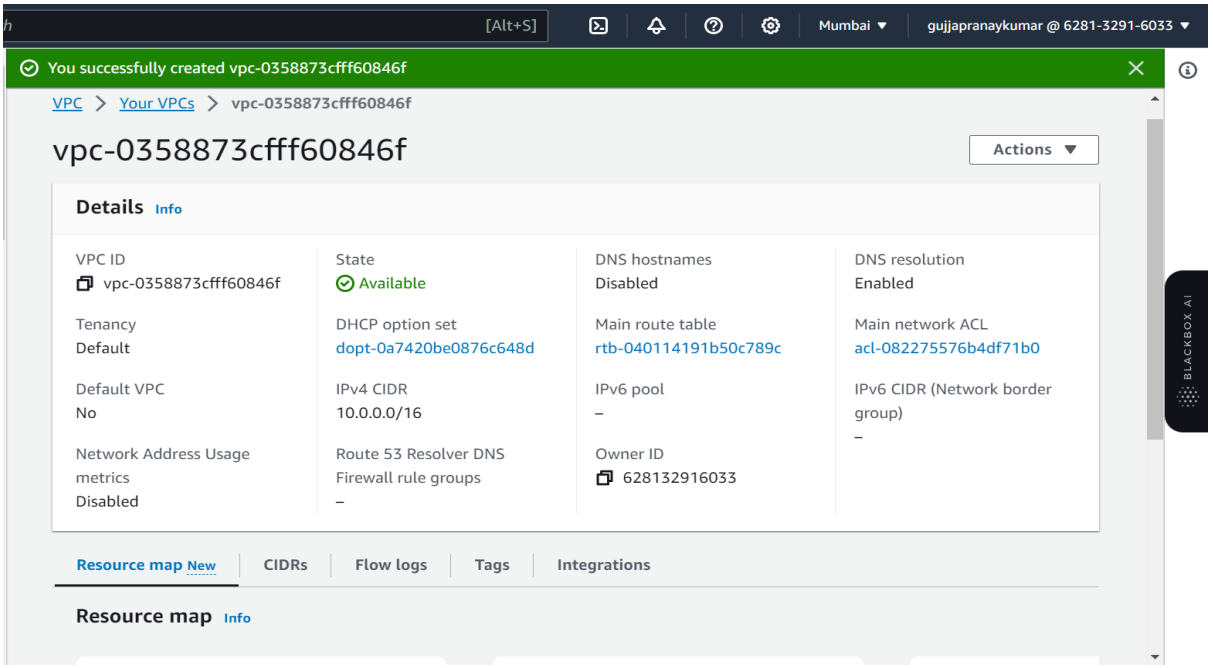
1. Login to your AWS console and choose the region allocated for you from the dropdown say : Asia Pacific (Mumbai)

2. Search VPC service Create a custom VPC by selecting VPC from the services list and click on ‘create VPC’

3. Select the option “VPC only” Provide any VPC tag name and in the field of IPv4 CIDR provide 10.0.0.0/16
A: 1,2,3



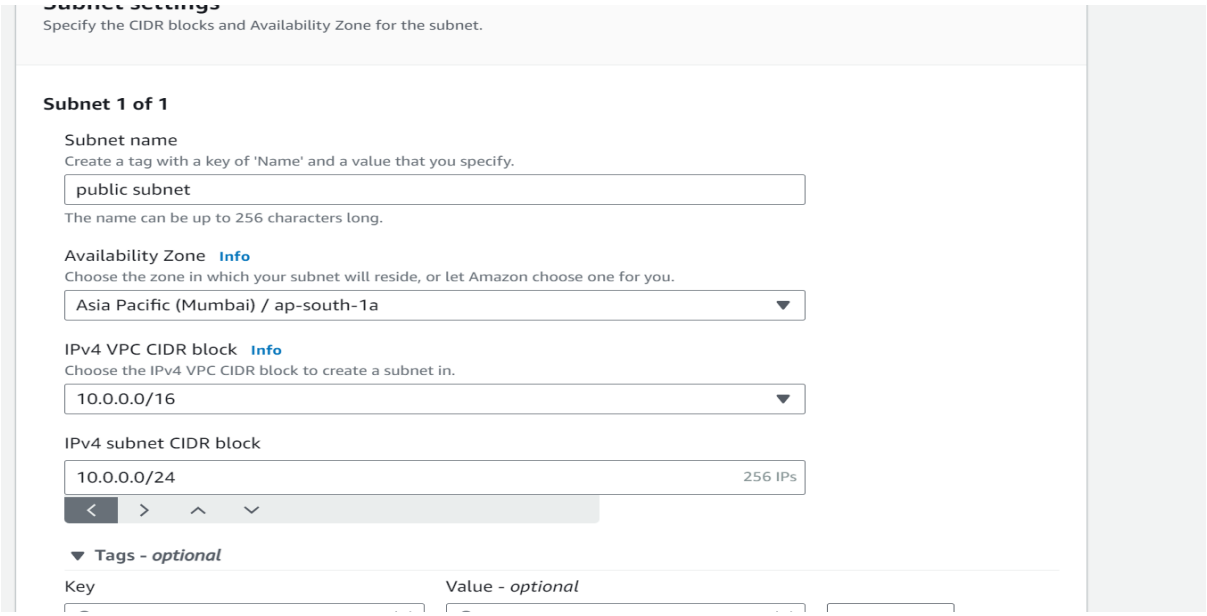
4. Your custom VPC will be created and displayed as below
A:



5. Search and navigate to ‘Subnet’ module from the services and click on ‘create subnet’

6. Provide the Subnet name (ex: public subnet) select the VPC that you have created Previously and navigate to the subnet settings, now select an availability zone as per your region. Provide IPv4 CIDR block (10.0.1.0/24) . Click on Create Subnet

A:

