

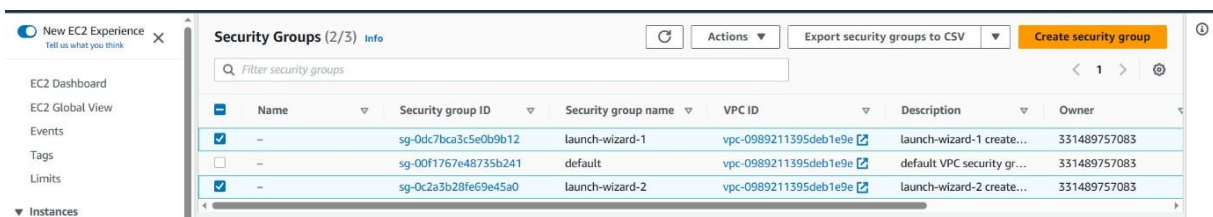
AWS-10

Deploy project from GitHub to EC2 by creating new security group and user data.

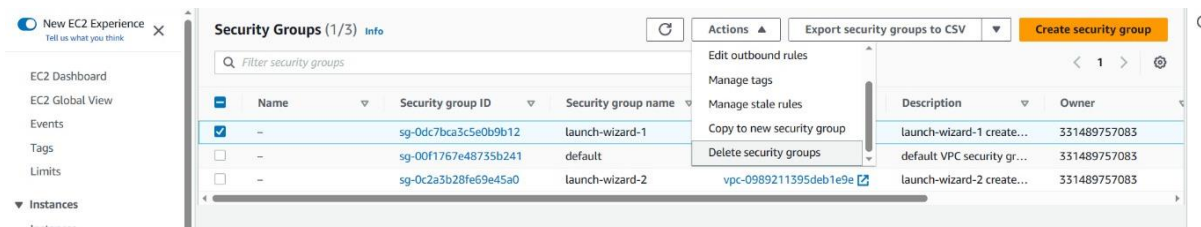
1. Sign in to your GitHub account.
2. Then sign in to aws account then click EC2.
3. Then click on Security groups.



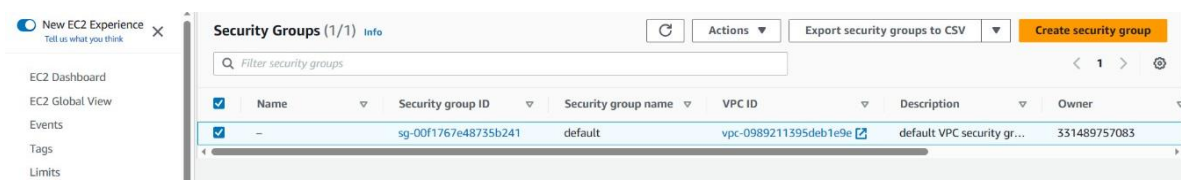
4. Then select all the security groups except the default one .



5. Then go to Action and then click on Delete security groups.



6. Then click on Create security group.



7. Then enter Security group name and Description.

EC2 > Security Groups > Create security group

Create security group [Info](#)

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name [Info](#)

Name cannot be edited after creation.

Description [Info](#)

VPC [Info](#)

8. Then Add rule in the Inbound rules section.

Then click on Add rule and select type as SSH, HTTP, HTTPS and Custom TCP and port range of Custom TCP as 4000 and then select source as 0.0.0.0/0 for all the types.

VPC [Info](#)

Inbound rules [Info](#)

Type Info	Protocol Info	Port range Info	Source Info	Description - optional Info	
SSH	TCP	22	Anywh... <input type="text" value="0.0.0.0/0"/>		Delete
HTTP	TCP	80	Anywh... <input type="text" value="0.0.0.0/0"/>		Delete
HTTPS	TCP	443	Anywh... <input type="text" value="0.0.0.0/0"/>		Delete
Custom TCP	TCP	4000	Anywh... <input type="text" value="0.0.0.0/0"/>		Delete

[Add rule](#)

9. Then do not add any rule in the Outbound rules and click on Create security groups. Then Security group was created successfully .

