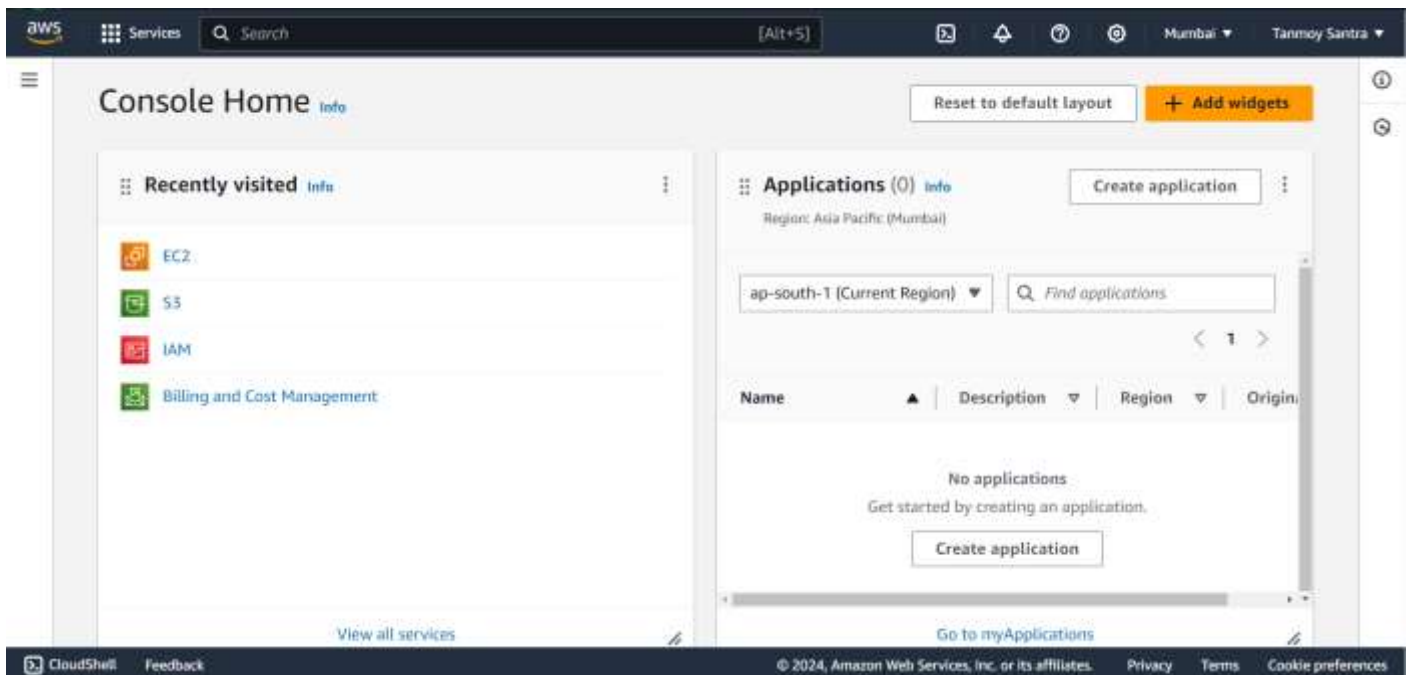


## ASSIGNMENT - 9

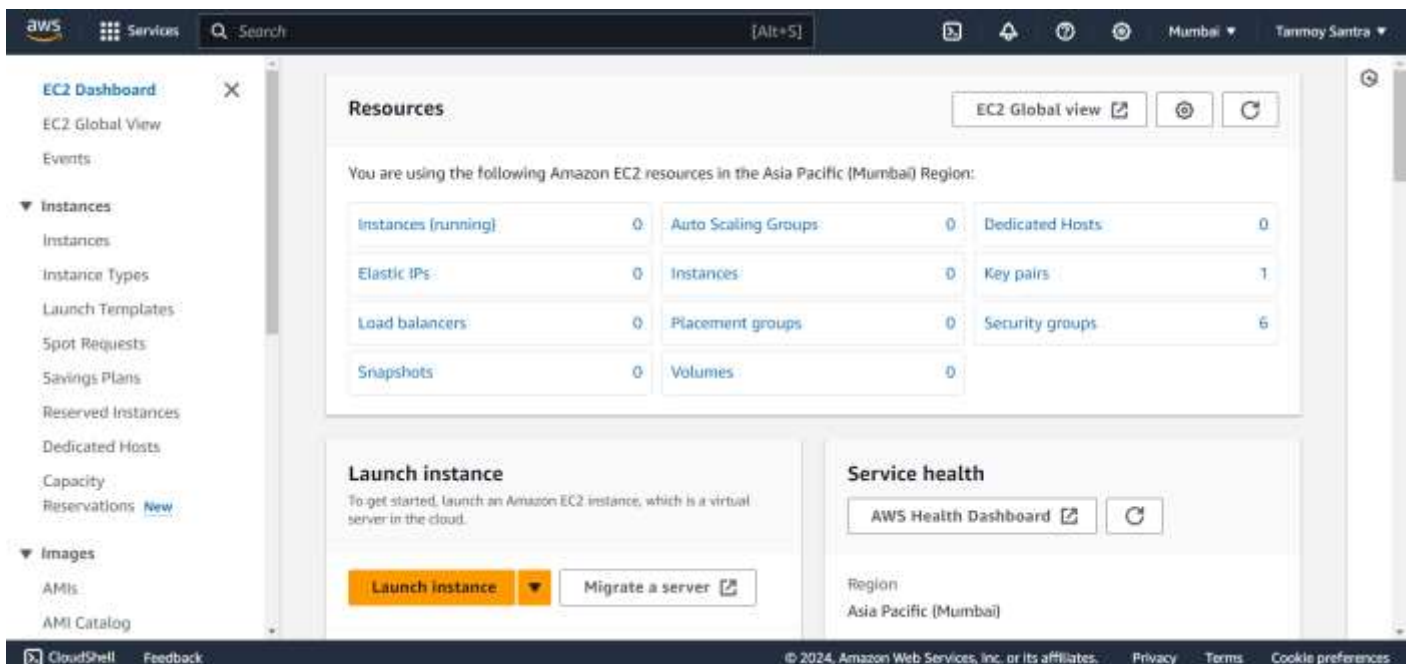
**PROBLEM STATEMENT** - Deploy a project from GitHub to EC2.

