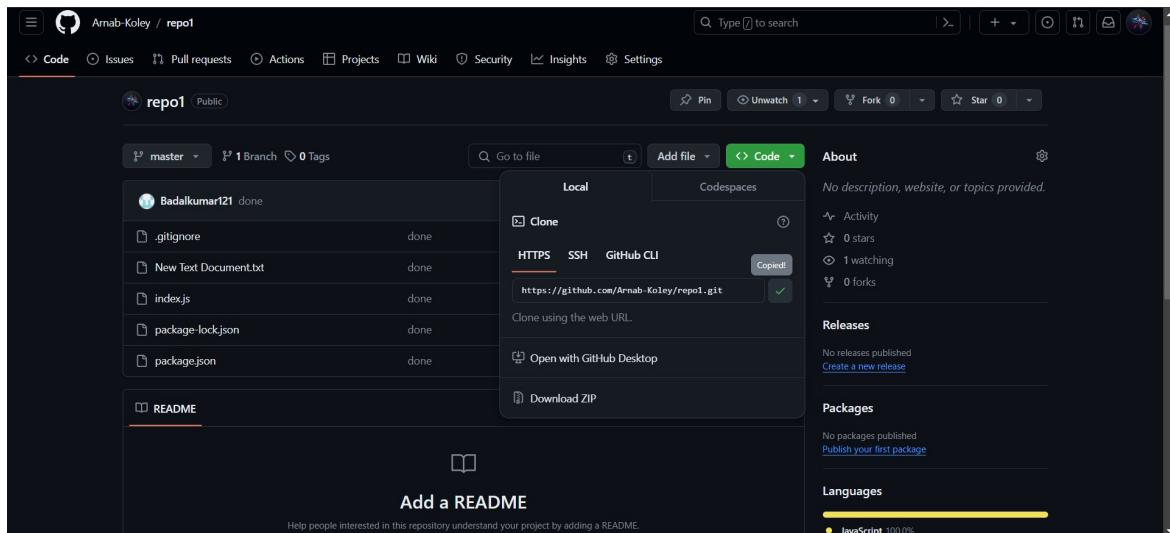# Assignment No : 09

Problem Statement : Deploy a project from GitHub to EC2.

Answer :

1) • Create a new repository (Ex-repo1) in Github & upload the project files.
   • Click 'Code' & copy the https link for later use.

2) • Log in to AWS, goto EC2 & click 'Launch Instance'.
   • Give server name. (Ex-arnabkoley)
   • Select 'Ubuntu' as 'Application and OS image'.
   • Select an existing key pair or generate a new key pair. (download the .pem file)
   • Select Create security group and click all checkboxes.
   • Click Launch Instance.
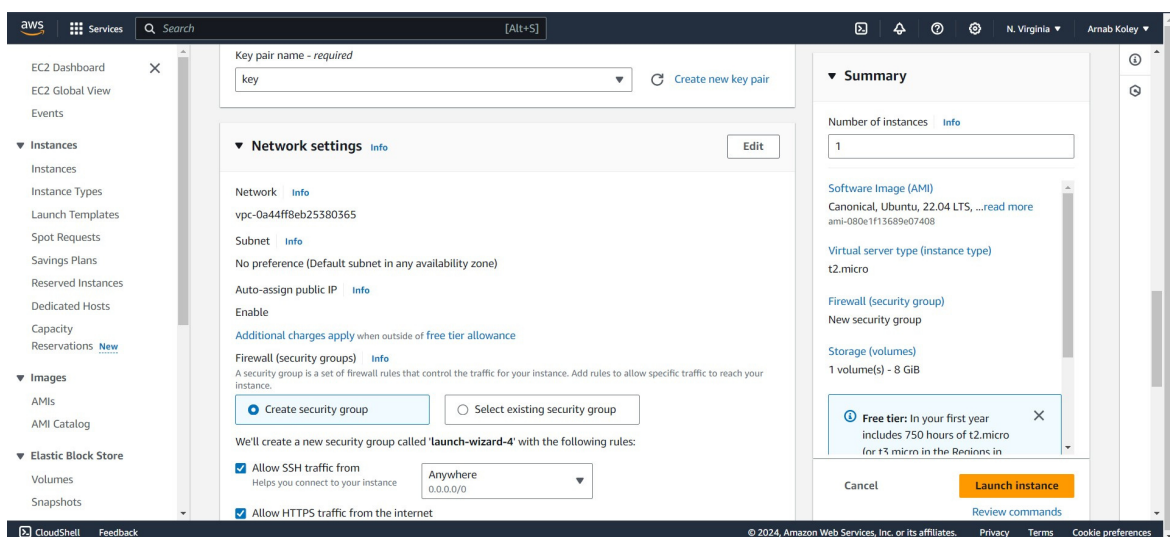
3) • Goto Instances.
   • Select the newly created instance.
   • Click on link in 'Security groups' section.