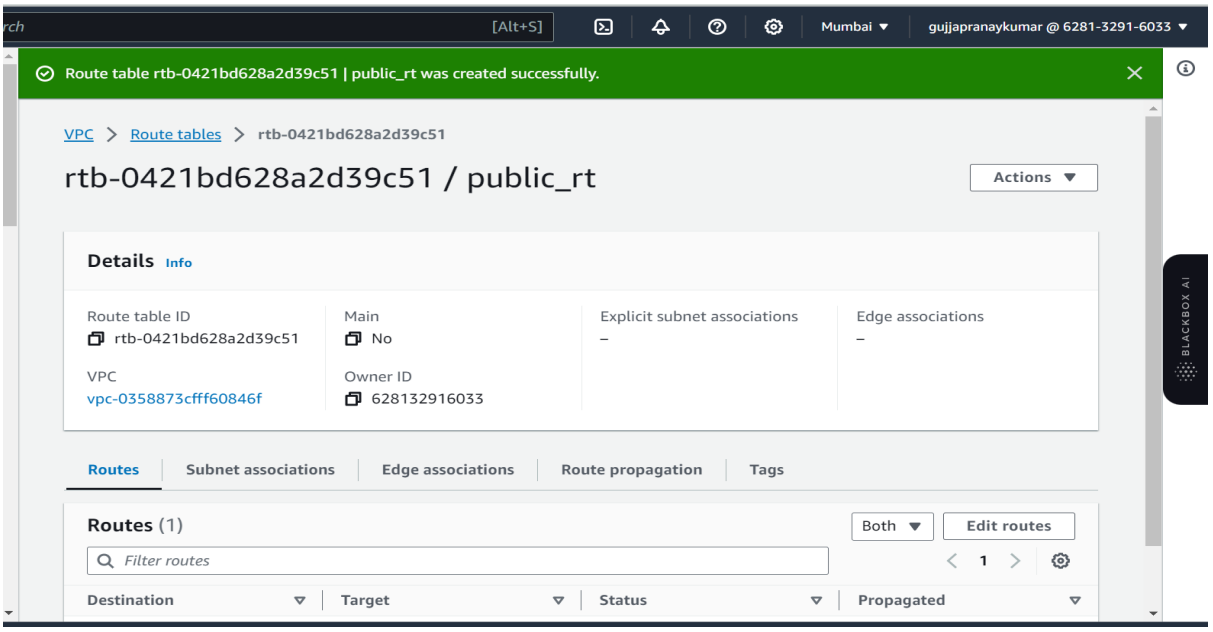


7. Search and navigate to Route Table feature and click on ‘create Route Table’

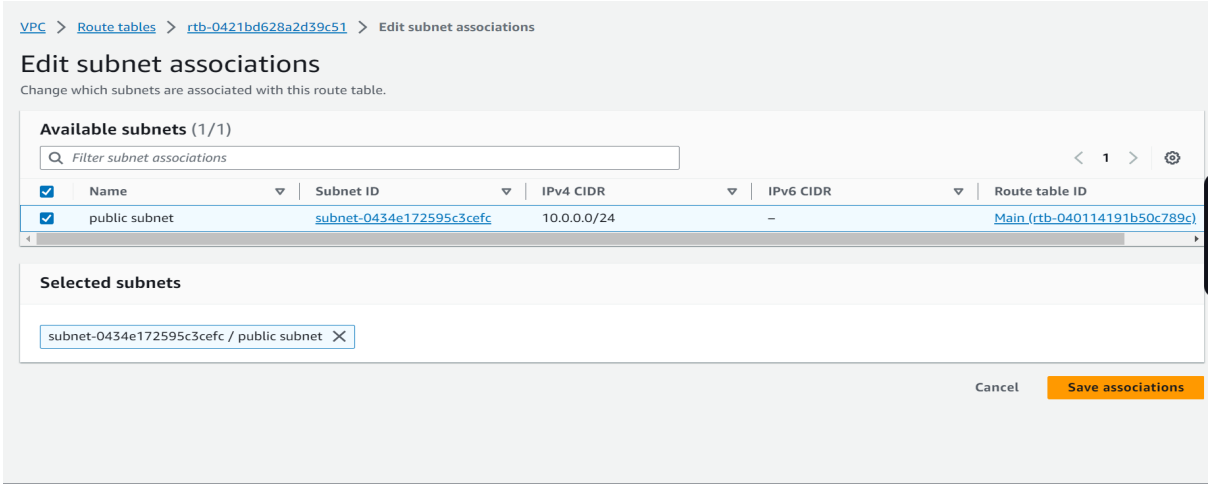
8. Provide the name for the Route table ex: public_rt and select the VPC that you have created and click on ‘Create Route table’

9. Route table will be created and displayed as below

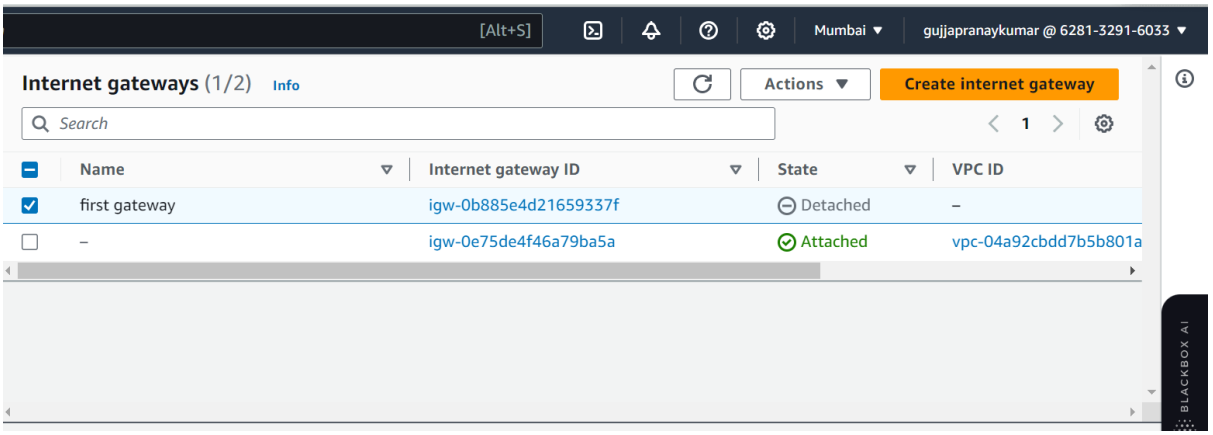
A: 7 8 9



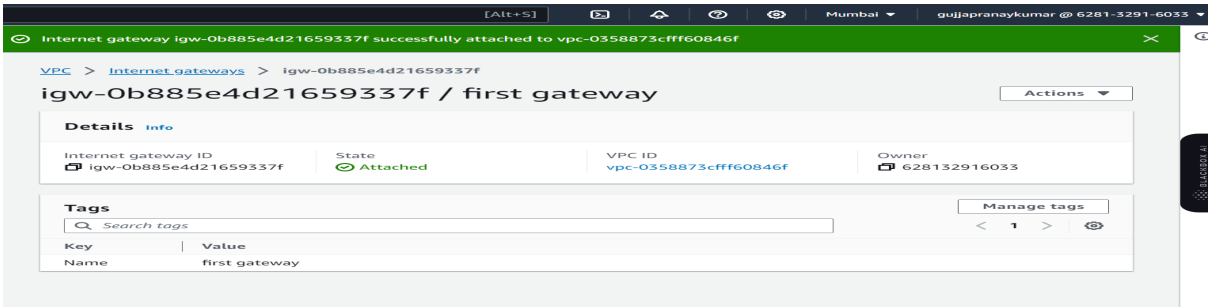
10.Now Click on subnet associations by selecting the Route Table that you have created previously
11. Now click on “Edit subnet association” and make a check on the subnet that you have created and click on save changes (Note : In your case select the subnet that you have created)
A: 10 11



12. Search and Navigate to the Internet Gateway and click on ‘Create internet gateway’
13. Provide any name to the Internet gateway and click on ‘Create internet gateway’ to get created . Initially the Internet Gateway will be in a detached state.
A:12 13



