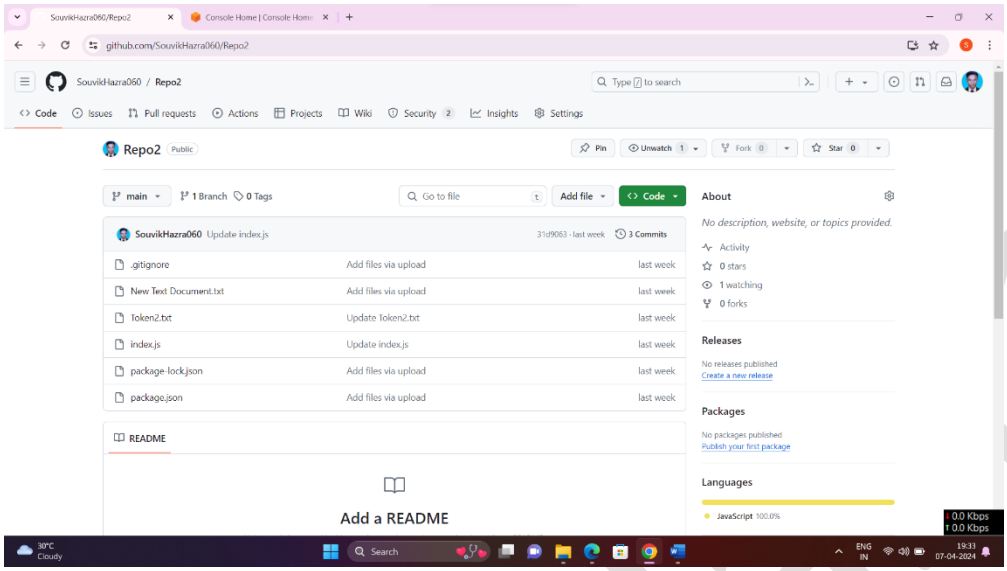
Assignment 9

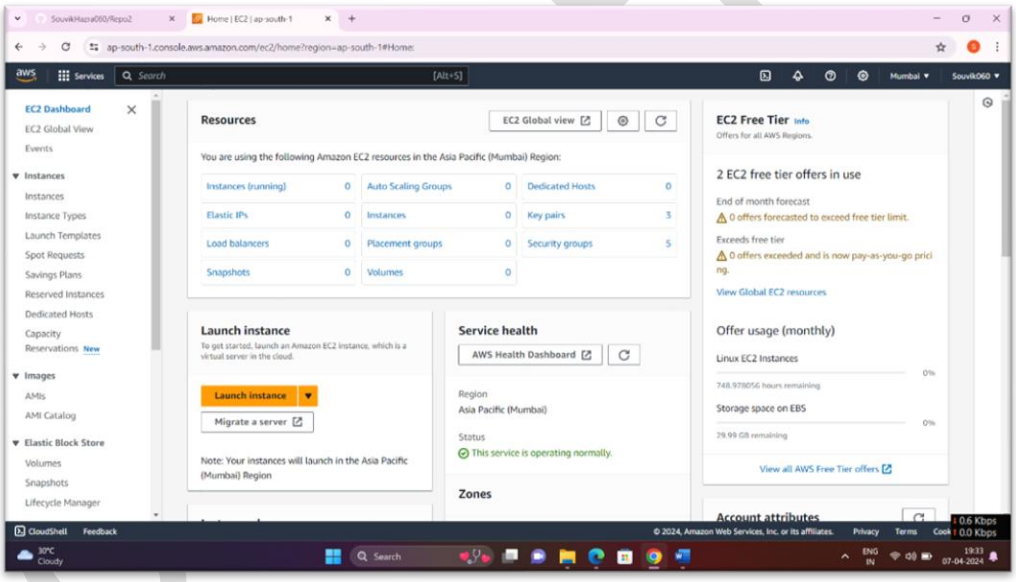
Problem Statement : Deploy a project from GitHub on EC2.

Steps:

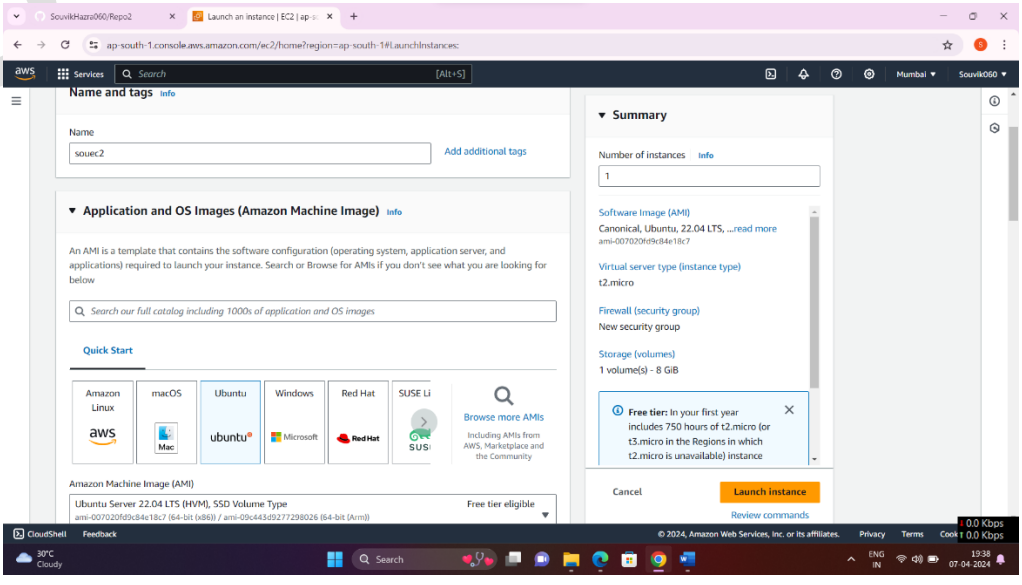
1) At first upload all files within a repository to Github.