[Add rule](#)

Outbound rules [Info](#)

Type Info	Protocol Info	Port range Info	Destination Info	Description - optional Info	
All traffic	All	All	Custom <input type="text" value="0.0.0.0/0"/>		Delete

[Add rule](#)

Tags - optional
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

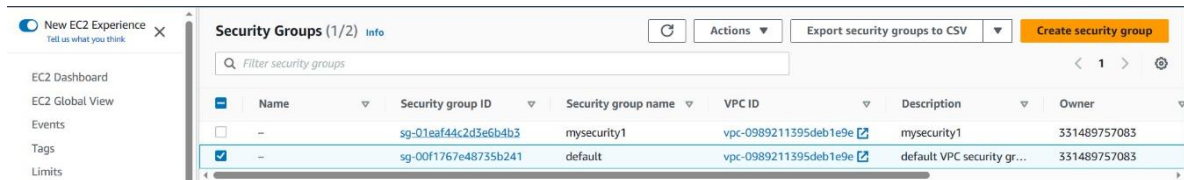
No tags associated with the resource.

[Add new tag](#)
You can add up to 50 more tags

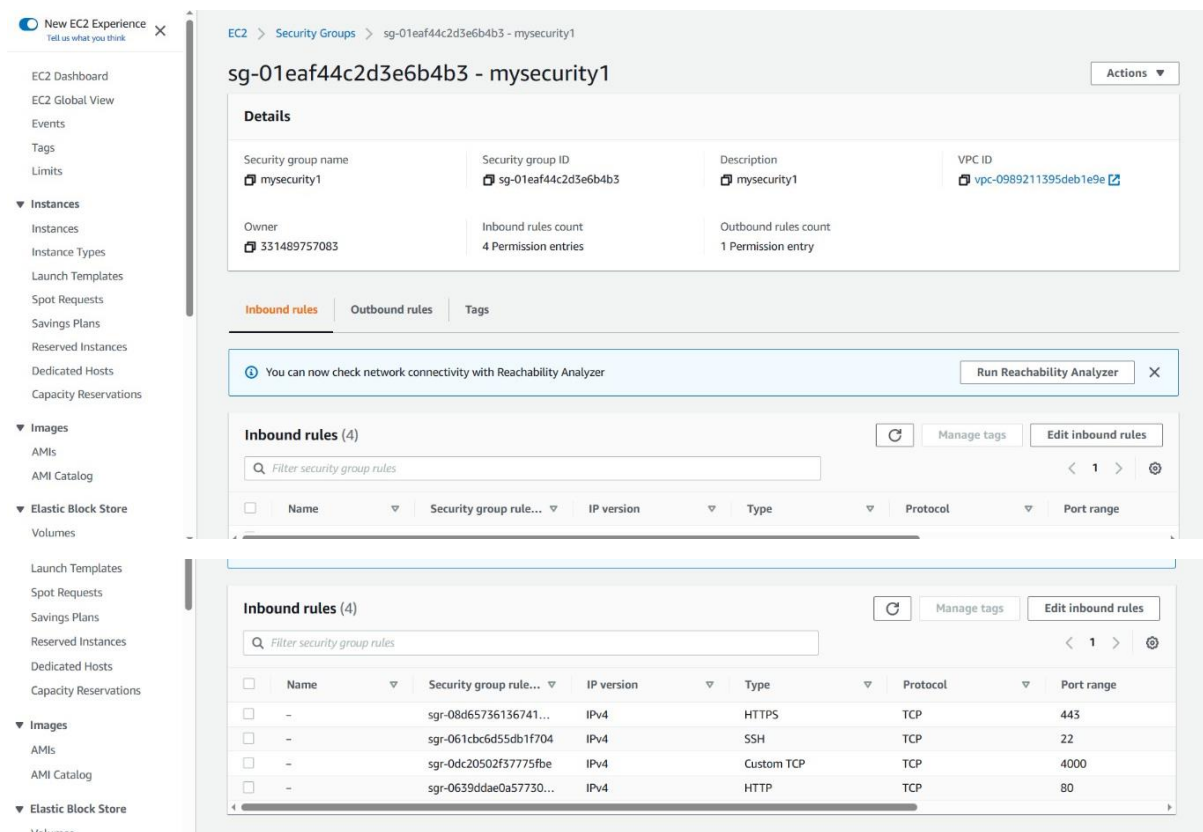
Cancel [Create security group](#)