### To Deploy the project

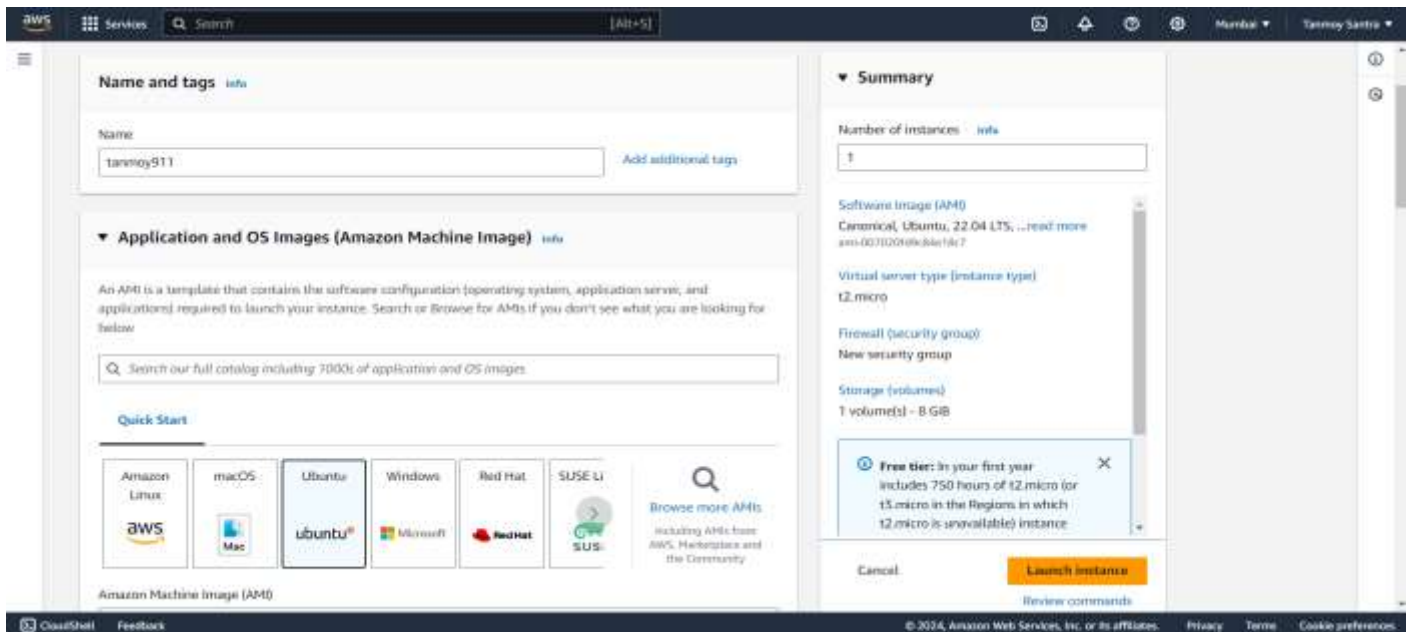
STEP 1- Select EC2 option.



STEP 2- Click on Launch Instance.

