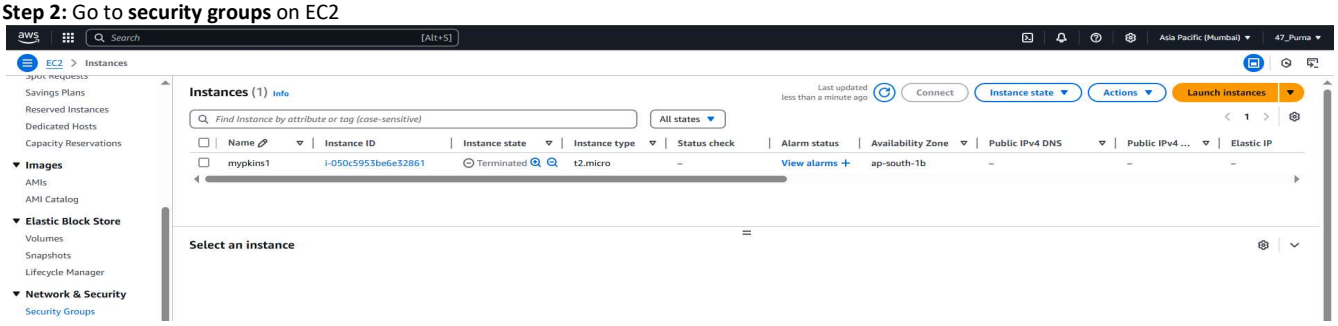
Assignment 10: Deploy a project from github to ec2 by creating new security group and user data.

Step 1 : Log in to AWS account .To Launch an EC2 Instance Navigate to **EC2 Dashboard**.

Step 2: Go to **security groups** on EC2

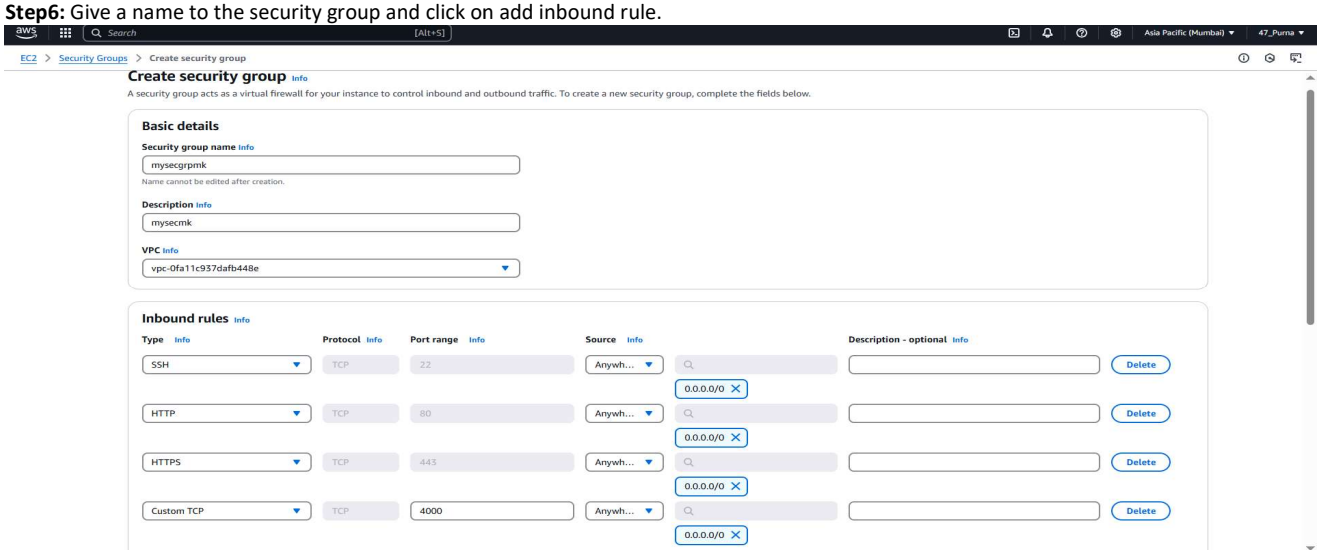


Step3: Delete other security groups expect the default one and click on create security group.

