[Guvi Capstone Project]

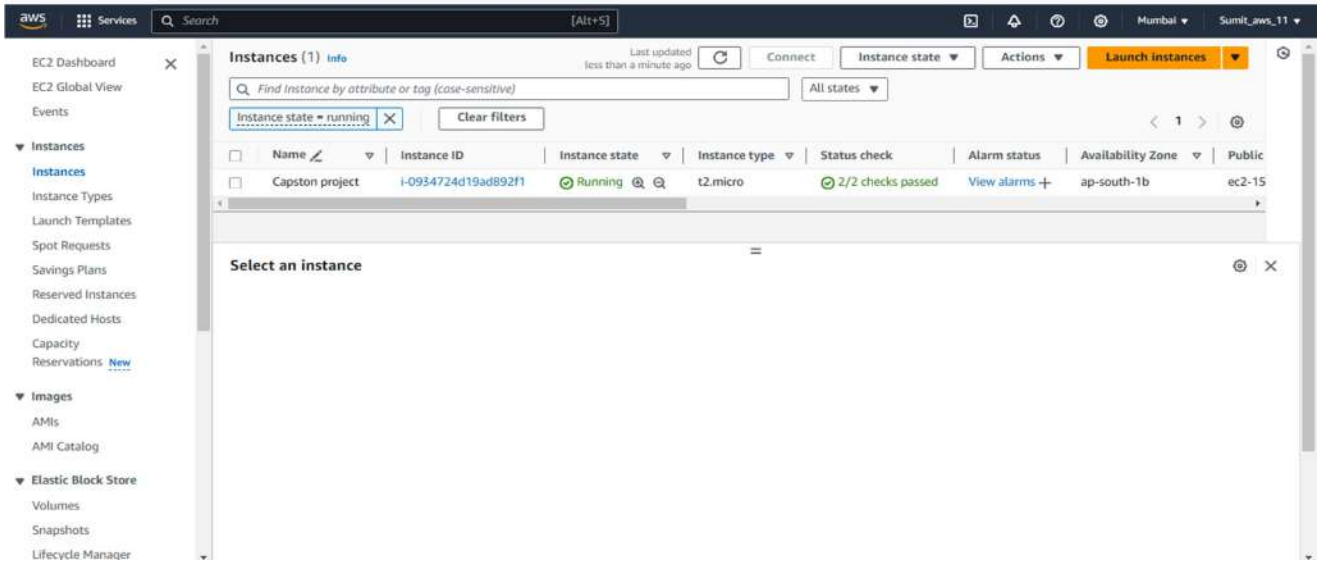
DevOps Application Deployment

Name: - Sumit Dhabaldeb

Batch Code:- DO14WD-E

❒ Application:

- Clone the below mentioned repo and deploy the application. (Run the application in port 80 [HTTP]) Repo URL: https://github.com/ssvillan/devops-build.git



- Create `Instance` > Connect to the **Capstone project** Instance
- Before install any in Ubuntu you have to do Update first [`sudo apt update ]` Install the Nginx server [`sudo apt-get install nginx –y]`
- Next `cd /etc/nginx/ ->> ls –a ->>` cd sites-available/ ->> Inside the directory write `vi mysite ->>`

```
server {
 listen 80;
 server_name 15.207.109.116; (ip address)

 root /var/www/mysite;
index index.html;

 location / {
  try_files $uri $uri/ =404;
    }
}
```

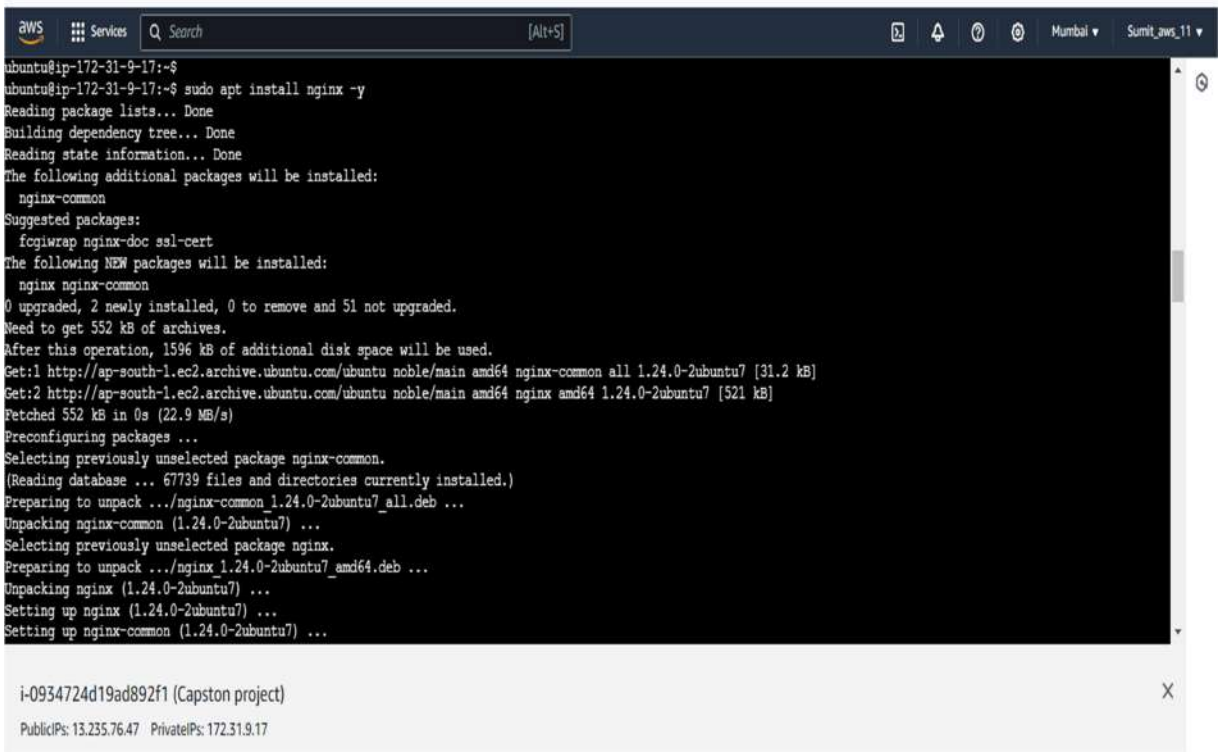
Save this file

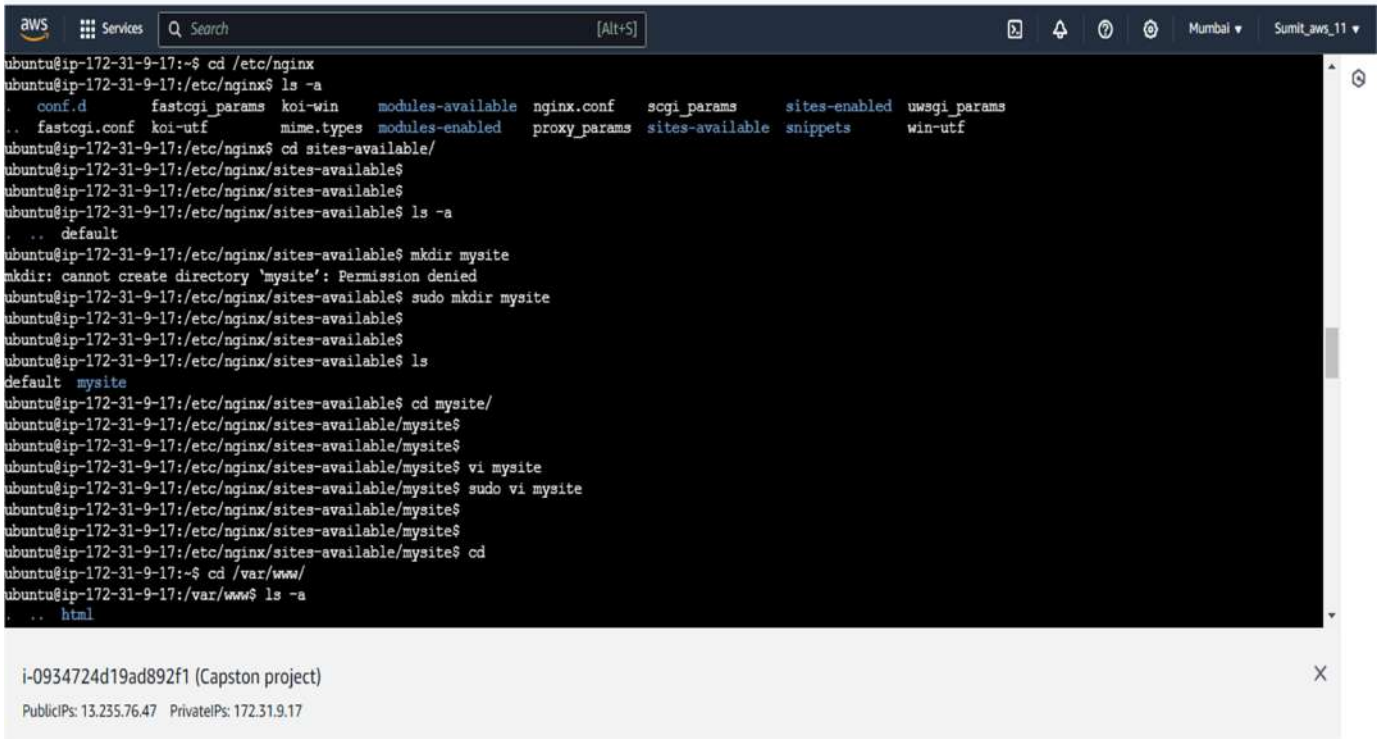
- Next use this command for (This file to another file) `sudo ln –s /etc/nginx/sites-available/mysite /etc/nginx/sites-enabled/ ->>`

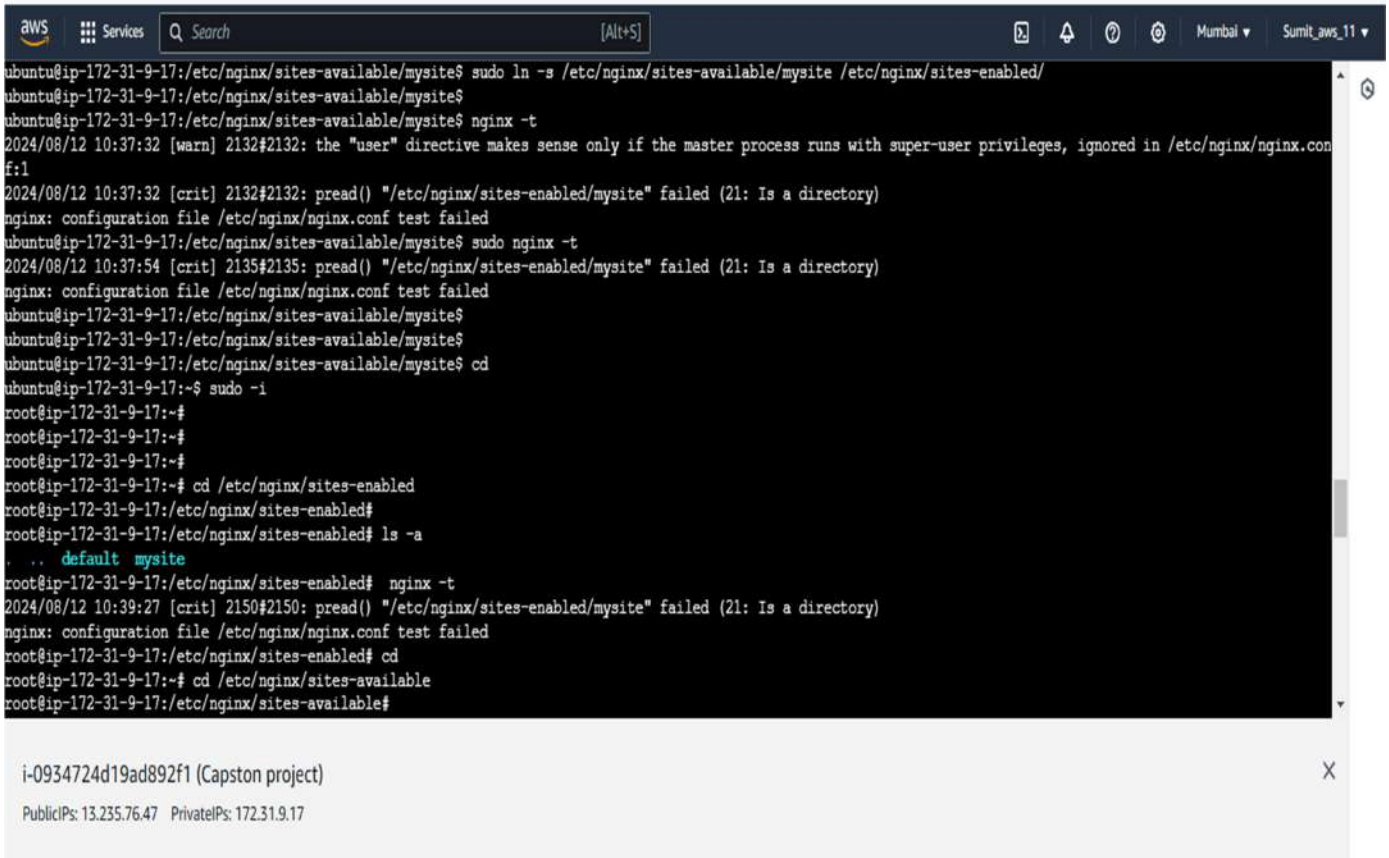
After use that command you have use `nginx -t` ->> Configure the file test is successful message come.

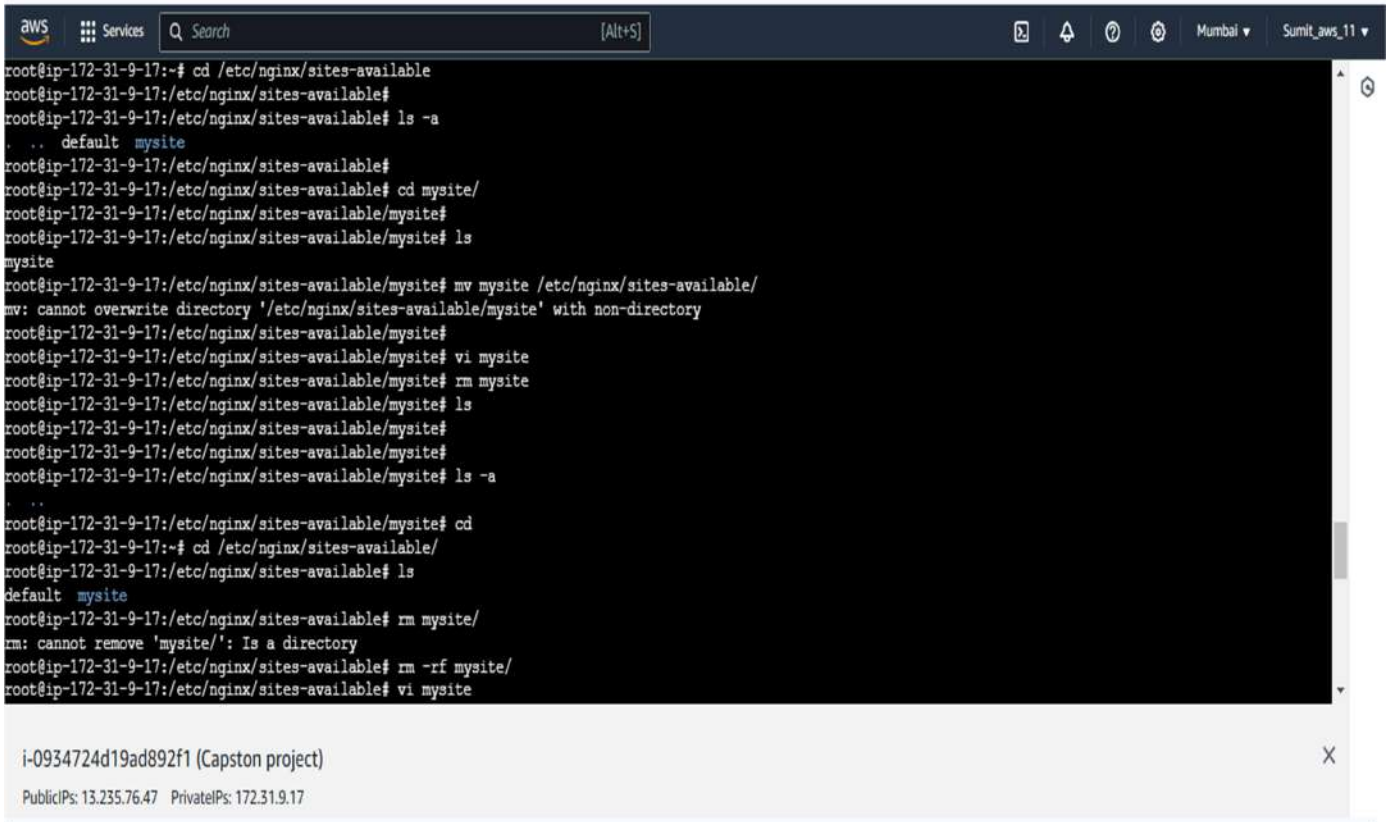
- Go to cd/var/www/ ->> Inside this directory create directory mkdir mysite ->>
- clone your repo in Ubuntu git clone https://github.com/ssvillan/devops-build.git
- `cd devops-build/ ->> cd build/` -> copy all the application file use this command
  `cp -r * /var/www/mysite/` ->> than it will go all the files inside the `/var/www/mysite/` directory
- Affter that you have to go to `/var/www/mysite` directory and check what ever you copy files is there or not inside your directory .
- After that you have open the port 80 in AWS Secuity Group .
- You want to see your running application
- And use this IP address `15.207.109.116:80`

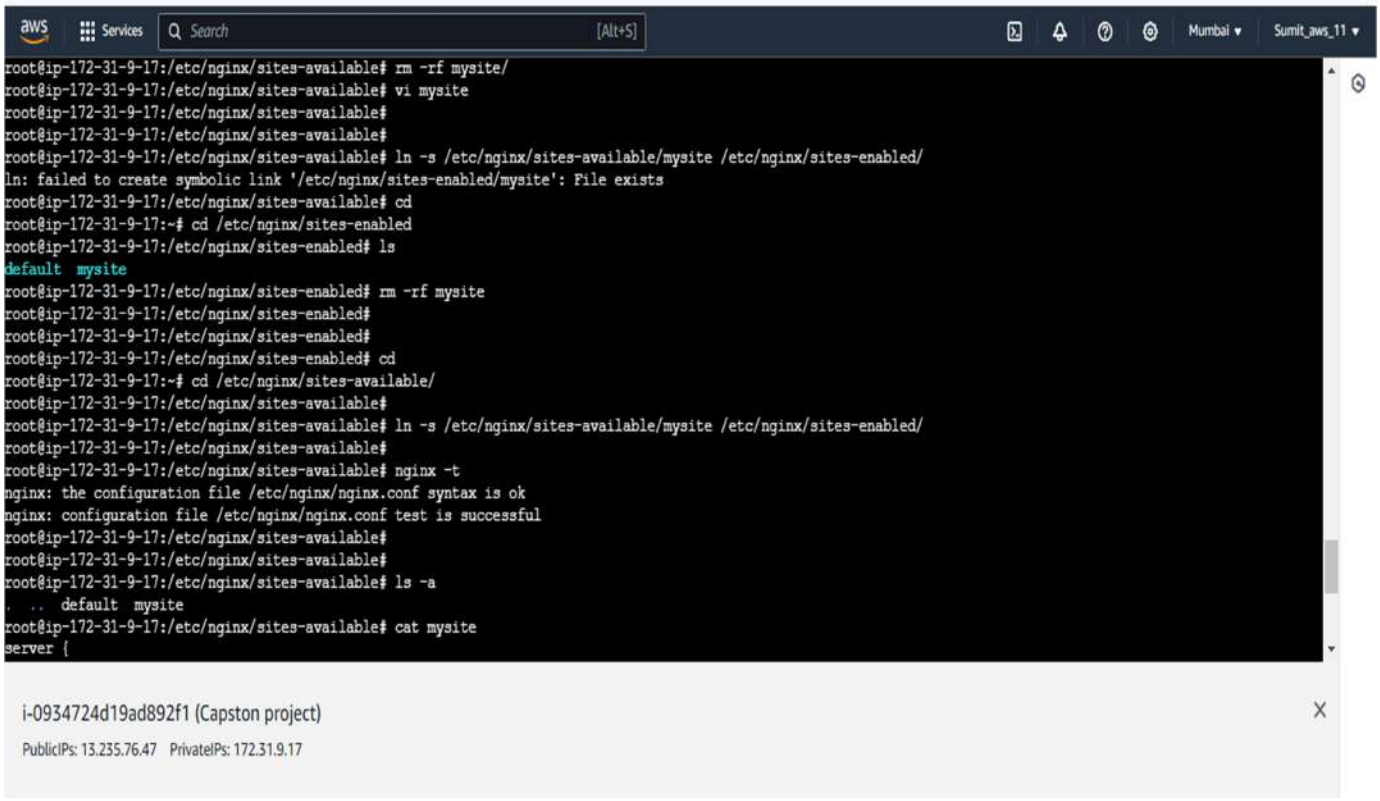
Next step by step all screen shot are there