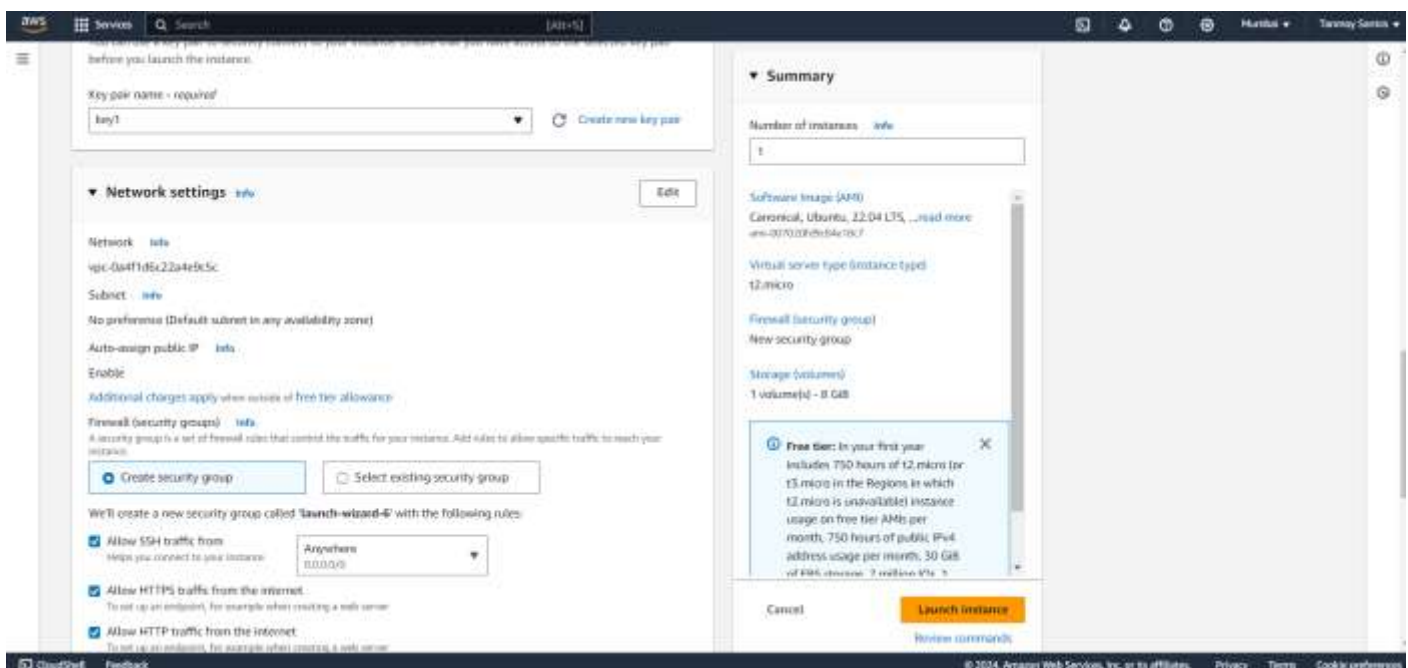


STEP 3- Give a unique name to the instance and select Ubuntu.

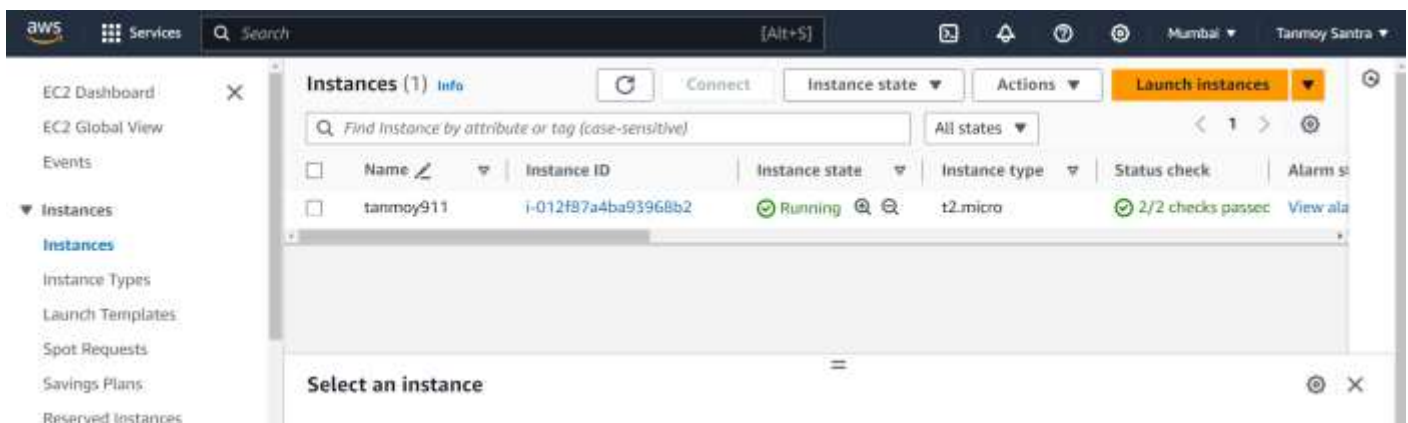


STEP 4- Select the key from the list or create a new one.

