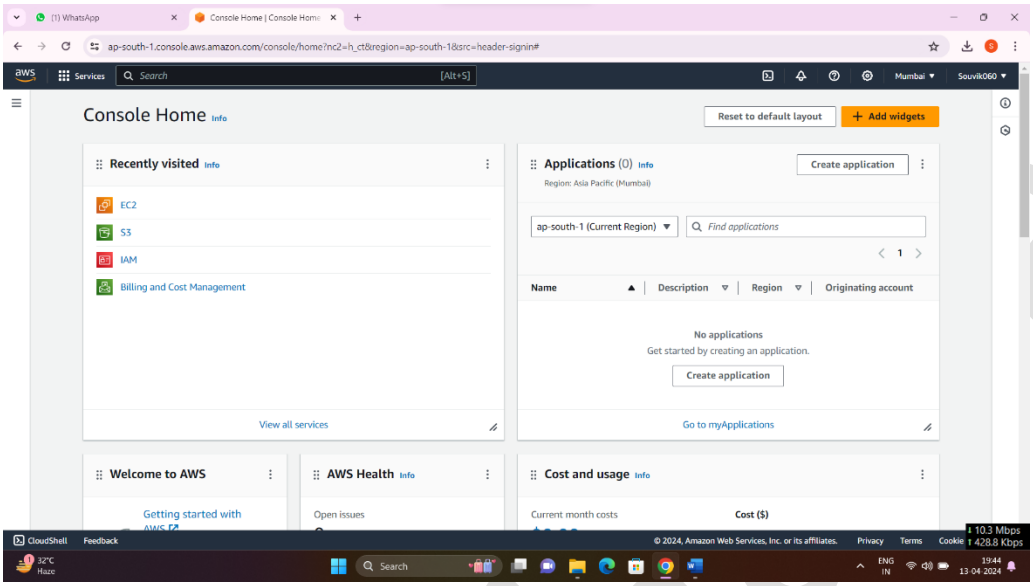
Assignment 10

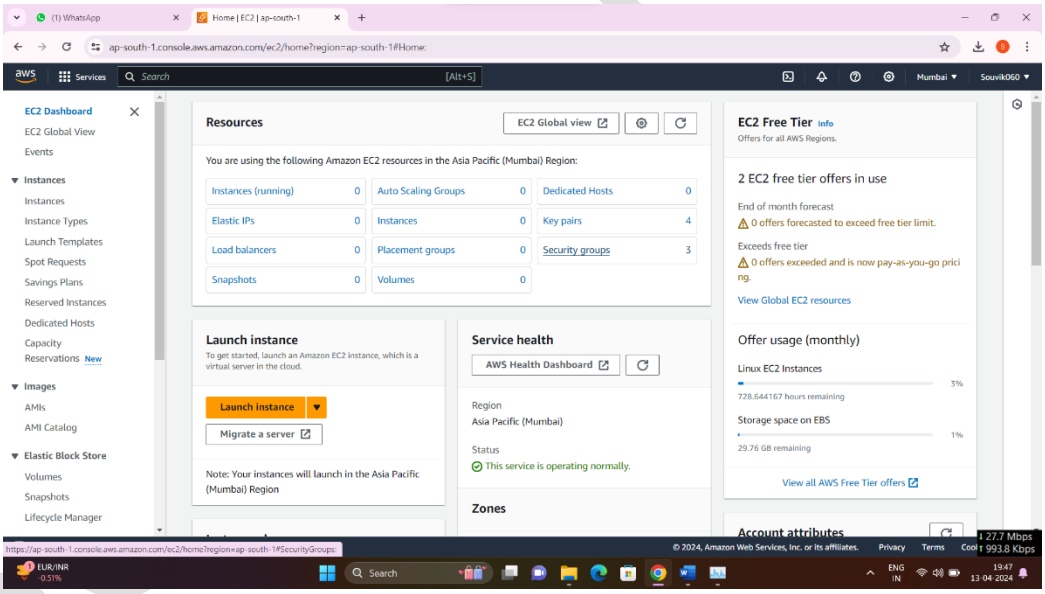
Problem Statement: Deploy a project from GitHub to EC2 by creating a new security group and user data.