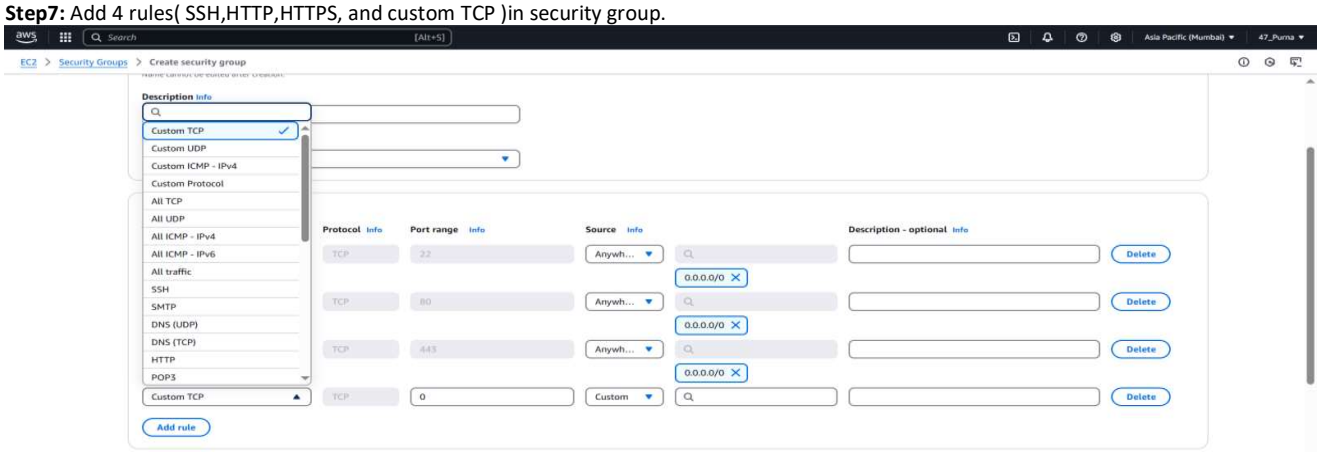
Step 4: click on **Delete.**

Step 5: Security group is successfully deleted. Now click on **Create security group**

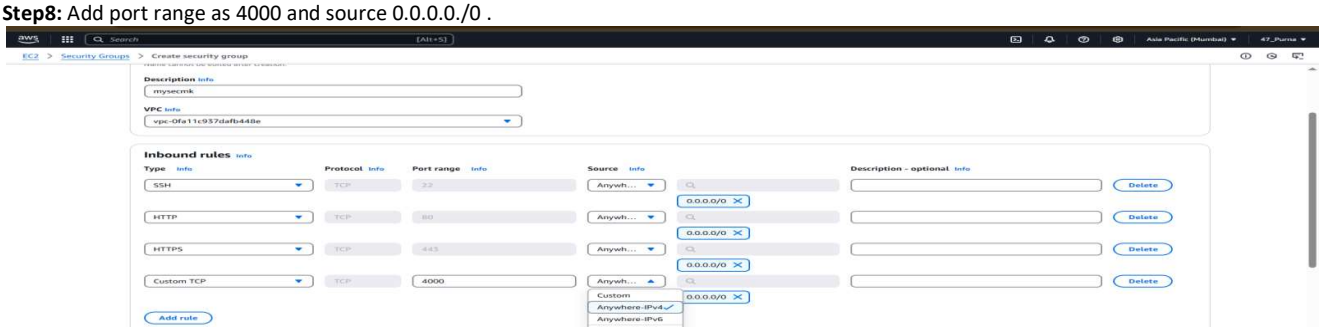
Step6: Give a name to the security group and click on add inbound rule.