STEP 5- Check all the 3 check boxes. Then click on Launch Instance.



STEP 6- Click on instance id to enter into the instance.



STEP 7- Select the Security option & Click on the security group ID.

The screenshot shows the AWS IAM console with the 'Security' tab selected for a security group. The 'Security details' section shows the IAM Role, Owner ID, and Launch time. The 'Inbound rules' section displays a table of rules with columns: Name, Security group rule ID, Port range, Protocol, Source, and Security group. The 'Outbound rules' section displays a table of rules with columns: Name, Security group rule ID, Port range, Protocol, Destination, and Security group.

Name	Security group rule ID	Port range	Protocol	Source	Security group
-	sg-02f00552328f55b1b	22	TCP	0.0.0.0/0	launch-wizard-6
-	sg-0a07a794375570e6	80	TCP	0.0.0.0/0	launch-wizard-6
-	sg-0849a148a6fb00016	443	TCP	0.0.0.0/0	launch-wizard-6

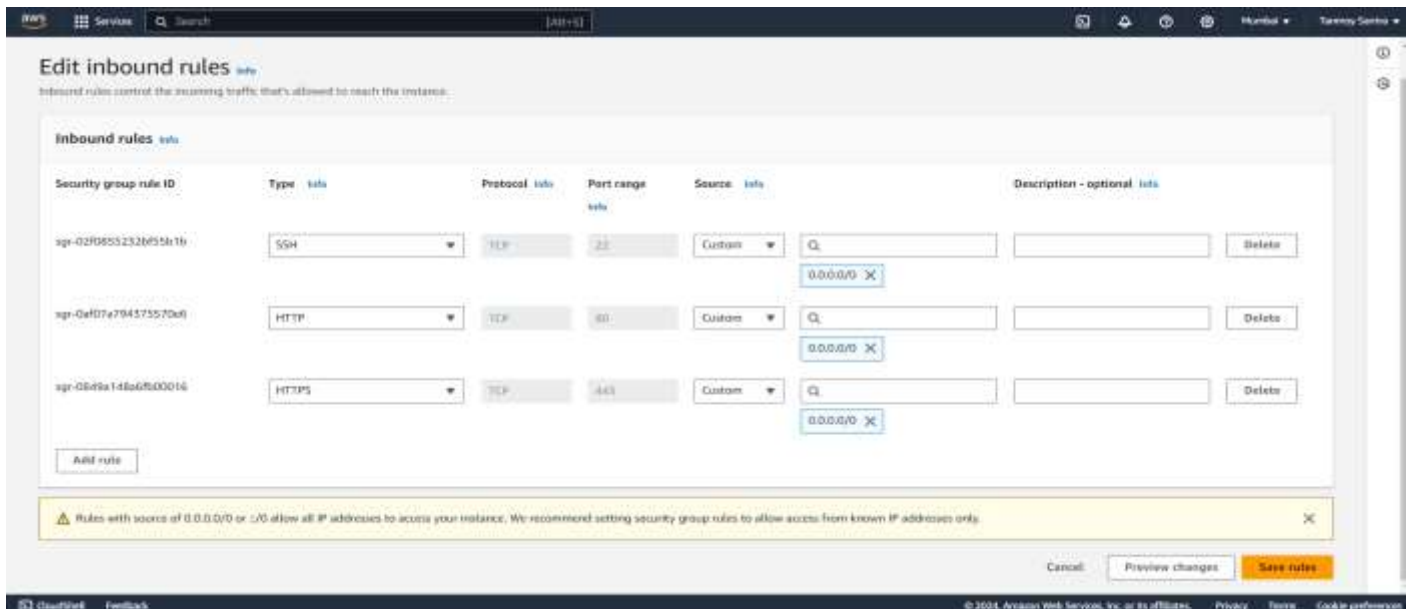
Name	Security group rule ID	Port range	Protocol	Destination	Security group
-	sg-0c2073c094c0a9ce	All	All	0.0.0.0/0	launch-wizard-6

STEP 8-Click on Edit Inbound Rules.