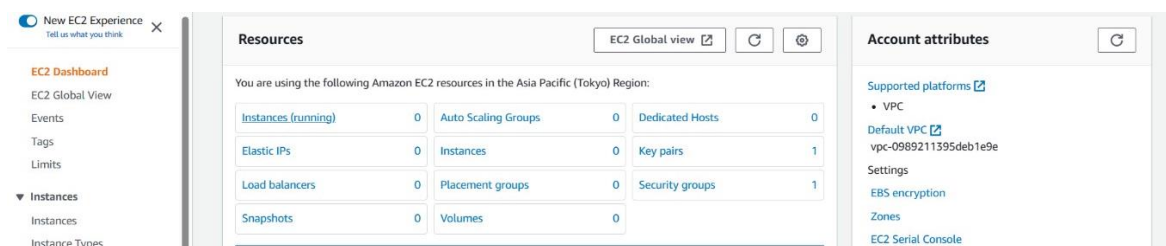
10. Then click on security group ID of that security group which you were created.



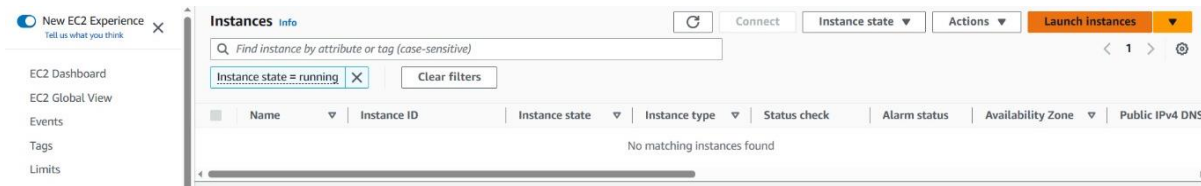
11. Then all details of security group is display and also Inbound rule which we were added.



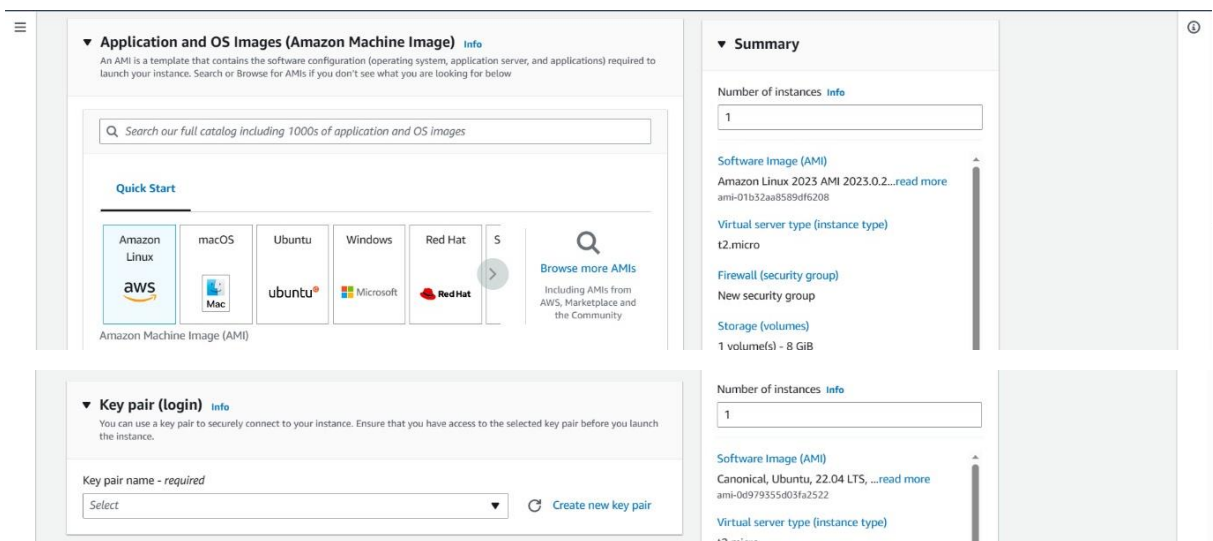
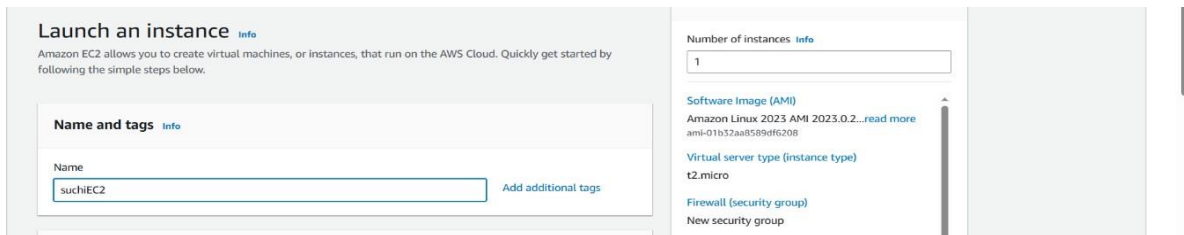
12. Then go to EC2 Dashboard and click on Instances(running).