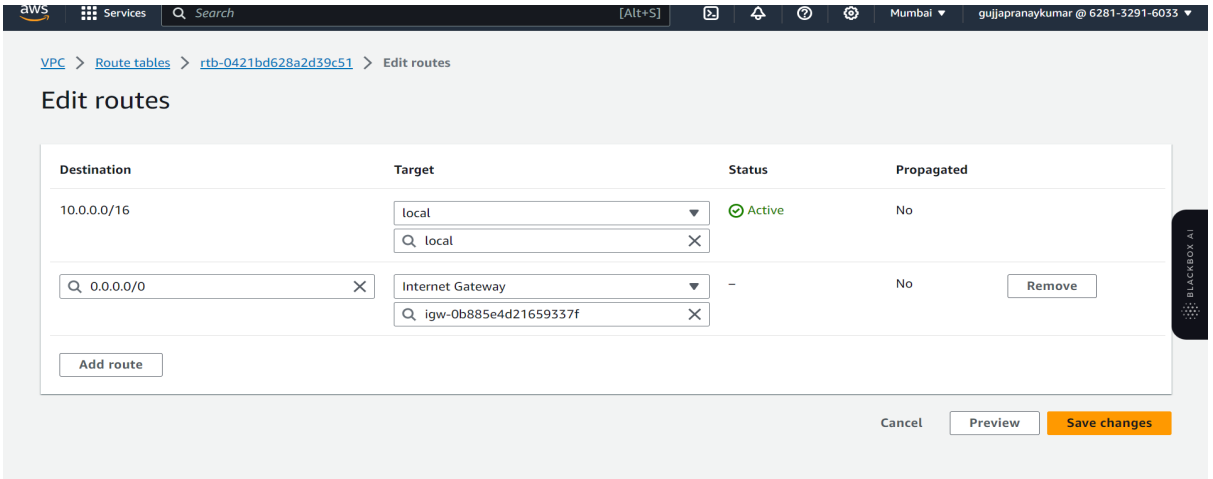
14. Now Select the Internet Gateway you have created and click on Actions and select ‘Attach to VPC’ select the VPC and click on ‘Attach Internet gateway’. Now the Internet gateway state changes to ‘attached’
A:



15. Navigate to Routtable , click on the route table that you have created and then click on Routes

16. Now click on Edit Routes and then Click on Add Route . Provide 0.0.0.0/0 in the Destination and in the Target select the Internet Gateway and select the IG that you have created previously. Click on Save changes.

A:



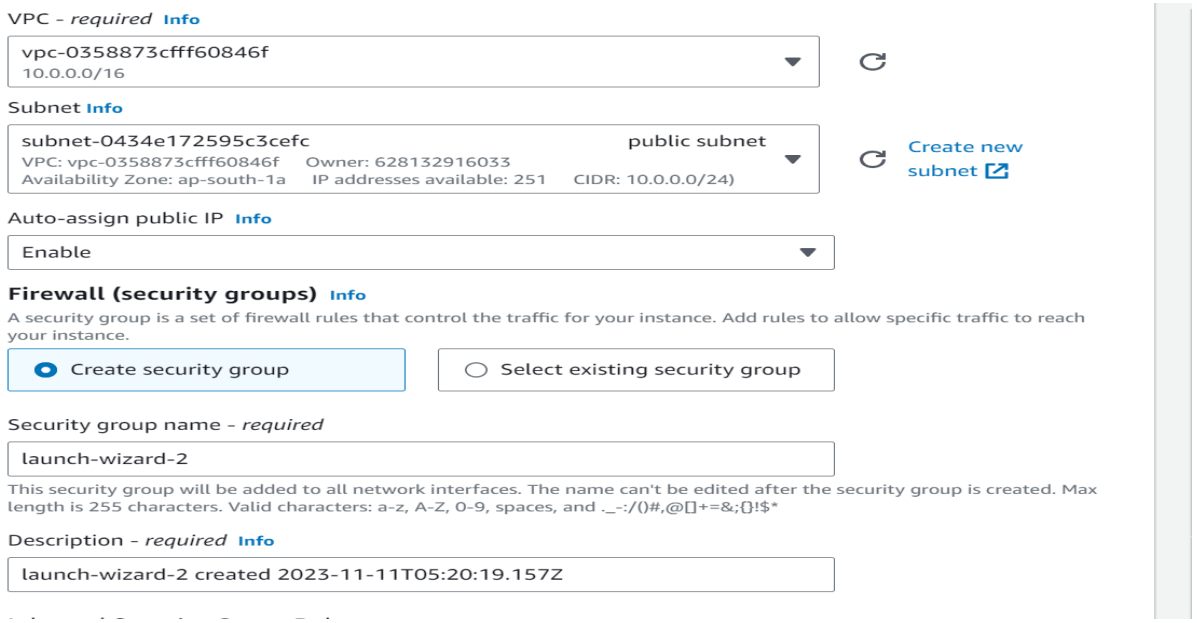
16. Search and Navigate to ‘Instances’ option and click on launch instance

17. Now, you need to select the Amazon Machine image (AMI) from the from the list , select the default

18. Now you need to choose the instance type , you can proceed with the default instance type that is being selected by clicking Next: Configure Instance Details

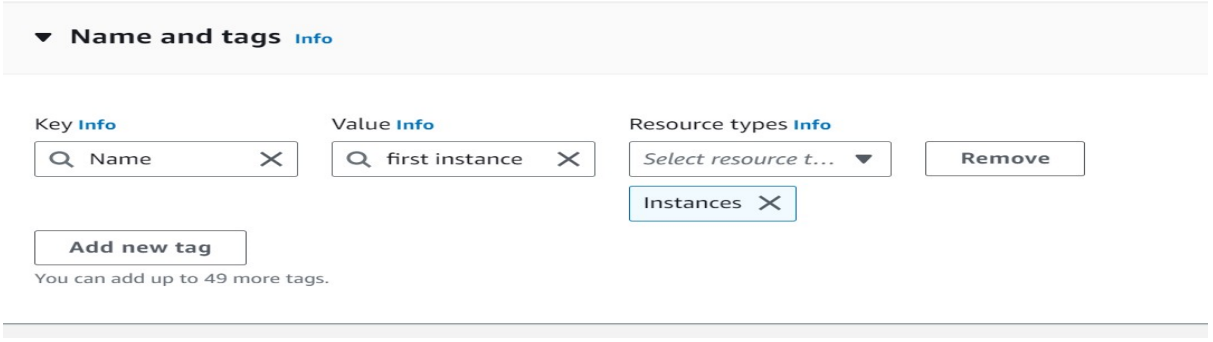
19. In the ‘configuration instance’ settings select your VPC from the network dropdown, select your public subnet that you have created , enable Auto-assign public ip, select “Use subnet setting (Ip name)” from the Hostname type and leave all other as default, Click on “Next : Add storage”

A:



