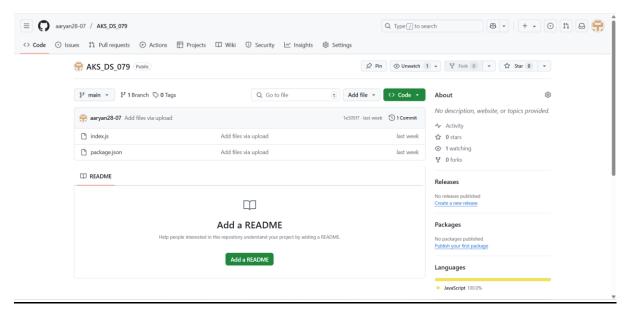
Assignment No:09

Title: Deploy a project from GitHub to EC2..

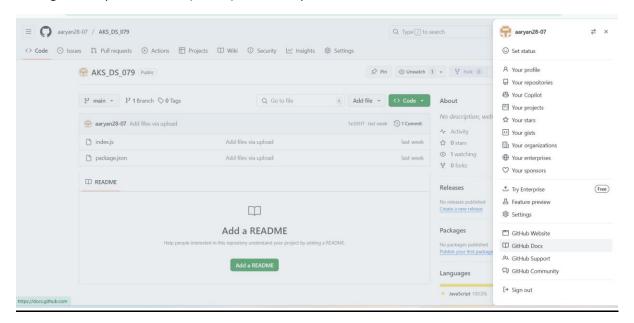
Step-1:

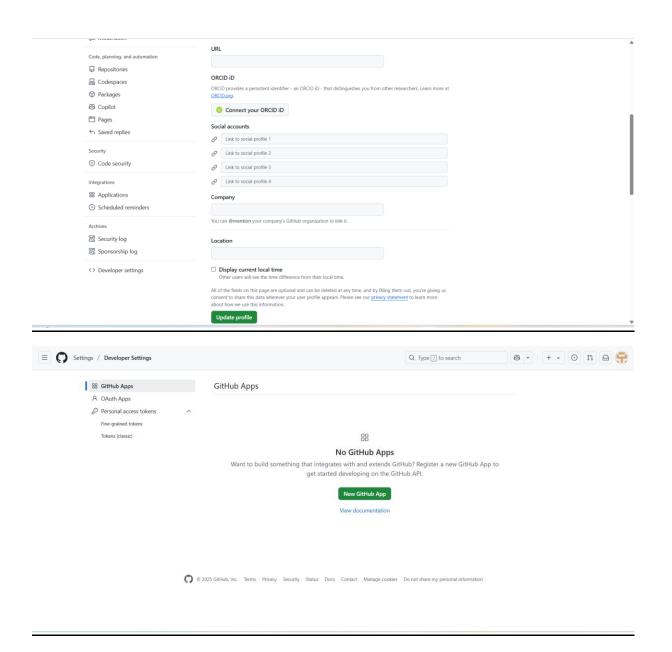
Upload required files to github



Step-2:

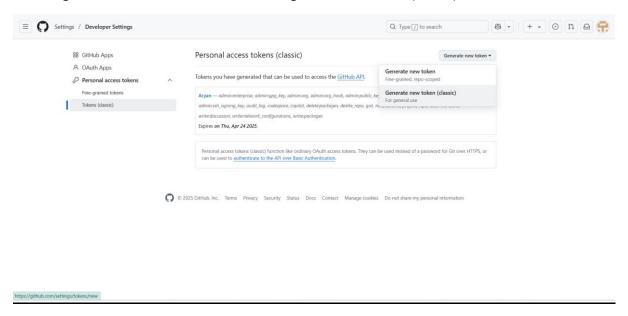
Click on the profile icon and open settings then scroll down in the left side and open developer settings then open the token(classic) under the personal access tokens.





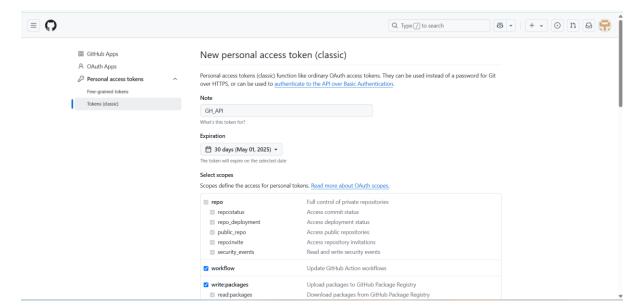
Step-3:

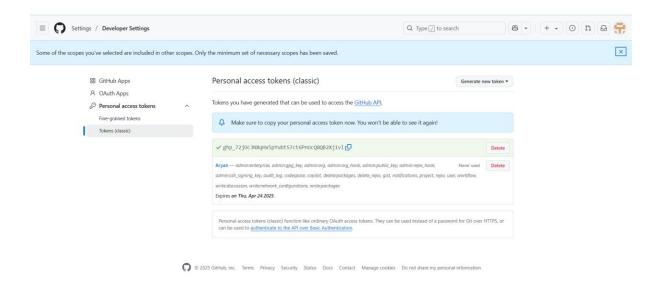
Click on generate new token and then click on generate new token(classic).