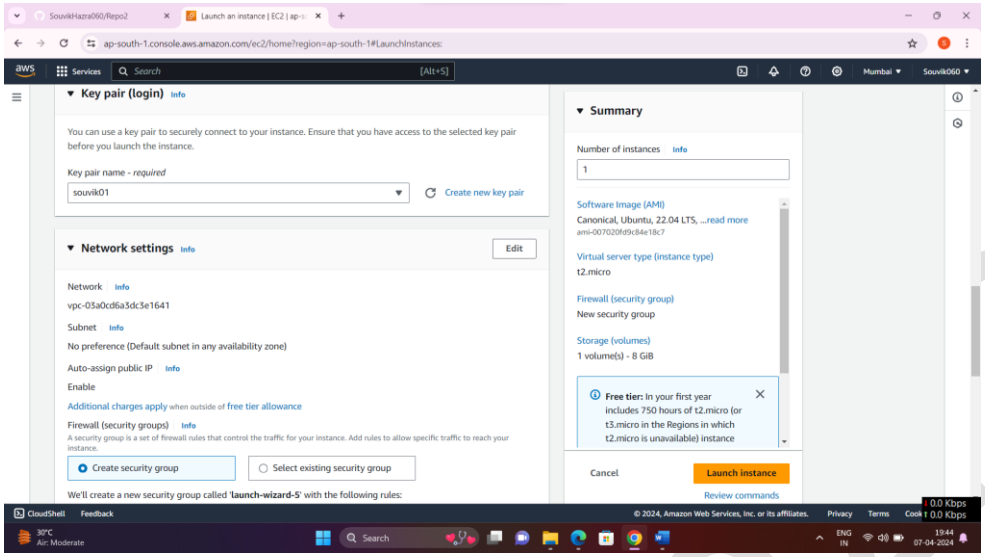
2) Now open EC2 in aws console and goto Launch Instance.



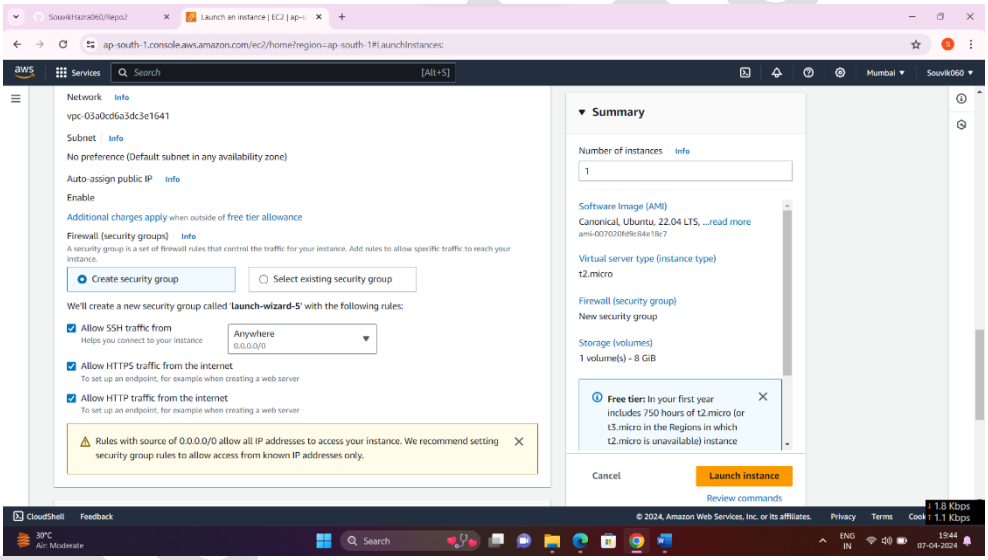
3) Now give name of server which should be unique and select Ubuntu application and OS image inside quick start.



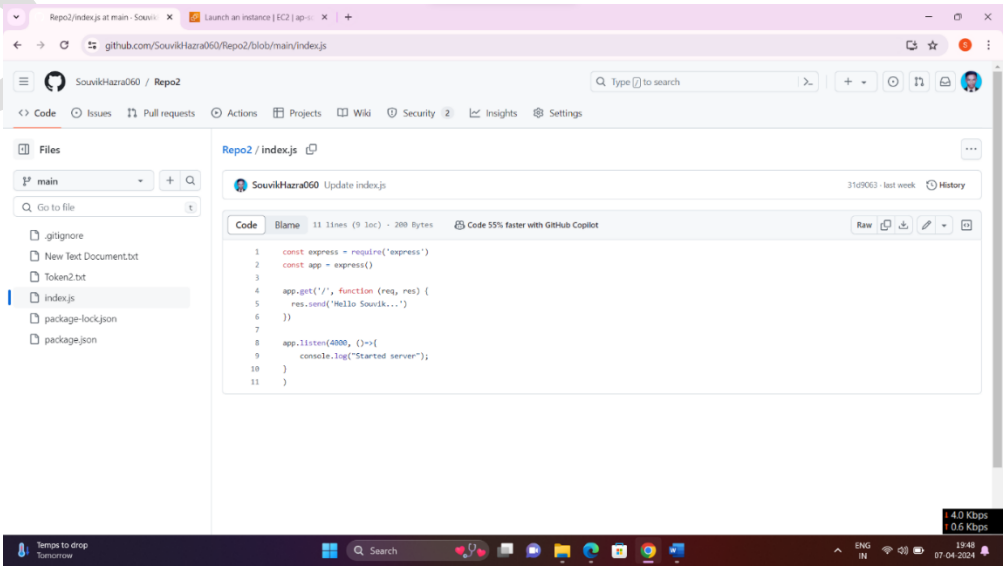
4) Now generate new key pair(give name (unique) and now click Create Key Pair and also download the document) or use the existing key pair . In this case we use existing one.