4)
- In the 'Inbound rules' section click on 'Edit inbound rules'.
- Click 'Add rule'.
- Select type 'Custom TCP', give port range '4000' and select '0.0.0.0/0'
- Click on 'Save rules'.
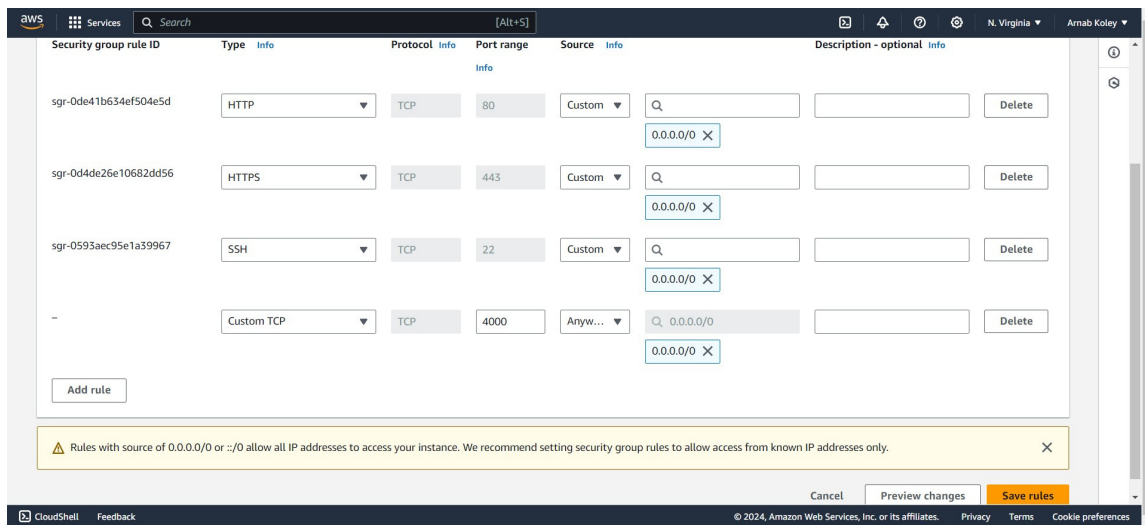
5)
- Go back to instance in EC2.
- Goto recently created instance and copy the public IPv4 address for later use.
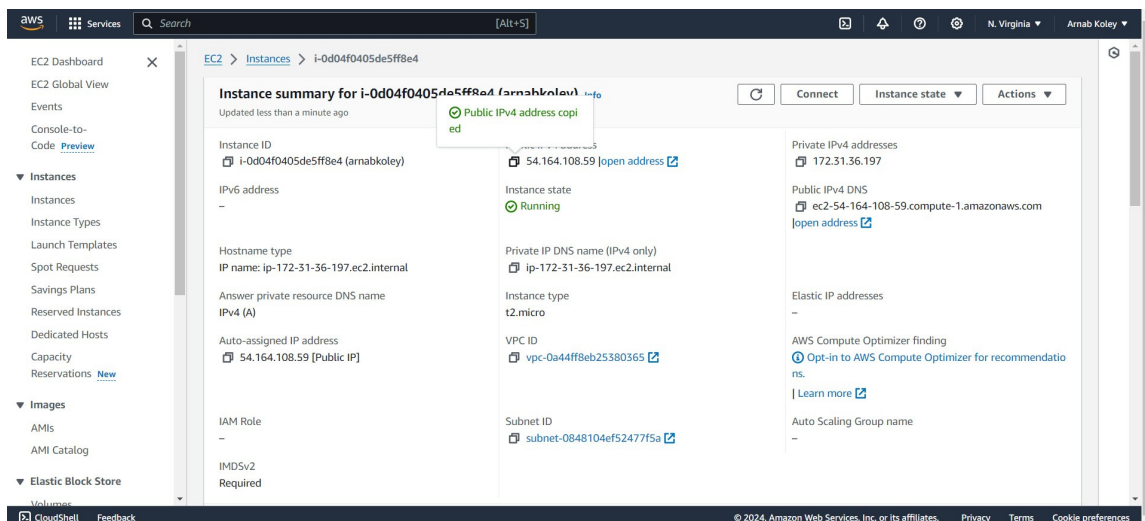
6)