Step-4:

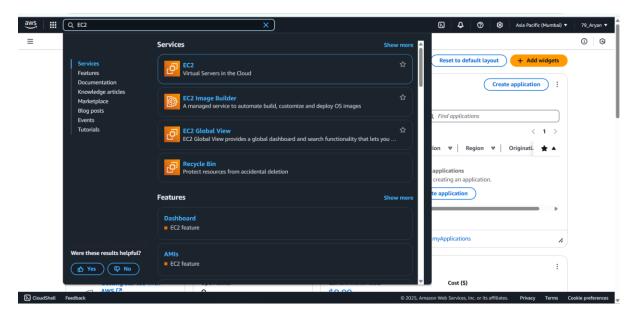
Give a name to the token in the note field and check all the scopes and save the token id.





Step-5:

Log into AWS and open EC2.



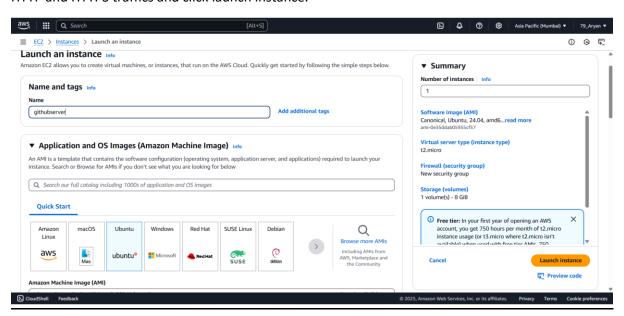
Step-6:

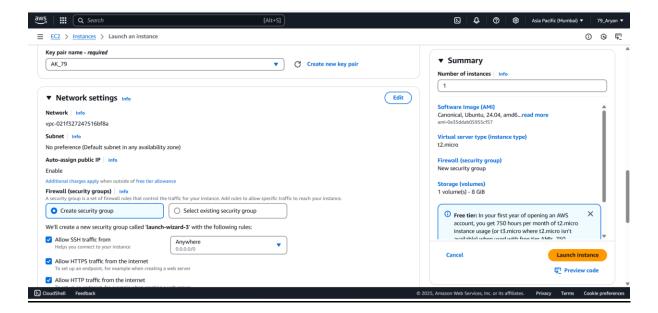
Click on launch instance.



Step-7:

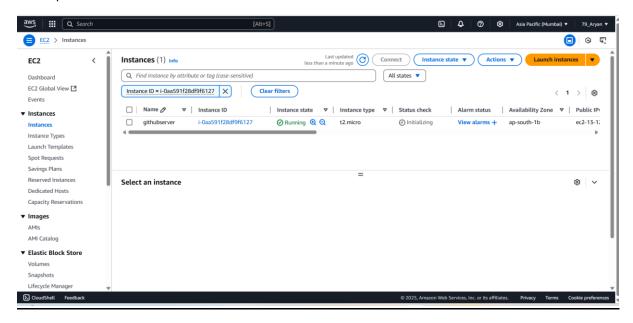
Give a name to the instance and select the operating system then check the 3 boxes to allow SSH, HTTP and HTTPS traffics and click launch instance.





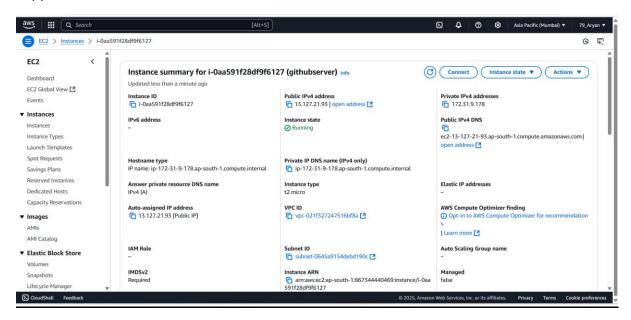
Step-8:

Now open instances and click of the instance Id of the instance.