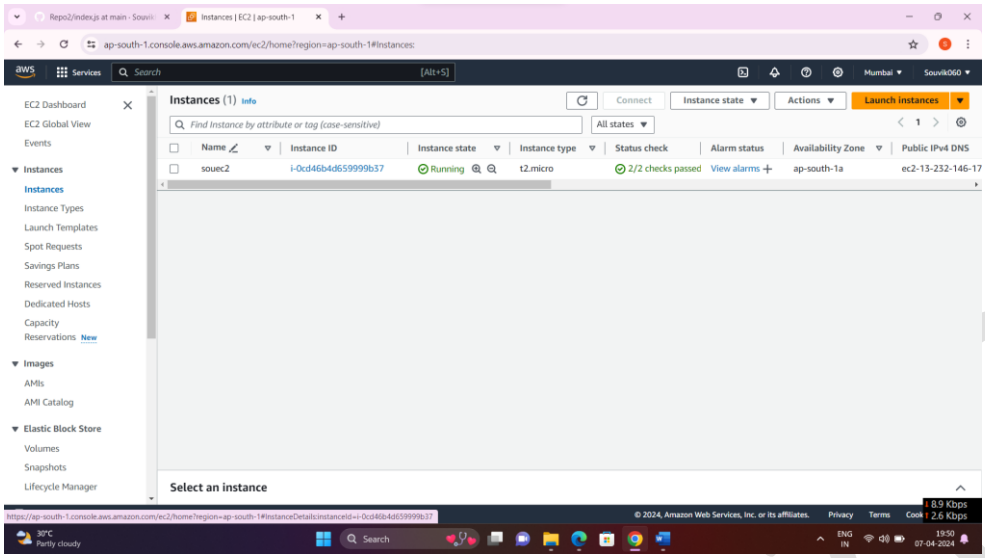
5) After that select Create security group and click all checkboxes bellow it. After it click on Launch Instance.



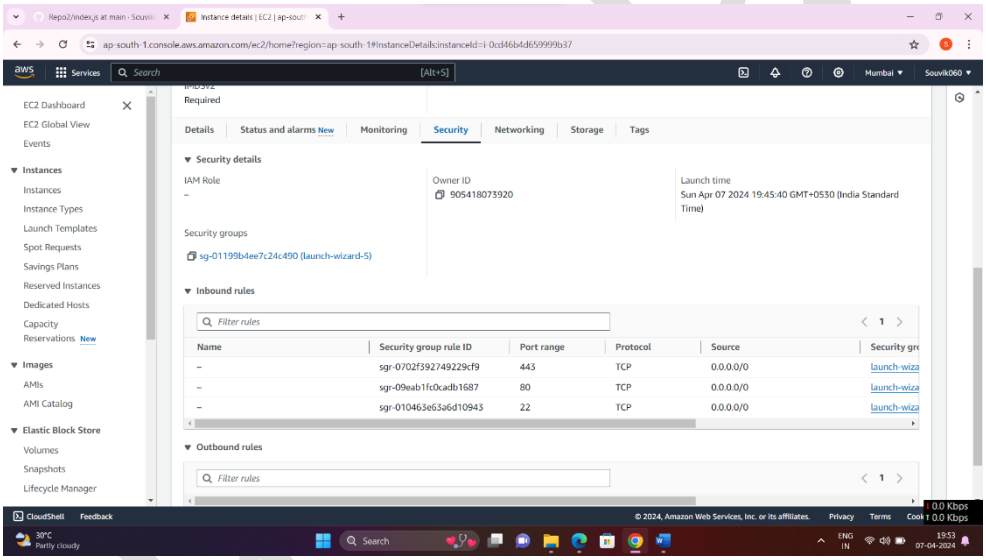
6) Now go to Github that project and then to index.js ,there we can see 4000 in app.listen which is port no that will be added to custom TCP.



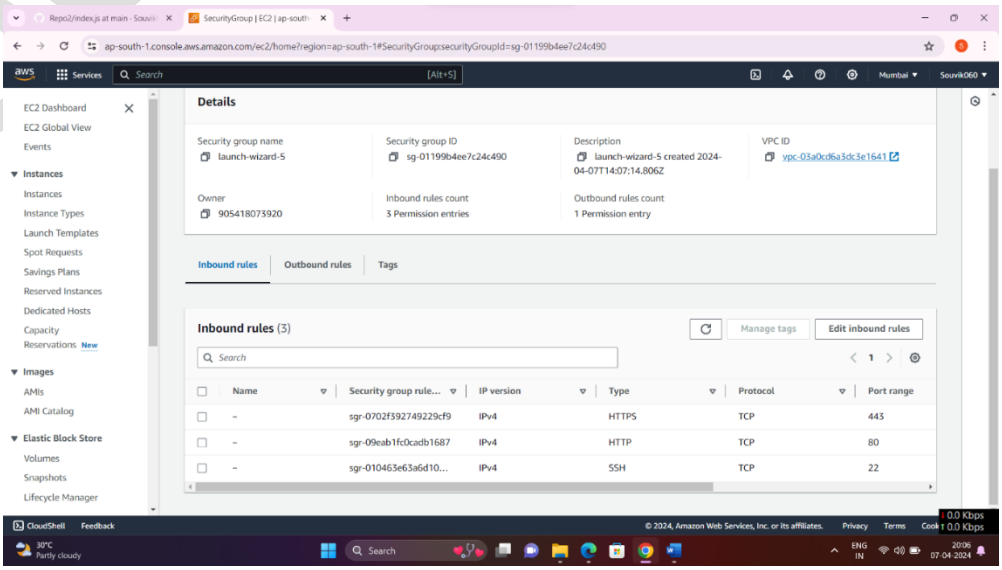
7) After it go back to EC2 instances then select that instance newly made and click on Security groups.



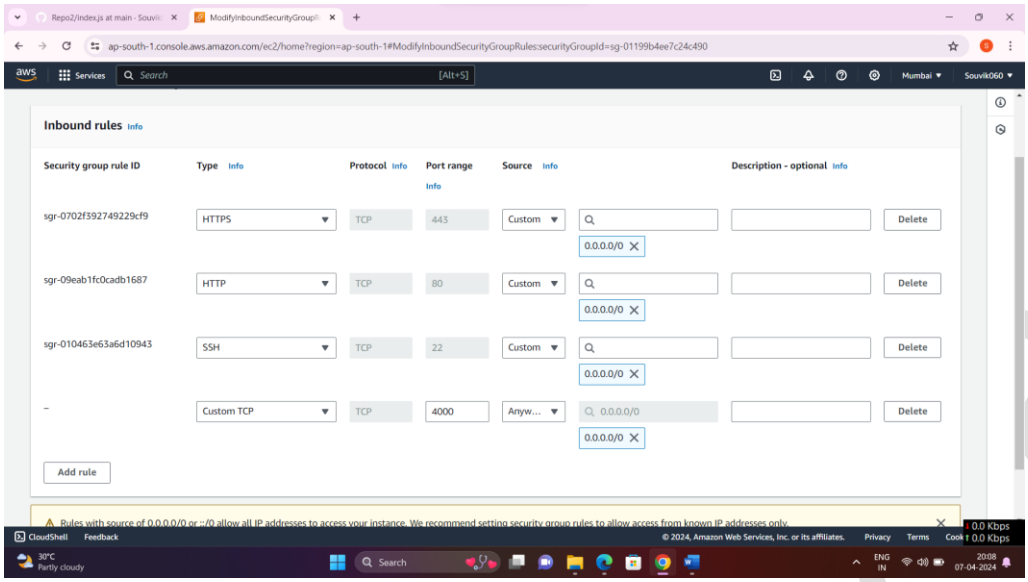
8) In security group we can see that Inbound rules and also Outbound rules