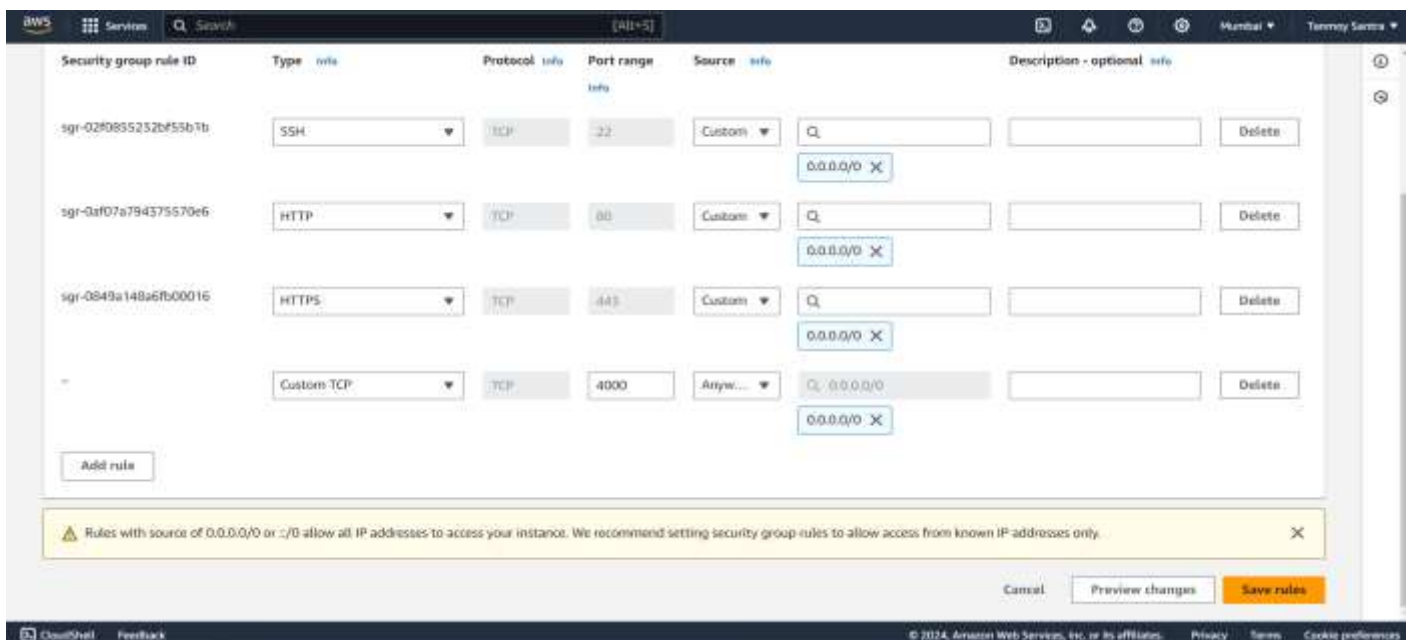
The screenshot shows the AWS IAM console with the 'Edit inbound rules' page selected for a security group. The 'Details' section shows the Security group name, Security group ID, Description, and VPC ID. The 'Inbound rules' section displays a table of rules with columns: Name, Security group rule ID, IP version, Type, Protocol, Port range, and Source. The 'Outbound rules' section displays a table of rules with columns: Name, Security group rule ID, Port range, Protocol, Destination, and Security group.

Name	Security group rule ID	IP version	Type	Protocol	Port range	Source
-	sg-02f00552328f55b1b	IPv4	SSH	TCP	22	0.0.0.0/0
-	sg-0a07a794375570e6	IPv4	HTTP	TCP	80	0.0.0.0/0
-	sg-0849a148a6fb00016	IPv4	HTTPS	TCP	443	0.0.0.0/0

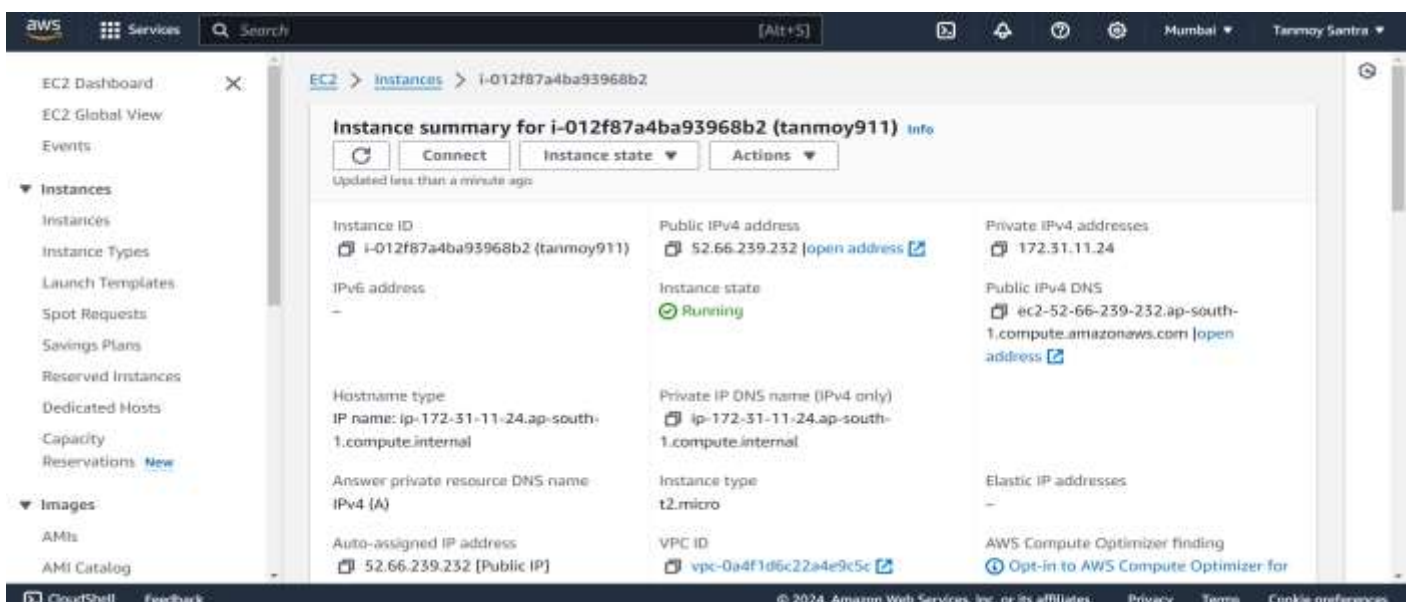
STEP 9- Click on Add Rules.