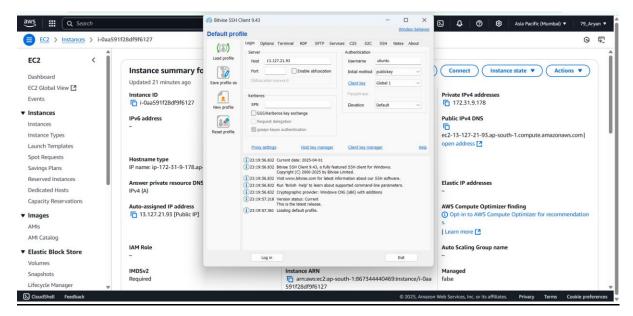
Step-9:

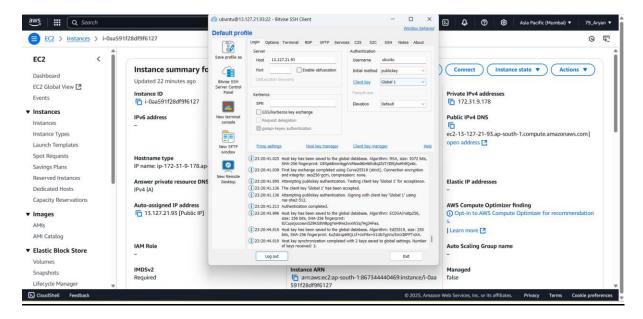
Copy the IPv4 address.



Step-10:

open bitvise client and paste the ip in host and set up authentication using the key pair then login and after logging in open new terminal window.





Step-11:

Then set up the instance using command sudo apt-get update and sudo apt-get upgrade.

```
Warner in the state of the s
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1024-aws x86_64)
  * Documentation: https://help.ubuntu.com

* Management: https://landscape.canonical.com

* Support: https://ubuntu.com/pro
  System information as of Tue Apr 1 17:50:45 UTC 2025
    System load: 0.0
Usage of /: 25.2% of 6.71GB
                                                                                 Processes:
                                                                                                                                         105
                                                                               Users logged in:
    Memory usage: 20%
                                                                                 IPv4 address for enX0: 172.31.9.178
    Swap usage:
                                     9%
Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
The list of available updates is more than a week old.
To check for new updates run: sudo apt update
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
ubuntu@ip-172-31-9-178:~$ sudo apt-get update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:5 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:11 http://ap-south-1.ec2.archive.abuntu.com/abantu noble/martive/se amade/ components [515]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/abuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/abuntu noble-updates/main amd64 Packages [979 kB]
Get:14 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [215 kB]
```

```
| Second | S
```

Step-12:

Now install nginx for setting up the web server.

```
Setting up systemd-sysv (255.4-lubuntu8.6) ...
Setting up pyymouth (24.004.60-lubuntu7.1) ...
update-initramfs: Generating /boot/initrd.img-6.8.0-1024-aws
update-r.d. wanning: start and stop actions are no longer supported; falling back to defaults
update-r.d. wanning: start and stop actions are no longer supported; falling back to defaults
update-r.d. wanning: start and stop actions are no longer supported; falling back to defaults
update-rid. wanning: start and stop actions are no longer supported; falling back to defaults
Setting up plionss-systemd:amd64 (255.4-lubuntu8.6) ...
Setting up ppymouth-theme-ubuntu-text (24.004.60-lubuntu7.1) ...
update-initramfs: deferring update (trigger activated)
Setting up libpam-systemd:amd64 (255.4-lubuntu8.6) ...
Setting up apport-core-dump-handler (2.28.1-0ubuntu3.5) ...
Setting up apport-service is a disabled or a static unit not running, not starting it.
Processing triggers for dbus (1.14.10-4ubuntu4.1) ...
Processing triggers for initramfs-tools (0.142ubuntu25.5) ...
update-initramfs: Generating /boot/initrd.img-6.8.0-1024-aws
Processing triggers for rsyslog (8.2312.0-3ubuntu9) ...
Processing triggers for syslog (8.2312.0-3ubuntu9) ...
Processing triggers for man-db (2.12.0-4build2) ...
Scanning candidates...
Scanning linux images...

Running kernel seems to be up-to-date.

Restarting services...
systemctl restart multipathd.service packagekit.service polkit.service udisks2.service

Service restarts being deferred:
ystemctl restart ModemMinanger.service
/etc/needrestart/restart.d/dbus.service
systemctl restart unattended-upgrades.service

No containers need to be restarted.

User sessions running outdated binaries:
ubuntu @ user manager service: systemd[1230]

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-9-178:.$ sudo apt-get install nginx
```

Step-13:

Now clone the github repository from github using command git clone paste the link of the repository.

```
Example 1.00 1.12.2 Bases stem _about@p. 17.3.10.81c  

Set:2 http://pascutth.ac/2.2 archive.ubuntu.com/ubuntu noble-updates/main emd64 nginx amd64 1.24.0-2ubuntu7.1 [521 k8]  
Fetched 552 k8 in 08 (21.8 Mg/s)  
Fetching previously unselected package nginx common (.24.0-2ubuntu7.1) ...  
Selecting previously unselected package nginx  
Fetching previously previously unselected package nginx  
Fetching previously previously unselected package nginx  
Fetching previously previo
```