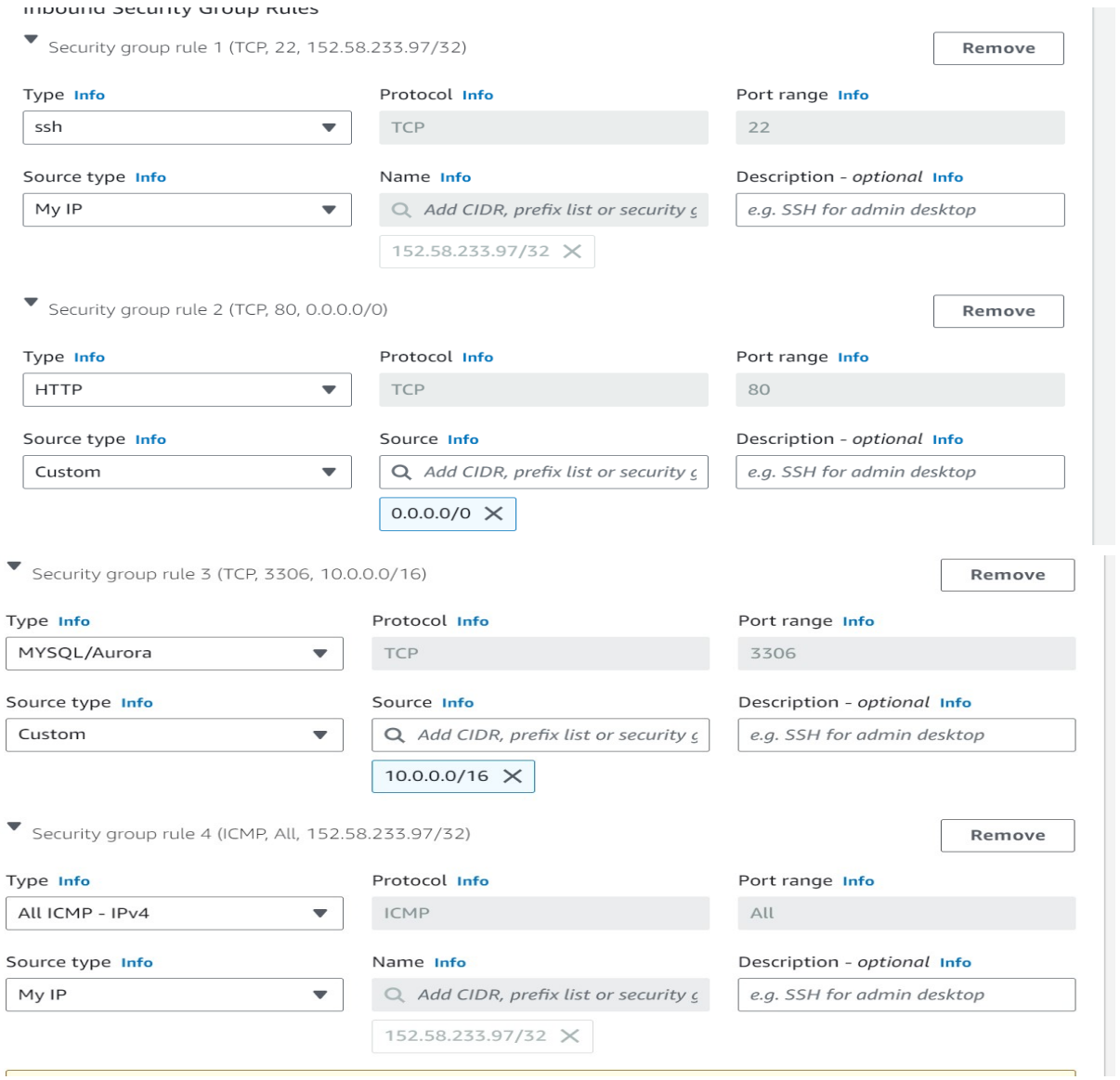
20. In storage default options are selected , you can click “Next : Add Tags”. provide the Name and Value as below, (it is your choice to provide any values) and click on ‘configure security groups’

A:

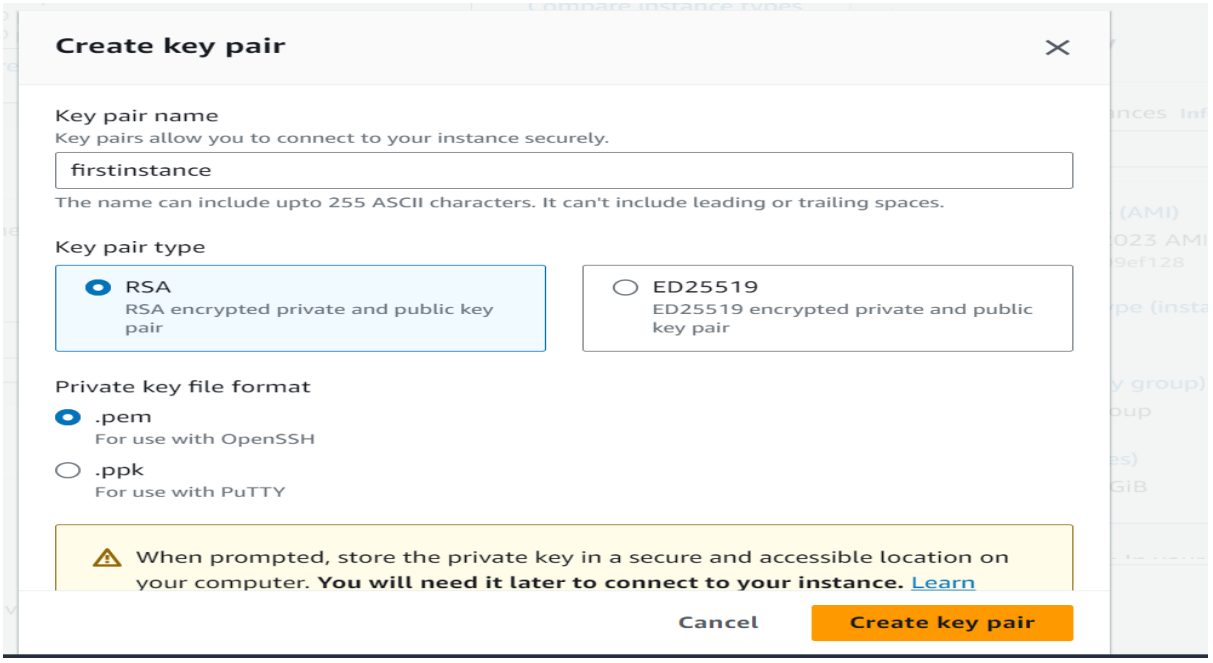


20. Now navigate to ‘Configure security group’ settings and add all the following rules which are marked and click “review & launch)
(Note for SSH & ICMP-Ipv4 select source dropdown as My ip)