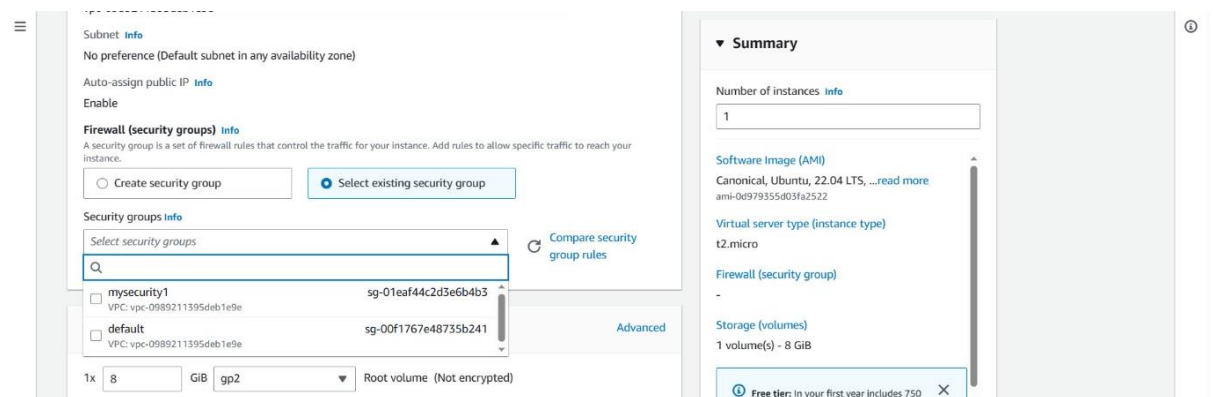
13. Then click on Launch Instances.



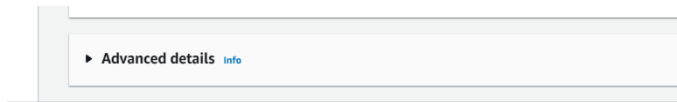
14. Then enter name and select Ubuntu then enter key pair.



15. Then click on Select existing security group and then select security group which you were created.



16. Then click on Advanced details



17. scroll down and then in User data write some command

```
#!/bin/bash
```

```
apt-get update
```

```
apt-get install -y nginx
```

```
systemctl start nginx
```

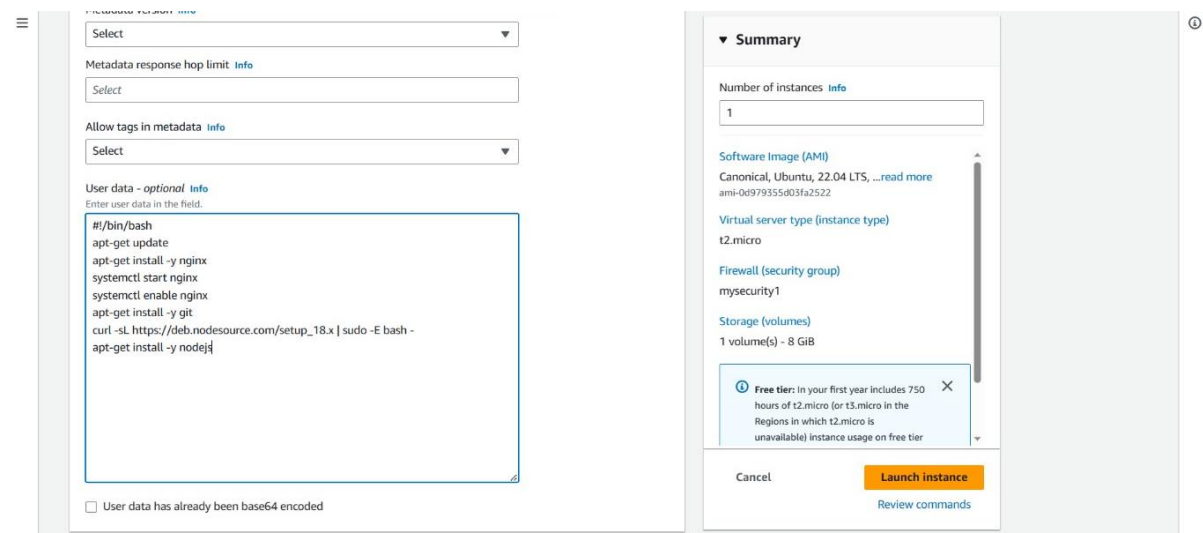
```
systemctl enable nginx
```

```
apt-get install -y git
```