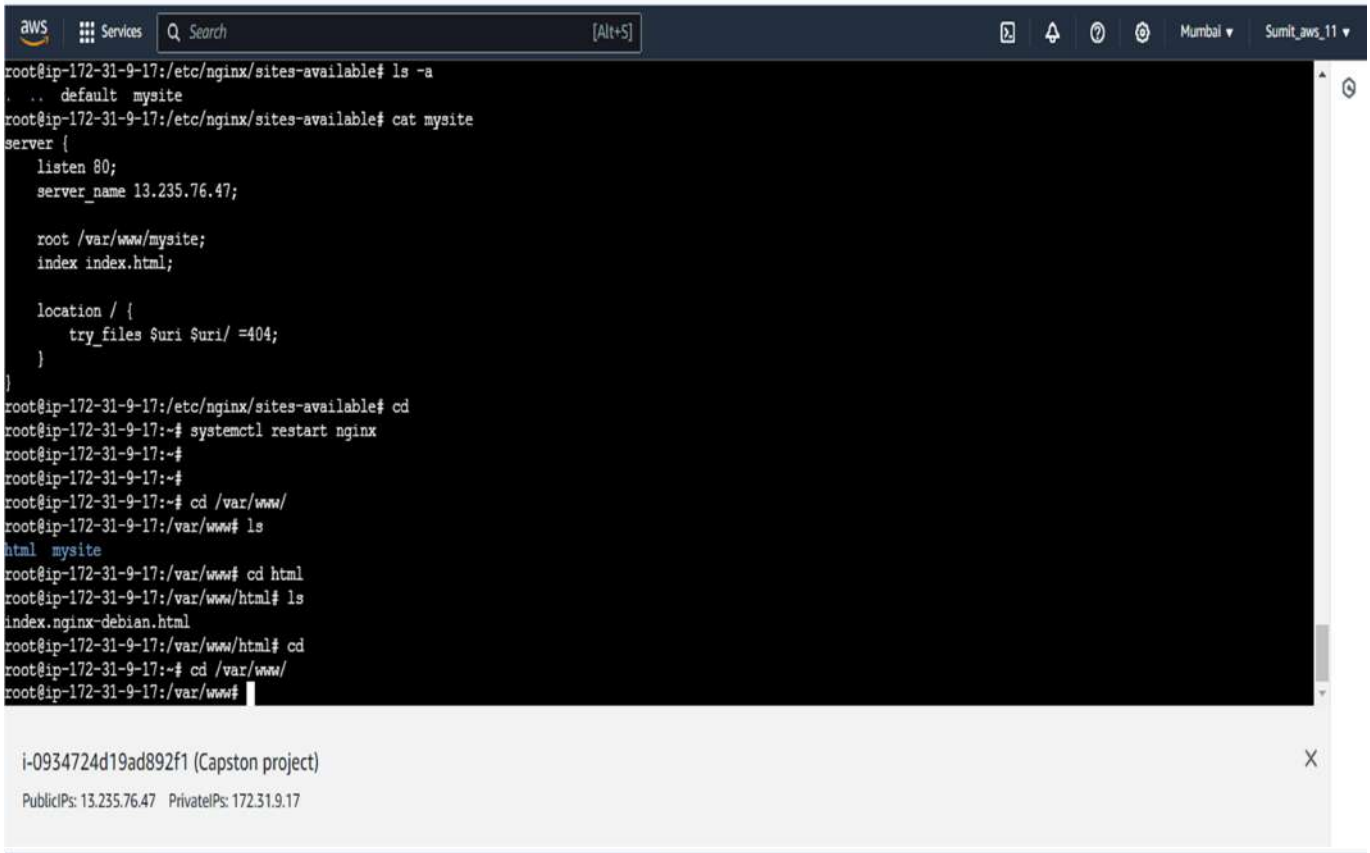


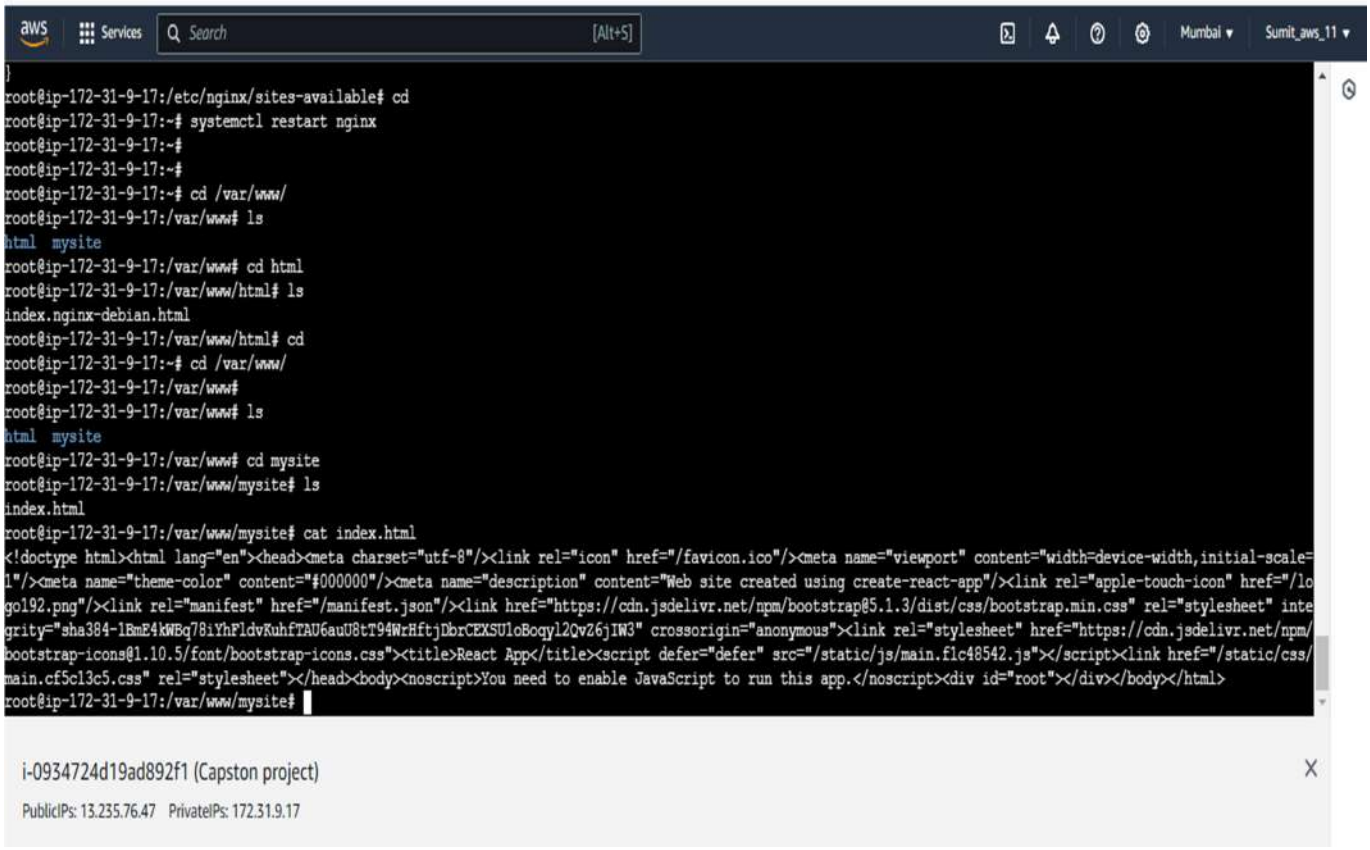

aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
ubuntu@ip-172-31-9-17:~$ cd /etc/nginx
ubuntu@ip-172-31-9-17:/etc/nginx$ ls -a
. conf.d fastcgi_params koi-win modules-available nginx.conf scgi_params sites-enabled uwsgi_params
.. fastcgi.conf koi-utf mime.types modules-enabled proxy_params sites-available snippets win-utf
ubuntu@ip-172-31-9-17:/etc/nginx$ cd sites-available/
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ ls -a
. .. default
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ mkdir mysite
mkdir: cannot create directory 'mysite': Permission denied
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ sudo mkdir mysite
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ ls
default mysite
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ cd mysite/
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ vi mysite
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ sudo vi mysite
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ cd
ubuntu@ip-172-31-9-17:~$ cd /var/www/
ubuntu@ip-172-31-9-17:/var/www$ ls -a
. .. html
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17

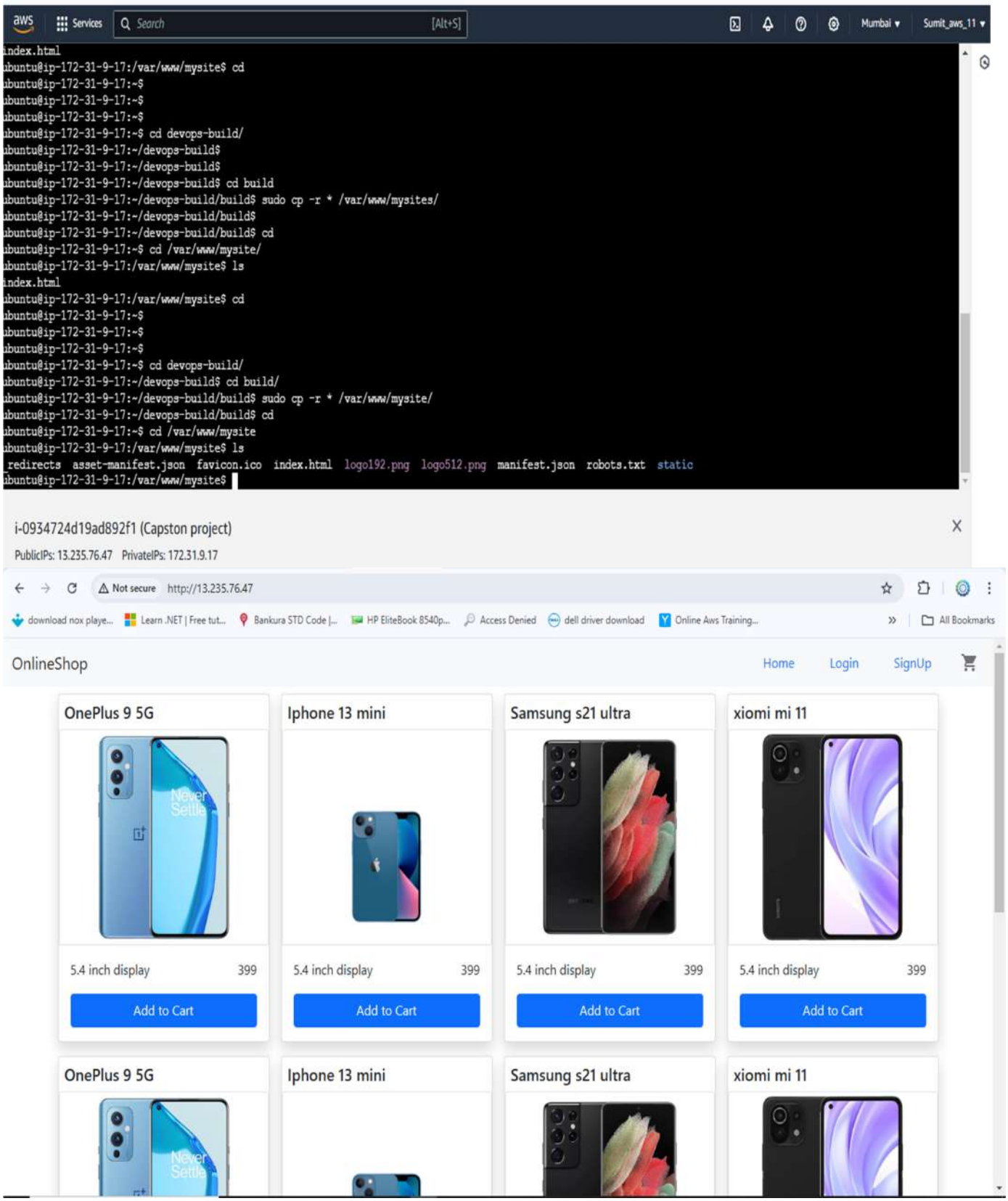

aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ sudo ln -s /etc/nginx/sites-available/mysite /etc/nginx/sites-enabled/
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ nginx -t
2024/08/12 10:37:32 [warn] 2132#2132: the "user" directive makes sense only if the master process runs with super-user privileges, ignored in /etc/nginx/nginx.con
f:1
2024/08/12 10:37:32 [crit] 2132#2132: pread() "/etc/nginx/sites-enabled/mysite" failed (21: Is a directory)
nginx: configuration file /etc/nginx/nginx.conf test failed
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ sudo nginx -t
2024/08/12 10:37:54 [crit] 2135#2135: pread() "/etc/nginx/sites-enabled/mysite" failed (21: Is a directory)
nginx: configuration file /etc/nginx/nginx.conf test failed
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ cd
ubuntu@ip-172-31-9-17:~$ sudo -i
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~# cd /etc/nginx/sites-enabled
root@ip-172-31-9-17:/etc/nginx/sites-enabled#
root@ip-172-31-9-17:/etc/nginx/sites-enabled# ls -a
. .. default mysite
root@ip-172-31-9-17:/etc/nginx/sites-enabled# nginx -t
2024/08/12 10:39:27 [crit] 2150#2150: pread() "/etc/nginx/sites-enabled/mysite" failed (21: Is a directory)
nginx: configuration file /etc/nginx/nginx.conf test failed
root@ip-172-31-9-17:/etc/nginx/sites-enabled# cd
root@ip-172-31-9-17:~# cd /etc/nginx/sites-available
root@ip-172-31-9-17:/etc/nginx/sites-available#
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
root@ip-172-31-9-17:~# cd /etc/nginx/sites-available
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# ls -a
. .. default mysite
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# cd mysite/
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite#
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# ls
mysite
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# mv mysite /etc/nginx/sites-available/
mv: cannot overwrite directory '/etc/nginx/sites-available/mysite' with non-directory
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite#
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# vi mysite
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# rm mysite
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# ls
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite#
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite#
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# ls -a
. ..
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# cd
root@ip-172-31-9-17:~# cd /etc/nginx/sites-available/
root@ip-172-31-9-17:/etc/nginx/sites-available# ls
default mysite
root@ip-172-31-9-17:/etc/nginx/sites-available# rm mysite/
rm: cannot remove 'mysite/': Is a directory
root@ip-172-31-9-17:/etc/nginx/sites-available# rm -rf mysite/
root@ip-172-31-9-17:/etc/nginx/sites-available# vi mysite
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
root@ip-172-31-9-17:/etc/nginx/sites-available# rm -rf mysite/
root@ip-172-31-9-17:/etc/nginx/sites-available# vi mysite
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# ln -s /etc/nginx/sites-available/mysite /etc/nginx/sites-enabled/
ln: failed to create symbolic link '/etc/nginx/sites-enabled/mysite': File exists
root@ip-172-31-9-17:/etc/nginx/sites-available# cd
root@ip-172-31-9-17:~# cd /etc/nginx/sites-enabled
root@ip-172-31-9-17:/etc/nginx/sites-enabled# ls
default mysite
root@ip-172-31-9-17:/etc/nginx/sites-enabled# rm -rf mysite
root@ip-172-31-9-17:/etc/nginx/sites-enabled#
root@ip-172-31-9-17:/etc/nginx/sites-enabled#
root@ip-172-31-9-17:/etc/nginx/sites-enabled# cd
root@ip-172-31-9-17:~# cd /etc/nginx/sites-available/
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# ln -s /etc/nginx/sites-available/mysite /etc/nginx/sites-enabled/
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# ls -a
. .. default mysite
root@ip-172-31-9-17:/etc/nginx/sites-available# cat mysite
server {
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
root@ip-172-31-9-17:/etc/nginx/sites-available# ls -a
. .. default mysite
root@ip-172-31-9-17:/etc/nginx/sites-available# cat mysite
server {
listen 80;
server_name 13.235.76.47;
root /var/www/mysite;
index index.html;
location / {
try_files $uri $uri/ =404;
}
}
root@ip-172-31-9-17:/etc/nginx/sites-available# cd
root@ip-172-31-9-17:~# systemctl restart nginx
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~# cd /var/www/
root@ip-172-31-9-17:/var/www# ls
html mysite
root@ip-172-31-9-17:/var/www# cd html
root@ip-172-31-9-17:/var/www/html# ls
index.nginx-debian.html
root@ip-172-31-9-17:/var/www/html# cd
root@ip-172-31-9-17:~# cd /var/www/
root@ip-172-31-9-17:/var/www#
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
}
root@ip-172-31-9-17:/etc/nginx/sites-available# cd
root@ip-172-31-9-17:~# systemctl restart nginx
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~# cd /var/www/
root@ip-172-31-9-17:/var/www# ls
html mysite
root@ip-172-31-9-17:/var/www# cd html
root@ip-172-31-9-17:/var/www/html# ls
index.nginx-debian.html
root@ip-172-31-9-17:/var/www/html# cd
root@ip-172-31-9-17:~# cd /var/www/
root@ip-172-31-9-17:/var/www#
root@ip-172-31-9-17:/var/www# ls
html mysite
root@ip-172-31-9-17:/var/www# cd mysite
root@ip-172-31-9-17:/var/www/mysite# ls
index.html
root@ip-172-31-9-17:/var/www/mysite# cat index.html
<!doctype html><html lang="en"><head><meta charset="utf-8"/><link rel="icon" href="/favicon.ico"/><meta name="viewport" content="width=device-width,initial-scale=
1"/><meta name="theme-color" content="#000000"/><meta name="description" content="Web site created using create-react-app"/><link rel="apple-touch-icon" href="/lo
go192.png"/><link rel="manifest" href="/manifest.json"/><link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet" inte
grity="sha384-1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous"><link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/
bootstrap-icons@1.10.5/font/bootstrap-icons.css"><title>React App</title><script defer="defer" src="/static/js/main.f1c48542.js"></script><link href="/static/css/
main.cf5c13c5.css" rel="stylesheet"></head><body><noscript>You need to enable JavaScript to run this app.</noscript> </body></html>
root@ip-172-31-9-17:/var/www/mysite#
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
index.html
ubuntu@ip-172-31-9-17:/var/www/mysite$ cd
ubuntu@ip-172-31-9-17:~$
ubuntu@ip-172-31-9-17:~$
ubuntu@ip-172-31-9-17:~$
ubuntu@ip-172-31-9-17:~$ cd devops-build/
ubuntu@ip-172-31-9-17:~/devops-build$
ubuntu@ip-172-31-9-17:~/devops-build$
ubuntu@ip-172-31-9-17:~/devops-build$ cd build
ubuntu@ip-172-31-9-17:~/devops-build/build$ sudo cp -r * /var/www/mysites/
ubuntu@ip-172-31-9-17:~/devops-build/build$
ubuntu@ip-172-31-9-17:~/devops-build/build$ cd
ubuntu@ip-172-31-9-17:~$ cd /var/www/mysite/
ubuntu@ip-172-31-9-17:/var/www/mysite$ ls
index.html
ubuntu@ip-172-31-9-17:/var/www/mysite$ cd
ubuntu@ip-172-31-9-17:~$
ubuntu@ip-172-31-9-17:~$
ubuntu@ip-172-31-9-17:~$
ubuntu@ip-172-31-9-17:~$ cd devops-build/
ubuntu@ip-172-31-9-17:~/devops-build$ cd build/
ubuntu@ip-172-31-9-17:~/devops-build/build$ sudo cp -r * /var/www/mysite/
ubuntu@ip-172-31-9-17:~/devops-build/build$ cd
ubuntu@ip-172-31-9-17:~$ cd /var/www/mysite
ubuntu@ip-172-31-9-17:/var/www/mysite$ ls
_redirects asset-manifest.json favicon.ico index.html logo192.png logo512.png manifest.json robots.txt static
ubuntu@ip-172-31-9-17:/var/www/mysite$
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17
Not secure
http://13.235.76.47
download nox playe...
Learn .NET | Free tut...
Bankura STD Code |...
HP EliteBook 8540p...
Access Denied
dell driver download
Online Aws Training...
All Bookmarks
OnlineShop
Home
Login
SignUp
OnePlus 9 5G
Iphone 13 mini
Samsung s21 ultra
xiomi mi 11
5.4 inch display
399
Add to Cart
OnePlus 9 5G
Iphone 13 mini
Samsung s21 ultra
xiomi mi 11