- Open Bitvise SSH, goto 'Client key manager' and import the downloaded .pem file.
- Give the copied ipv4 address in 'Host'.
- Give Username 'ubuntu', select initial method 'publickey' & Client key 'Global 1'.
- Click on 'log in'.
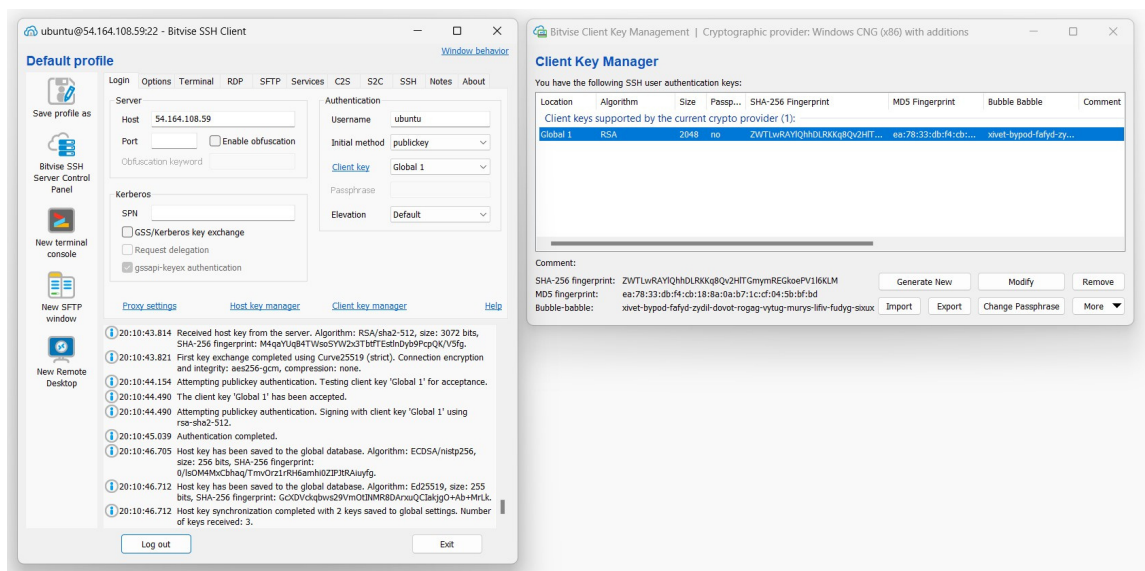
7) Click 'New terminal console' & run the following commands:
   - pwd (for checking the current directory)
   - sudo apt-get update
   - sudo apt-get upgrade
