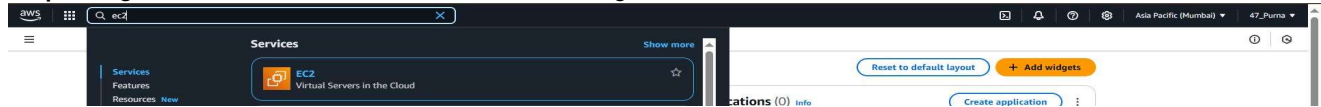
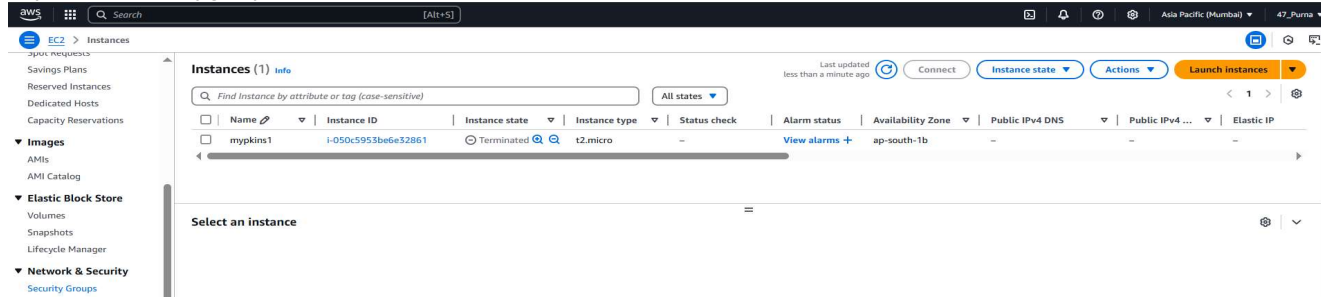


Assignment 10: Deploy a project from github to ec2 by creating new security group and user data.

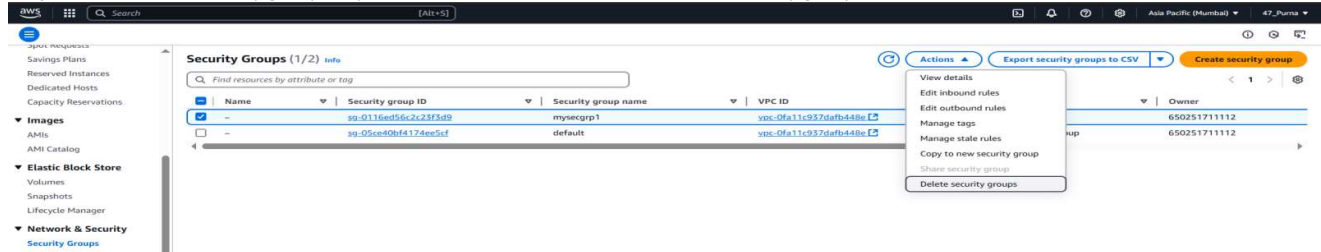
Step 1 : Log in to AWS account .To Launch an EC2 Instance Navigate to EC2 Dashboard.



Step 2: Go to security groups on EC2



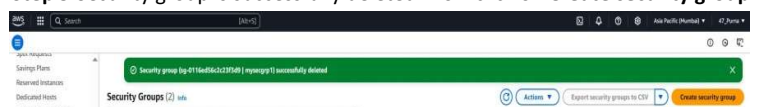
Step3:Delete other security groups expect the default one and click on create security group.