❒ Docker:

- Dockerize the application by creating a Dockerfile
- Create a docker-compose file to use the above image
  - First clone your repo `git clone https://github.com/ssvillan/devops-build.git`
  - Install Docker and Dsetup
  - `Next cd devops-build/ ->> cd build/ ->>` use vi editore for
  - `vi Dockerfile ->>` Inside this file write code

```
FROM nginx
WORKDIR /usr/share/nginx/html
COPY . /usr/share/nginx/html
EXPOSE 80
```

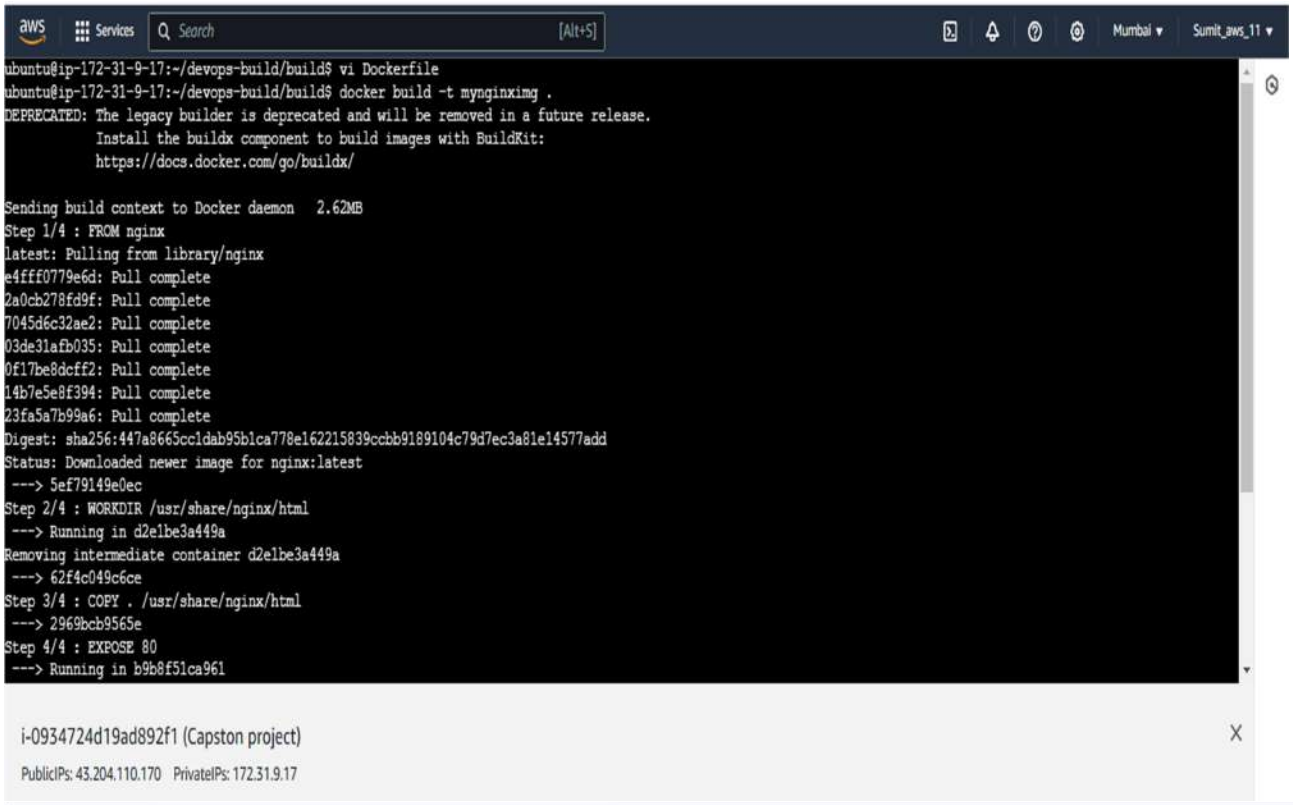
`Docker build –t mynginximg . ->>`
Successfully build image mynginximg (`image id 88e1295c5b23`)

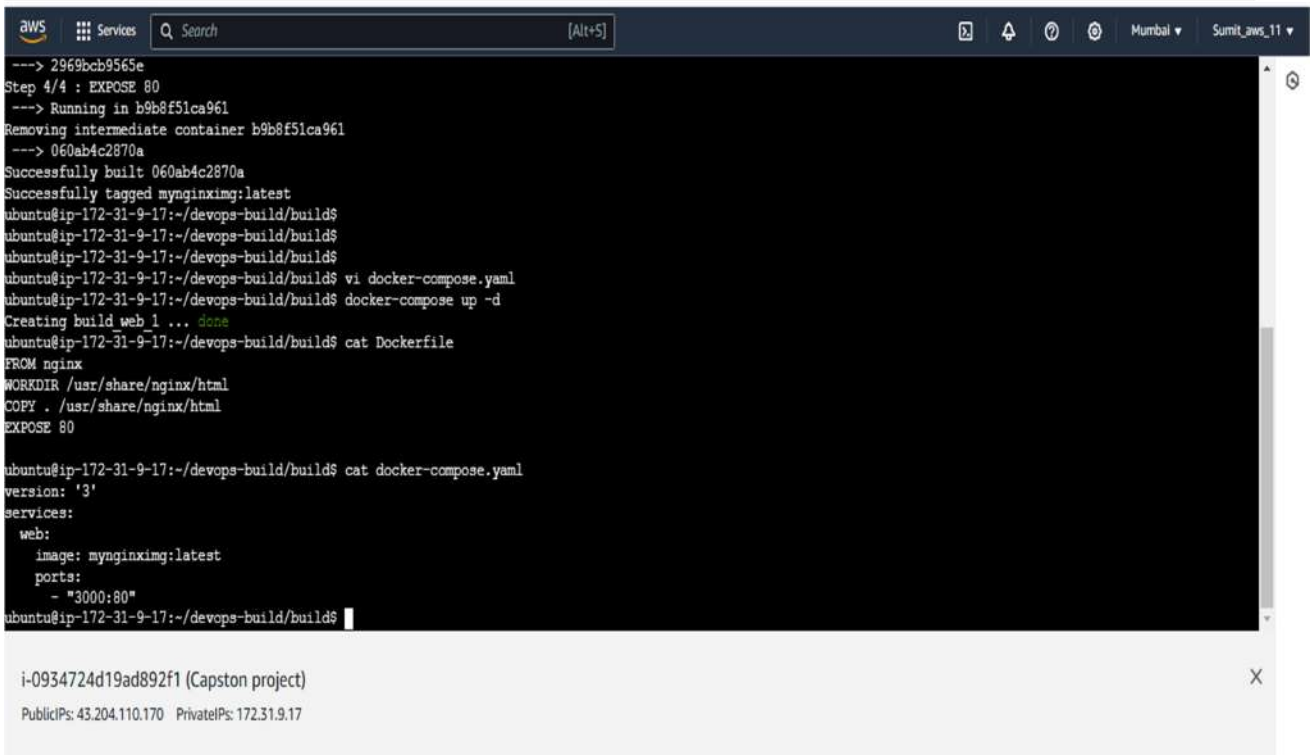
  - Install Docker-compose and setup
  - Next create vi docker-compose.yaml ->> file use vi editore and inside this yaml file write code.

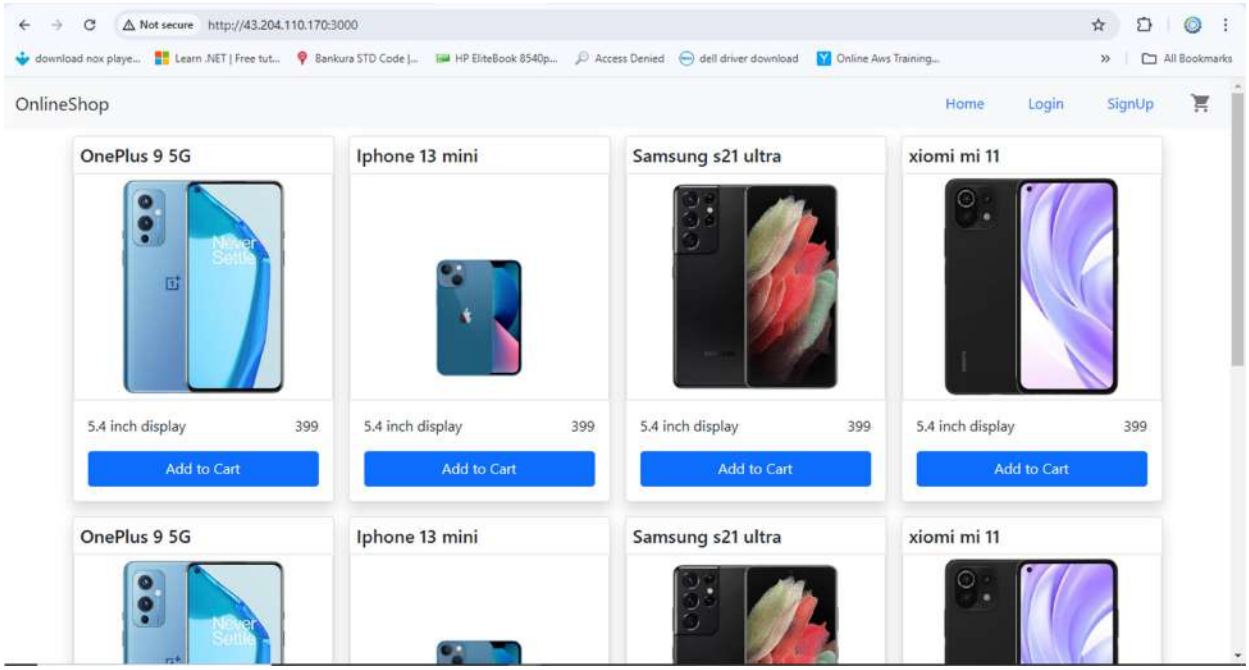
```
version: '3'
services:
  web:
    image: mynginximg:latest
    ports:
      - "3000:80"
```

Next, `docker-compose up –d ->>`
Successfully build container `build_web_1`

  - Next open the `port 3000` in AWS Security Group
  - And You want to see your running application
    use this IP address `15.207.109.116:3000`


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
ubuntu@ip-172-31-9-17:~/devops-build/build$ vi Dockerfile
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker build -t mynginximg .
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
Install the buildx component to build images with BuildKit:
https://docs.docker.com/go/buildx/
Sending build context to Docker daemon 2.62MB
Step 1/4 : FROM nginx
latest: Pulling from library/nginx
e4fff0779e6d: Pull complete
2a0cb278fd9f: Pull complete
7045d6c32ae2: Pull complete
03de31afb035: Pull complete
0f17be8dcff2: Pull complete
14b7e5e8f394: Pull complete
23fa5a7b99a6: Pull complete
Digest: sha256:447a8665cc1dab95b1ca778e162215839ccbb9189104c79d7ec3a81e14577add
Status: Downloaded newer image for nginx:latest
---> 5ef79149e0ec
Step 2/4 : WORKDIR /usr/share/nginx/html
---> Running in d2e1be3a449a
Removing intermediate container d2e1be3a449a
---> 62f4c049c6ce
Step 3/4 : COPY . /usr/share/nginx/html
---> 2969bcb9565e
Step 4/4 : EXPOSE 80
---> Running in b9b8f51ca961
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17
X

- 
aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
---> 2969bcb9565e
Step 4/4 : EXPOSE 80
---> Running in b9b8f51ca961
Removing intermediate container b9b8f51ca961
---> 060ab4c2870a
Successfully built 060ab4c2870a
Successfully tagged mynginximg:latest
ubuntu@ip-172-31-9-17:~/devops-build/build$
ubuntu@ip-172-31-9-17:~/devops-build/build$
ubuntu@ip-172-31-9-17:~/devops-build/build$
ubuntu@ip-172-31-9-17:~/devops-build/build$ vi docker-compose.yaml
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker-compose up -d
Creating build_web_1 ... done
ubuntu@ip-172-31-9-17:~/devops-build/build$ cat Dockerfile
FROM nginx
WORKDIR /usr/share/nginx/html
COPY . /usr/share/nginx/html
EXPOSE 80
ubuntu@ip-172-31-9-17:~/devops-build/build$ cat docker-compose.yaml
version: '3'
services:
web:
image: mynginximg:latest
ports:
- "3000:80"
ubuntu@ip-172-31-9-17:~/devops-build/build$
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17
X



❒ Bash Scripting (Write 2 scripts):

- build.sh-for building docker images
- deploy.sh for deploying the image to server

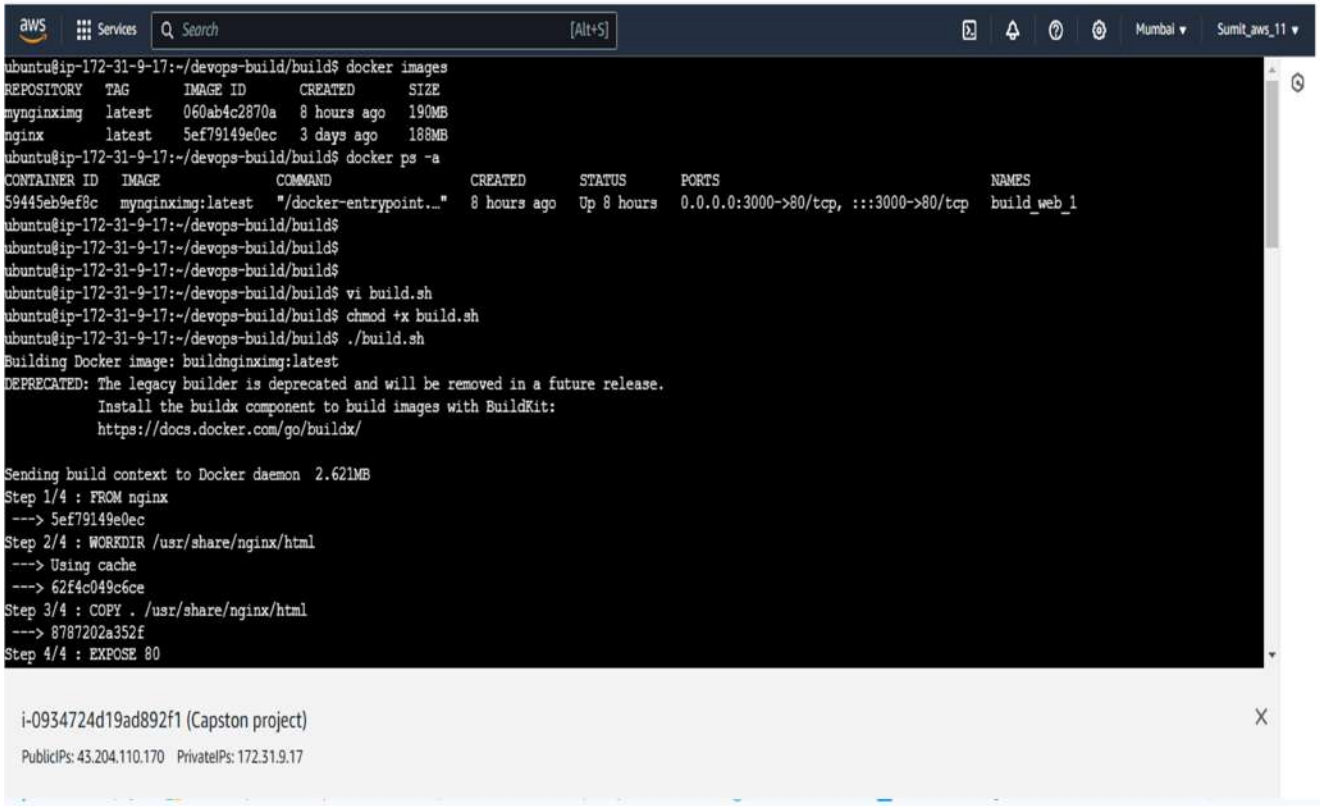
- Clone the repo in Ubuntu
- Git clone https://github.com/ssvillan/devops-build.git
- cd devops-build/ ->> cd build/ ->>
- next vi build.sh ->> write the code inside this file

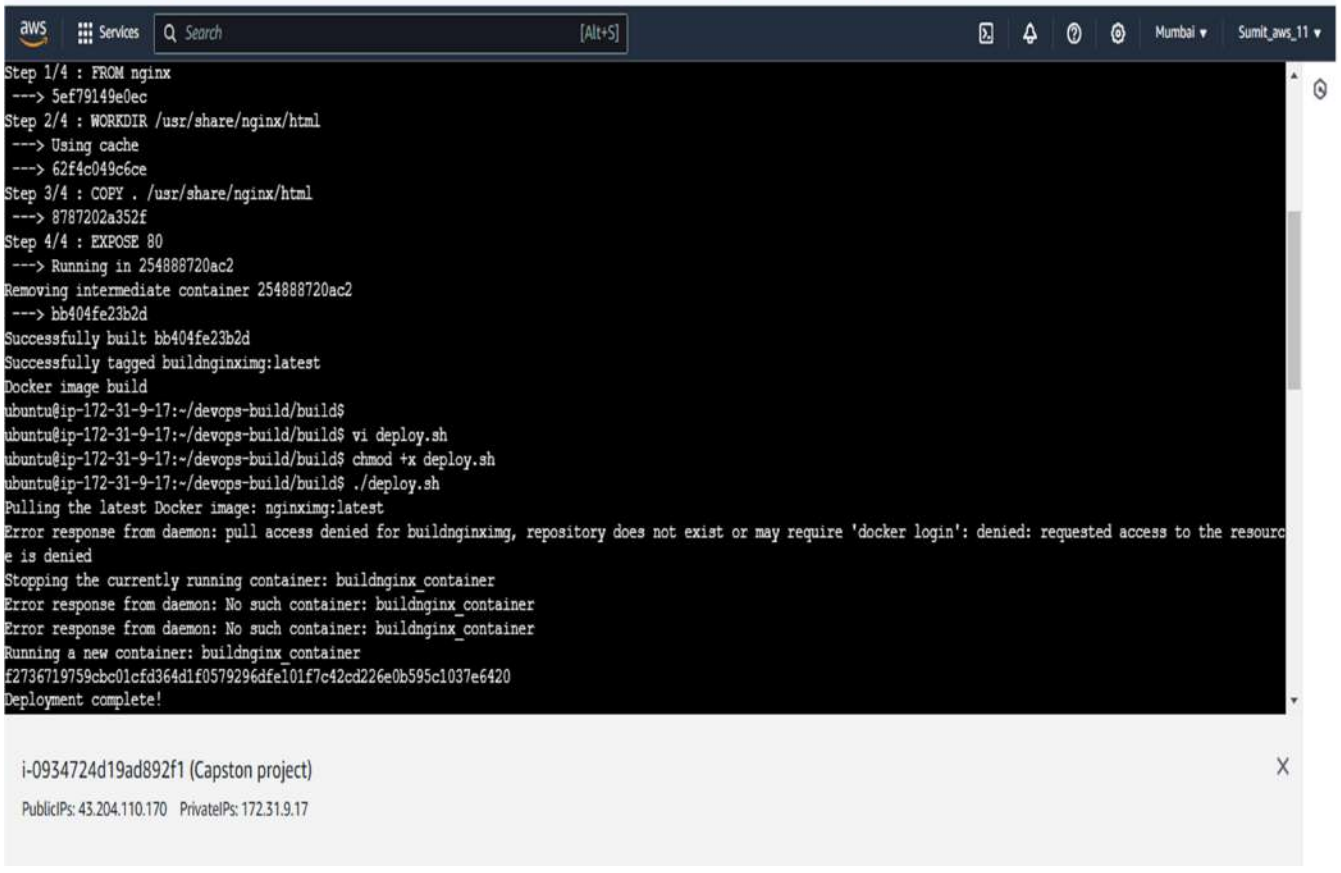
```
#!/bin/bash

# Variables
IMAGE_NAME="buildnginximg"
TAG="latest"

# Step 1: Build the Docker image
echo "Building Docker image: buildnginximg:latest"
docker build -t buildnginximg:latest .

# Step 2: Optionally tag the image with another tag
# Uncomment the line below if you want to tag the image with
another version
# docker tag $IMAGE_NAME:$TAG $IMAGE_NAME:your-tag

# Step 3: Optional cleanup
# Uncomment the line below to remove the local image after
pushing
# docker rmi $nginximg:latest
echo "Docker image build"
```