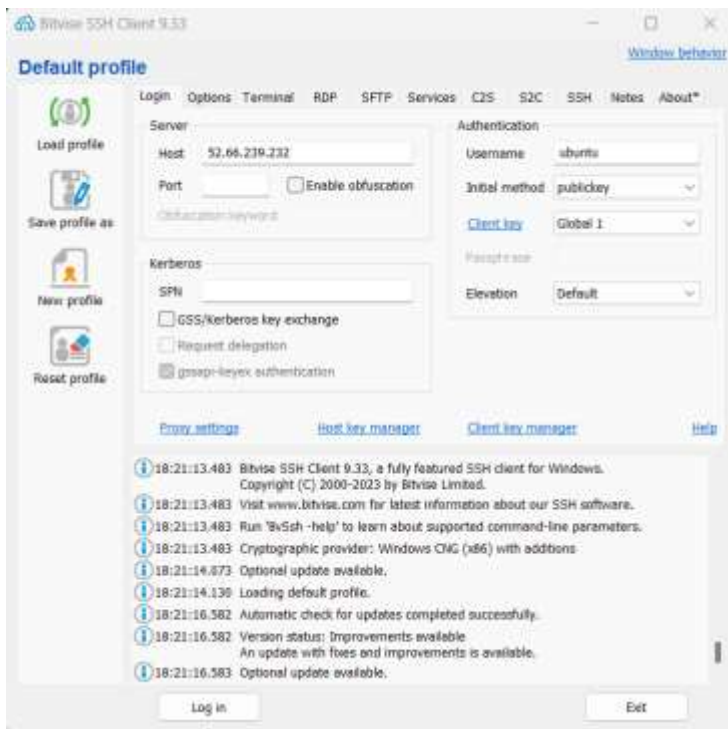
STEP 10- Give the port no. 4000, in source info give 0.0.0.0/0. Then click on Save Rules.



STEP 11- Go back into the instance and copy the Public IPv4 Address.