Procedure:

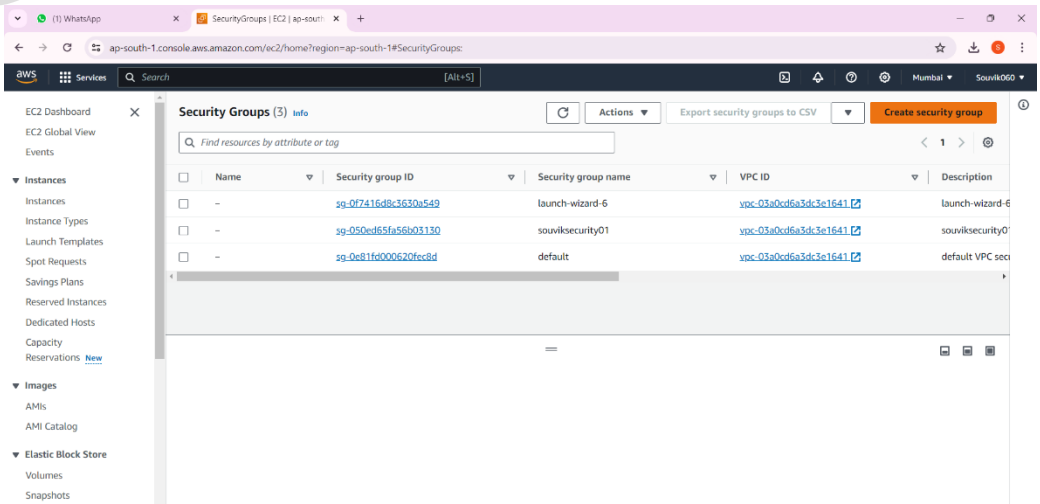
1. Access your AWS console and search for EC2, then proceed to click on the first option.



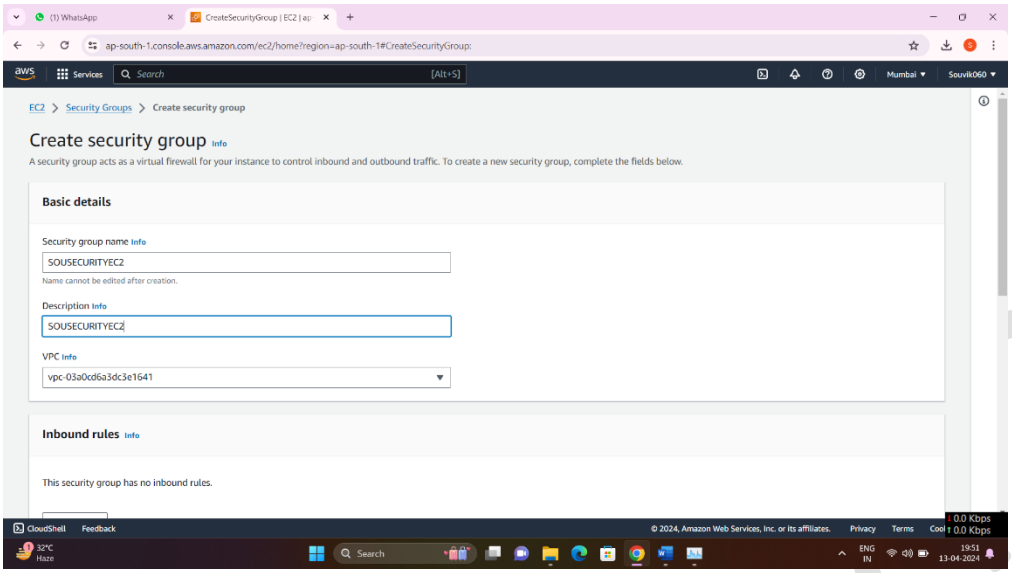
2. Now, Click on "Security Groups".