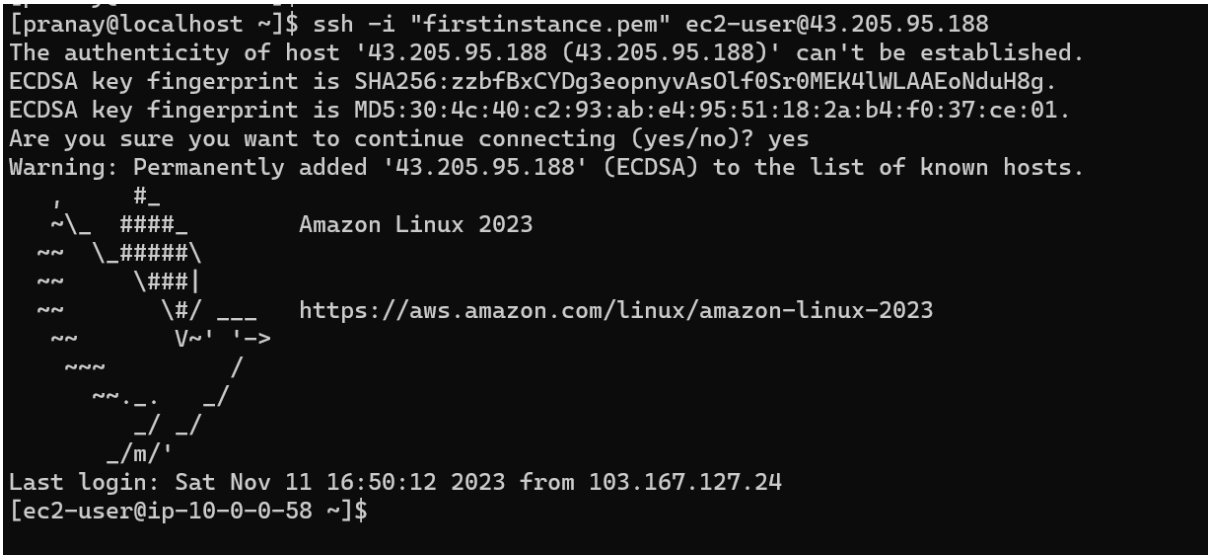
A:



21. In the key pair prompt select “create a new keypair “ from the dropdown , enter the key pair name of your choice and click on download key pair, the key pair will get downloaded
(Note: copy the keypair to any of your linux machine to connect the EC2 instance)
A:



22. Then Click on Launch Instance
23. Now search and navigate to Instances you will be seeing the instance that is up and running state
24. Now select the particular instance and click “connect”
25. Click “connect’ to launch the Terminal
A:



```
[pranay@localhost ~]$ ssh -i "firstinstance.pem" ec2-user@43.205.95.188
The authenticity of host '43.205.95.188 (43.205.95.188)' can't be established.
ECDSA key fingerprint is SHA256:zzbfBxCYDg3eopnyvAsOlf0Sr0MEK4lWLAAEoNduH8g.
ECDSA key fingerprint is MD5:30:4c:40:c2:93:ab:e4:95:51:18:2a:b4:f0:37:ce:01.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '43.205.95.188' (ECDSA) to the list of known hosts.
       #_
       ~\_  ####_        Amazon Linux 2023
      ~~  \_#####\
      ~~     \###|
      ~~       \#/ ___   https://aws.amazon.com/linux/amazon-linux-2023
       ~~       V~' '->
        ~~~         /
          ~~._.   _/
             _/ _/
           _/m/'
Last login: Sat Nov 11 16:50:12 2023 from 103.167.127.24
[ec2-user@ip-10-0-0-58 ~]$
```

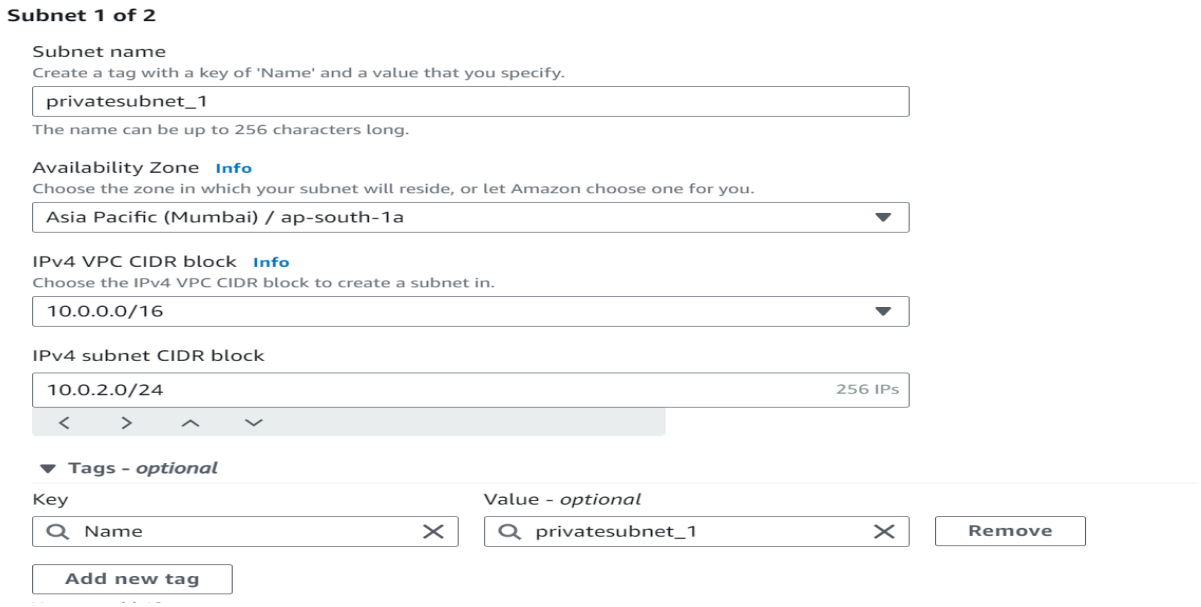
ASSIGNMENT 2

Configure EC2 private Instance in AWS
(create two private subnets ,two private instances, 1 Route Tables)