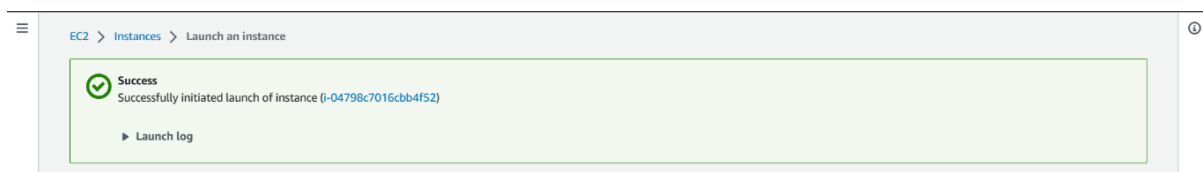
```
curl -sL https://deb.nodesource.com/setup_18.x | sudo -E bash -
```

```
apt-get install -y nodejs
```

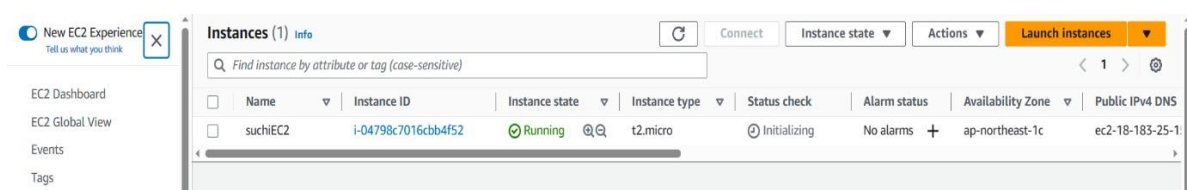
Then click on Launch Instance.