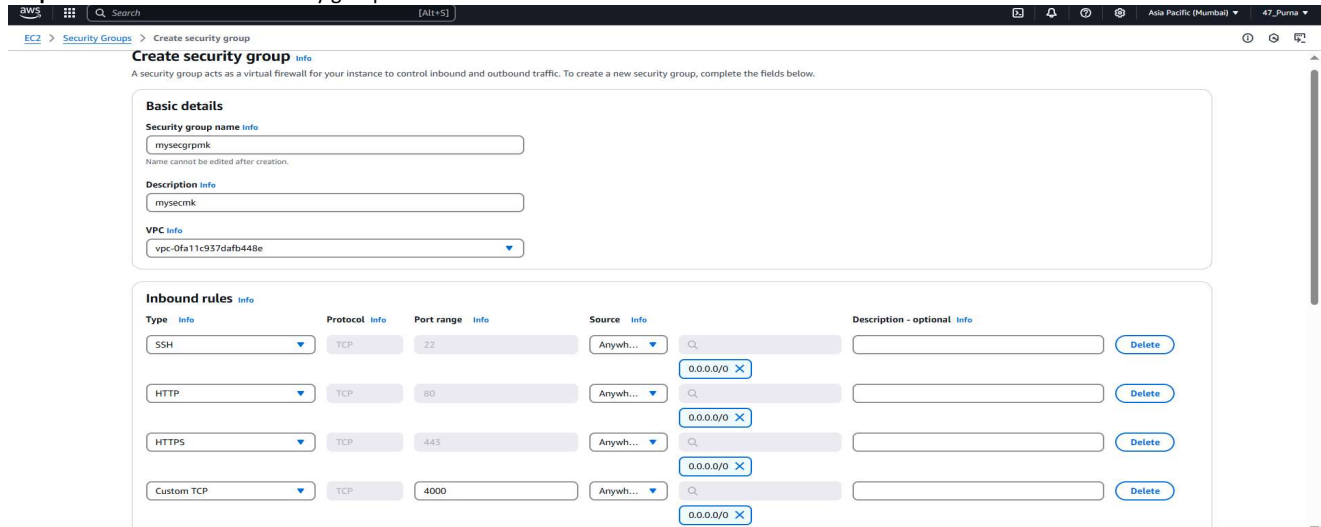
Step 4: click on Delete.



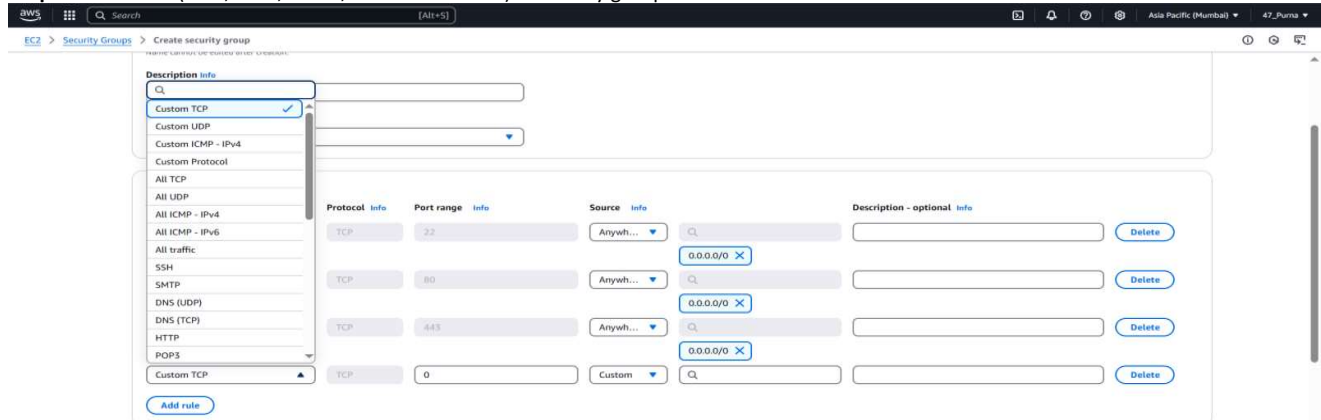
Step 5:Security group is successfully deleted. Now click on Create security group