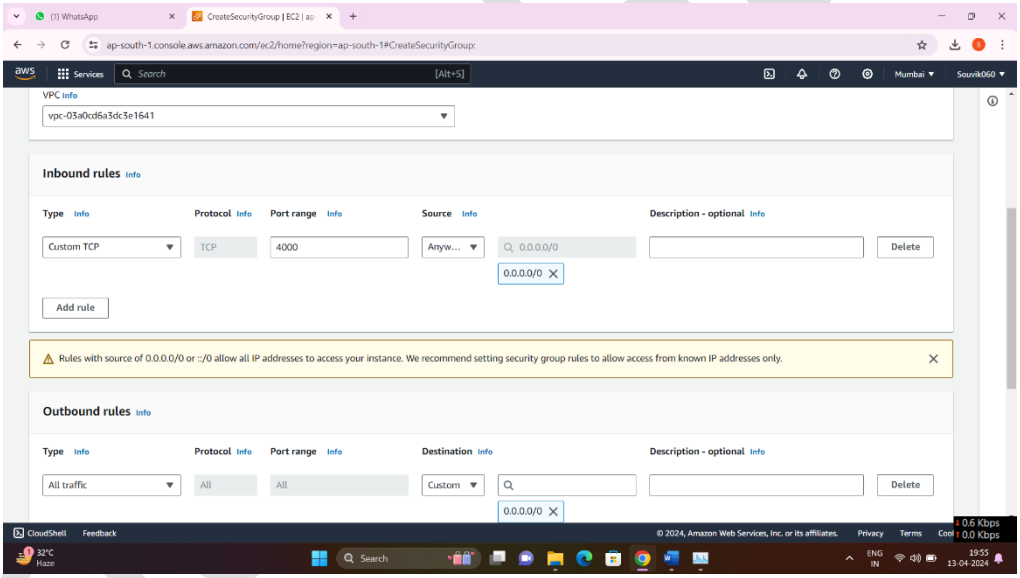
3. Now click on “Create security Group”.



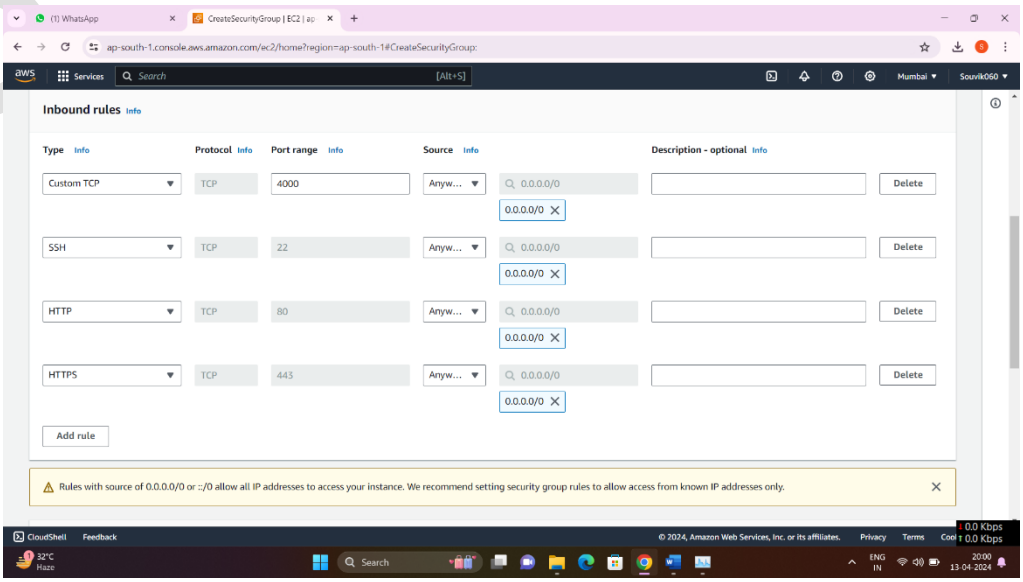
4. Fill up the name and description (same as name) of the security group.