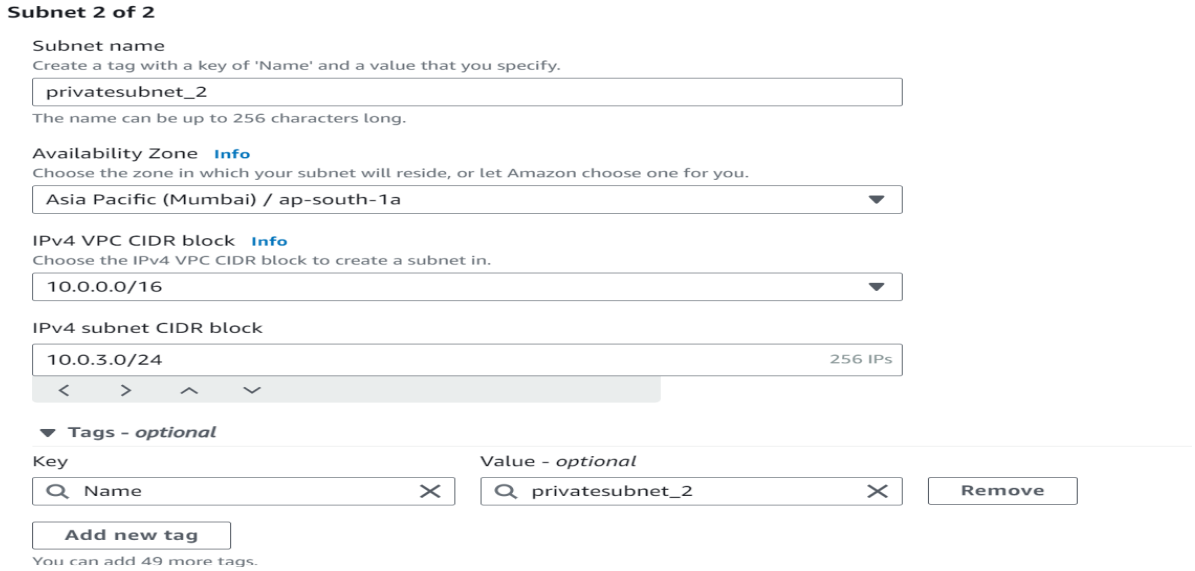
1. Login to your AWS console and choose the region where you have created your VPC

2. Click on “Create subnet” select the VPC that you have created previously

3. In the subnet settings(subnet 1 of 1) , provide the name of the subnet ex: private_01 ,select the AZ that you have given for public instance , provide the IPv4 CIDR block as 10.0.3.0/24 (Note : you can provide your own CIDR block)
A:

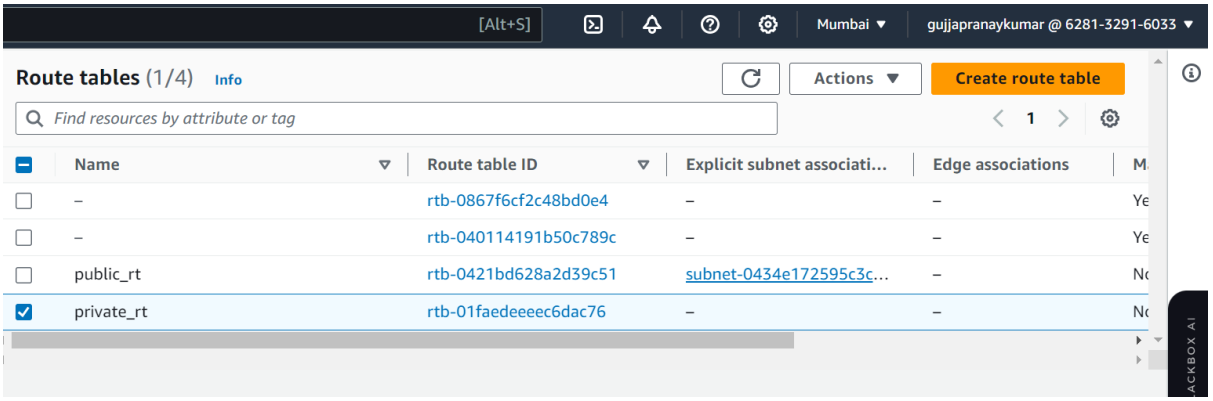


4. Click on Add new subnet and provide the name of the subnet ex: private_02 , select the AZ select the AZ that you have given for public instance provide the IPv4 CIDR block as 10.0.4.0/24 (Note : you can provide your own CIDR block)
A:

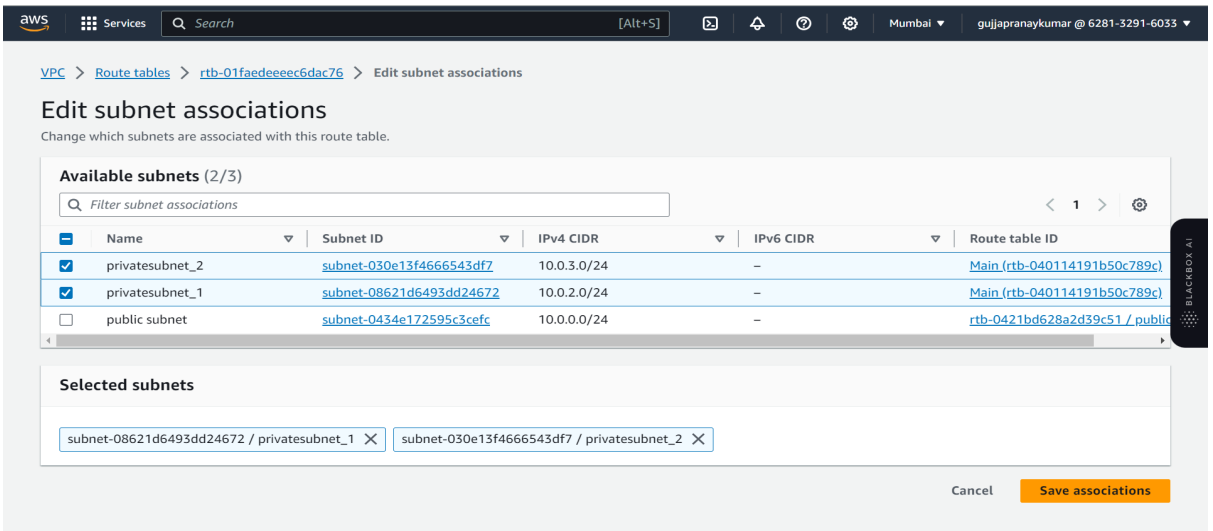


5. Now click on “create subnet” to get created

6. Create a Route table private subnets
(Note: I am showing you only one Route Table for your reference)
A:



7. Now Edit the subnet Associations and select the private subnets and save it
A:



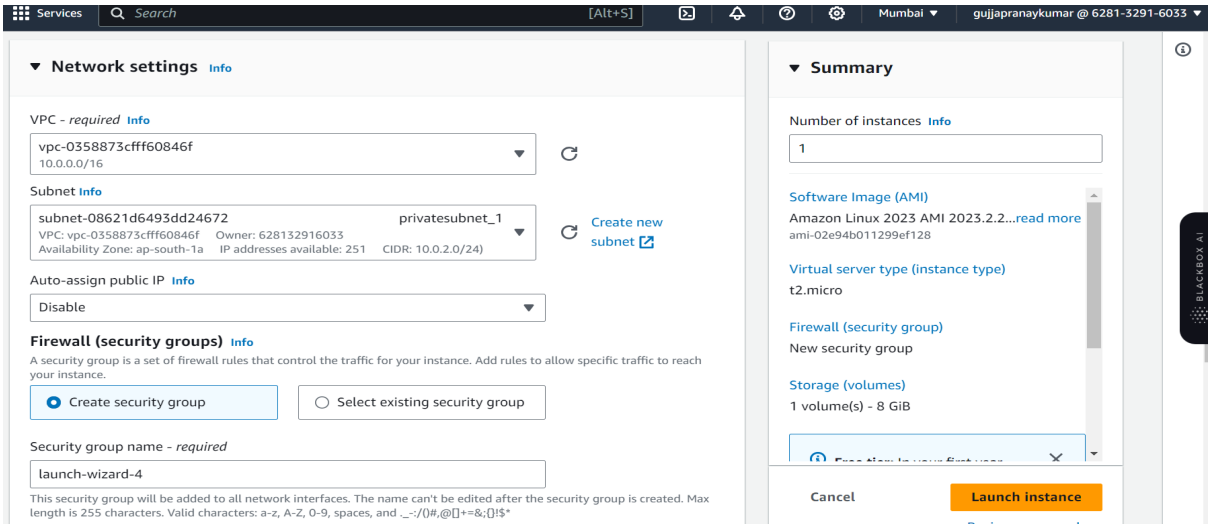
8. Now create instances for private subnets, navigate to EC2 and click on Launch Instance

9. Select the AMI as below

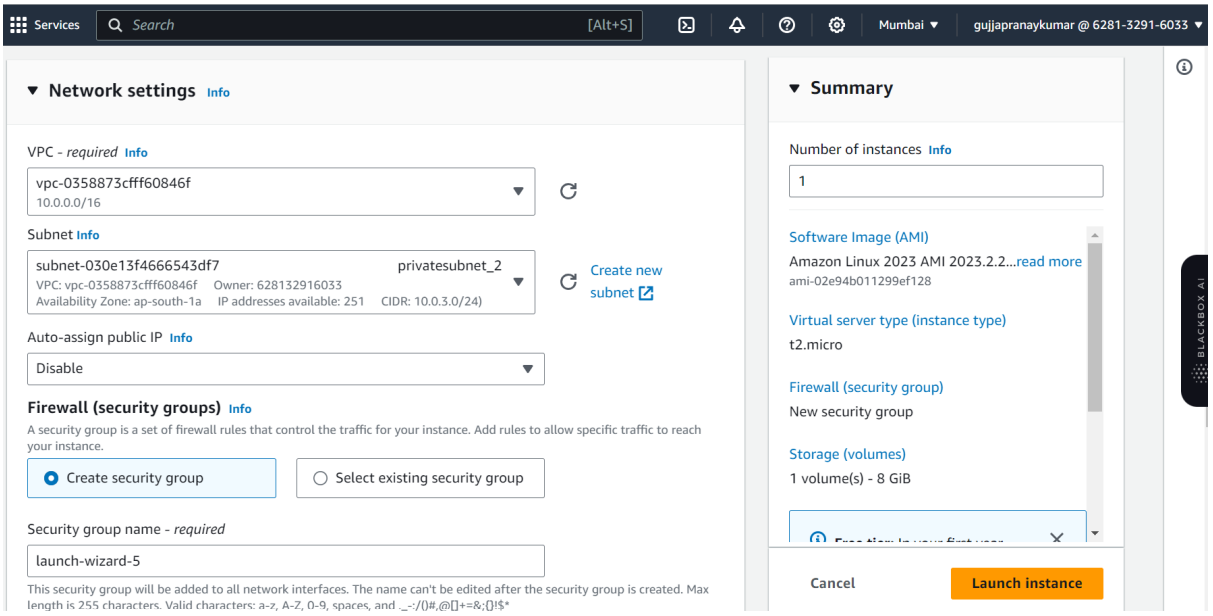
10. Click “Next” in the step2 as default is selected

11. In the Network , select the VPC that you have created, in the subnets select the private_01 subnet that you have created . Click on “Next :/

A: private isntnace 1

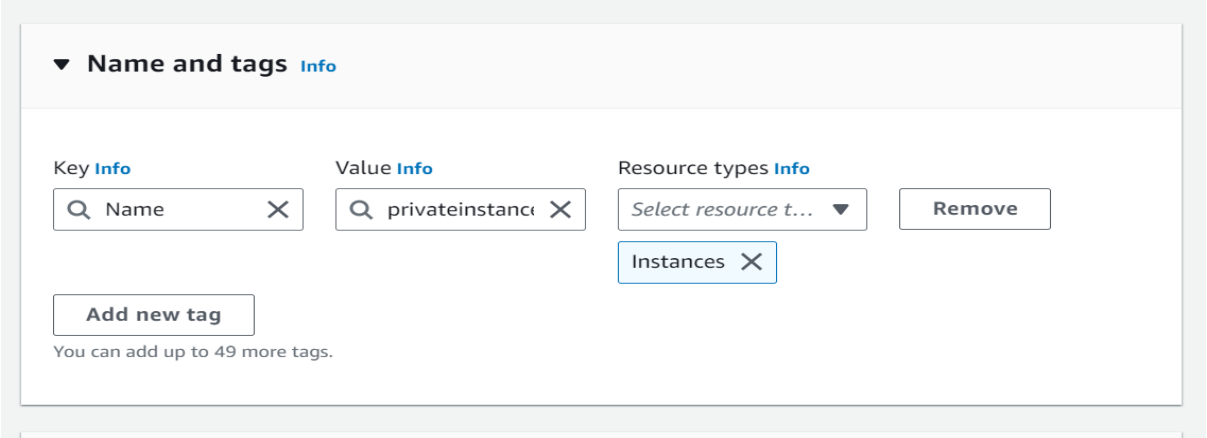


Private instance 2

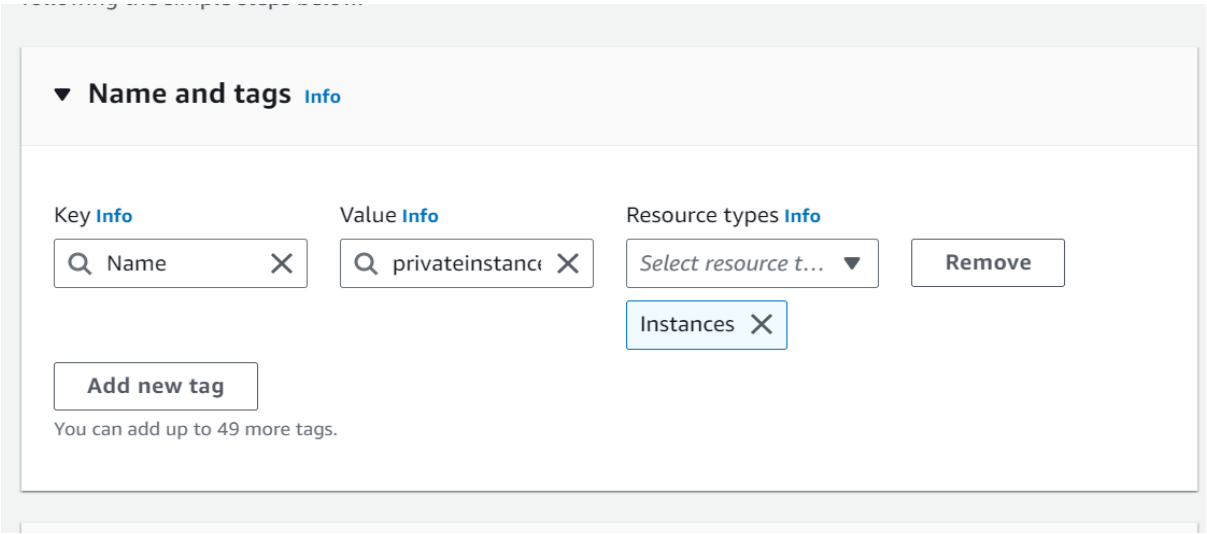


12. In storage the default options are selected , you can click “Next : Add Tags”. provide the Name and Value as below, (it is your choice to provide any values) and click on ‘configure security groups’