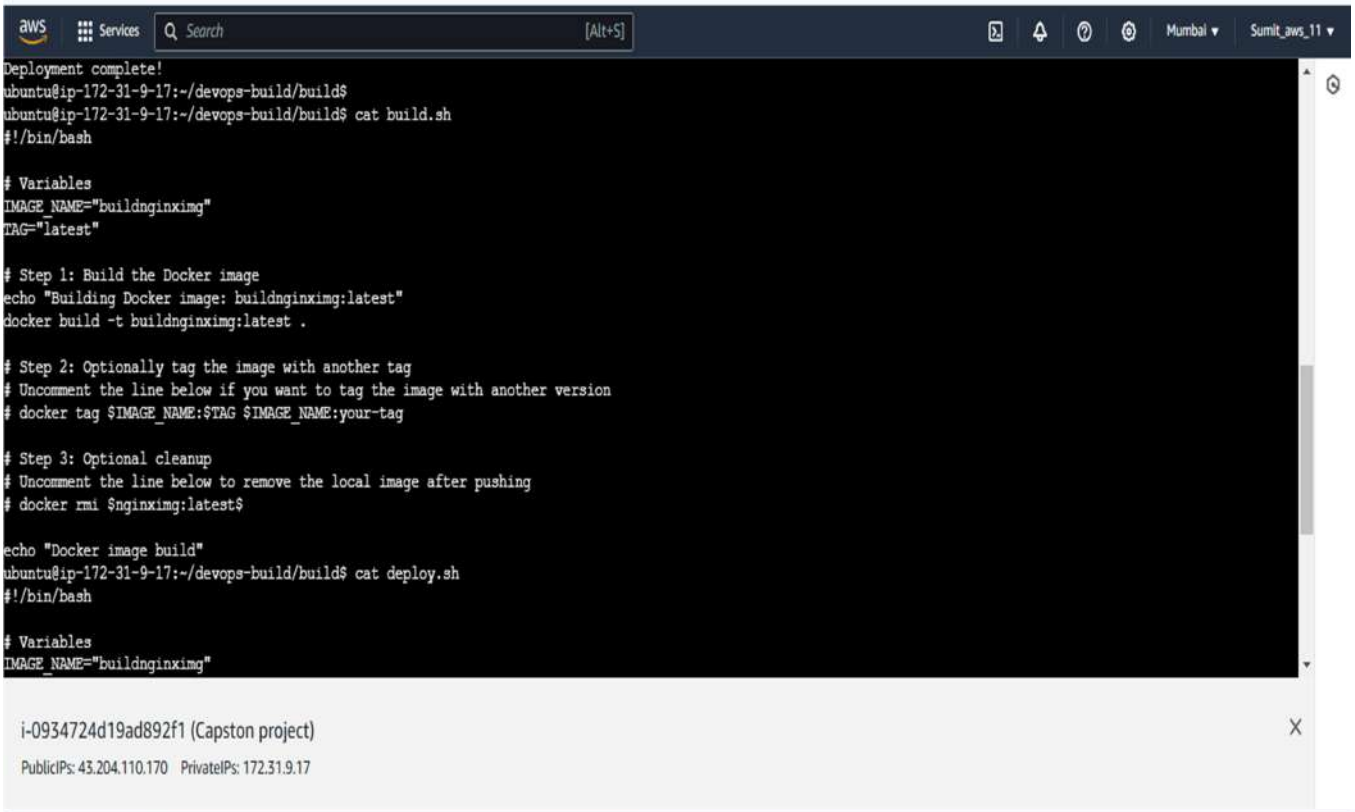
- next chmod +x build.sh ->> ./build.sh ->> after that successfully build image name buildnginximg
- Afftet that create vi deploy.sh ->> inside this file write code-

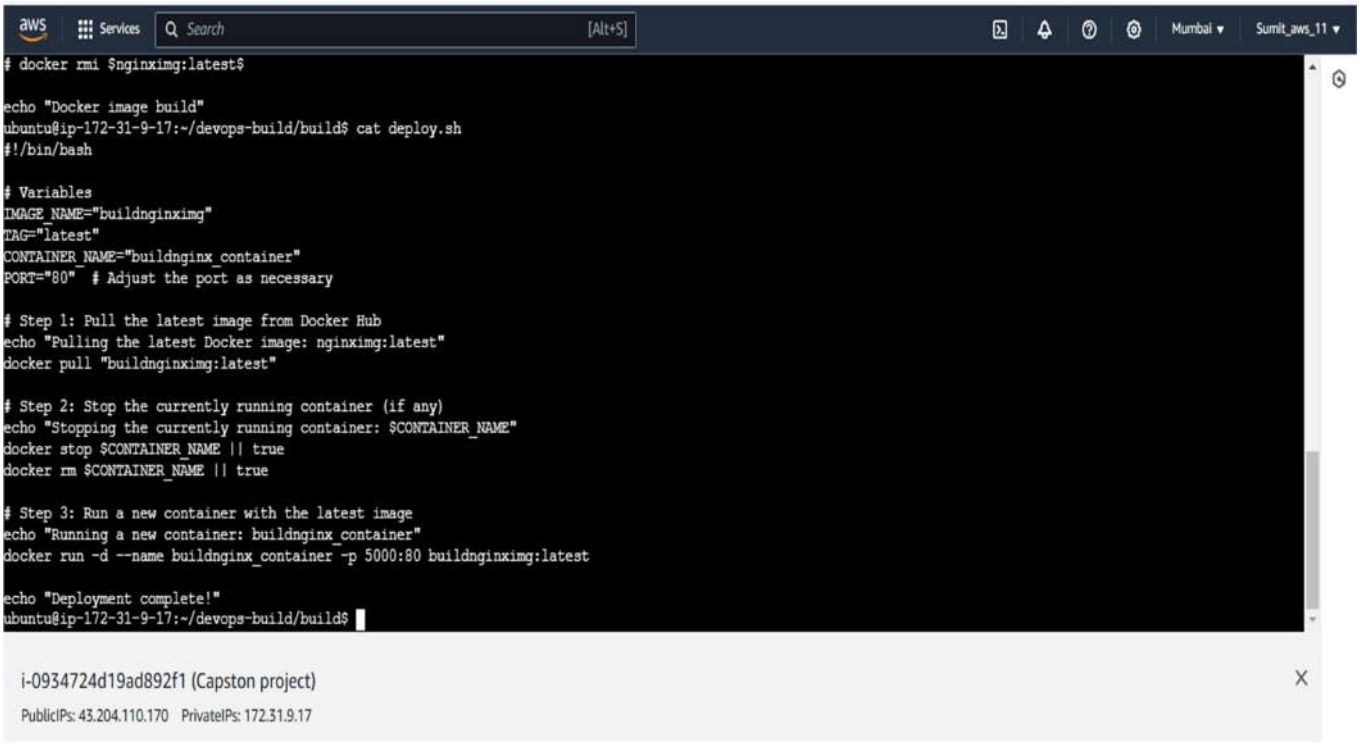
```
#!/bin/bash

# Variables
IMAGE_NAME="buildnginximg"
TAG="latest"
CONTAINER_NAME="buildnginx_container"
PORT="80"  # Adjust the port as necessary

# Step 1: Pull the latest image from Docker Hub
echo "Pulling the latest Docker image: nginximg:latest"
docker pull "buildnginximg:latest"

# Step 2: Stop the currently running container (if any)
echo "Stopping the currently running container: $CONTAINER_NAME"
docker stop $CONTAINER_NAME || true
docker rm $CONTAINER_NAME || true

# Step 3: Run a new container with the latest image
echo "Running a new container: buildnginx_container"
docker run -d --name buildnginx_container -p 5000:80
buildnginximg:latest
```

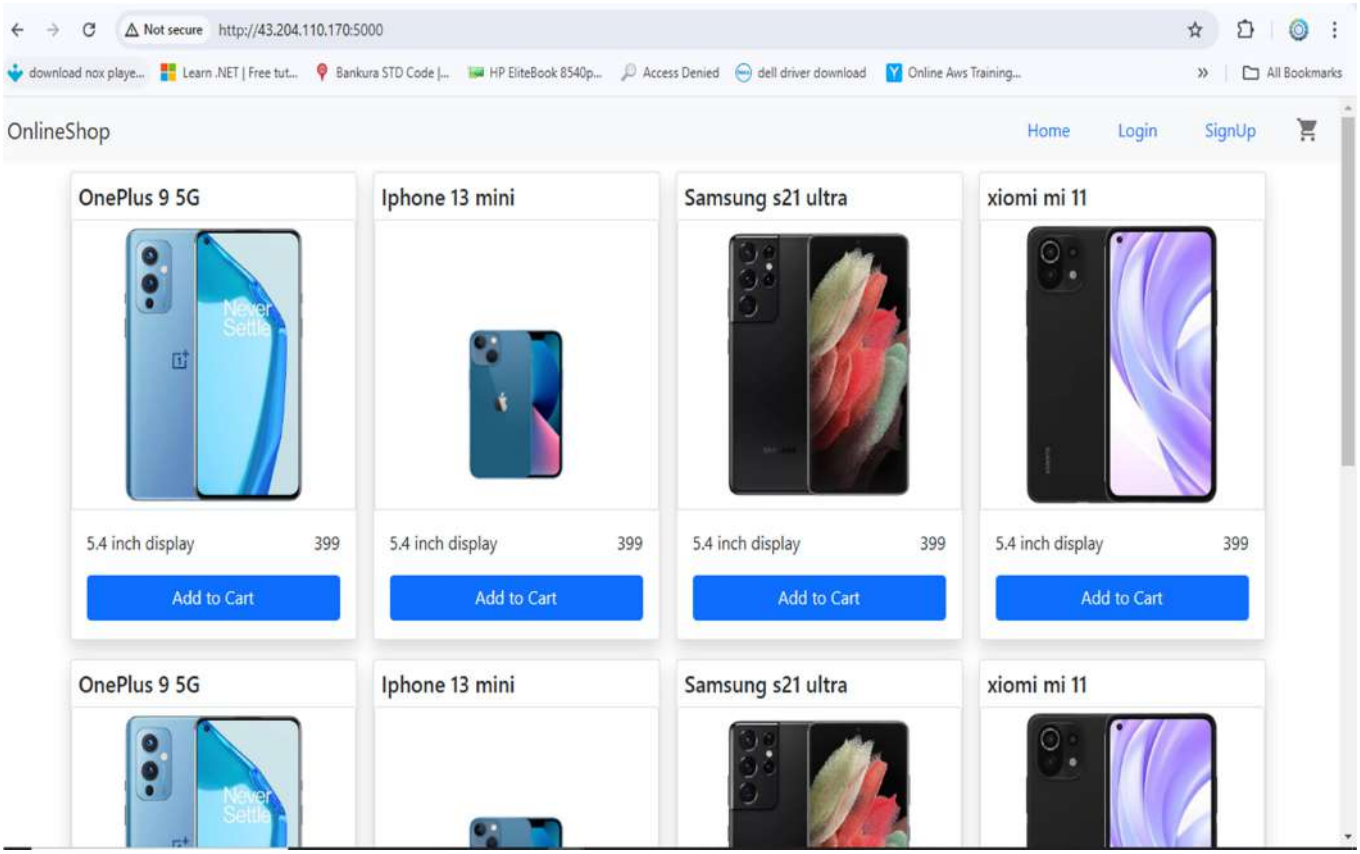
- Next chmod +x deploy.sh ->> ./deploy.sh ->> after that successfully build docker container name buildnginx_container (id - 88020a8e3972) and deployment complete.
- Next open the port 3000 in AWS Security Group
- And You want to see your running application
  use this IP address 15.207.109.116:5000


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
mynginximg latest 060ab4c2870a 8 hours ago 190MB
nginx latest 5ef79149e0ec 3 days ago 188MB
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
59445eb9ef8c mynginximg:latest "/docker-entrypoint..." 8 hours ago Up 8 hours 0.0.0.0:3000->80/tcp, :::3000->80/tcp build_web_1
ubuntu@ip-172-31-9-17:~/devops-build/build$
ubuntu@ip-172-31-9-17:~/devops-build/build$
ubuntu@ip-172-31-9-17:~/devops-build/build$
ubuntu@ip-172-31-9-17:~/devops-build/build$ vi build.sh
ubuntu@ip-172-31-9-17:~/devops-build/build$ chmod +x build.sh
ubuntu@ip-172-31-9-17:~/devops-build/build$ ./build.sh
Building Docker image: buildnginximg:latest
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
Install the buildx component to build images with BuildKit:
https://docs.docker.com/go/buildx/
Sending build context to Docker daemon 2.621MB
Step 1/4 : FROM nginx
---> 5ef79149e0ec
Step 2/4 : WORKDIR /usr/share/nginx/html
---> Using cache
---> 62f4c049c6ce
Step 3/4 : COPY . /usr/share/nginx/html
---> 8787202a352f
Step 4/4 : EXPOSE 80
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
Step 1/4 : FROM nginx
---> 5ef79149e0ec
Step 2/4 : WORKDIR /usr/share/nginx/html
---> Using cache
---> 62f4c049c6ce
Step 3/4 : COPY . /usr/share/nginx/html
---> 8787202a352f
Step 4/4 : EXPOSE 80
---> Running in 254888720ac2
Removing intermediate container 254888720ac2
---> bb404fe23b2d
Successfully built bb404fe23b2d
Successfully tagged buildnginximg:latest
Docker image build
ubuntu@ip-172-31-9-17:~/devops-build/build$
ubuntu@ip-172-31-9-17:~/devops-build/build$ vi deploy.sh
ubuntu@ip-172-31-9-17:~/devops-build/build$ chmod +x deploy.sh
ubuntu@ip-172-31-9-17:~/devops-build/build$ ./deploy.sh
Pulling the latest Docker image: nginximg:latest
Error response from daemon: pull access denied for buildnginximg, repository does not exist or may require 'docker login': denied: requested access to the resourc
e is denied
Stopping the currently running container: buildnginx_container
Error response from daemon: No such container: buildnginx_container
Error response from daemon: No such container: buildnginx_container
Running a new container: buildnginx_container
f2736719759cbc01cfd364d1f0579296dfe101f7c42cd226e0b595c1037e6420
Deployment complete!
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
Deployment complete!
ubuntu@ip-172-31-9-17:~/devops-build/build$
ubuntu@ip-172-31-9-17:~/devops-build/build$ cat build.sh
#!/bin/bash
# Variables
IMAGE_NAME="buildnginximg"
TAG="latest"
# Step 1: Build the Docker image
echo "Building Docker image: buildnginximg:latest"
docker build -t buildnginximg:latest .
Step 2: Optionally tag the image with another tag
Uncomment the line below if you want to tag the image with another version
docker tag $IMAGE_NAME:$TAG $IMAGE_NAME:your-tag
Step 3: Optional cleanup
Uncomment the line below to remove the local image after pushing
docker rmi $nginximg:latest$
echo "Docker image build"
ubuntu@ip-172-31-9-17:~/devops-build/build$ cat deploy.sh
#!/bin/bash
# Variables
IMAGE_NAME="buildnginximg"
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
docker rmi $nginximg:latest$
echo "Docker image build"
ubuntu@ip-172-31-9-17:~/devops-build/build$ cat deploy.sh
#!/bin/bash
# Variables
IMAGE_NAME="buildnginximg"
TAG="latest"
CONTAINER_NAME="buildnginx_container"
PORT="80" # Adjust the port as necessary
# Step 1: Pull the latest image from Docker Hub
echo "Pulling the latest Docker image: nginximg:latest"
docker pull "buildnginximg:latest"
Step 2: Stop the currently running container (if any)
echo "Stopping the currently running container: $CONTAINER_NAME"
docker stop $CONTAINER_NAME || true
docker rm $CONTAINER_NAME || true
Step 3: Run a new container with the latest image
echo "Running a new container: buildnginx_container"
docker run -d --name buildnginx_container -p 5000:80 buildnginximg:latest
echo "Deployment complete!"
ubuntu@ip-172-31-9-17:~/devops-build/build$
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17


Not secure
http://43.204.110.170:5000
download nox playe...
Learn .NET | Free tut...
Bankura STD Code |...
HP EliteBook 8540p...
Access Denied
dell driver download
Online Aws Training...
All Bookmarks
OnlineShop
Home
Login
SignUp
OnePlus 9 5G
Iphone 13 mini
Samsung s21 ultra
xiomi mi 11
5.4 inch display
399
Add to Cart
OnePlus 9 5G
Iphone 13 mini
Samsung s21 ultra
xiomi mi 11

❒ Version Control:

• Push the code to github to dev branch (use `.dockerignore & gitignore` files)
Note: Use only CLI for related git commands

- In Ubuntu clone repo git clone https://github.com/ssvillan/devops-build.git
- Create .gitignore file `vi .gitignore` ->> inside this file write the code

```
# Node.js specific
node_modules/
npm-debug.log
yarn-debug.log
yarn-error.log

# Logs
logs/
*.log
# Environment files
.env

# Optional npm cache directory
.npm

# Operating system files
.DS_Store
Thumbs.db

# IDEs
.vscode/
.idea/

# Build files
/dist/
/build/
```

- Create .dockerignore file `vi .dockerignore` ->> inside this file write the code

```
# Ignore node_modules directory
node_modules

# Ignore logs
logs
*.log

# Ignore environment files
.env

# Ignore Git files
.git
.gitignore

# Ignore Dockerfile itself (optional)
```

```
Dockerfile

# Ignore IDE files
.vscode/
.idea/

# Ignore build directories
/dist/
/build/
```