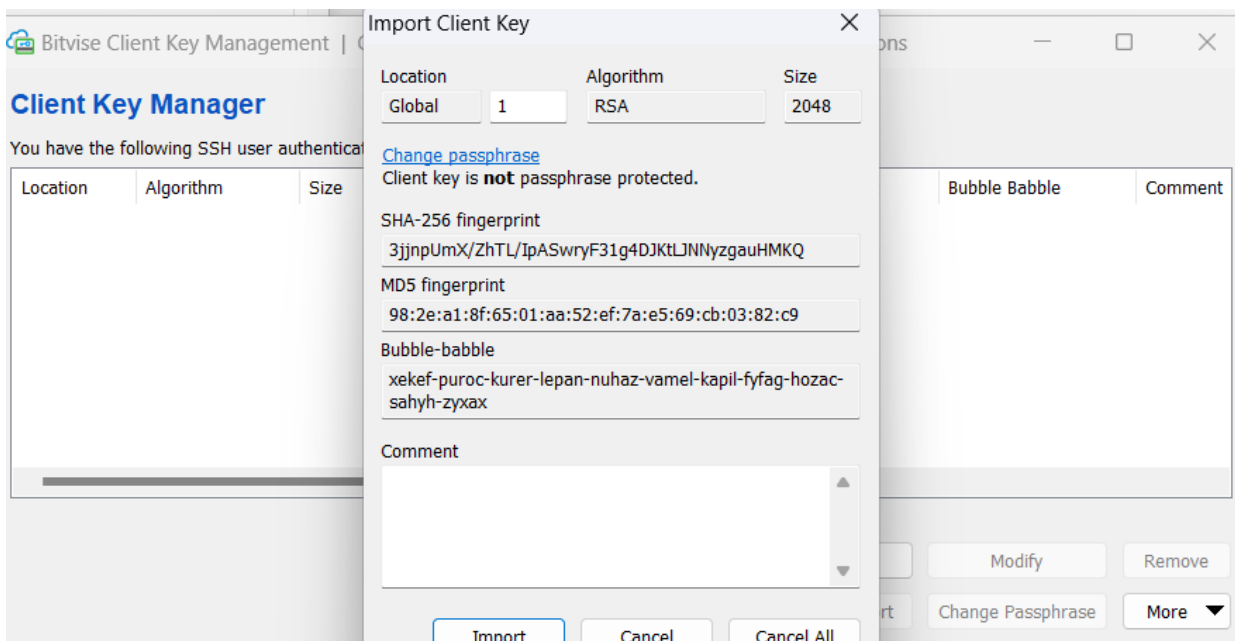


STEP 12- Open Bitvise SSH Client, Paste the address under the host tab. Under the Authentication tab, give the username as ubuntu, Initial method as publickey. Then click on Client Key Manager.



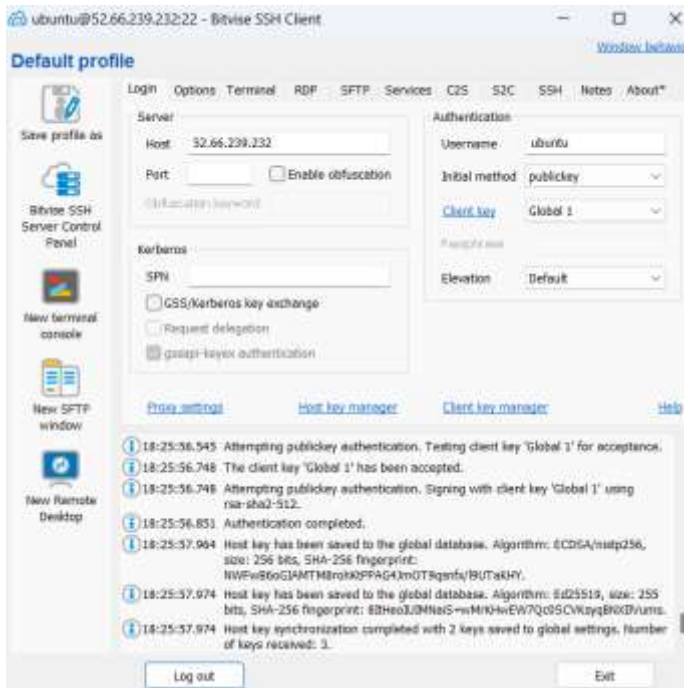
STEP 13- Remove any previously selected key if any, then click on Import.

STEP 14- Select the key using which instance was created. Then close the window.





STEP 15- Click on Login.



STEP 16- Open a new terminal by clicking on New Terminal Console.