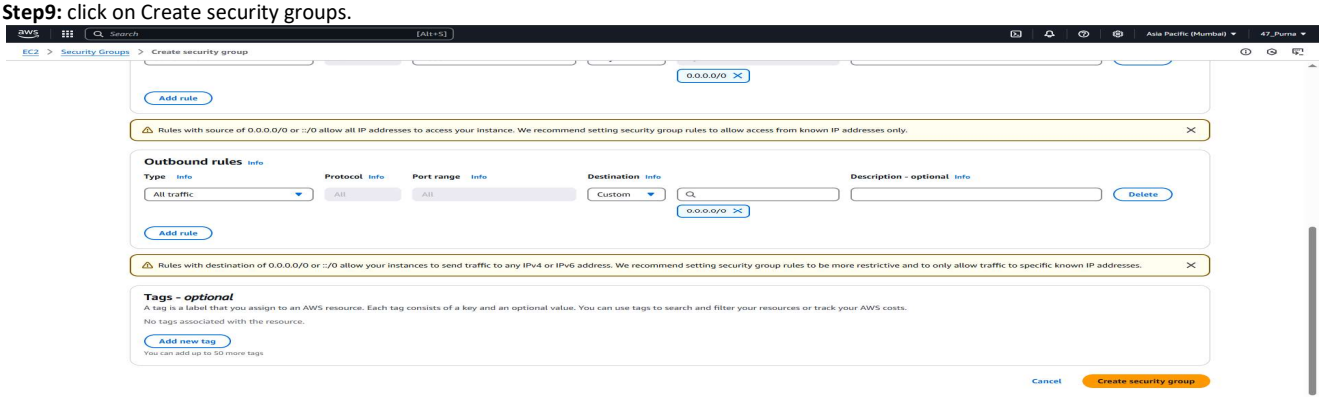
Step7: Add 4 rules(SSH,HTTP,HTTPS, and custom TCP)in security group.



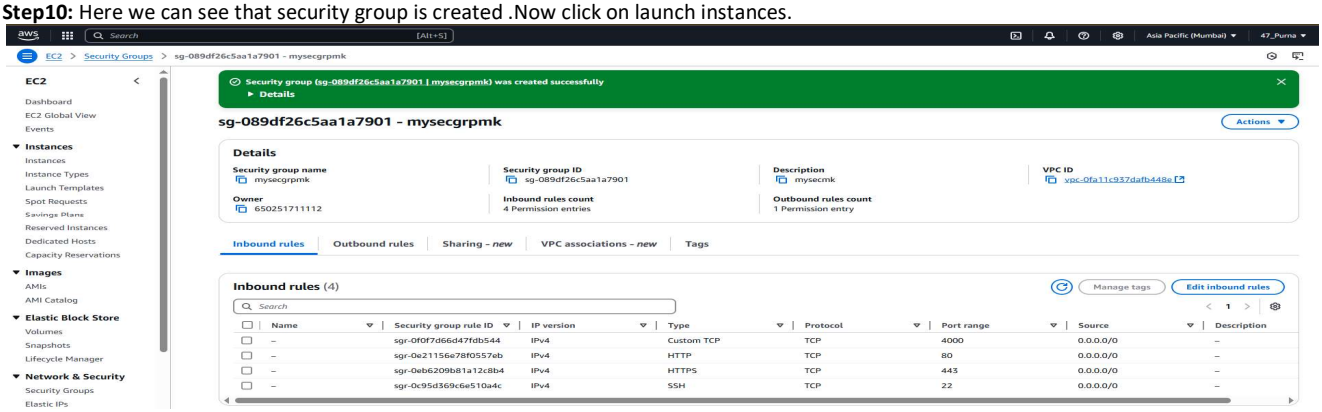
Step8: Add port range as 4000 and source 0.0.0.0./0 .