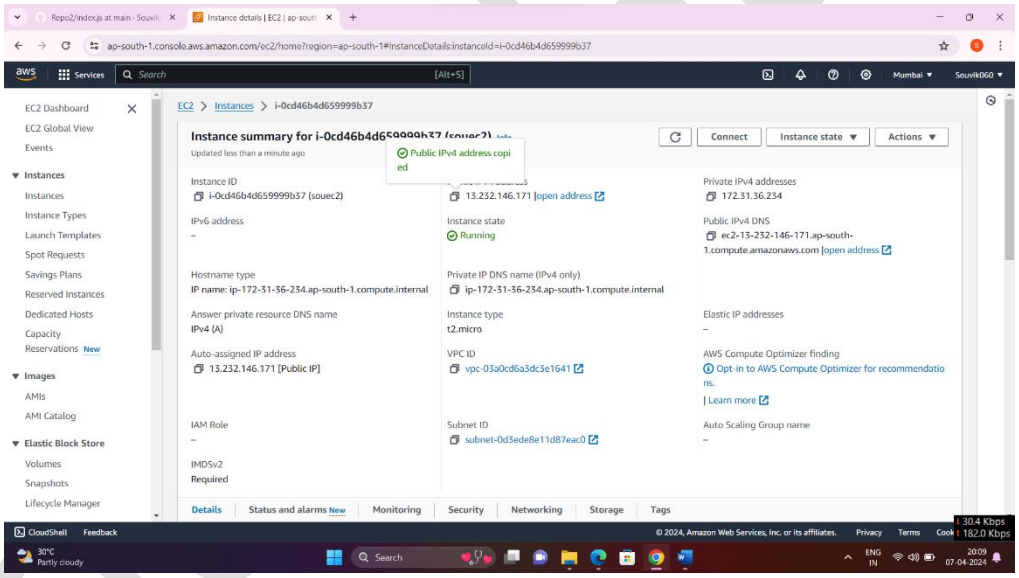
9)Then click on the link below "Security groups" and then in Inbound rules section click on Edit inbound rules.



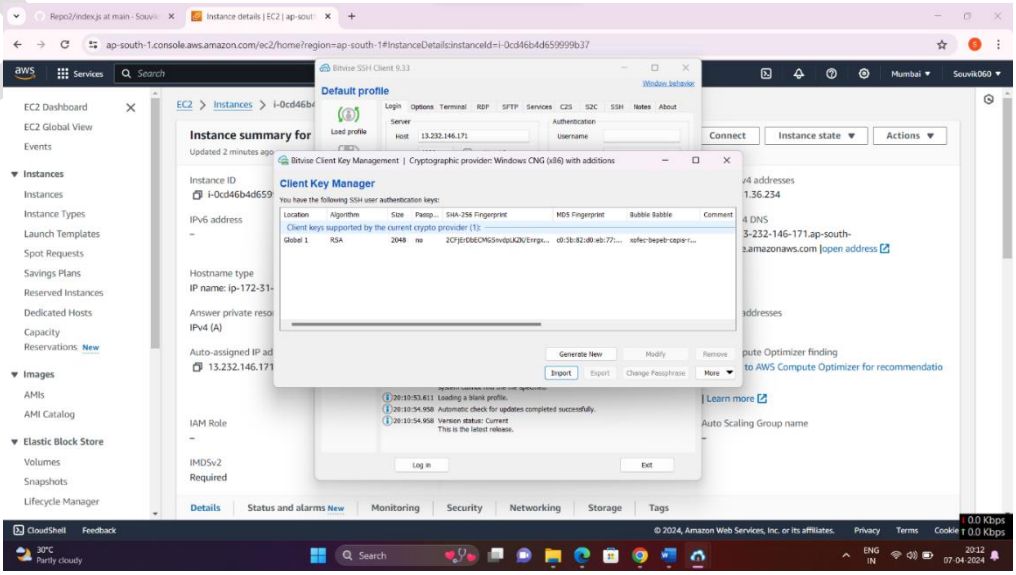
10) Then in inbound rules, click on “Add rule” select Custom TCP ,give port range 4000 and select 0.0.0.0/0. After it click on Save rules right side bottom corner.



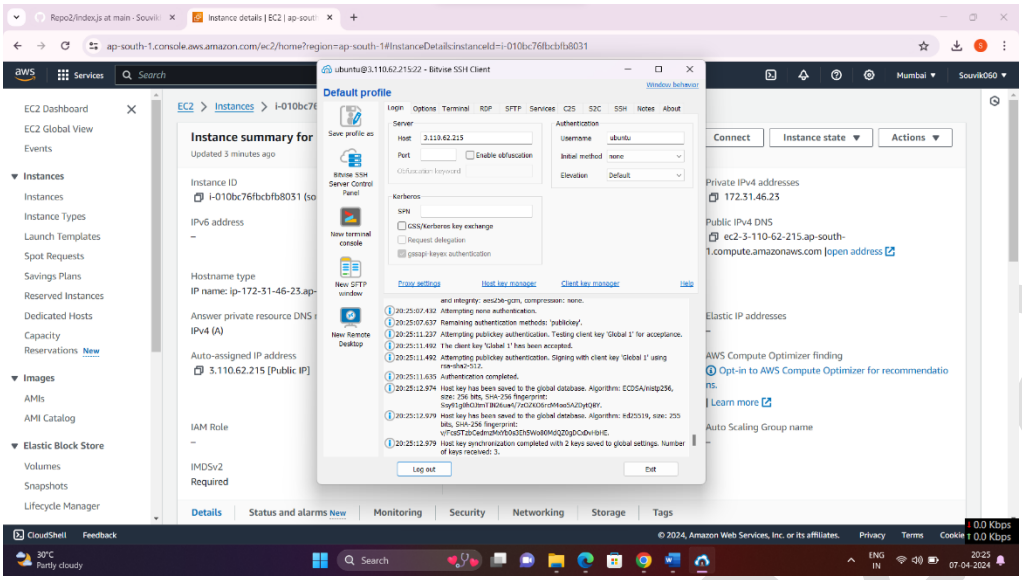
11) Now go back to EC2 recently created instance and copy the public IPv4 address.