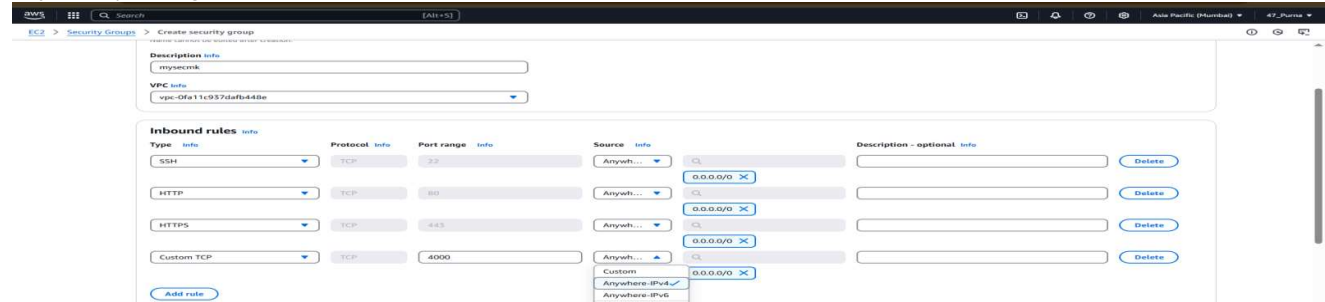
Step6: Give a name to the security group and click on add inbound rule.



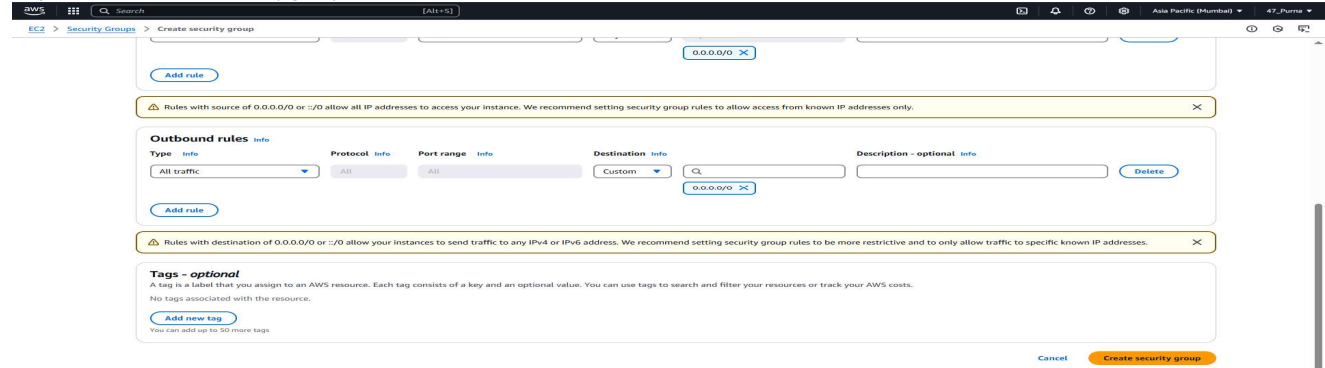
Step7: Add 4 rules(SSH,HTTP,HTTPS, and custom TCP)in security group.



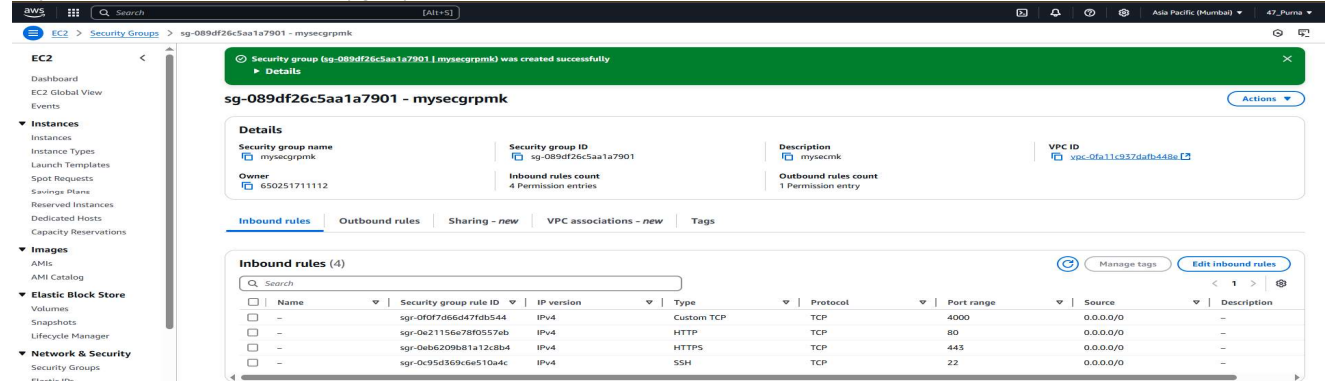
Step8: Add port range as 4000 and source 0.0.0.0/0 .