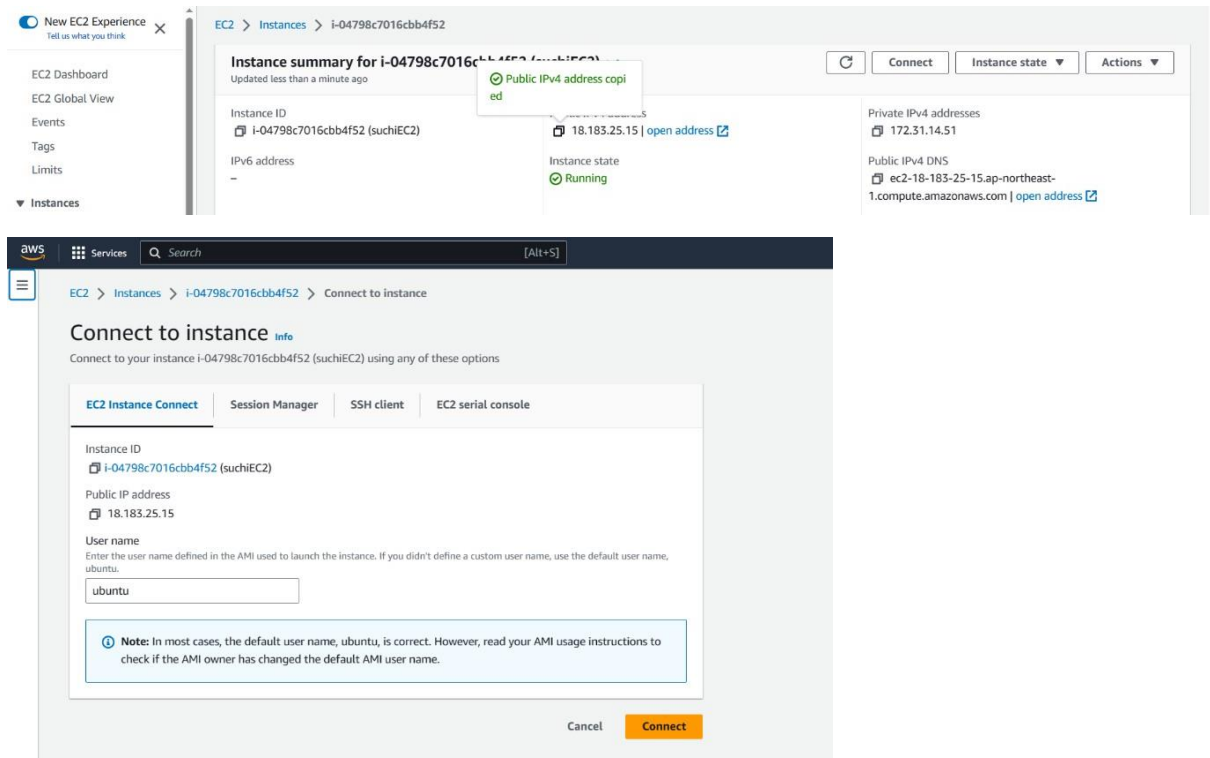
18. Then successfully Instance created.



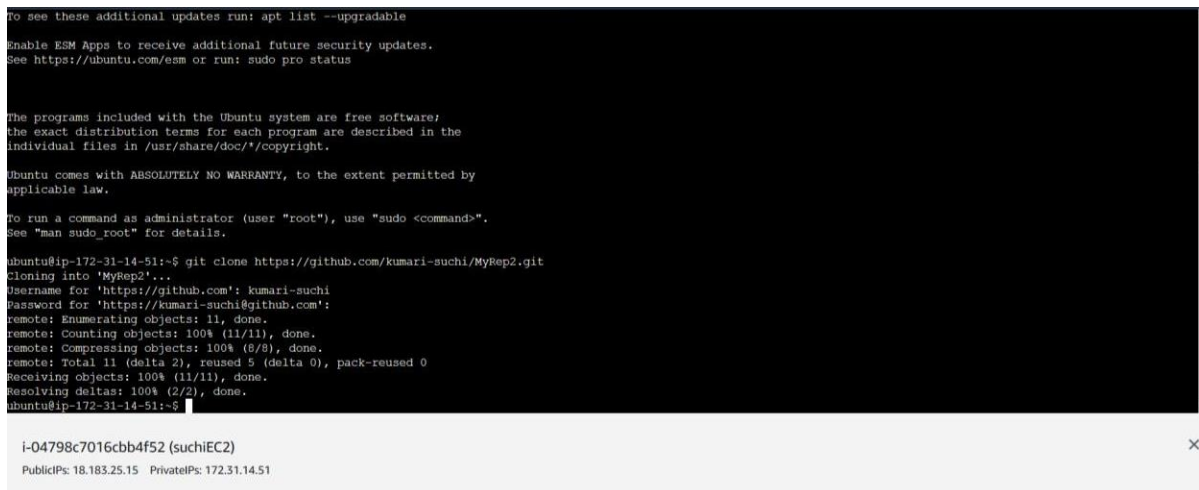
19. Then click on Instance ID .



20. Then click on Connect.



21. Then EC2 instance connected and console is open then write some command git clone and paste HTTPS link which you copied, Give your Username of GitHub when asked. Give your account Token when your Password is asked.