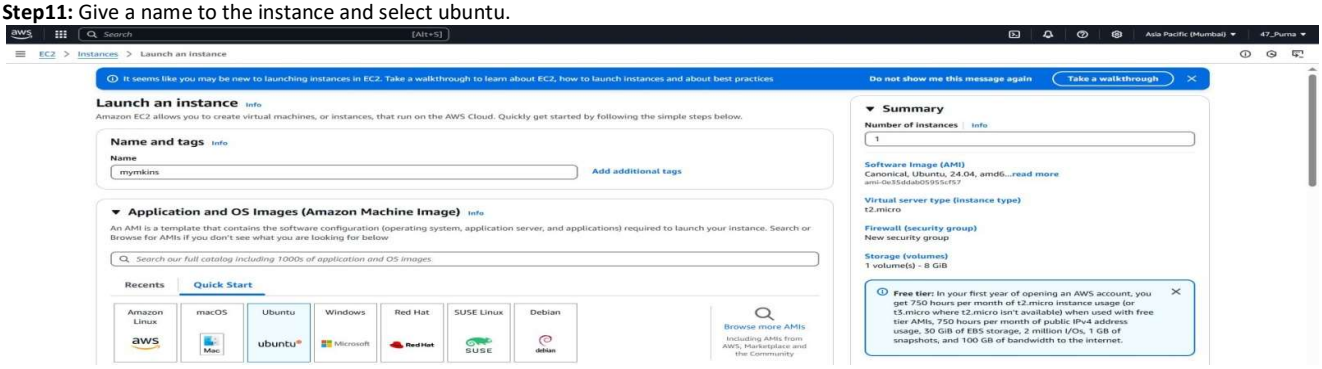
Step9: click on Create security groups.



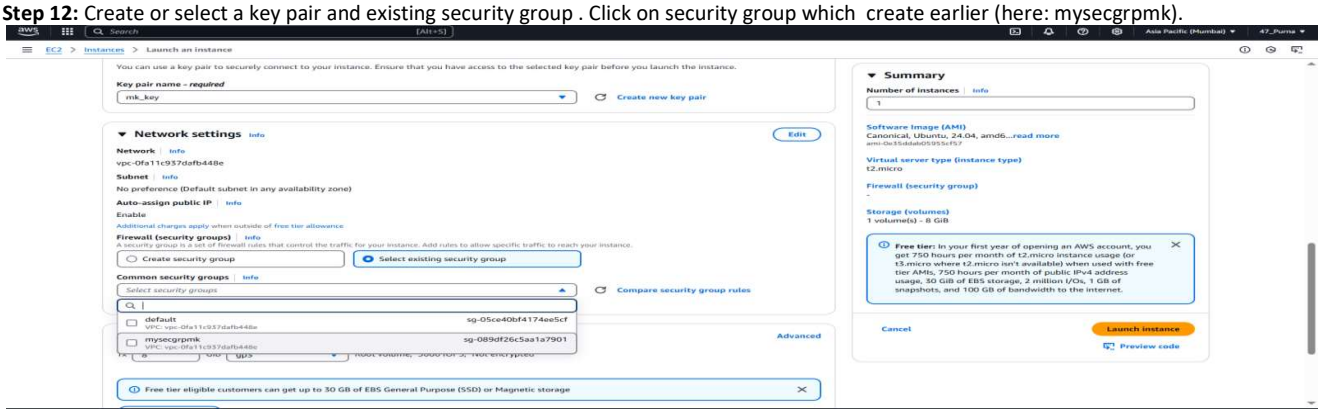
Step10: Here we can see that security group is created .Now click on launch instances.