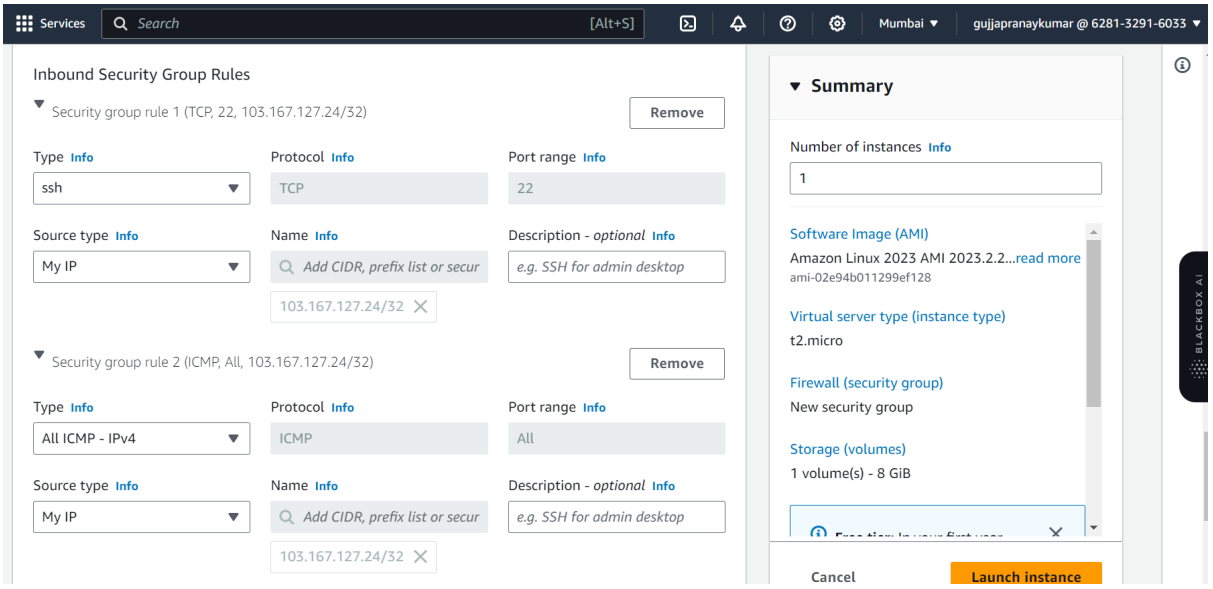
A: key value 1



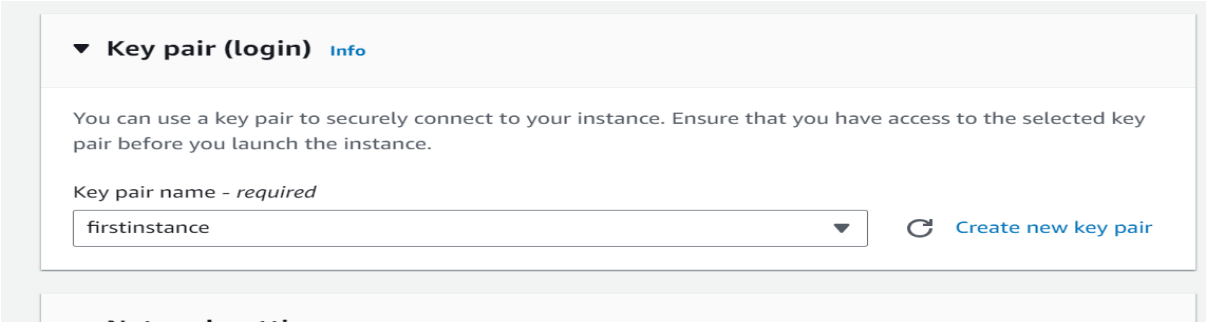
Key value 2



13.In ‘configure security groups’ add the following rules
(Note : Select my ip from the source)
A: same for both



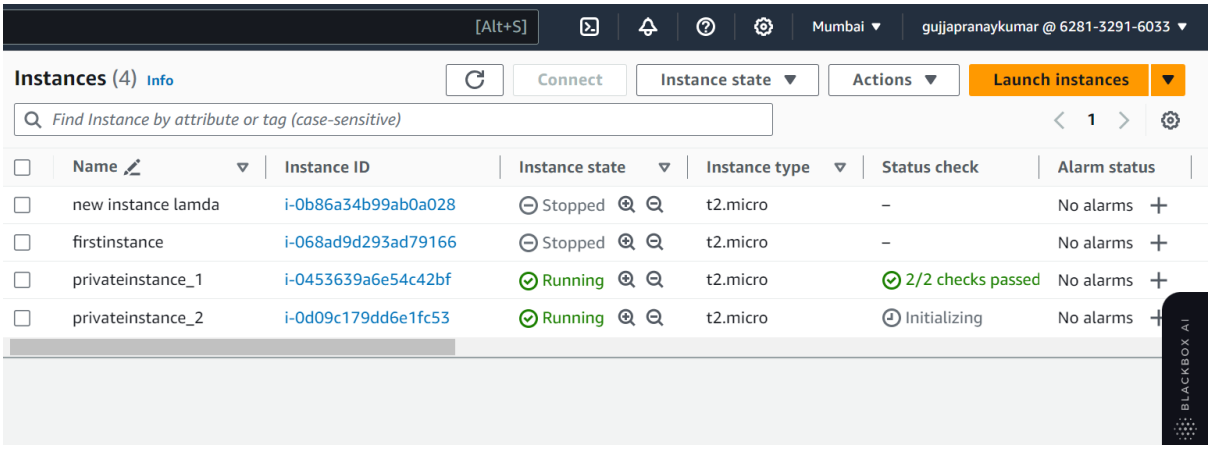
14. Click on Launch in the Last step, it will be selecting the existing keypair by default, make a check on acknowledge and click launch instance
A: same for both instnaces



15. Similarly create another private Instance

16. Your Instances will be successfully running but you cannot access them since it is a private instance.

A:



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