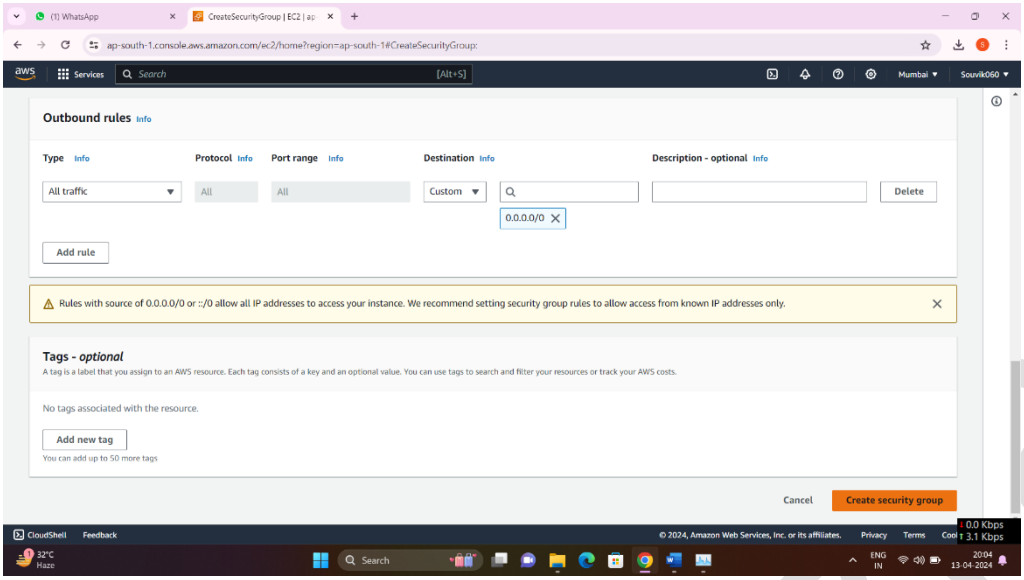
5. Now, scroll down to Inbound Rules and click on “Add rule”. First set the type as Custom TCP, port number as 4000 and select first option in CIDR blocks i.e. “0.0.0.0/0” .



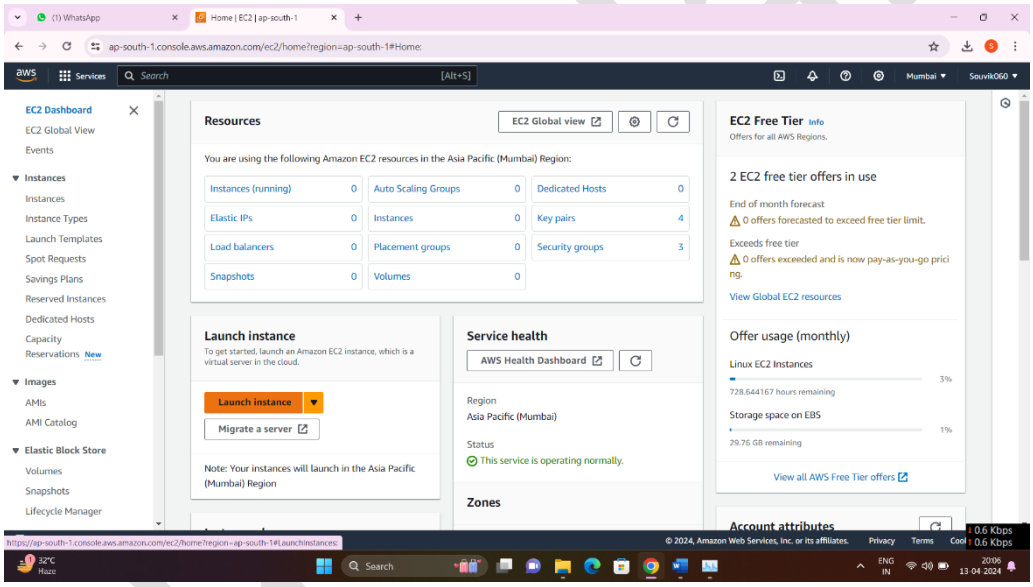
6. Click on “Add rule” again and set type as “SSH” and select first option in CIDR blocks. Repeat this two more times and add rules of type “HTTP” and “HTTPS”.