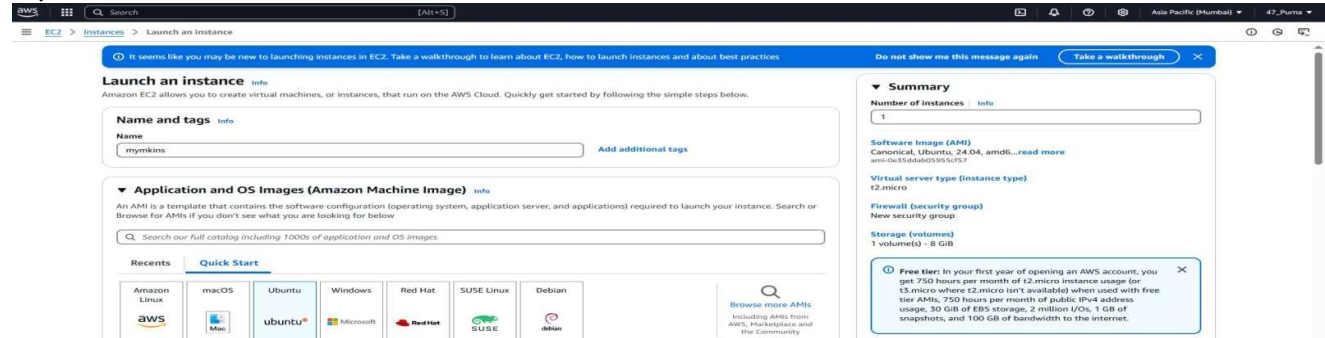
Step9: click on Create security groups.



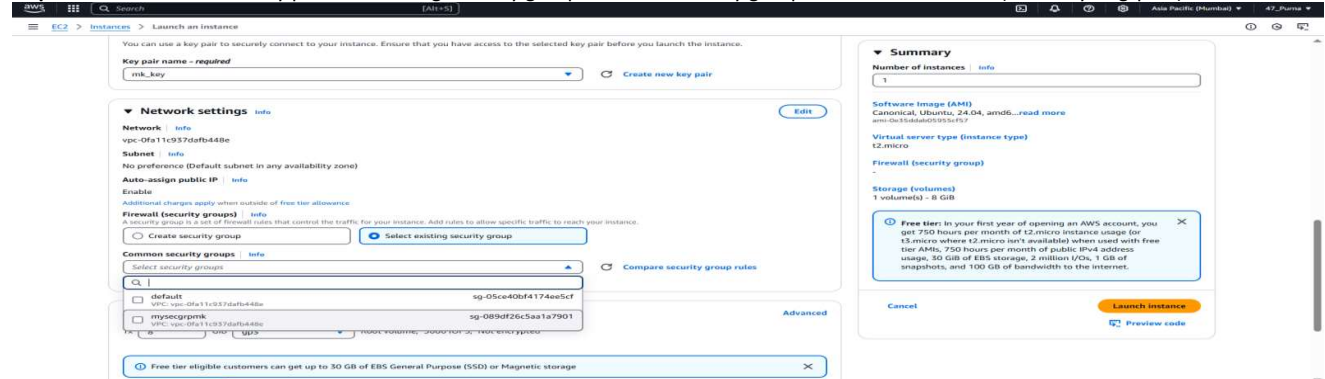
Step10: Here we can see that security group is created .Now click on launch instances.