- Create the `vi Jenkinsfile ->>` inside this file write the code

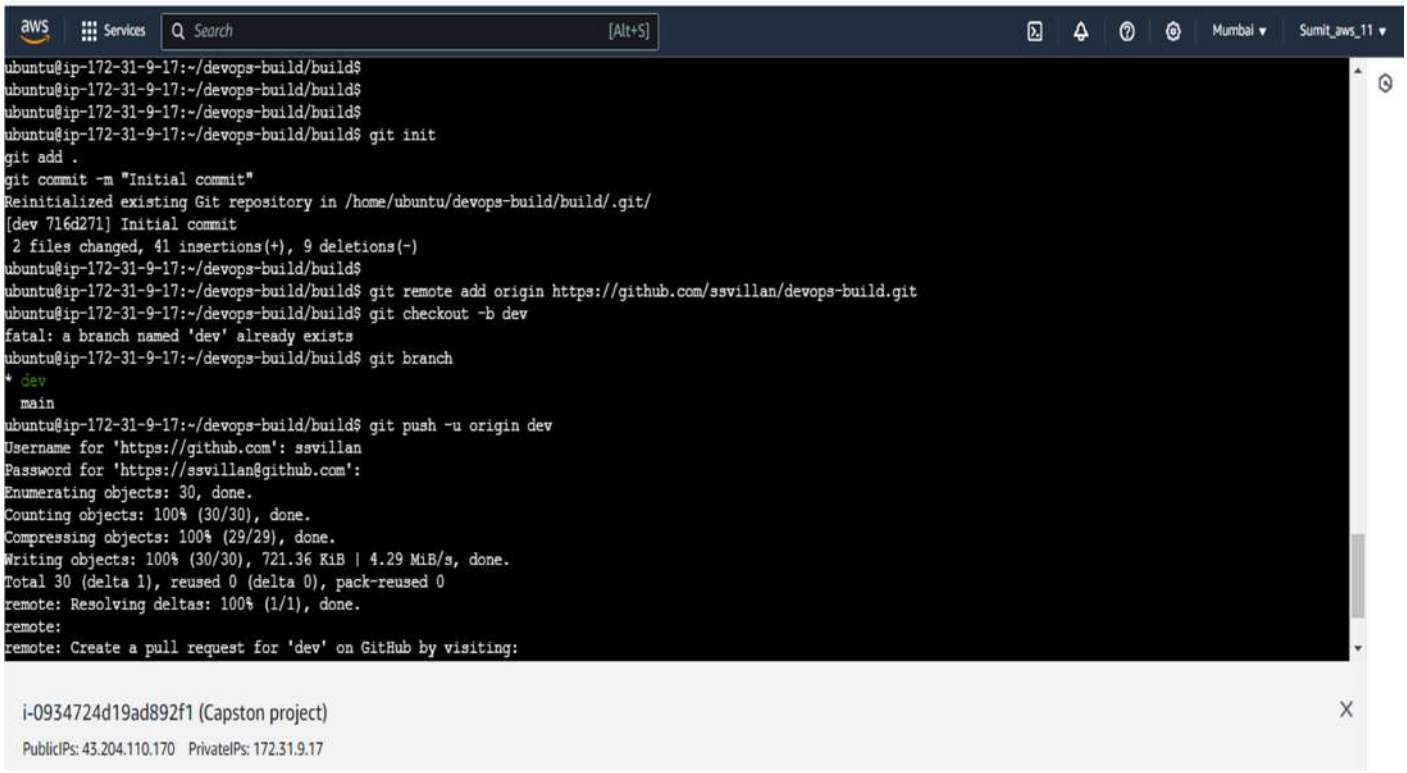
```
pipeline {
    agent any

    stages {
        stage('Build') {
            steps {
                // Grant executable permissions to the build script
                sh 'chmod +x build.sh'

                // Build the Docker image using the build script
                sh './build.sh'
            }
        }

        stage('Deploy') {
            steps {
                // Grant executable permissions to the deploy script
                sh 'chmod +x deploy.sh'

                // Deploy the Docker image using the deploy script
                sh './deploy.sh'
            }
        }
    }
}
```

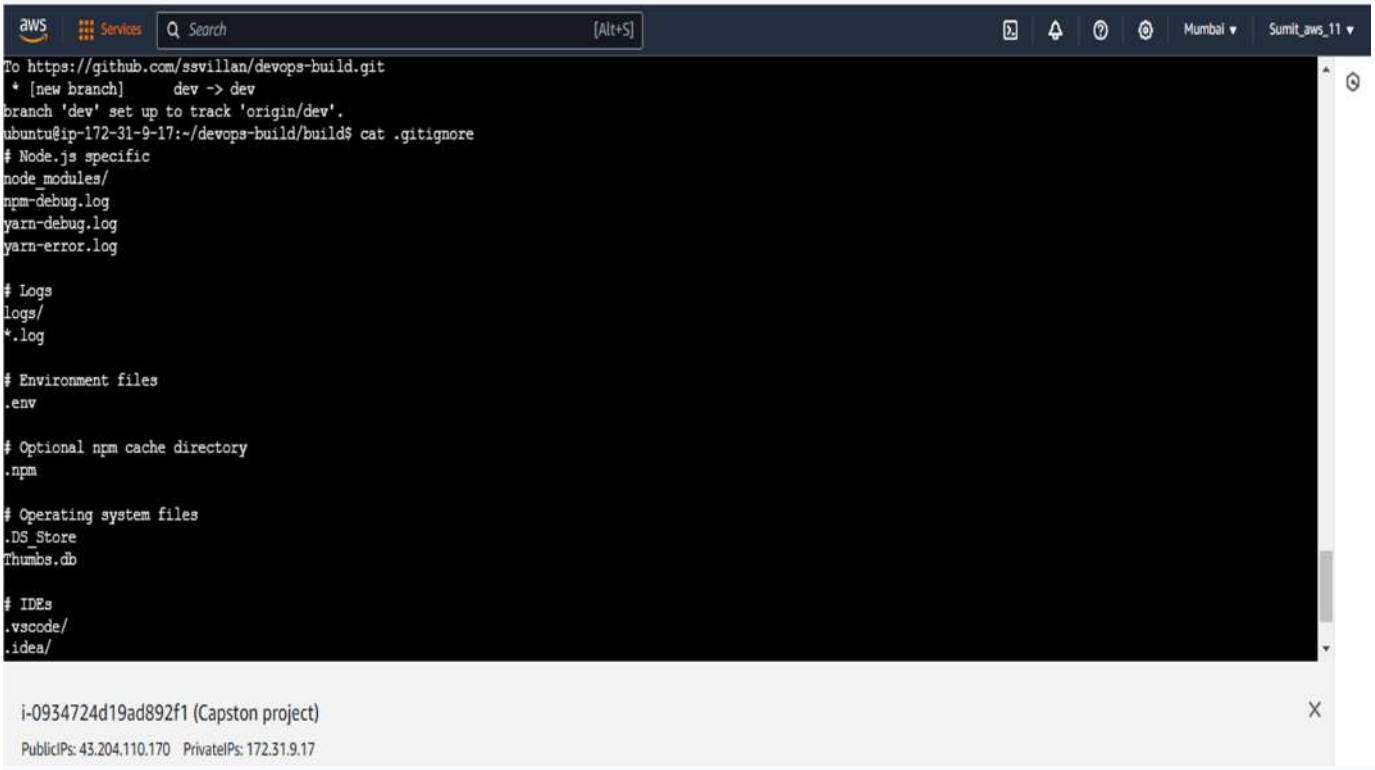
- Create the Prometheus file `vi Prometheus.yaml ->>` inside the file write code

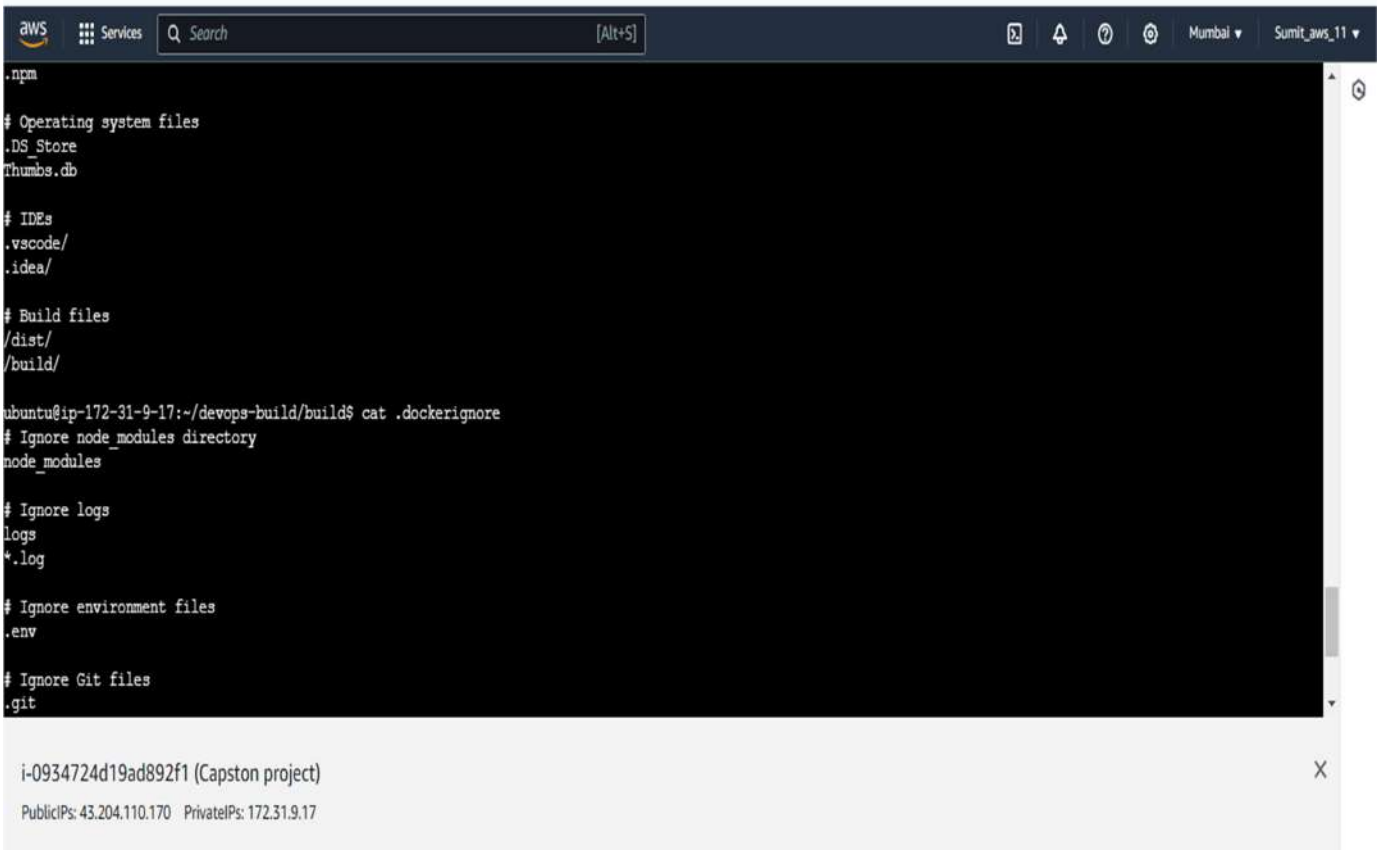
```
global:
  scrape_interval: 15s  # How often to scrape targets
  evaluation_interval: 15s  # How often to evaluate rules

scrape_configs:
  # Scrape Prometheus itself
  - job_name: 'prometheus'
    static_configs:
      - targets: ['localhost:9090']
```

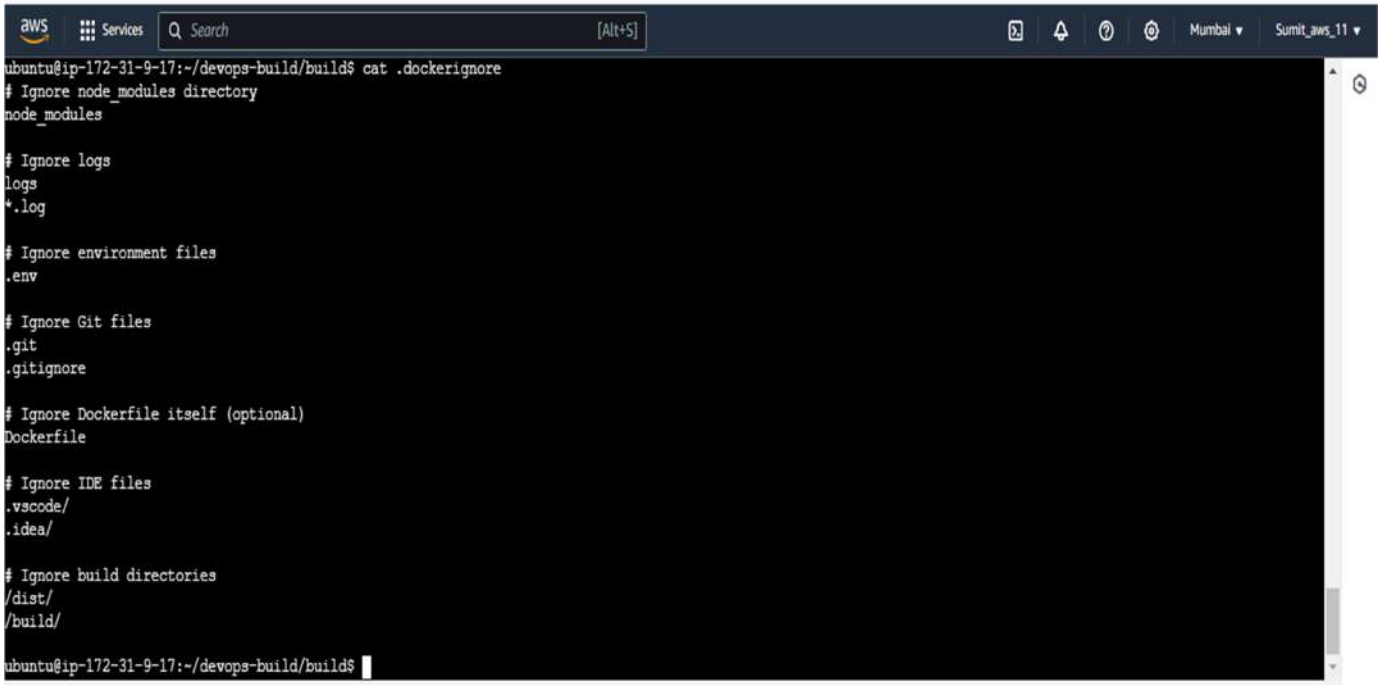
```
# Scrape Node Exporter
- job_name: 'node-exporter'
  static_configs:
    - targets: ['<NODE_EXPORTER_IP>:9100']
```

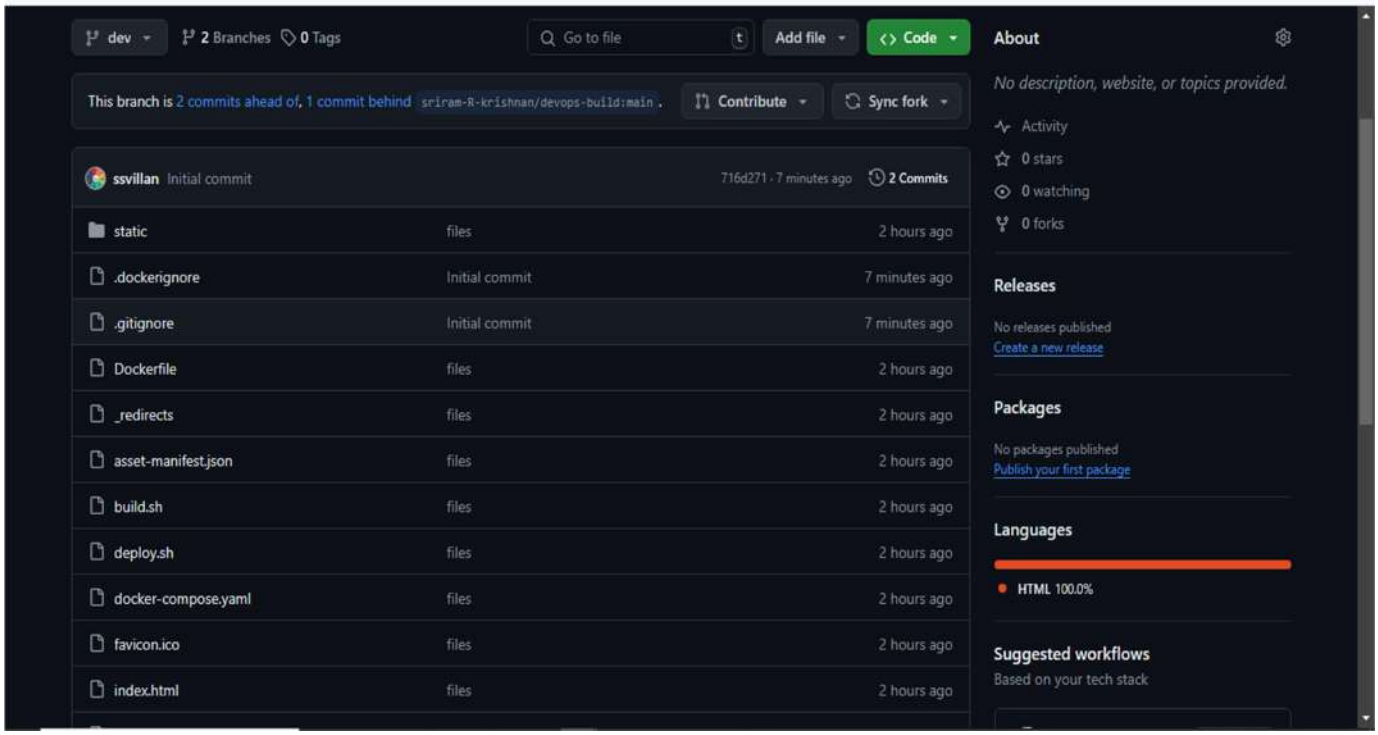
- All these files push to github dev branch
- Use `git init ->> git add .  ->> git checkout  –b  dev ->>`
- `Git push –u origin dev  ->>` and Enter your username and passwd
- Successfully push the all code inside the `dev` branch




aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
To https://github.com/ssvillan/devops-build.git
* [new branch] dev -> dev
branch 'dev' set up to track 'origin/dev'.
ubuntu@ip-172-31-9-17:~/devops-build/build$ cat .gitignore
Node.js specific
node_modules/
npm-debug.log
yarn-debug.log
yarn-error.log
Logs
logs/
*.log
Environment files
.env
Optional npm cache directory
.npm
Operating system files
.DS_Store
Thumbs.db
IDEs
.vscode/
.idea/
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
.npm
Operating system files
.DS_Store
Thumbs.db
IDEs
.vscode/
.idea/
Build files
/dist/
/build/
ubuntu@ip-172-31-9-17:~/devops-build/build$ cat .dockerignore
Ignore node_modules directory
node_modules
Ignore logs
logs
*.log
Ignore environment files
.env
Ignore Git files
.git
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
ubuntu@ip-172-31-9-17:~/devops-build/build$ cat .dockerignore
Ignore node_modules directory
node_modules
Ignore logs
logs
*.log
Ignore environment files
.env
Ignore Git files
.git
.gitignore
Ignore Dockerfile itself (optional)
Dockerfile
Ignore IDE files
.vscode/
.idea/
Ignore build directories
/dist/
/build/
ubuntu@ip-172-31-9-17:~/devops-build/build$
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17


dev
2 Branches
0 Tags
Go to file
Add file
Code
This branch is 2 commits ahead of, 1 commit behind sriram-R-krishnan/devops-build:main.
Contribute
Sync fork
ssvillan Initial commit
716d271 · 7 minutes ago
2 Commits
static files 2 hours ago
.dockerignore Initial commit 7 minutes ago
.gitignore Initial commit 7 minutes ago
Dockerfile files 2 hours ago
_redirects files 2 hours ago
asset-manifest.json files 2 hours ago
build.sh files 2 hours ago
deploy.sh files 2 hours ago
docker-compose.yaml files 2 hours ago
favicon.ico files 2 hours ago
index.html files 2 hours ago
About
No description, website, or topics provided.
Activity
0 stars
0 watching
0 forks
Releases
No releases published
Create a new release
Packages
No packages published
Publish your first package
Languages
HTML 100.0%
Suggested workflows
Based on your tech stack