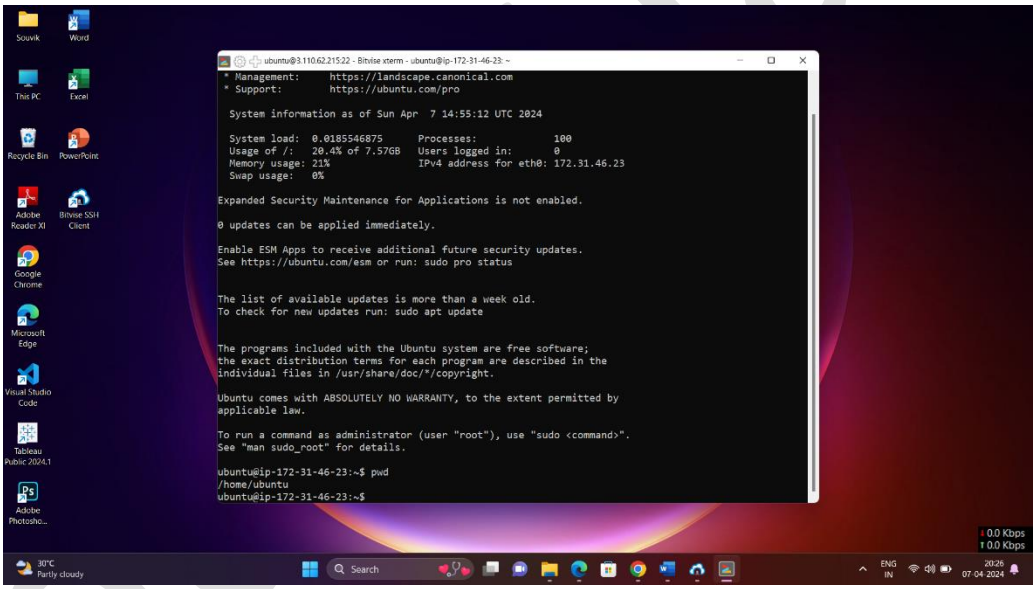
12) Now open Bitvise SSH Client, go to Client key manager and import that downloaded or saved(previously) key.



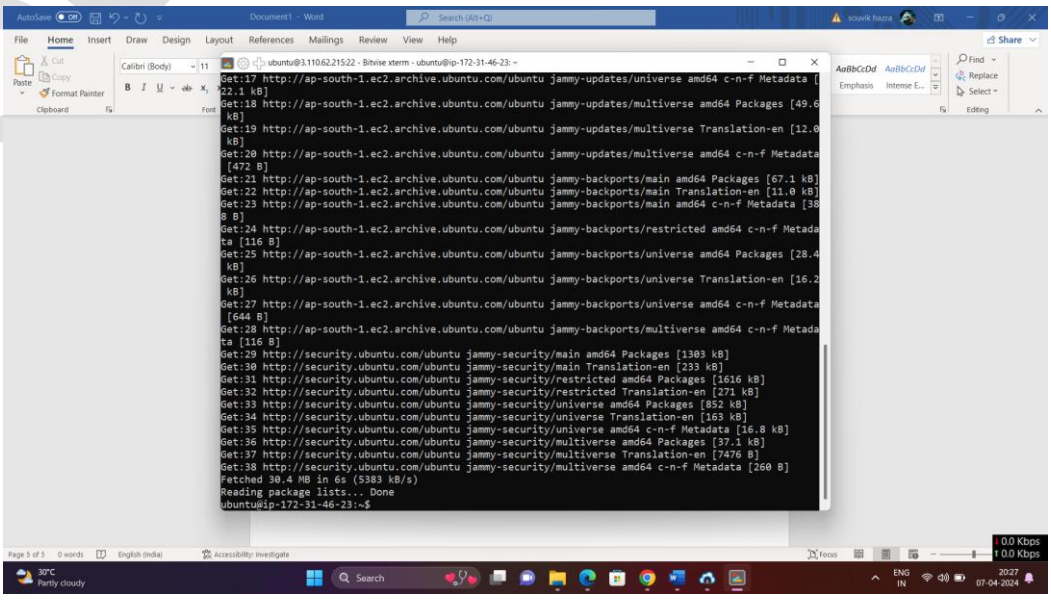
13) After that paste copied IPv4 public address in host and then login and also do Accept and Save, also set publickey,global1 then click on ok.



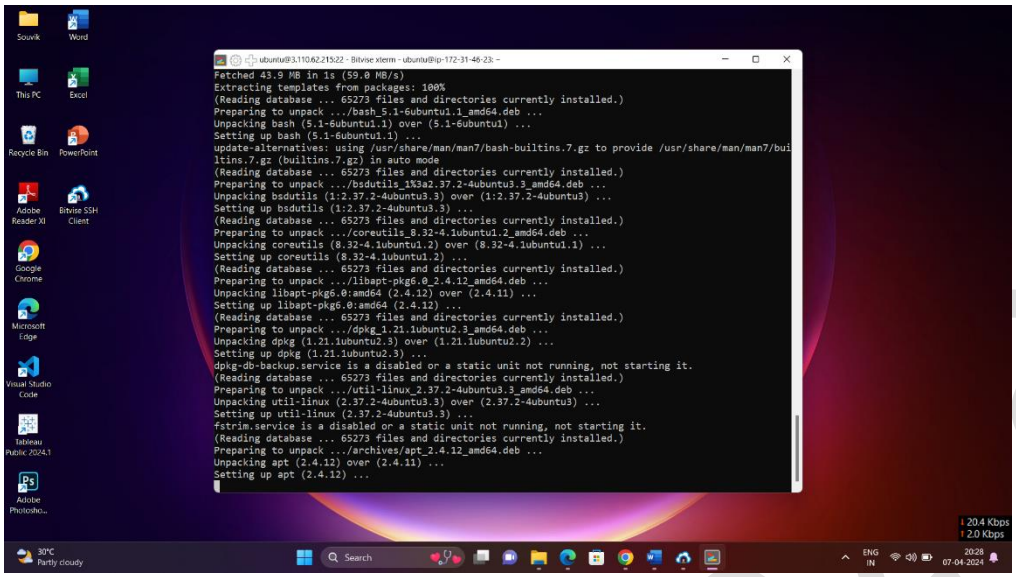
14) Now open a new terminal and write pwd to check working directory, we are in ubuntu.