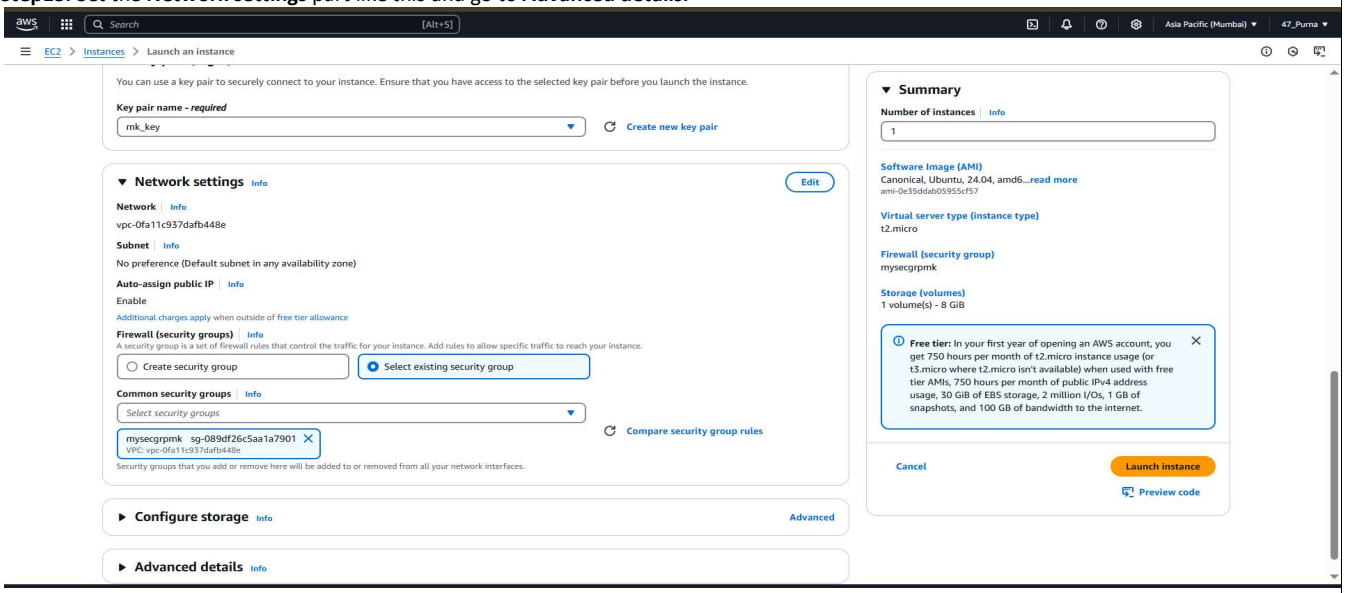
Step11: Give a name to the instance and select ubuntu.



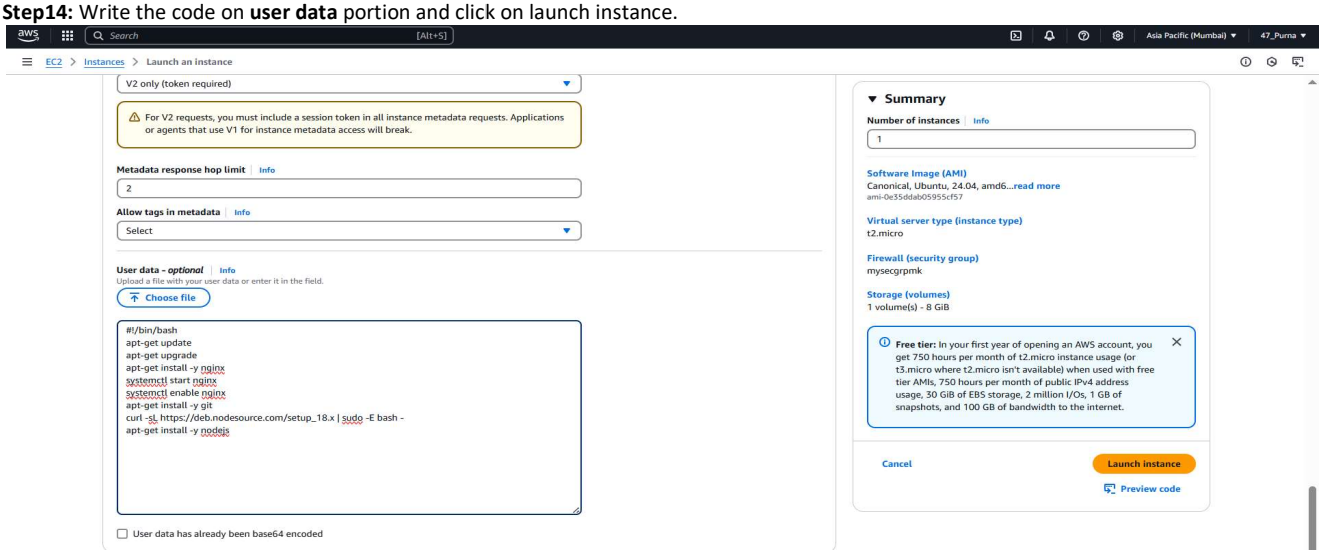
Step 12: Create or select a key pair and existing security group . Click on security group which create earlier (here: mysecgrpmk).