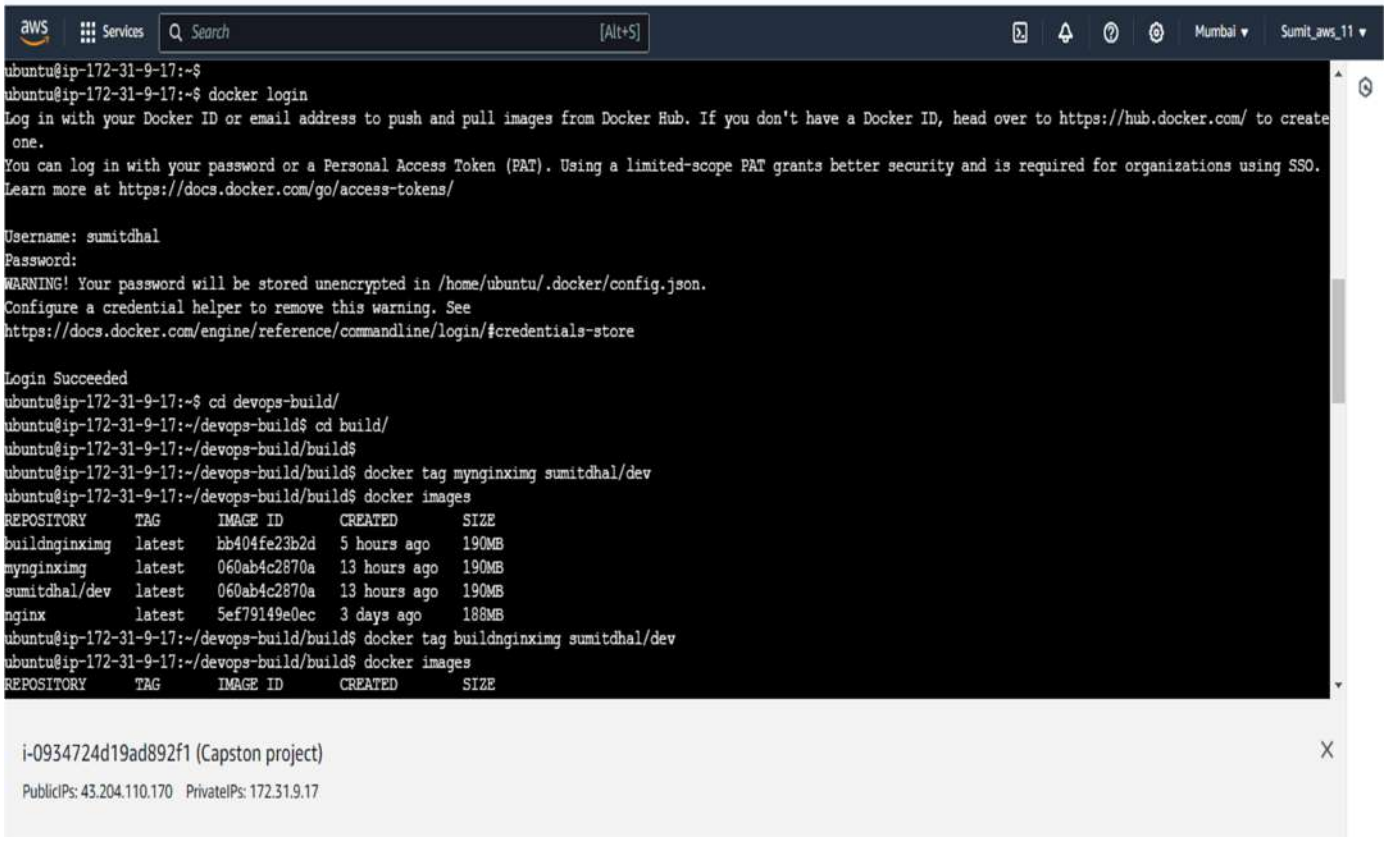
❒ Docker hub:

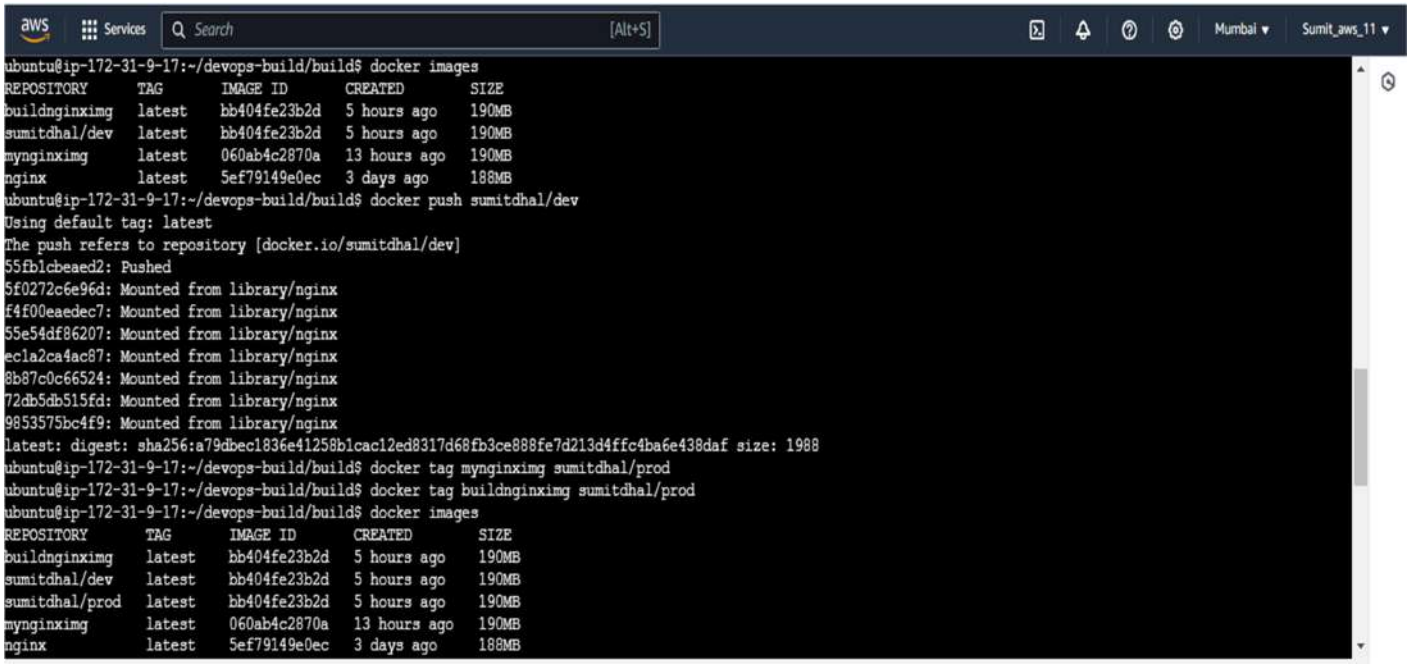
• Create 2 repos "dev" and "prod" to push images. "Prod" repo must be private and "dev" repo can be public

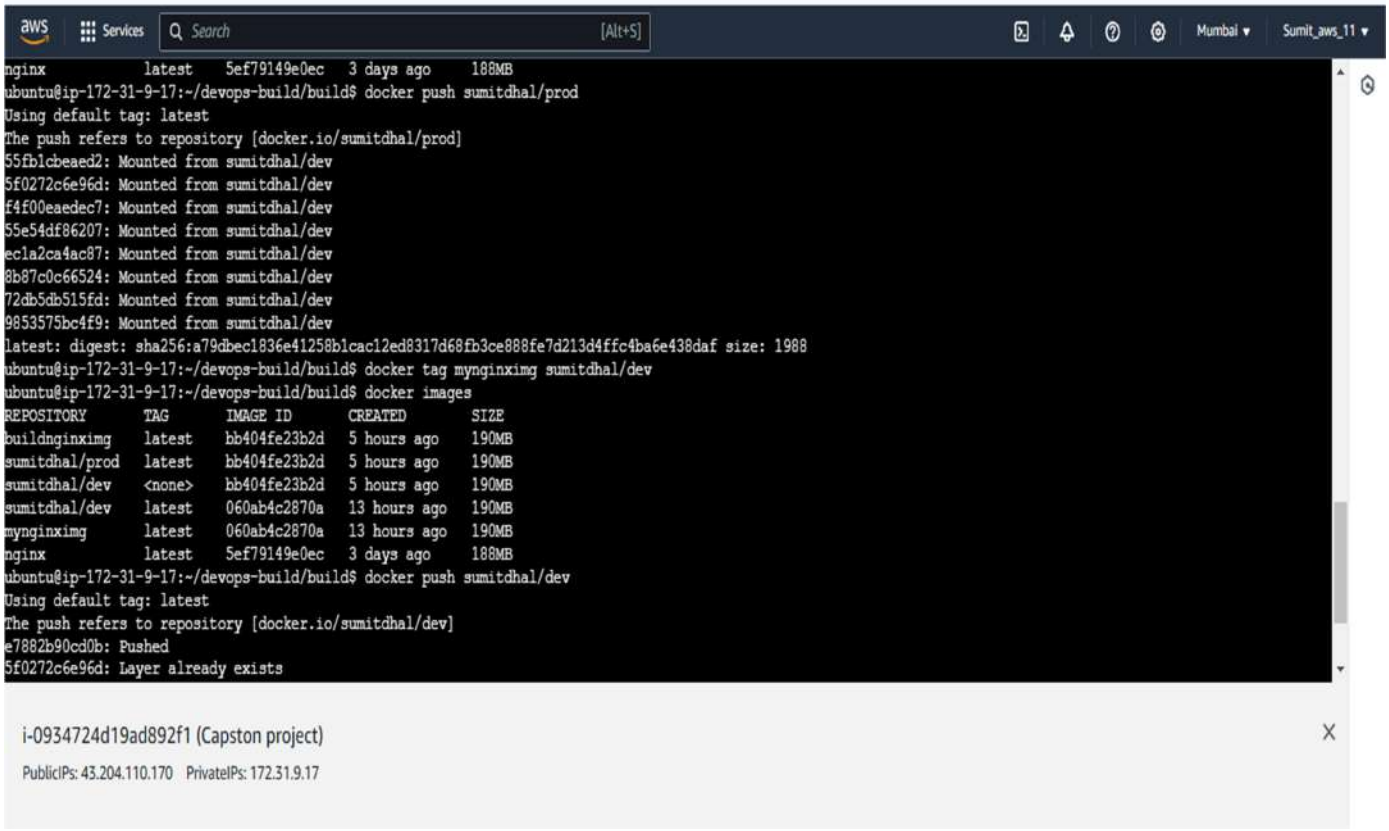
- Click the link https://hub.docker.com/search?image_filter=official&q=
  And got to inside the page and sign in the page
  After sign in got to repositories and create the repo
  Write the repo name **prod** and choose the private and click create button
  Again create the repo name **dev** and choose the public and click create button
- Inside your Ubuntu git clone https://github.com/ssvillan/devops-build.git
- Next `Docker Login` ->> `docker tag mynginximg sumitdhal/dev` ->>
  docker tag buildnginximg sumitdhal/dev->>
  Next `docker push sumitdhal/dev` ->>

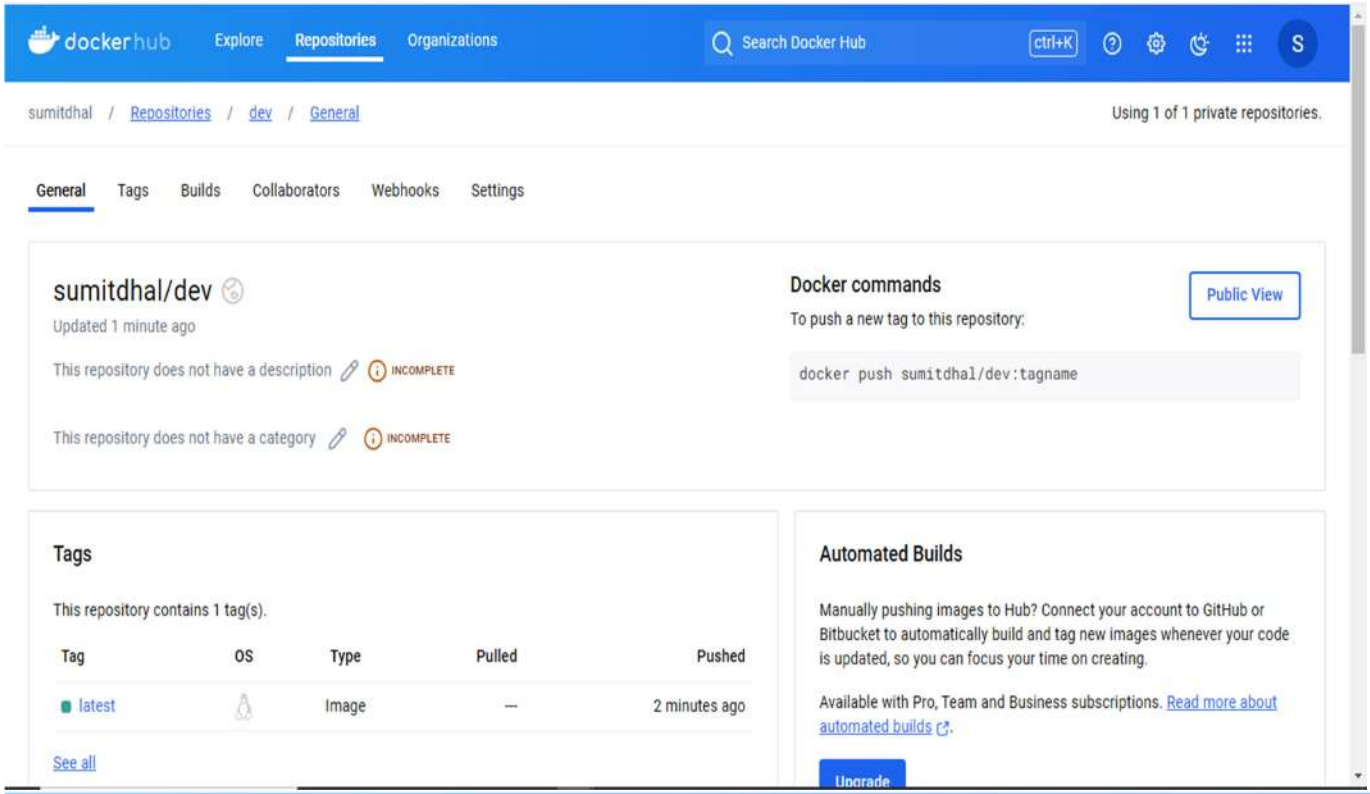
- Docker tag mynginximg sumitdhal/prod ->>
  Docker tag buildnginximg sumitdhal/prod ->>
  docker push sumitdhal/prod ->>

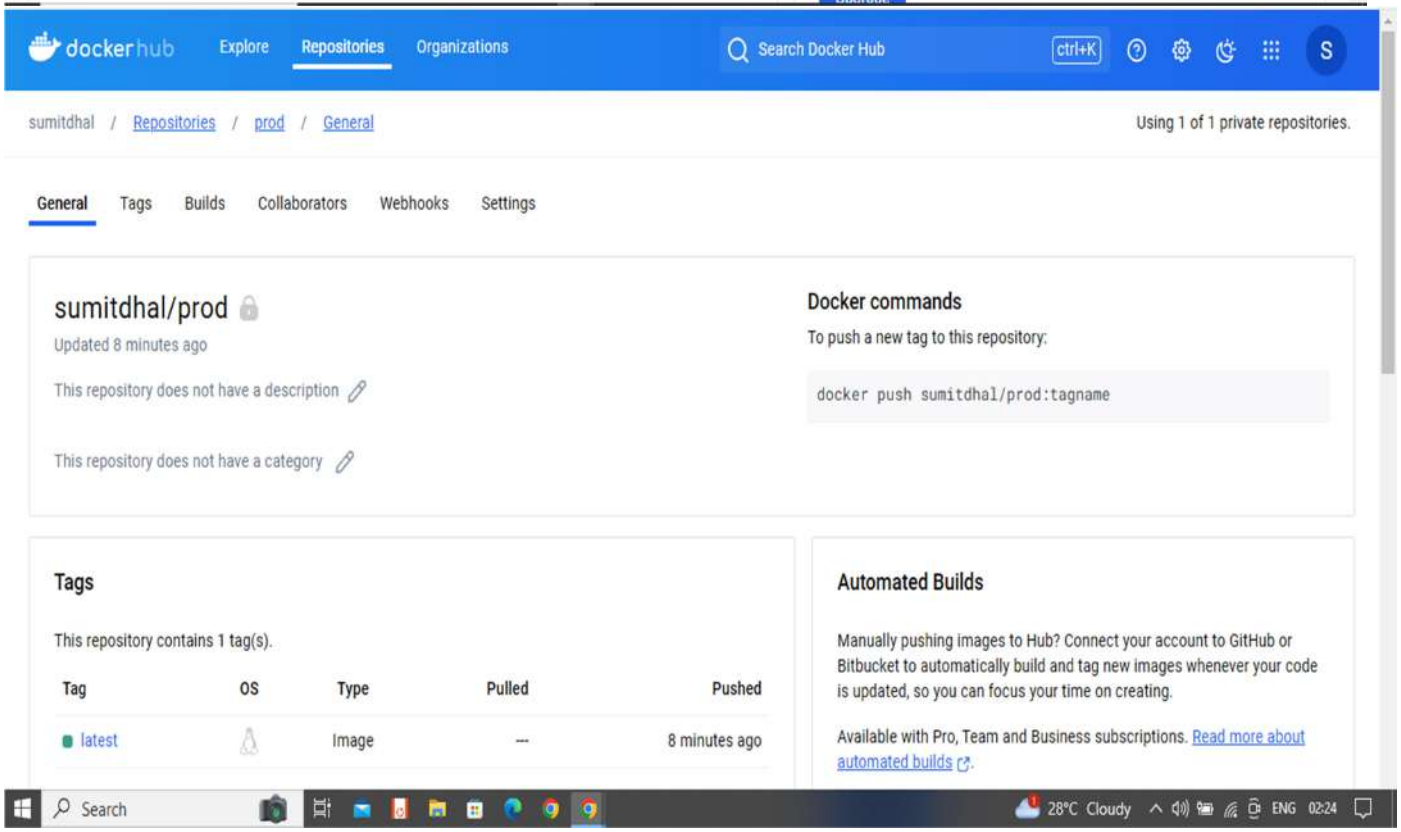
- after that you can go dockerhub web page and check your repositories successfully push all the code




aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
buildnginximg latest bb404fe23b2d 5 hours ago 190MB
sumitdhal/dev latest bb404fe23b2d 5 hours ago 190MB
mynginximg latest 060ab4c2870a 13 hours ago 190MB
nginx latest 5ef79149e0ec 3 days ago 188MB
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker push sumitdhal/dev
Using default tag: latest
The push refers to repository [docker.io/sumitdhal/dev]
55fb1cbeaed2: Pushed
5f0272c6e96d: Mounted from library/nginx
f4f00eaedec7: Mounted from library/nginx
55e54df86207: Mounted from library/nginx
ec1a2ca4ac87: Mounted from library/nginx
8b87c0c66524: Mounted from library/nginx
72db5db515fd: Mounted from library/nginx
9853575bc4f9: Mounted from library/nginx
latest: digest: sha256:a79dbec1836e41258b1cac12ed8317d68fb3ce888fe7d213d4ffc4ba6e438daf size: 1988
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker tag mynginximg sumitdhal/prod
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker tag buildnginximg sumitdhal/prod
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
buildnginximg latest bb404fe23b2d 5 hours ago 190MB
sumitdhal/dev latest bb404fe23b2d 5 hours ago 190MB
sumitdhal/prod latest bb404fe23b2d 5 hours ago 190MB
mynginximg latest 060ab4c2870a 13 hours ago 190MB
nginx latest 5ef79149e0ec 3 days ago 188MB
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
nginx latest 5ef79149e0ec 3 days ago 188MB
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker push sumitdhal/prod
Using default tag: latest
The push refers to repository [docker.io/sumitdhal/prod]
55fb1cbeaed2: Mounted from sumitdhal/dev
5f0272c6e96d: Mounted from sumitdhal/dev
f4f00eaedec7: Mounted from sumitdhal/dev
55e54df86207: Mounted from sumitdhal/dev
ec1a2ca4ac87: Mounted from sumitdhal/dev
8b87c0c66524: Mounted from sumitdhal/dev
72db5db515fd: Mounted from sumitdhal/dev
9853575bc4f9: Mounted from sumitdhal/dev
latest: digest: sha256:a79dbec1836e41258b1cac12ed8317d68fb3ce888fe7d213d4ffc4ba6e438daf size: 1988
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker tag mynginximg sumitdhal/dev
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
buildnginximg latest bb404fe23b2d 5 hours ago 190MB
sumitdhal/prod latest bb404fe23b2d 5 hours ago 190MB
sumitdhal/dev <none> bb404fe23b2d 5 hours ago 190MB
sumitdhal/dev latest 060ab4c2870a 13 hours ago 190MB
mynginximg latest 060ab4c2870a 13 hours ago 190MB
nginx latest 5ef79149e0ec 3 days ago 188MB
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker push sumitdhal/dev
Using default tag: latest
The push refers to repository [docker.io/sumitdhal/dev]
e7882b90cd0b: Pushed
5f0272c6e96d: Layer already exists
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17