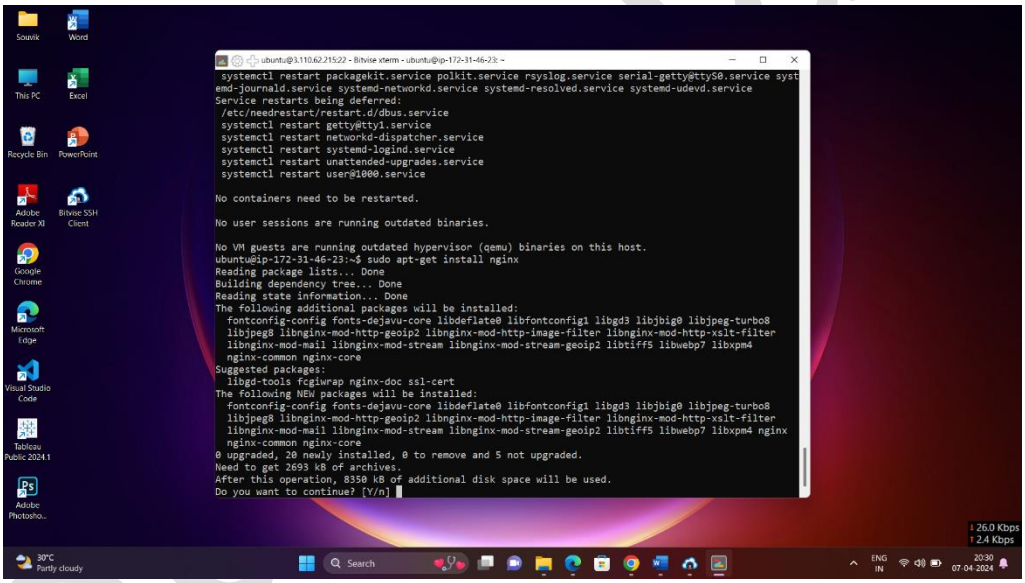
15) Now write command sudo apt-get update to fetch all packages.



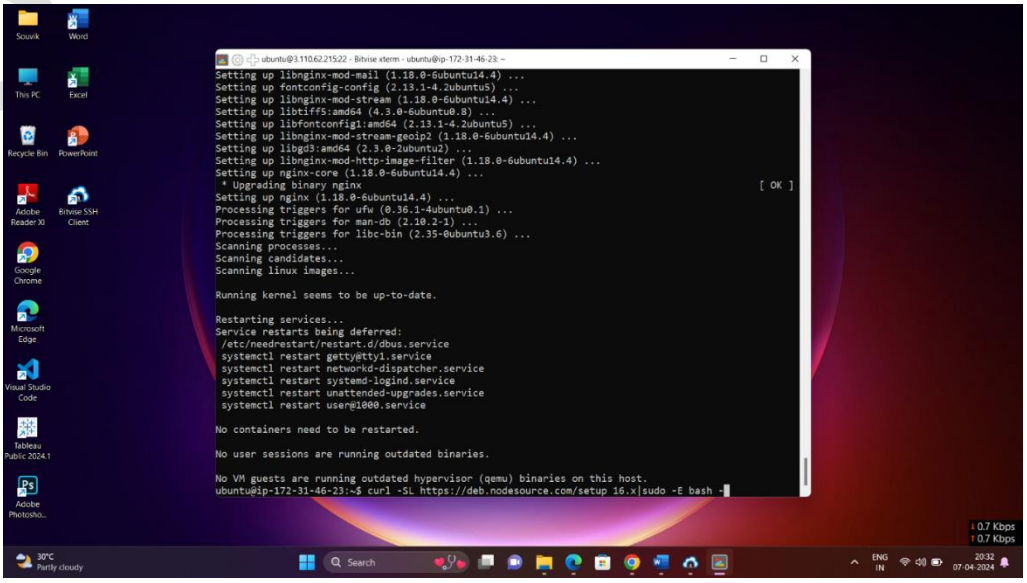
16) Write sudo apt-get upgrade to upgrade all outdated packages.

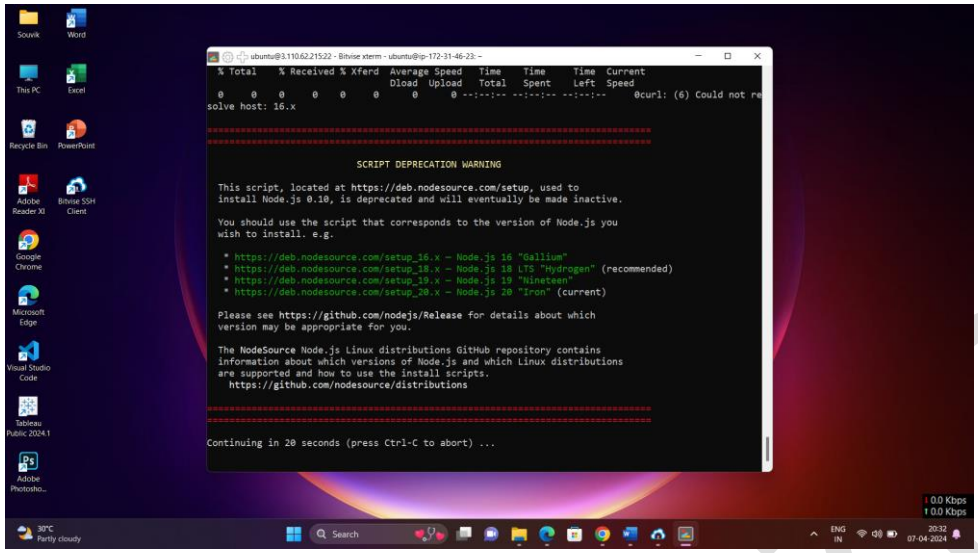


17) Now write command sudo apt-get install nginx to install webserver.