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: mysecgrpkmk).



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

The screenshot shows the 'Launch instance' page in the AWS Management Console, specifically the 'Network settings' section. The 'Key pair name' is set to 'mk_key'. The 'Network' dropdown is set to 'vpc-0fa11c937dafb448e'. The 'Subnet' dropdown is set to 'No preference (Default subnet in any availability zone)'. The 'Auto-assign public IP' is set to 'Enable'. The 'Firewall (security groups)' section shows 'Create security group' and 'Select existing security group' options. The 'Common security groups' dropdown is set to 'mysecgrpnmk sg-089df26c5aa1a7901'. The 'Summary' panel on the right shows 'Number of instances' as 1, 'Software Image (AMI)' as 'Canonical, Ubuntu, 24.04, amd64...read more', 'Virtual server type (instance type)' as 't2.micro', 'Firewall (security group)' as 'mysecgrpnmk', and 'Storage (volumes)' as '1 volume(s) - 8 GiB'. A 'Free tier' notification is visible. The 'Launch instance' button is highlighted.

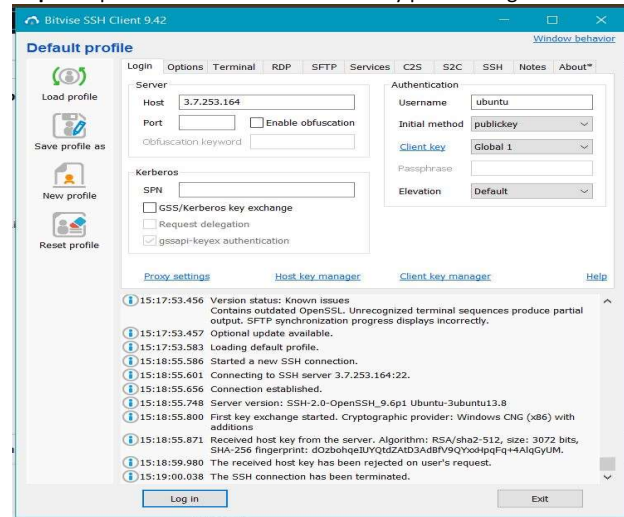
Step14: Write the code on user data portion and click on launch instance.

The screenshot shows the 'Launch instance' page in the AWS Management Console, specifically the 'User data' section. The 'User data' field contains a script to install and configure Nginx and Node.js. The 'Summary' panel on the right shows the same configuration as Step 13. The 'Launch instance' button is highlighted.

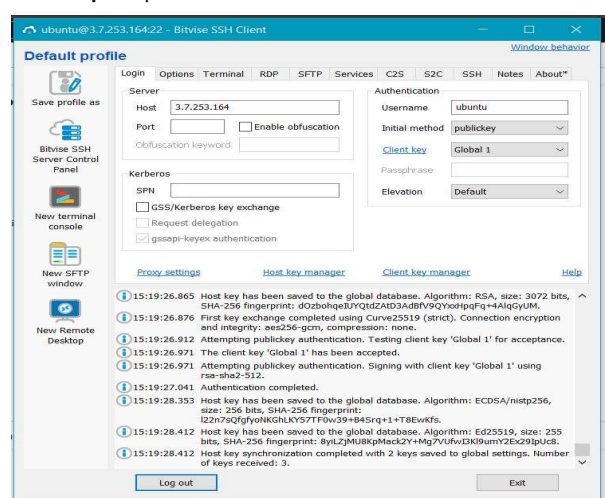
Step 14: Instance is successfully launched.