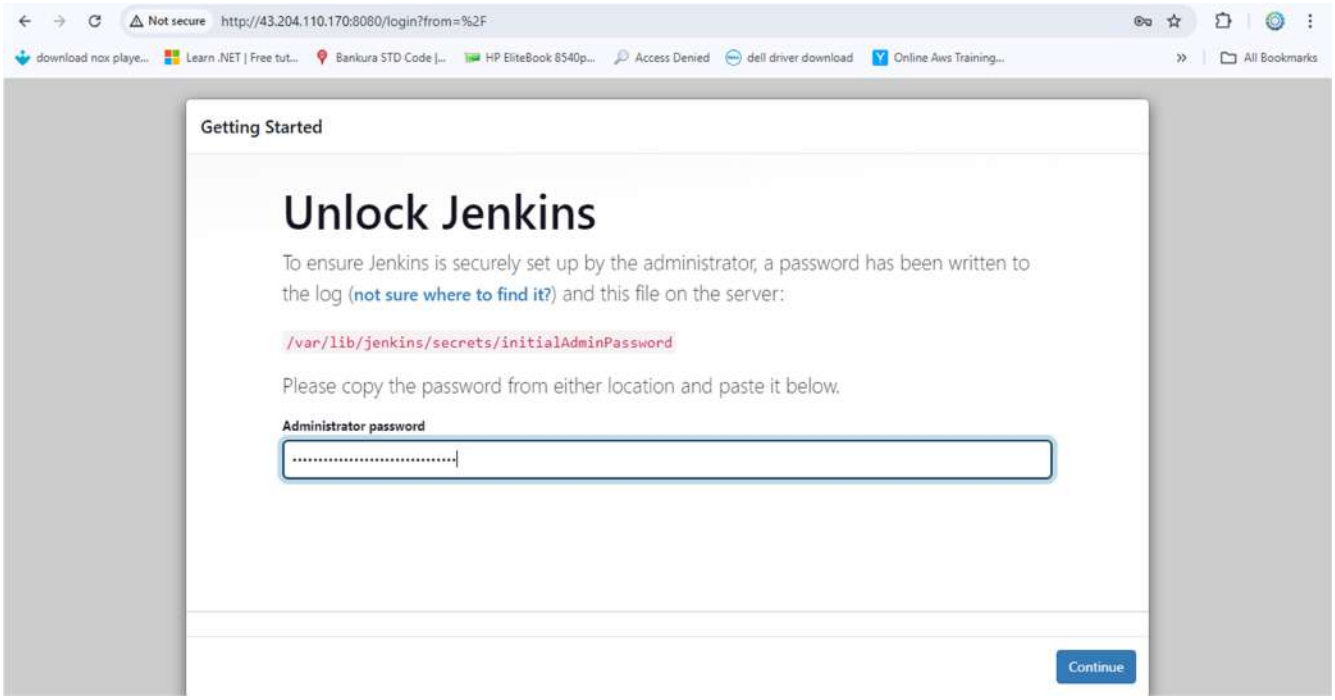

dockerhub
Explore
Repositories
Organizations
Search Docker Hub
ctrl+K
S
sumitdhal / Repositories / dev / General
Using 1 of 1 private repositories.
General
Tags
Builds
Collaborators
Webhooks
Settings
sumitdhal/dev
Updated 1 minute ago
This repository does not have a description
INCOMPLETE
This repository does not have a category
INCOMPLETE
Docker commands
To push a new tag to this repository:
Public View
docker push sumitdhal/dev:tagname
Tags
This repository contains 1 tag(s).
Tag
OS
Type
Pulled
Pushed
latest
Image
---
2 minutes ago
See all
Automated Builds
Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.
Available with Pro, Team and Business subscriptions. Read more about automated builds.
Upgrade

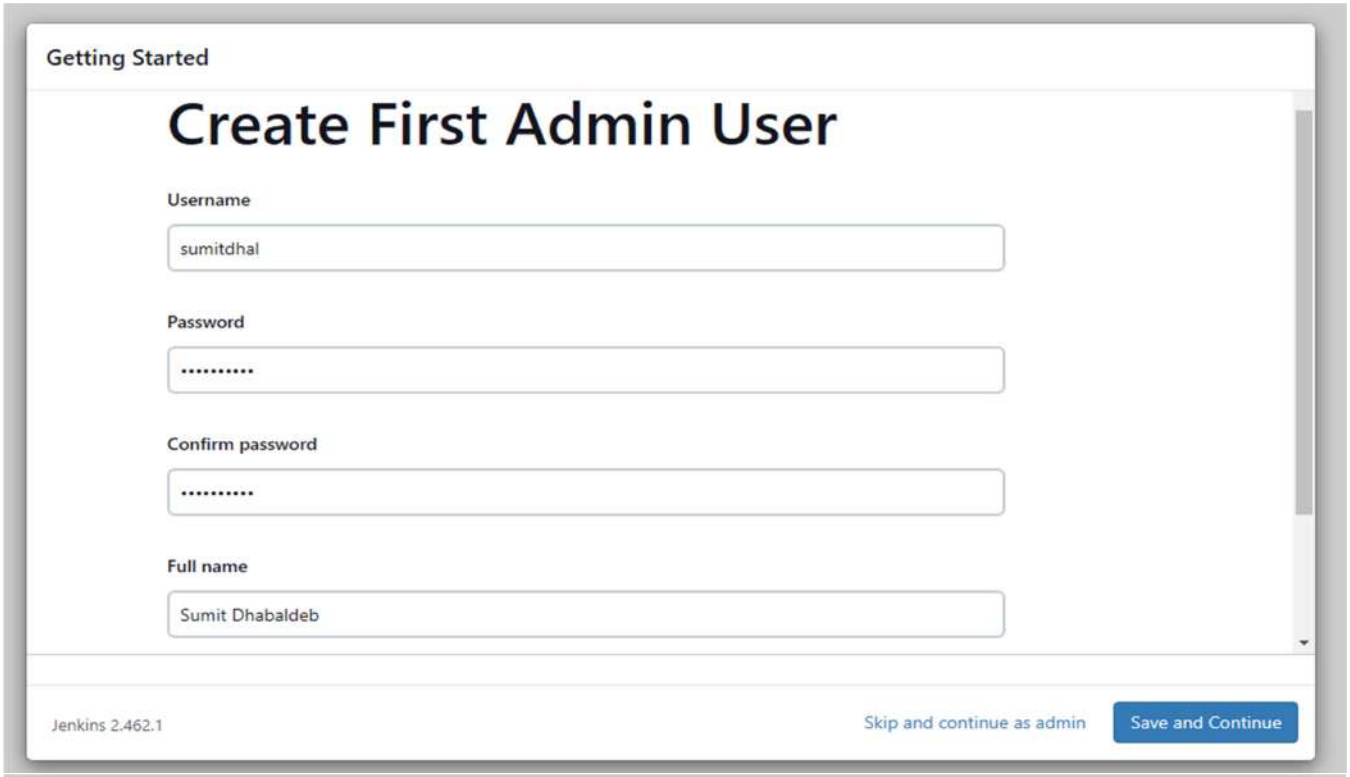

dockerhub
Explore
Repositories
Organizations
Search Docker Hub
ctrl+K
S
sumitdhal / Repositories / prod / General
Using 1 of 1 private repositories.
General
Tags
Builds
Collaborators
Webhooks
Settings
sumitdhal/prod
Updated 8 minutes ago
This repository does not have a description
This repository does not have a category
Docker commands
To push a new tag to this repository:
docker push sumitdhal/prod:tagname
Tags
This repository contains 1 tag(s).
Tag
OS
Type
Pulled
Pushed
latest
Image
---
8 minutes ago
Automated Builds
Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.
Available with Pro, Team and Business subscriptions. Read more about automated builds.
Search
28°C Cloudy
ENG
02:24

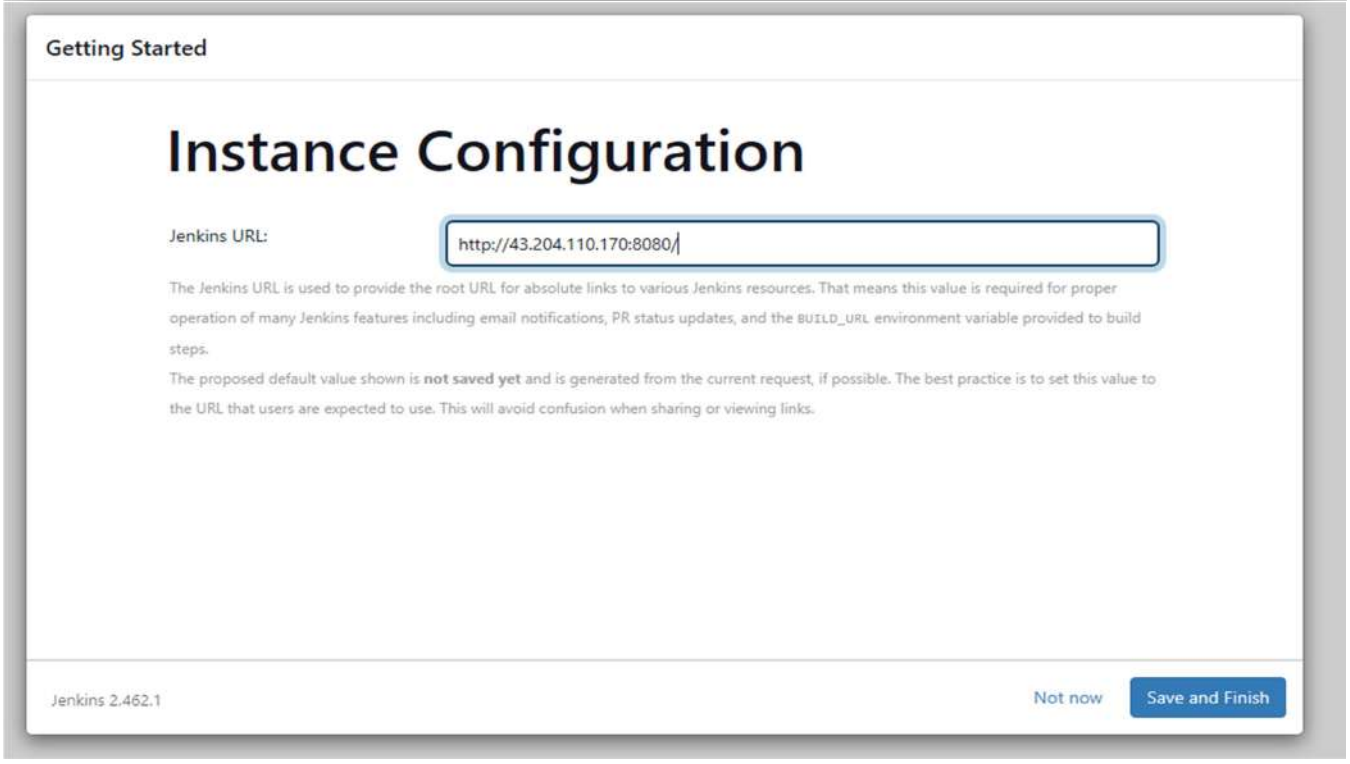
❒ Jenkins

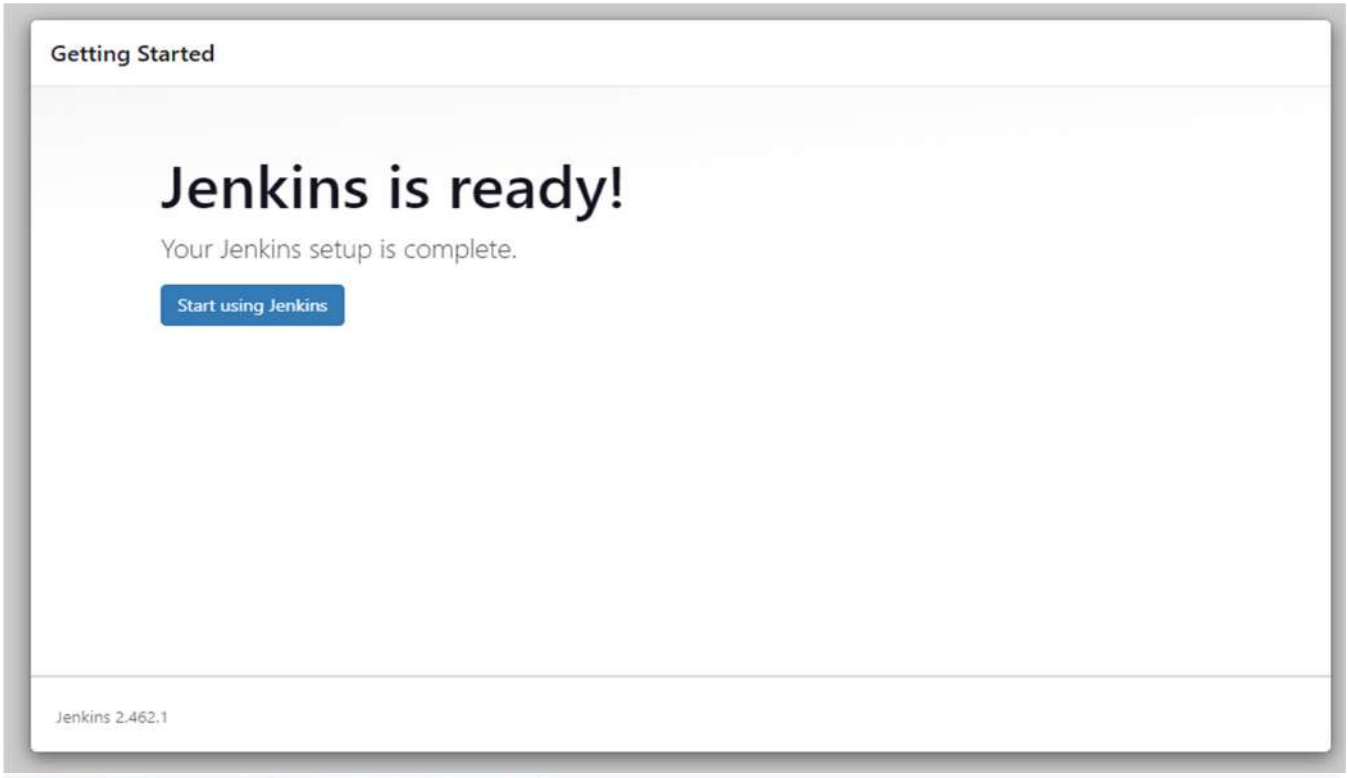
- Install and configure jenkins build step as per needs to build, push & deploy the

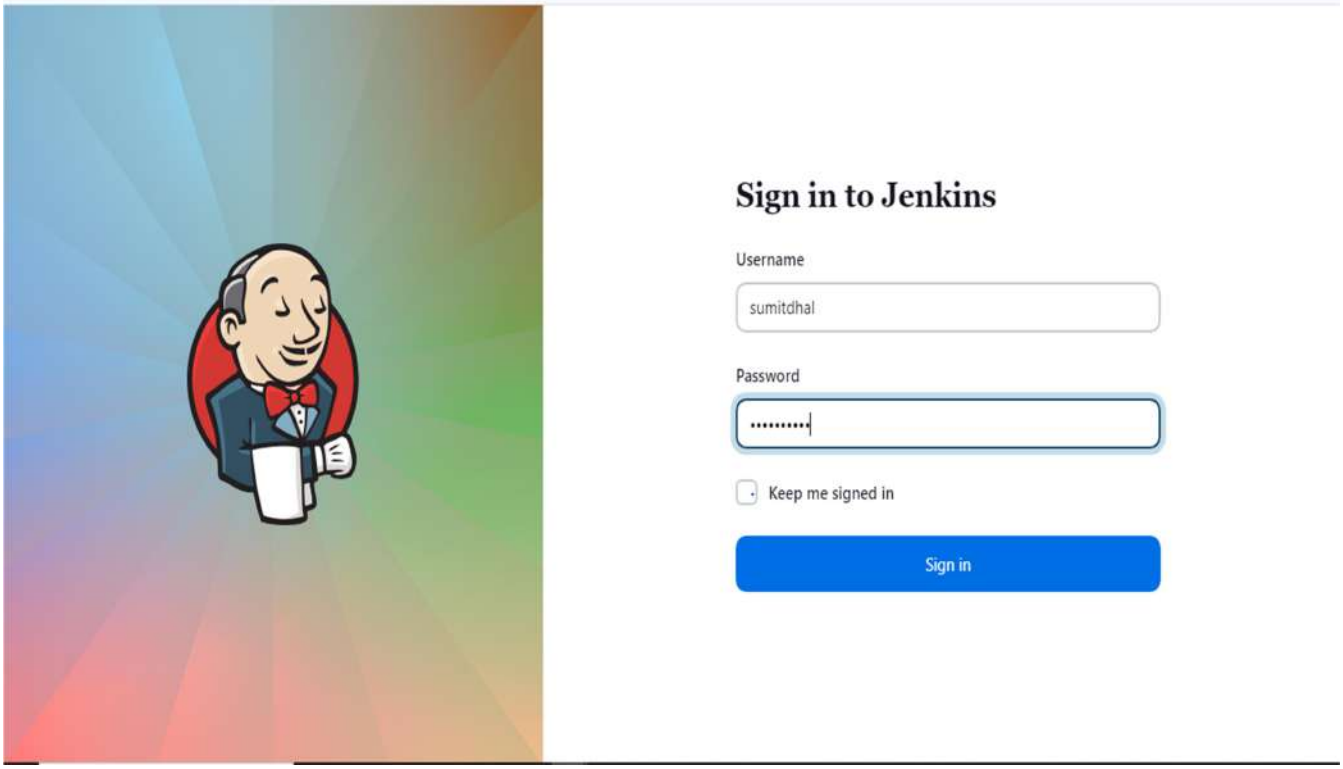
- Inside the Ubuntu first I need to install openjdk-17 [sudo apt install openjdk-17-jdk]
- After that I need to open the port 8080 in AWS Security group
  Copy the IP address and serch in google with port 8080
- Next open Unlock jenkin file use code in Ubuntu
  sudo cat /var/lib/Jenkins/secrets/initialAdminpassword
  after open this file one passwd is there and copy the passwd . got to the Unlock Jenkin page Administrator password is there paste the passwd and clicke the continue button.
  Next Install button is there after Installation Create First Admin User fill up and save and continue
  Next instance Configure save and Finish
  Next jenkin is ready page is there go and start using Jenkins…..