   - sudo apt-get install nginx
   - curl -SL https://deb.nodesource.com/setup_16.x | sudo -E bash -
   - sudo apt install nodejs
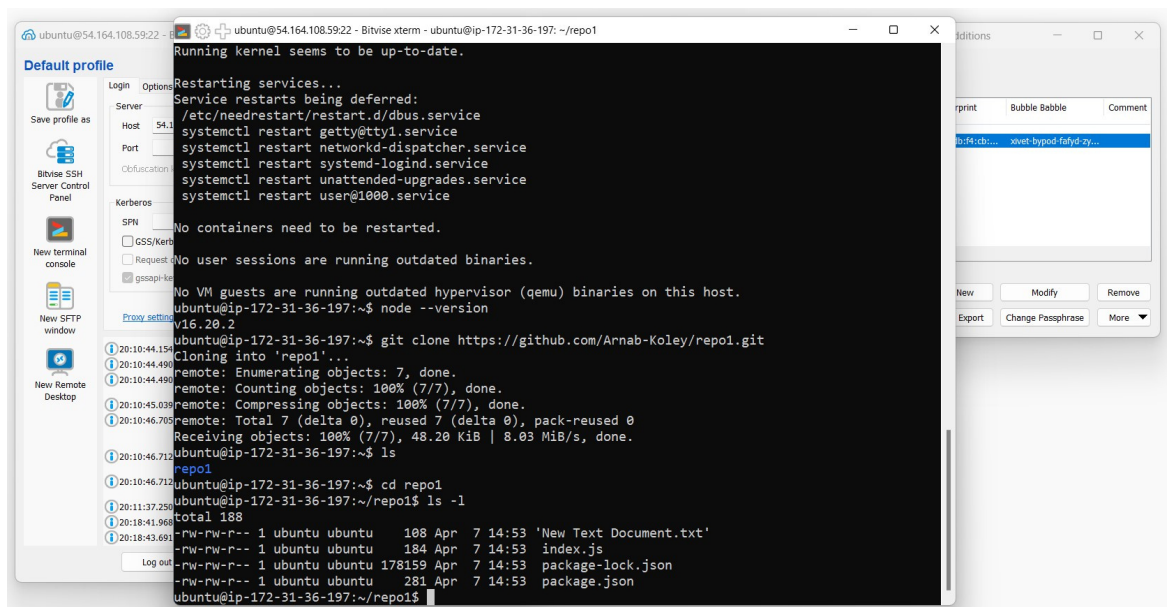   - node --version (for checking the node version)
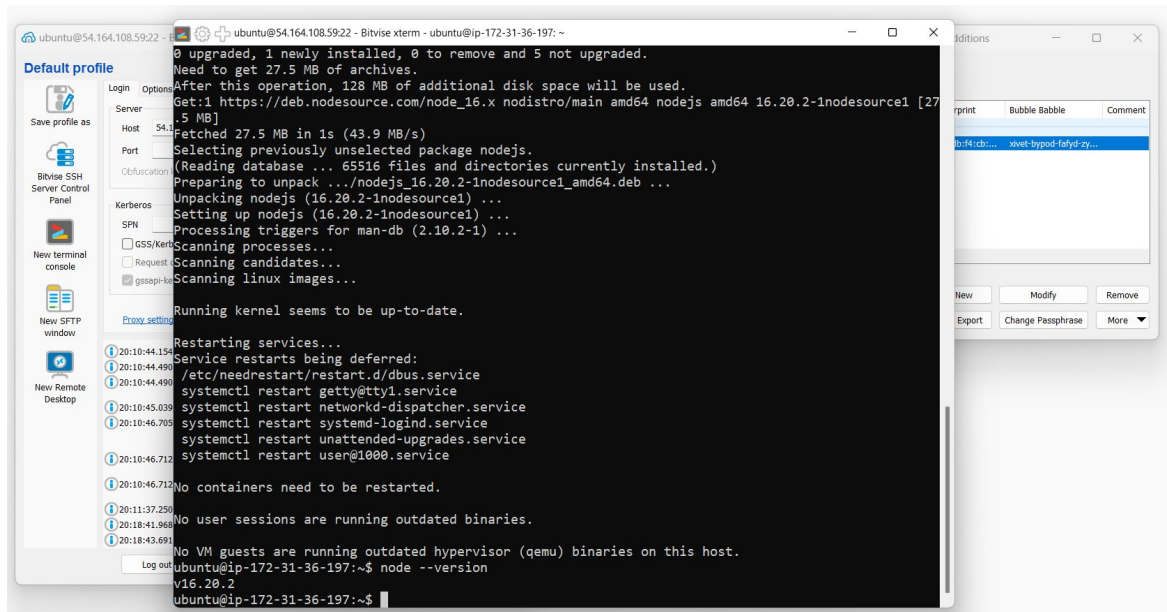
8) To upload the project from Github to EC2, run:
   - git clone https://github.com/Arnab-Koley/repo1.git (previously copied)