Step13: Set the **Network settings** part like this and go to **Advanced details.**

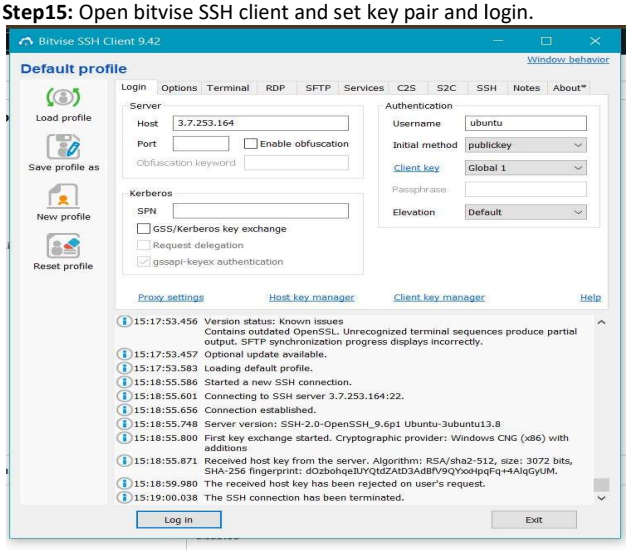


Step14: Write the code on **user data** portion and click on launch instance.

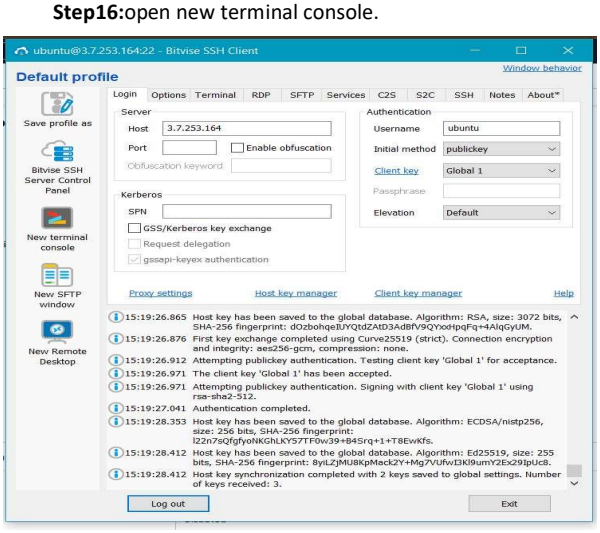


Step 14: Instance is successfully launched.

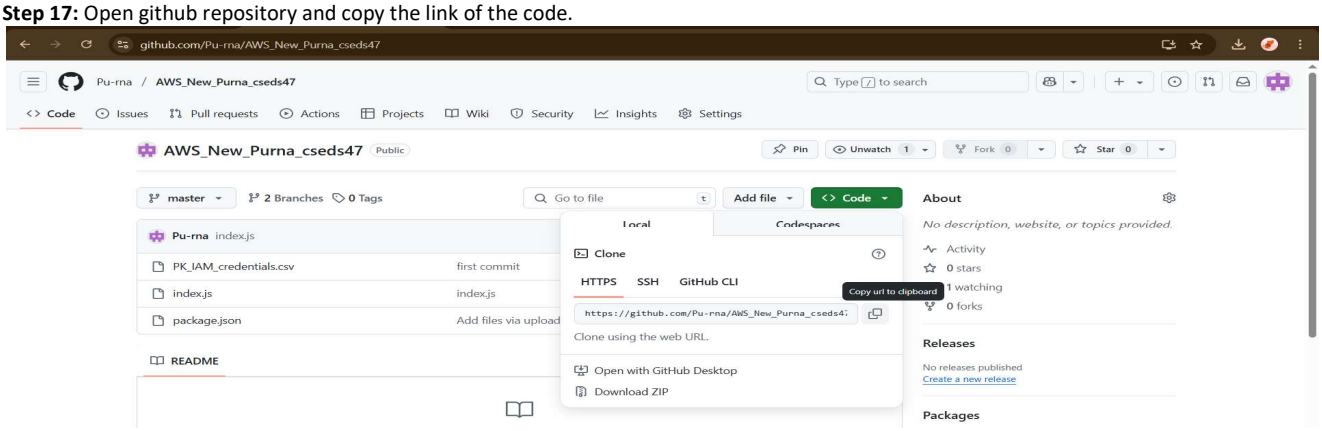
Step15: Open bitvise SSH client and set key pair and login.