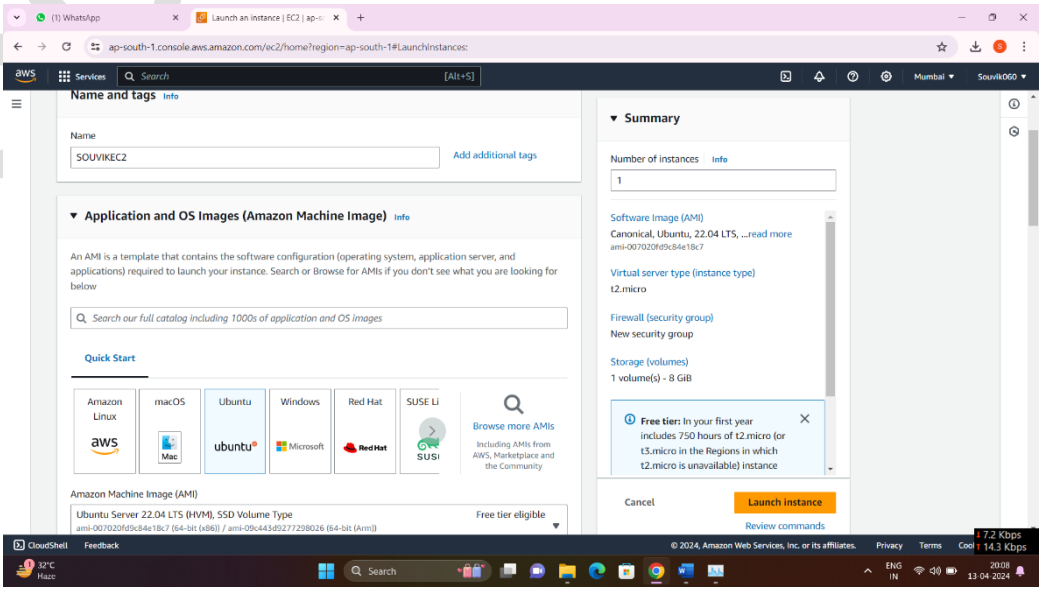
7. Then click on “Create security group”.



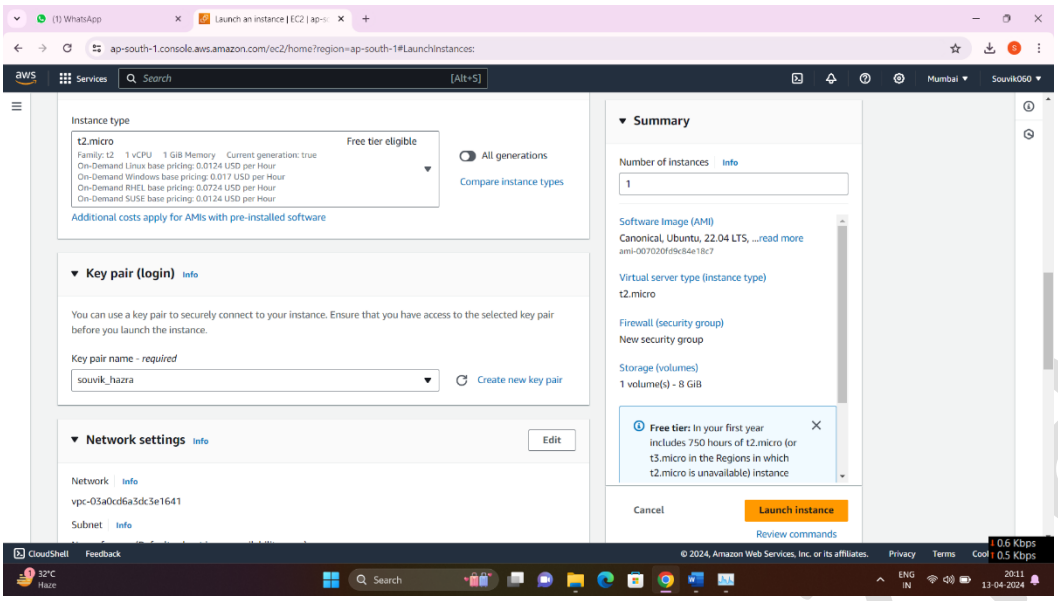
8. Now, go to EC2 dashboard and click on “Launch instance”.