Goto project folder (repo1):
   - cd repo1

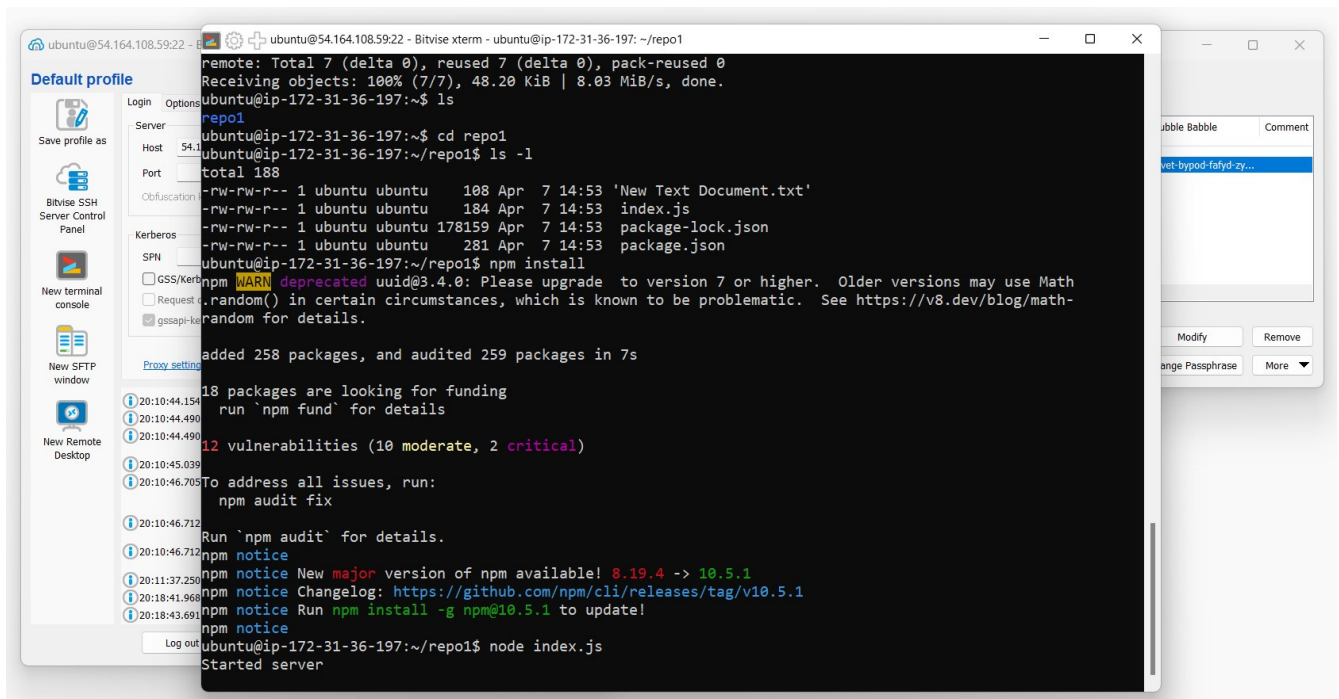To check the uploaded files, run:
   - ls -l

9) Install node packet manager (npm):
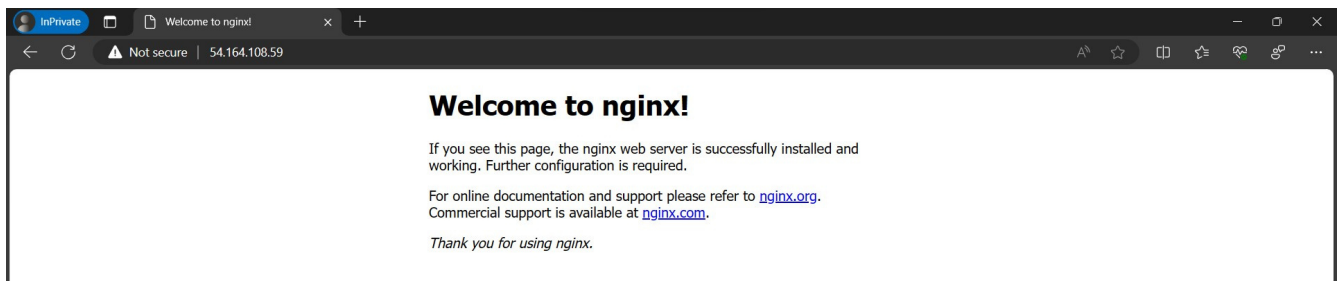   - npm install
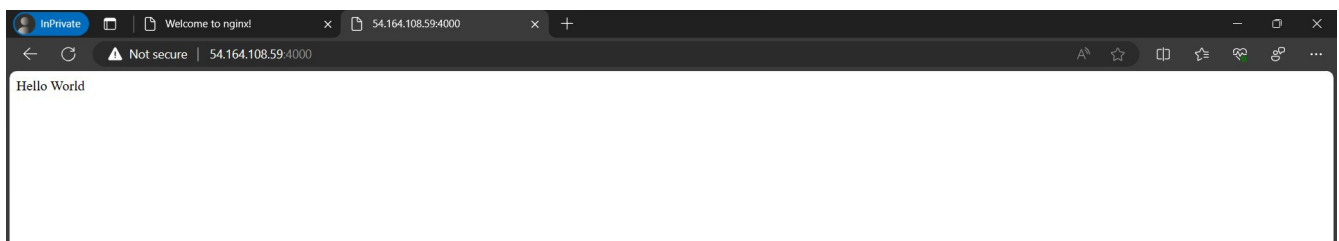
   Start the server:
   - node index.js

10) To check the server open browser and paste the copied ipv4 address.

11) To get the website set port number along with ipv4 address in the browser.

12) To stop the server press 'Ctrl+C' in the terminal.

13) Deployment of a project from Github to EC2 successfully completed.