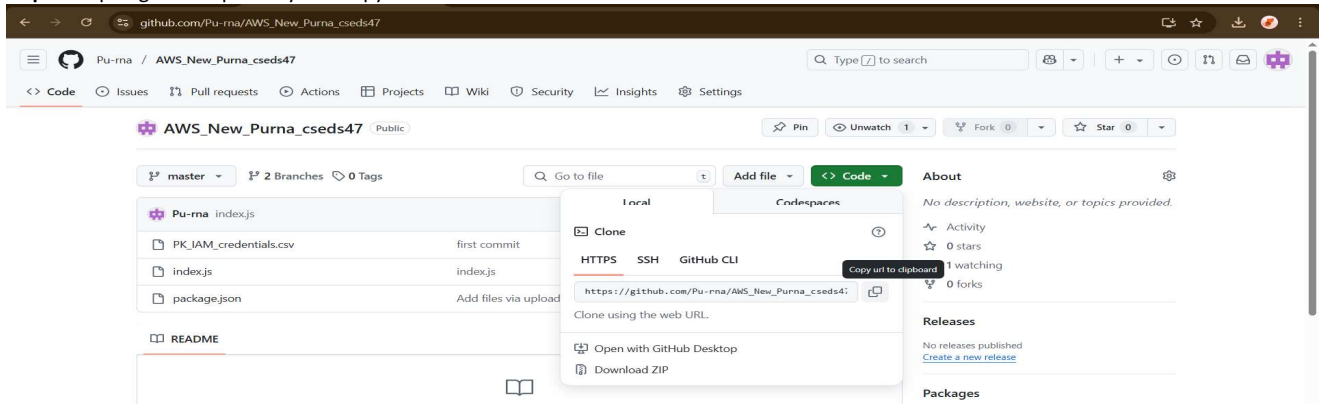
Step15: Open bitwise SSH client and set key pair and login.



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.

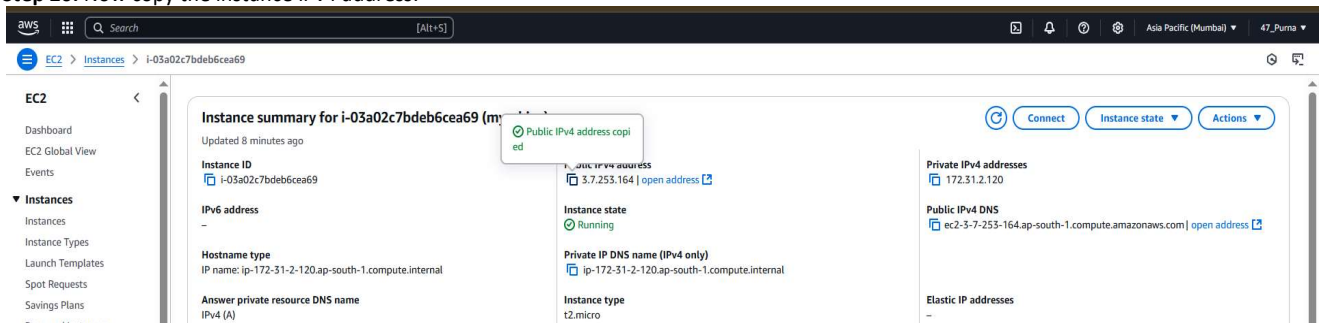
```
ubuntu@ip-172-31-2-120:~$ node -v
v18.20.8
ubuntu@ip-172-31-2-120:~$ git clone https://github.com/Pu-rna/AWS_New_Purna_cseds47.git
Cloning into 'AWS_New_Purna_cseds47'...
remote: Enumerating objects: 21, done.
remote: Counting objects: 100% (21/21), done.
remote: Compressing objects: 100% (21/21), 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
```

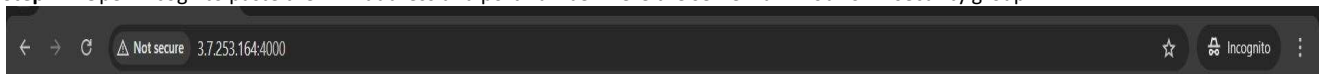
Step 19: To connect repository file of Github with the Ec2 pass this command and server is started.

```
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