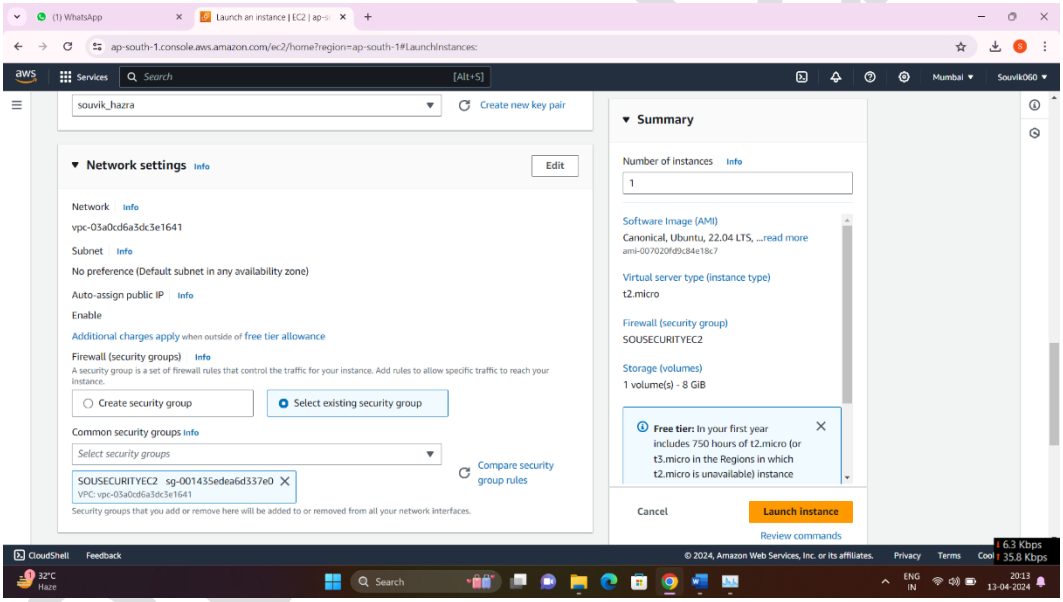
9. Fill up the instance name and select Ubuntu as the AMI.



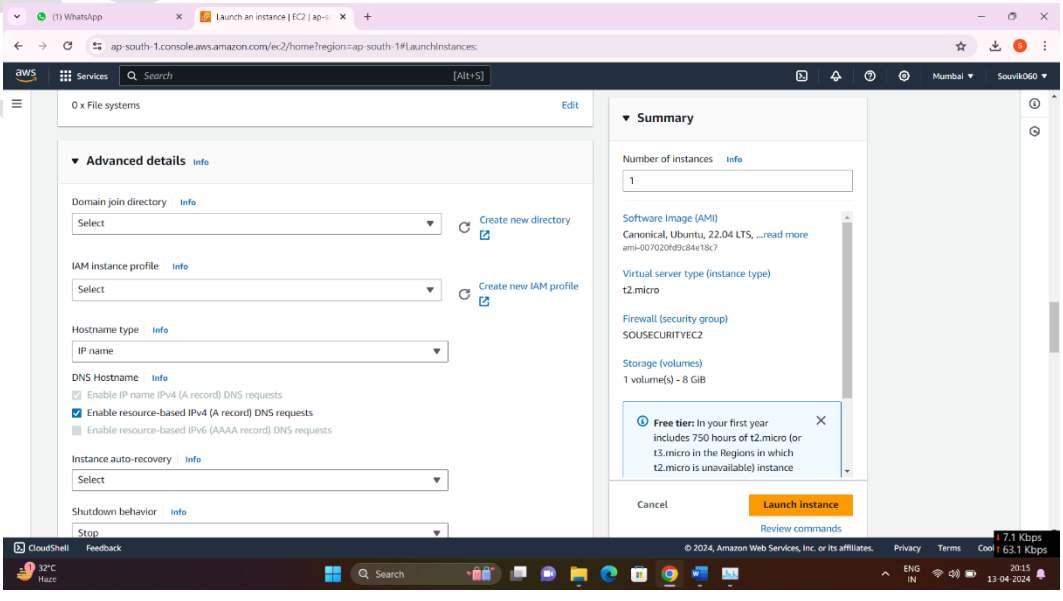
10. Select an existing keypair or create a new one.