22. Then write command on

console `cd YourRepositoryname/`

`npm install`

`node index.js`

```
Receiving objects: 100% (11/11), done.
Resolving deltas: 100% (2/2), done.
ubuntu@ip-172-31-14-51:~$ dir
MyRep2
ubuntu@ip-172-31-14-51:~$ cd MyRep2
ubuntu@ip-172-31-14-51:~/MyRep2$ dir
New-Repo1
ubuntu@ip-172-31-14-51:~/MyRep2$ cd New-Repo1
ubuntu@ip-172-31-14-51:~/MyRep2/New-Repo1$ dir
New\ Text\ Document.txt index.js package.json
ubuntu@ip-172-31-14-51:~/MyRep2/New-Repo1$ npm install
npm WARN deprecated uuid@3.4.0: Please upgrade to version 7 or higher. Older versions may use Math.random() in certain circumstances, which is known to be problematic. See https://v8.dev/blog/math-random for details.

added 258 packages, and audited 259 packages in 17s

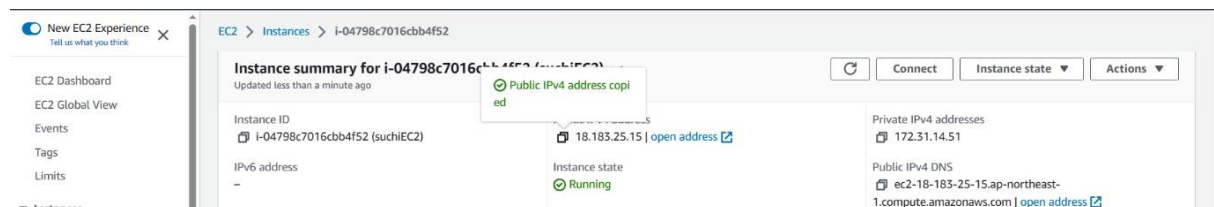
18 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
npm notice
npm notice New minor version of npm available! 9.5.1 -> 9.6.5
npm notice Changelog: https://github.com/npm/cli/releases/tag/v9.6.5
npm notice Run npm install -g npm@9.6.5 to update!
npm notice
ubuntu@ip-172-31-14-51:~/MyRep2/New-Repo1$ node index.js
Started server
```

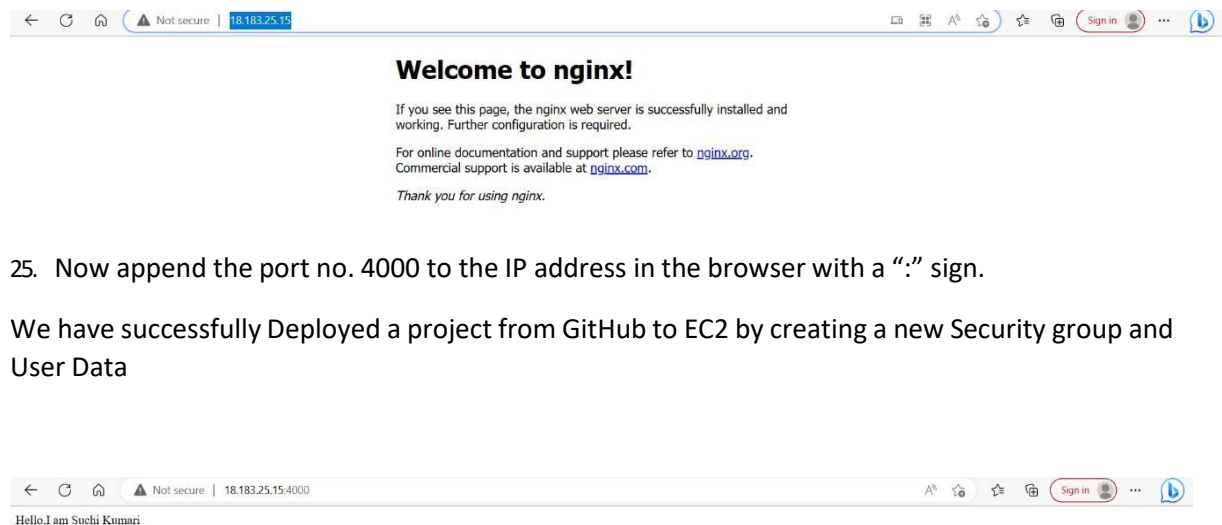
i-04798c7016cbb4f52 (suchiEC2)

PublicIPs: 18.183.25.15 PrivateIPs: 172.31.14.51

23. Then go to instance and copy the public IPv4 address.



24. Then paste it to another browser .



25. Now append the port no. 4000 to the IP address in the browser with a “:” sign.

We have successfully Deployed a project from GitHub to EC2 by creating a new Security group and User Data