STEP 17- In the console type the following commands in sequential order:

```
ubuntu@15.206.187.161:22 - Bitvise xterm - ubuntu@ip-172-31-6-129: ~

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-6-129:~$ pwd
/home/ubuntu
ubuntu@ip-172-31-6-129:~$ sudo apt-get update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]

Fetched 30.7 MB in 6s (5261 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-6-129:~$ sudo apt-get upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-6-129:~$ sudo apt-get install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
```

```
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-6-129:~$ nginx -v
nginx version: nginx/1.18.0 (Ubuntu)
```

```
2024-04-12 15:13:03 - Repository configured successfully. To install Node.js, run: apt install nodejs
ubuntu@ip-172-31-6-129:~$ sudo apt install nodejs
Reading package lists... Done
```

```
ubuntu@ip-172-31-6-129:~$ node -v
v16.20.2
```

```
ubuntu@ip-172-31-6-129:~$ git clone https://github.com/Tanmoy-Santra/awsass2.git
Cloning into 'awsass2'...
remote: Enumerating objects: 7, done.
remote: Counting objects: 100% (7/7), done.
remote: Compressing objects: 100% (7/7), done.
remote: Total 7 (delta 0), reused 7 (delta 0), pack-reused 0
Receiving objects: 100% (7/7), 48.21 KiB | 5.36 MiB/s, done.
ubuntu@ip-172-31-6-129:~$ cd awsass2
ubuntu@ip-172-31-6-129:~/awsass2$ ls
'New Text Document.txt'  index.js  package-lock.json  package.json
ubuntu@ip-172-31-6-129:~/awsass2$
```

```
ubuntu@ip-172-31-6-129:~/awsass2$ npm install
npm WARN deprecated uuid@3.4.0: Please upgrade to version 7 or higher. Older versions may use Node.js deprecated APIs. See https://v8.dev/blog/math-random for details.

added 258 packages, and audited 259 packages in 10s

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

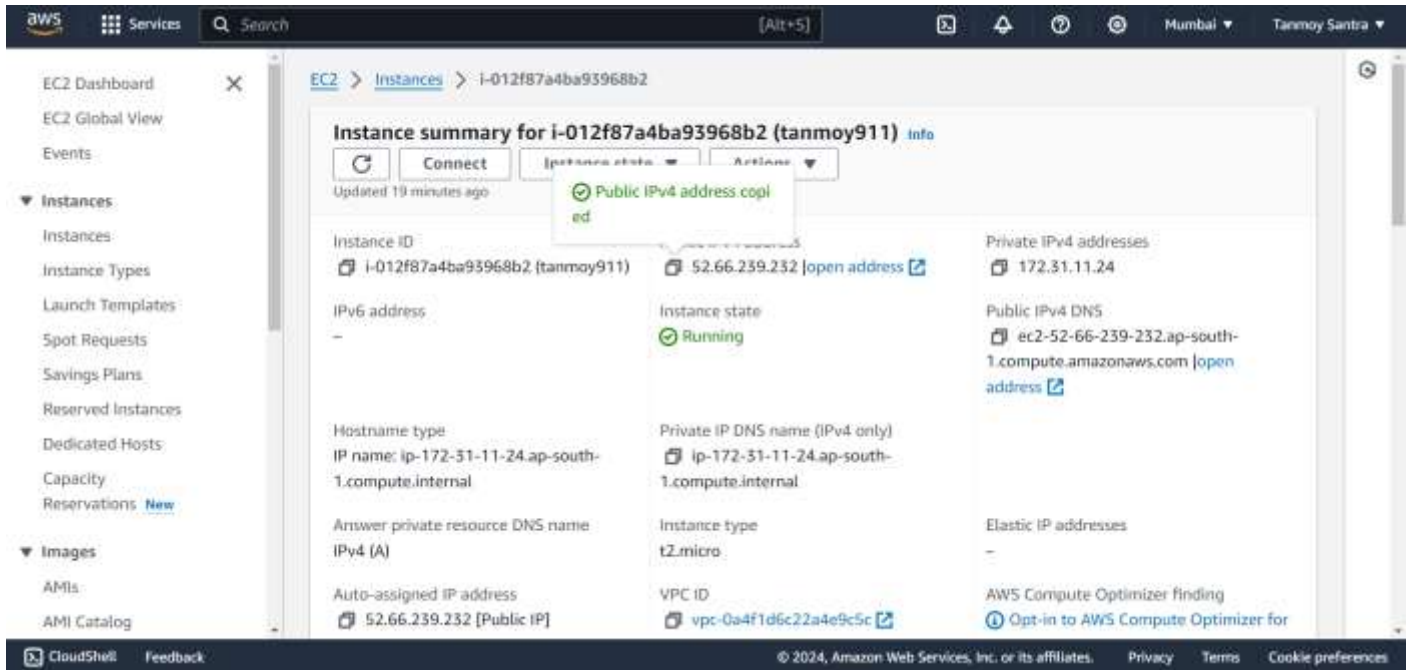
12 vulnerabilities (10 moderate, 2 critical)

To address all issues, run:
  npm audit fix

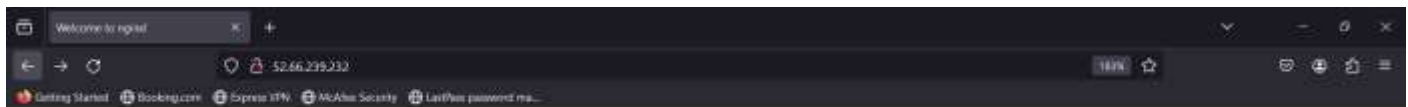
Run `npm audit` for details.
npm notice
npm notice New major version of npm available! 8.19.4 -> 10.5.2
npm notice Changelog: https://github.com/npm/cli/releases/tag/v10.5.2
npm notice Run npm install -g npm@10.5.2 to update!
npm notice

npm notice Run npm install -g npm@10.5.2 to update!
npm notice
ubuntu@ip-172-31-6-129:~/awsass2$ node index.js
Started server
```

STEP 18- From the Public IPv4 Address click Open Address.



STEP 19- Nginx window will open. Now add :4000 at the end of the IPv4 Address.



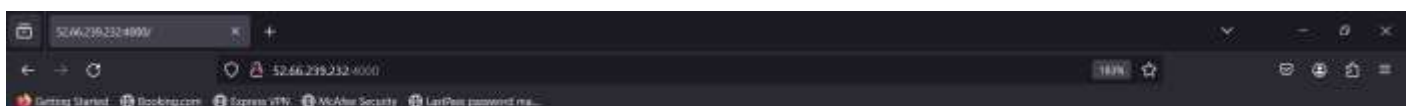
## Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to [nginx.org](https://nginx.org).  
Commercial support is available at [nginx.com](https://nginx.com).

*Thank you for using nginx.*

STEP 20- The Nodejs file content will be visible.



Hello World