11. Now, from Network settings option select “Existing security group” and select the newly created security group.



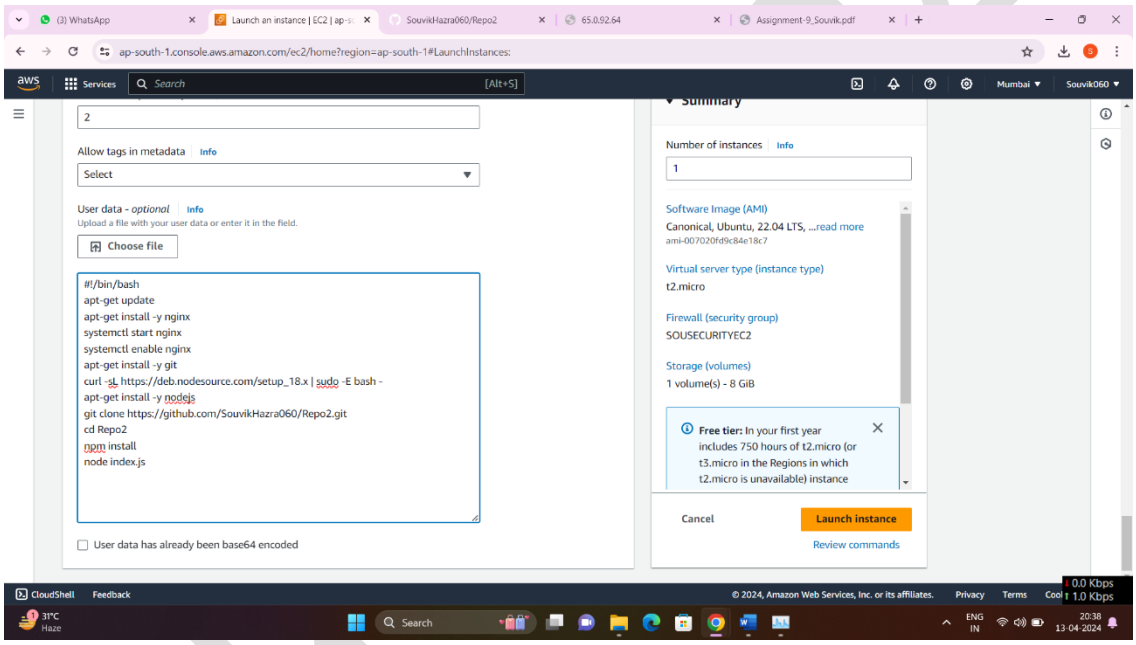
12. Expand the “Advanced details” section.