Step16:open new terminal console.



Step 17: Open github repository and copy the link of the code.



Step18: Perform the following commands in the terminal.

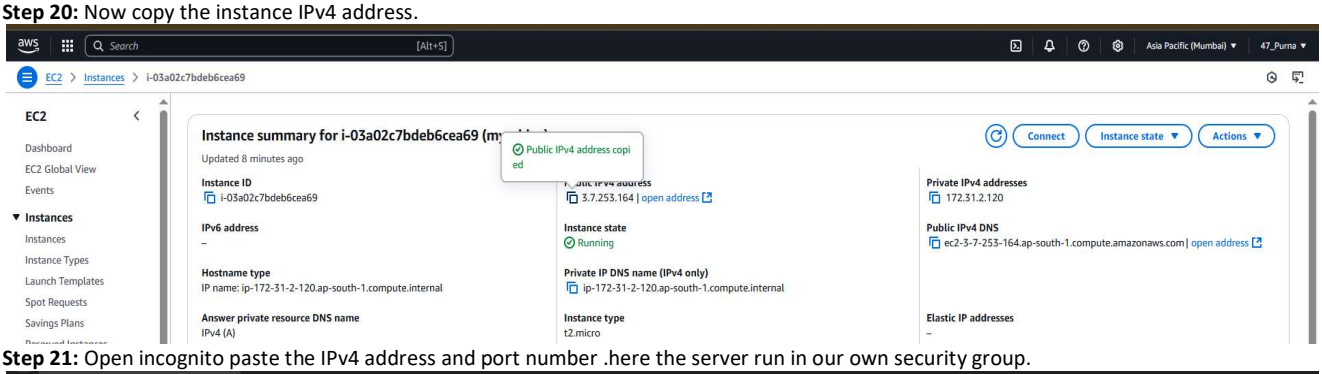
```
ubuntu@ip-172-31-2-120:~$ node -v
v18.20.8
ubuntu@ip-172-31-2-120:~$ git clone https://github.com/Pu-rna/AWS_New_Purna_cseds47.git
Cloning into 'AWS_New_Purna_cseds47'...
remote: Enumerating objects: 21, done.
remote: Counting objects: 100% (21/21), done.
remote: Compressing objects: 100% (21/21), done.
remote: Total 21 (delta 5), reused 2 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (21/21), 6.91 KiB | 1.73 MiB/s, done.
Resolving deltas: 100% (5/5), done.
ubuntu@ip-172-31-2-120:~$ ls
AWS_New_Purna_cseds47
```

```
ubuntu@ip-172-31-2-120:~$ cd AWS_New_Purna_cseds47
ubuntu@ip-172-31-2-120:~/AWS_New_Purna_cseds47$ ls
PK_IAM_credentials.csv  index.js  package.json
```

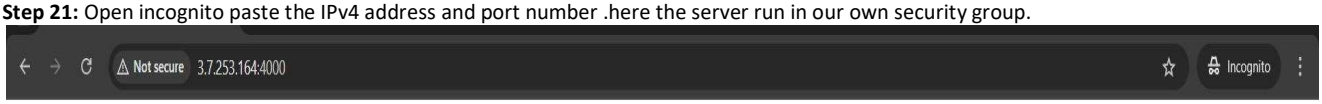
Step 19: To connect repository file of Github with the Ec2 pass this command and server is started.

```
ubuntu@ip-172-31-2-120:~/AWS_New_Purna_cseds47$ npm install

added 227 packages, and audited 228 packages in 15s

25 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
npm notice
npm notice New major version of npm available! 10.8.2 -> 11.2.0
npm notice Changelog: https://github.com/npm/cli/releases/tag/v11.2.0
npm notice To update run: npm install -g npm@11.2.0
npm notice
ubuntu@ip-172-31-2-120:~/AWS_New_Purna_cseds47$ node index.js
Started server
```

Step 20: Now copy the instance IPv4 address.



Step 21: Open incognito paste the IPv4 address and port number .here the server run in our own security group.



Hi Engineers