Step-14:

Then open the directory that is cloned using command cd name of the directory. Then install nodejs using commands curl -sL https://deb.nodesource.com/setup_18.x | sudo -E bash – and sudo apt-get install nodejs.

```
### Action | Proceedings | Procedure | Pro
```

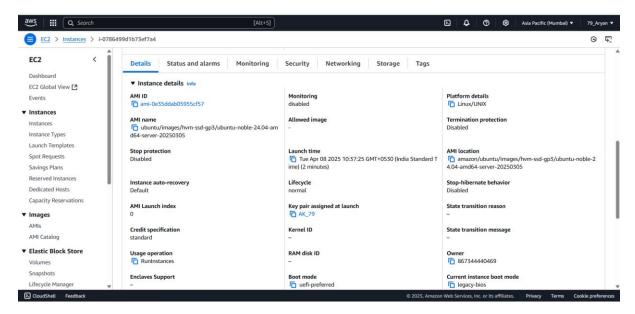
```
Fetched 23.7 kB in 1s (37.3 kB/s)
Reading package lists... Done
2025-04-01 18:07:10 - Repository configured successfully.
2025-04-01 18:07:10 - To install Node.js, run: apt-get install nodejs -y
2025-04-01 18:07:10 - To install Node.js, run: apt-get install nodejs -y
2025-04-01 18:07:10 - You can use N|solid Runtime as a node.js alternative
2025-04-01 18:07:10 - To install N|solid Runtime, run: apt-get install nsolid -y
2025-04-01 18:07:10 - To install N|solid Runtime, run: apt-get install nsolid -y
2025-04-01 18:07:10 - To install N|solid Runtime as a node.js alternative
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2025-04-01 18:07:10 - To install N|solid Runtime as a node.js alternative
2025-04-01 18:07:10 - To install N|solid Runtime as a node.js alterna
```

Step-15:

After installing nodejs use npm install command to install required dependencies.

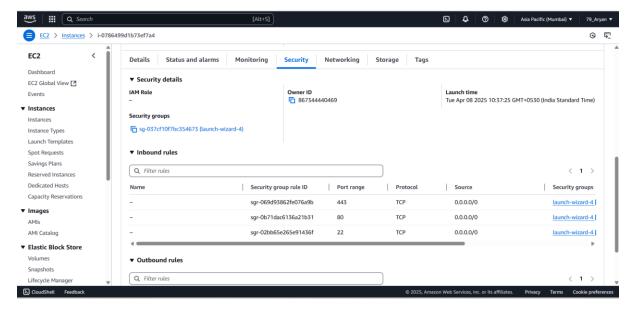
Step-16:

Now open aws and open the current instance then scroll down and goto security.



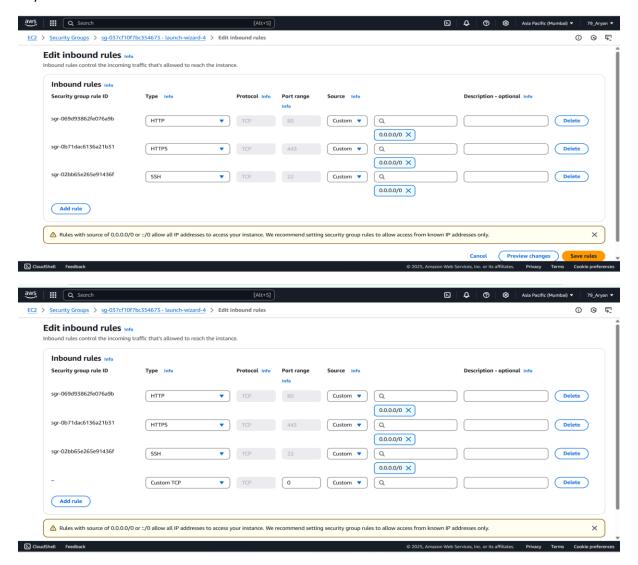
Step-17:

Then click on the link in security groups then click on edit inbound rules.



Step-18:

Click on add rule and select the type of new rule custom tcp port range 4000 source 0.0.0.0 or anywhere then click on save rule.



Step-19:

Open the terminal console and start the server using command node index.js .

```
Service restarts being deferred:

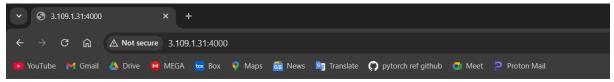
//extractions being services.

Service restarts being deferred:
//extractions services.

Service restarts servic
```

Step-20:

Now copy the IPv4 address of the instance and paste it and the put the port like this IP address:Port here IP address:4000 .



Hello MCKV Sagnick Here

Step-21:

Incase of change in the file in github run the git pull command to update it here.

```
Distriction of the content of the co
```