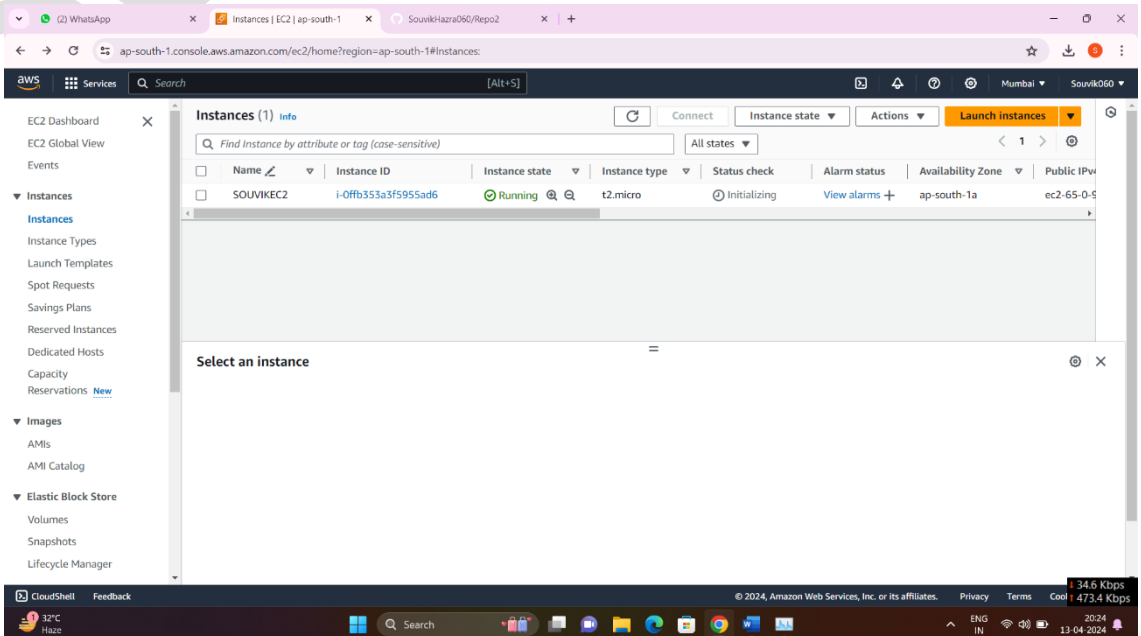
13. Scroll down to the “User data” section and add the following script:

```
#!/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
git clone <github repository cloning link>
cd Repo
npm install
node index.js
```

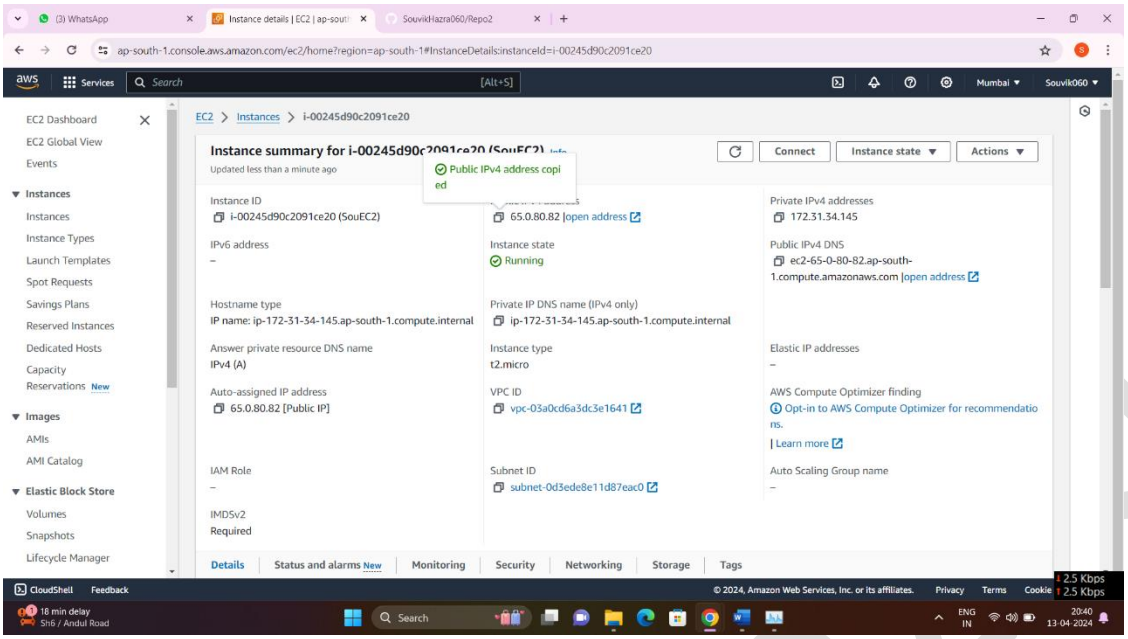
14. Then click on “Launch instance”.



15. Now go to “Instances” and click on the instance id of the newly created instance.



16. Copy the public IPv4 address.



17. Open a new incognito tab and paste the IPv4 address copied then we can see the page “Welcome to nginx!” and add “:4000” to the end of public IPv4 address . This will display our intended website.