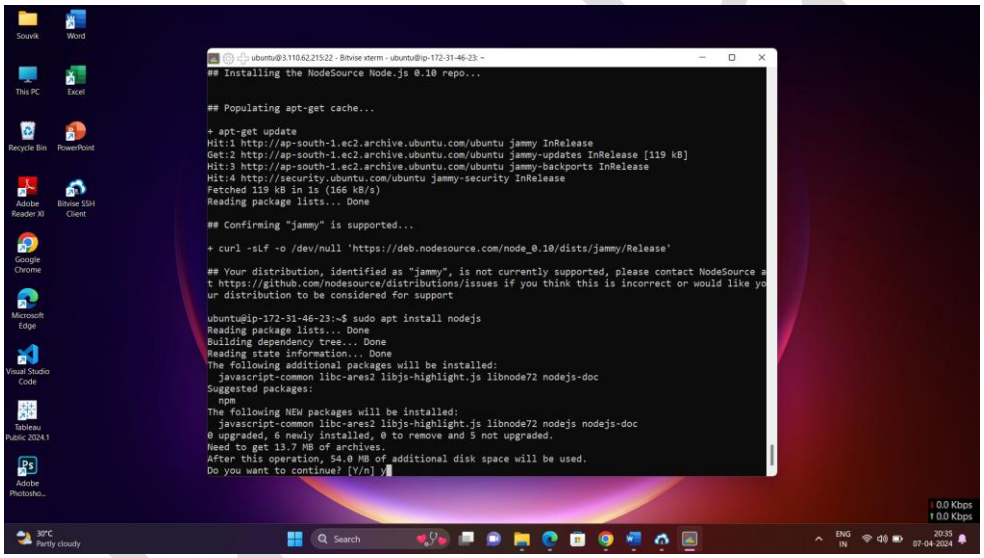


18) Now to execute javascript, we need to install nodejs. For this just write the command curl –SL https://deb.nodesource.com/setup_16.x|sudo –E bash –

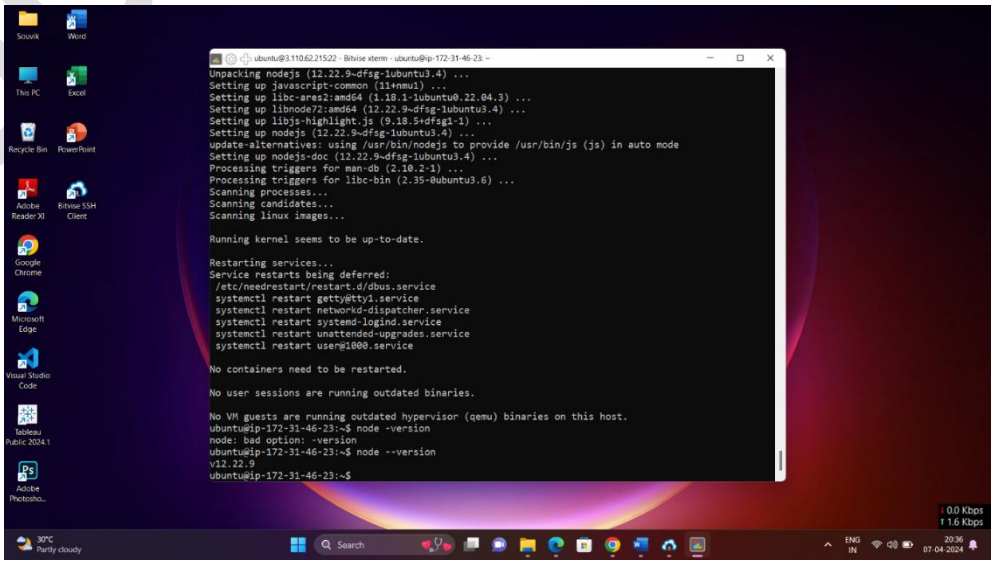




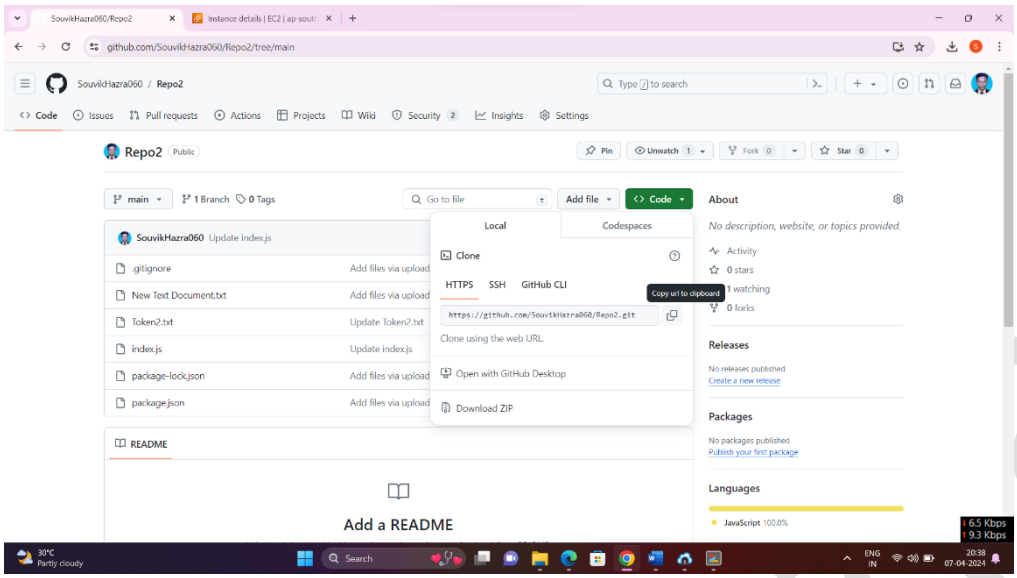
19) Now to install nodejs write the command sudo apt install nodejs.



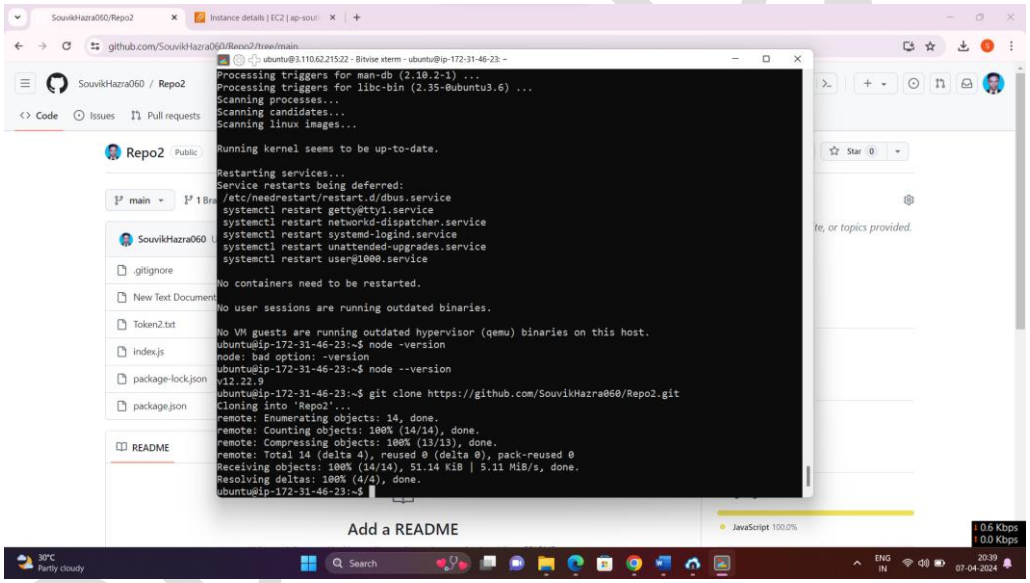
20) Write node --version to see what version of nodejs installed.



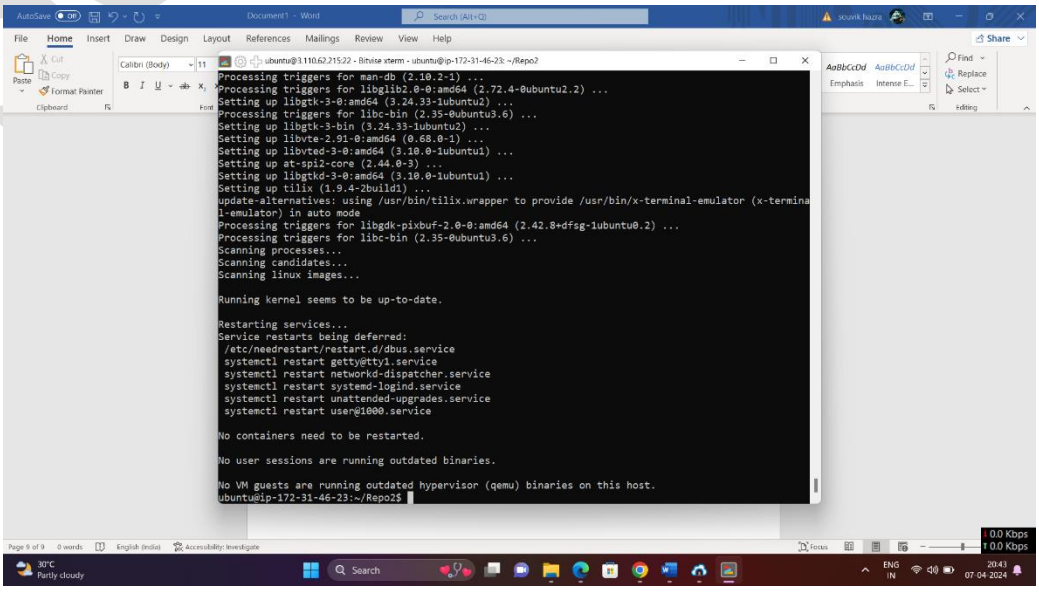
21) Now go back to github enter into repository and in Code section copy Https url.



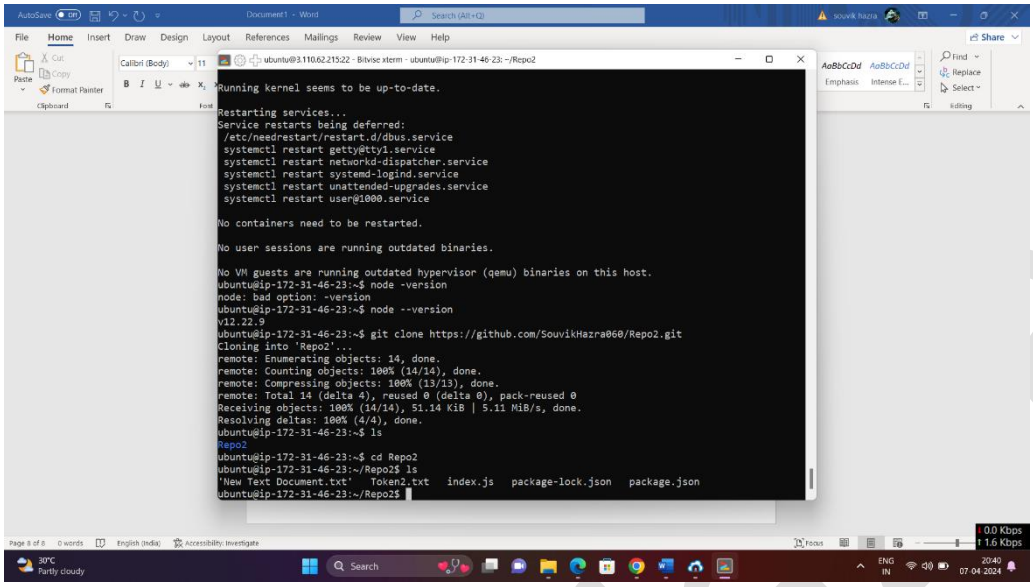
22) Now write git clone and paste that url and write 'ls' command to see if project has been cloned or not.



23) After it write command cd (project name) to enter into project and then ls to see what files have been uploaded.



24) Now to execute node command we have to install node packet manager(npm). So write npm install.



25) Now write node index.js .Server will started.

26) After it again copy public IPv4 address in EC2 instance and then paste it in another tab(Incognito) url section. We get "Welcome to nginx!"

27) At last in url at end write :4000 to get our website .

28) Now to close server in new terminal do (ctrl+c) to stop server and at last logout.

- **In this way we have deployed a project from GitHub to EC2.**