Getting Started
Create First Admin User
Username
sumitdhal
Password
Confirm password
Full name
Sumit Dhabaldeb
Jenkins 2.462.1
Skip and continue as admin
Save and Continue


Getting Started
Instance Configuration
Jenkins URL:
http://43.204.110.170:8080/
The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps.
The proposed default value shown is not saved yet and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.
Jenkins 2.462.1
Not now
Save and Finish


Getting Started
Jenkins is ready!
Your Jenkins setup is complete.
Start using Jenkins
Jenkins 2.462.1


Sign in to Jenkins
Username
sumitdhal
Password
Keep me signed in
Sign in

- Jenkinsfile create and write down to the code in `vi Jenkinsfile` ->> Inside

```
pipeline {
    agent any

    stages {
        stage('Build') {
            steps {
                // Grant executable permissions to the build script
                sh 'chmod +x build.sh'

                // Build the Docker image using the build script
                sh './build.sh'
            }
        }

        stage('Deploy') {
            steps {
                // Grant executable permissions to the deploy script
                sh 'chmod +x deploy.sh'

                // Deploy the Docker image using the deploy script
                sh './deploy.sh'
            }
        }
    }
}
```

- **Next open manage Jenkins->system configuration- >system->environment variables->**

  Add Here add your environment variables for docker i.e docker username and password

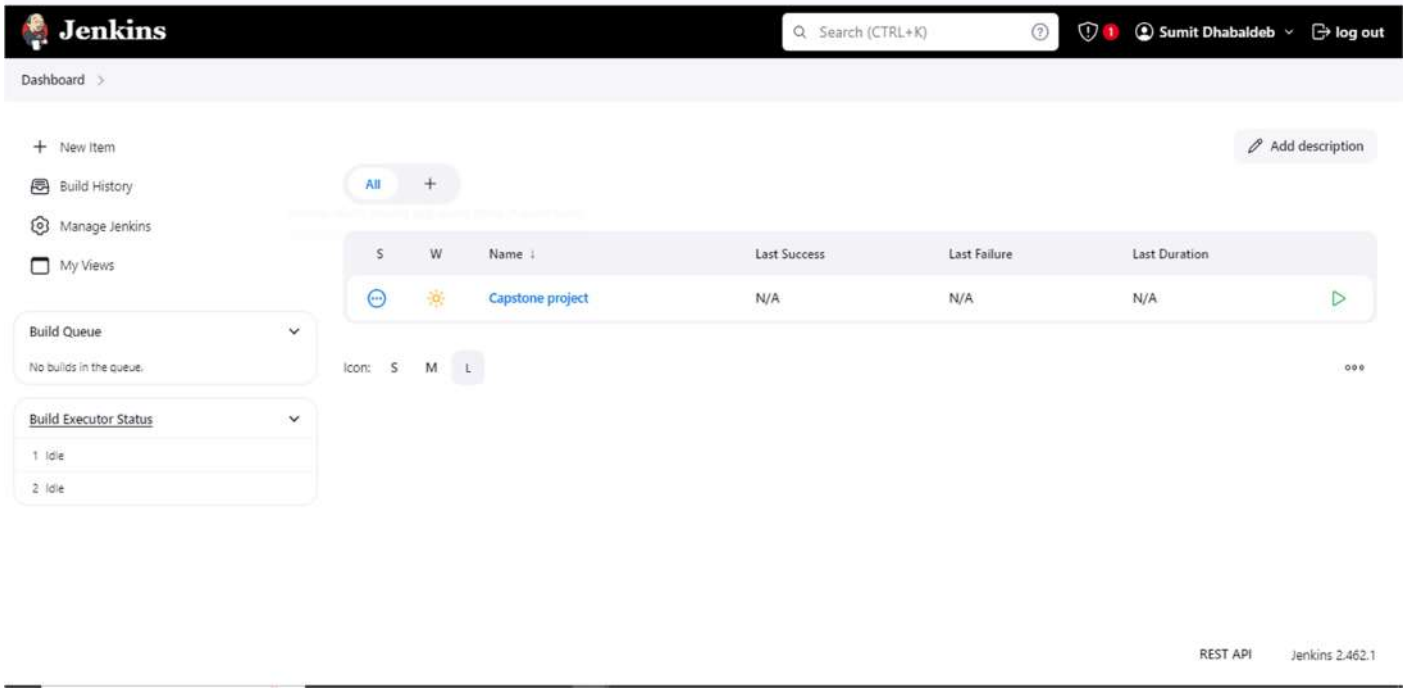
- **Next in same manage Jenkins->security->credentials- >global**

  Add docker login credentials then only docker image can be built and pushed .

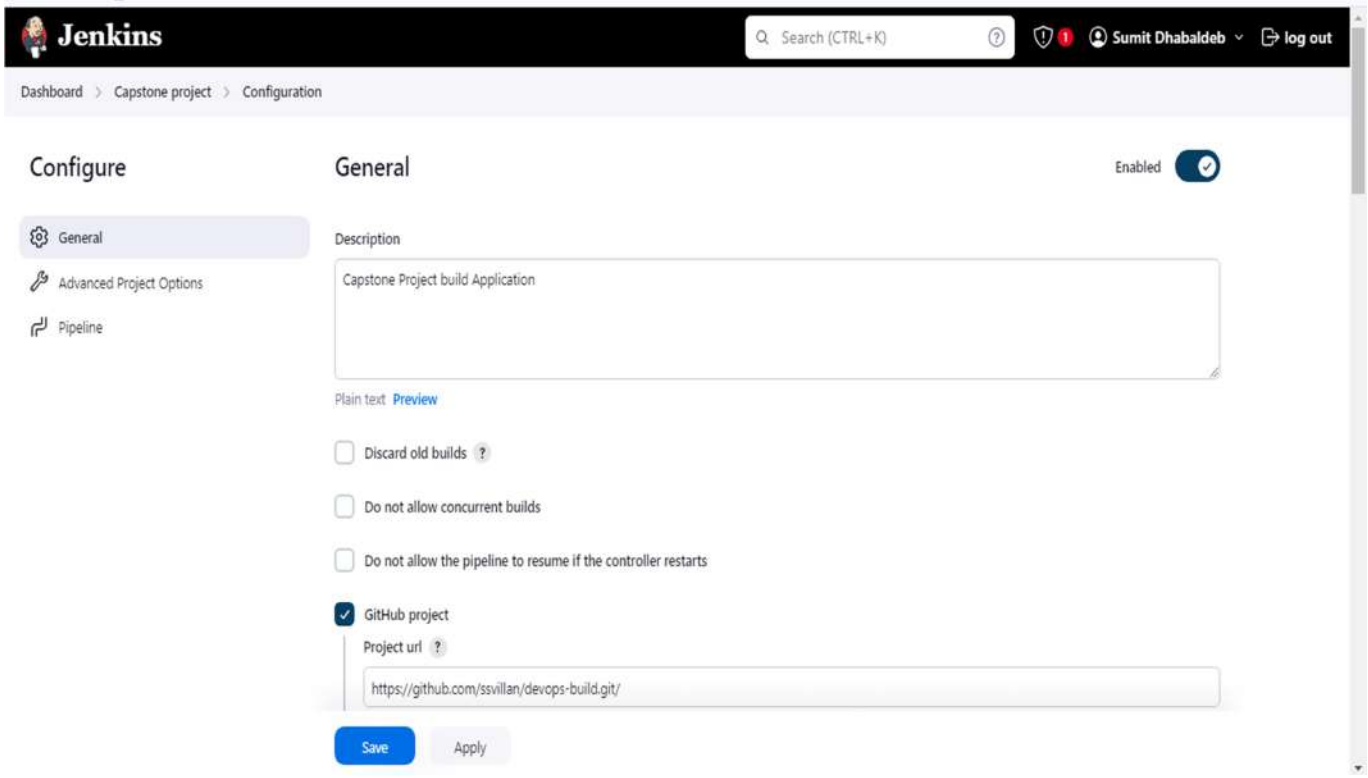
- **now create new item-> give a title for it->**

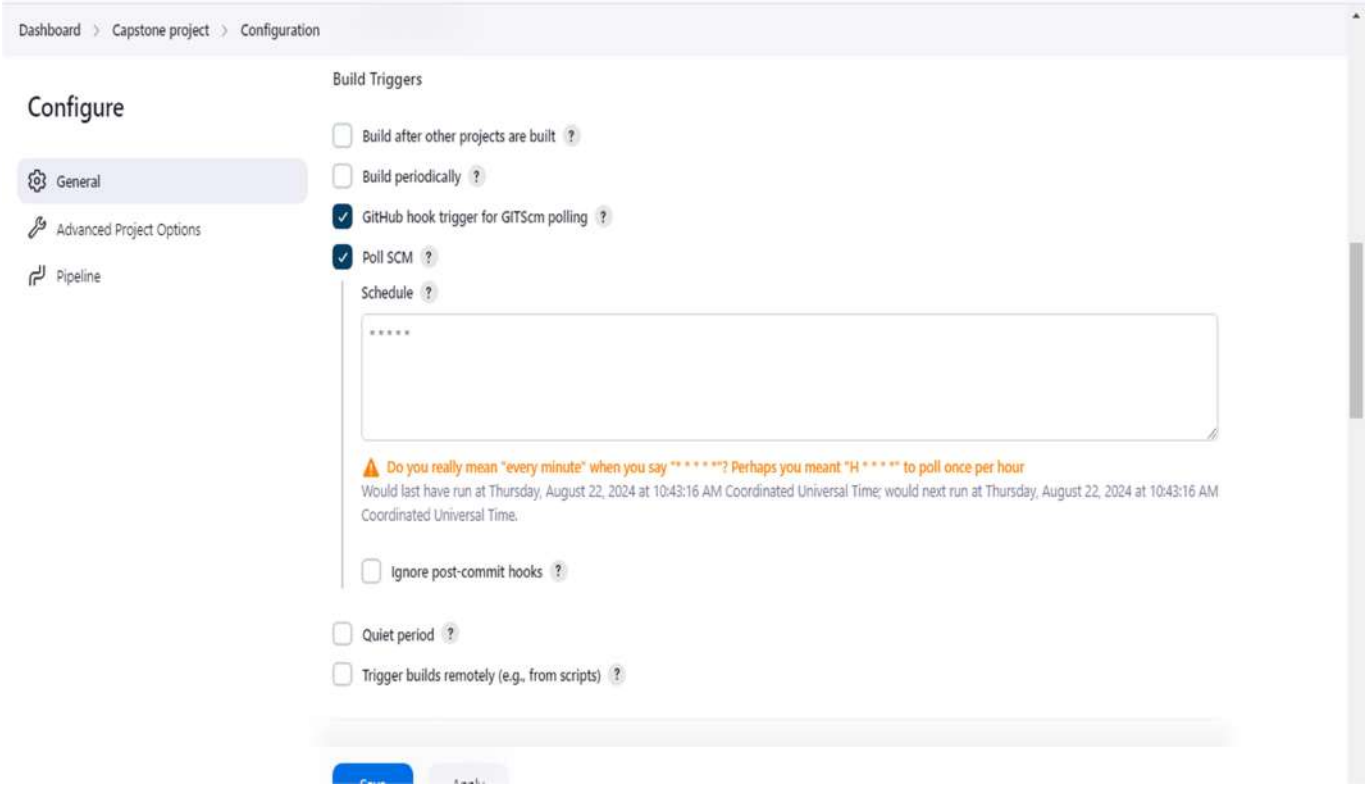
  Click pipeline Then your item is created

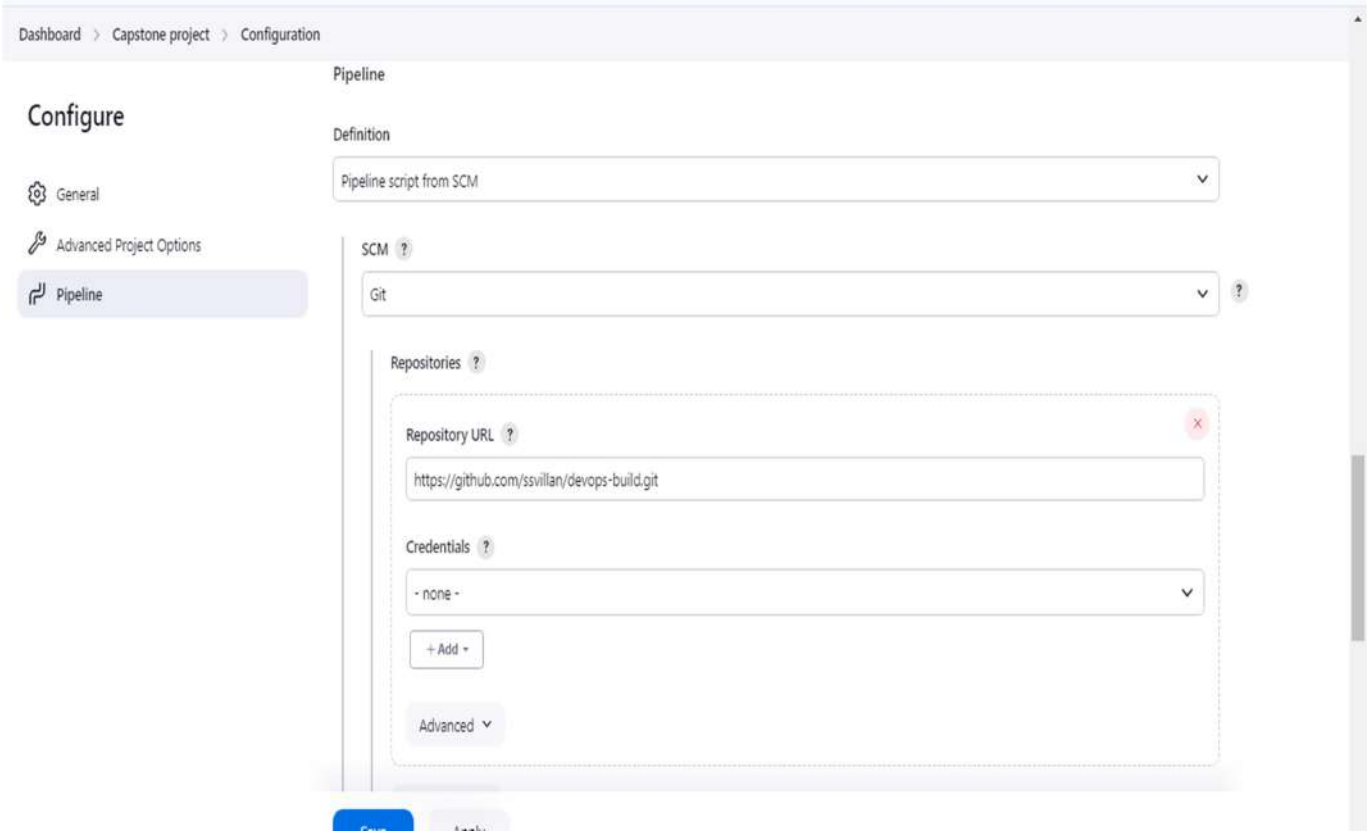
➢ **This is already build but just for reference I've showed you here**

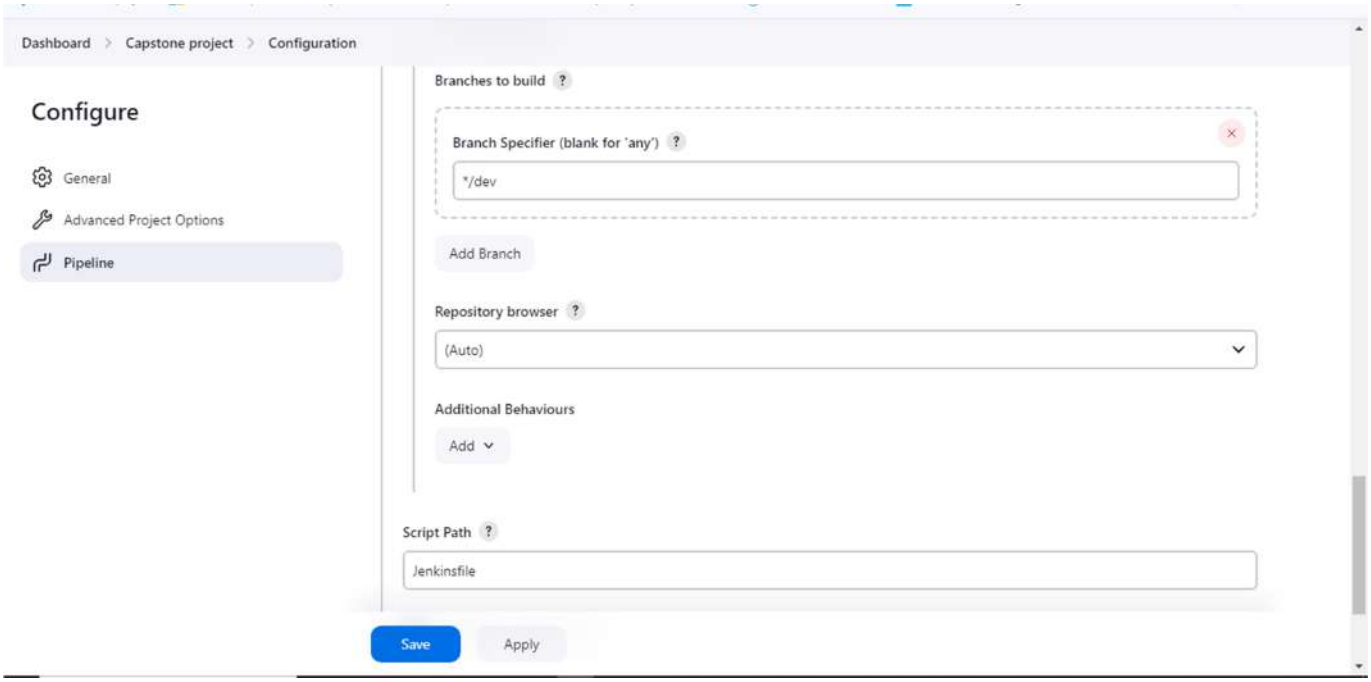


Config it



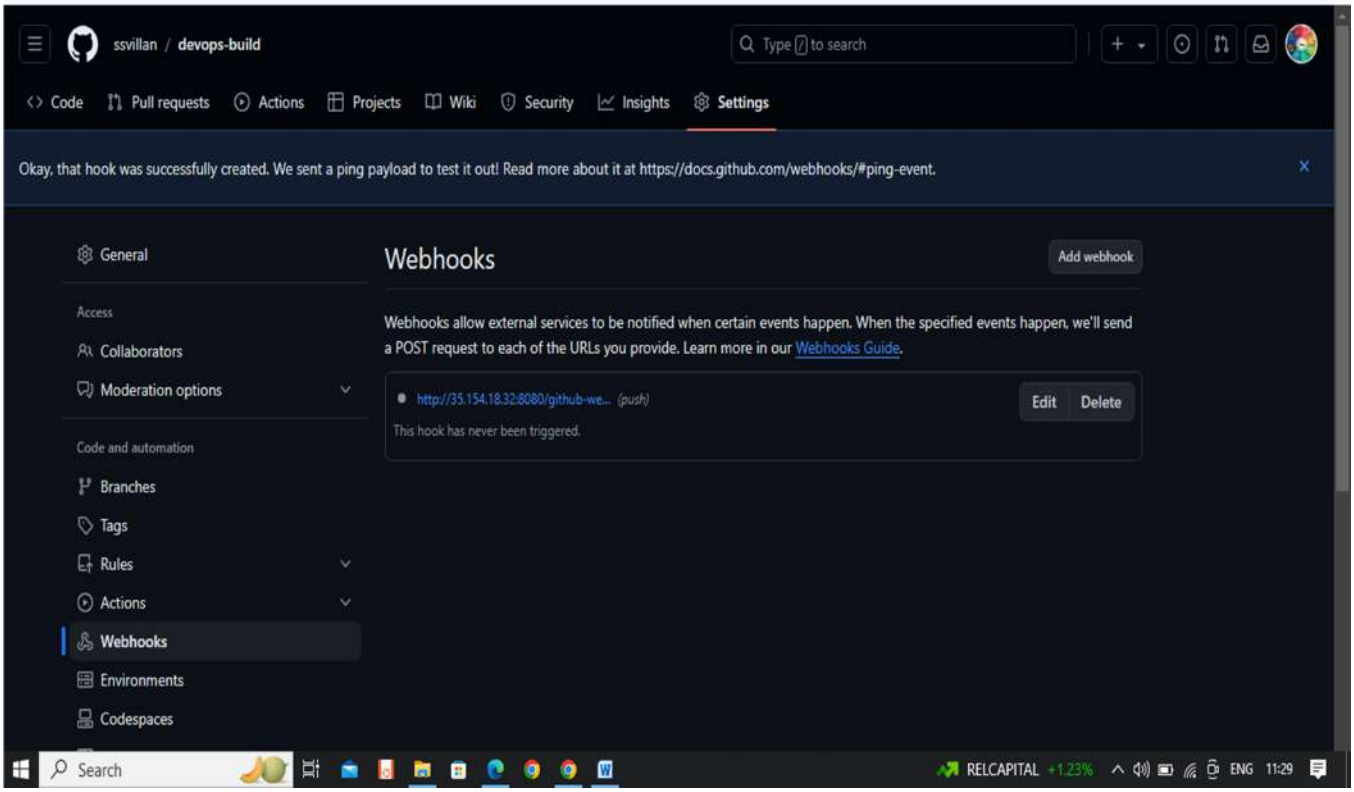

Dashboard > Capstone project > Configuration
Configure
General
Advanced Project Options
Pipeline
Build Triggers
Build after other projects are built
Build periodically
GitHub hook trigger for GITScm polling
Poll SCM
Schedule
* * * * *
Do you really mean "every minute" when you say "* * * * *"? Perhaps you meant "H * * * *" to poll once per hour
Would last have run at Thursday, August 22, 2024 at 10:43:16 AM Coordinated Universal Time; would next run at Thursday, August 22, 2024 at 10:43:16 AM Coordinated Universal Time.
Ignore post-commit hooks
Quiet period
Trigger builds remotely (e.g., from scripts)


Dashboard > Capstone project > Configuration
Configure
General
Advanced Project Options
Pipeline
Pipeline
Definition
Pipeline script from SCM
SCM
Git
Repositories
Repository URL
https://github.com/ssvillan/devops-build.git
Credentials
- none -
+ Add
Advanced

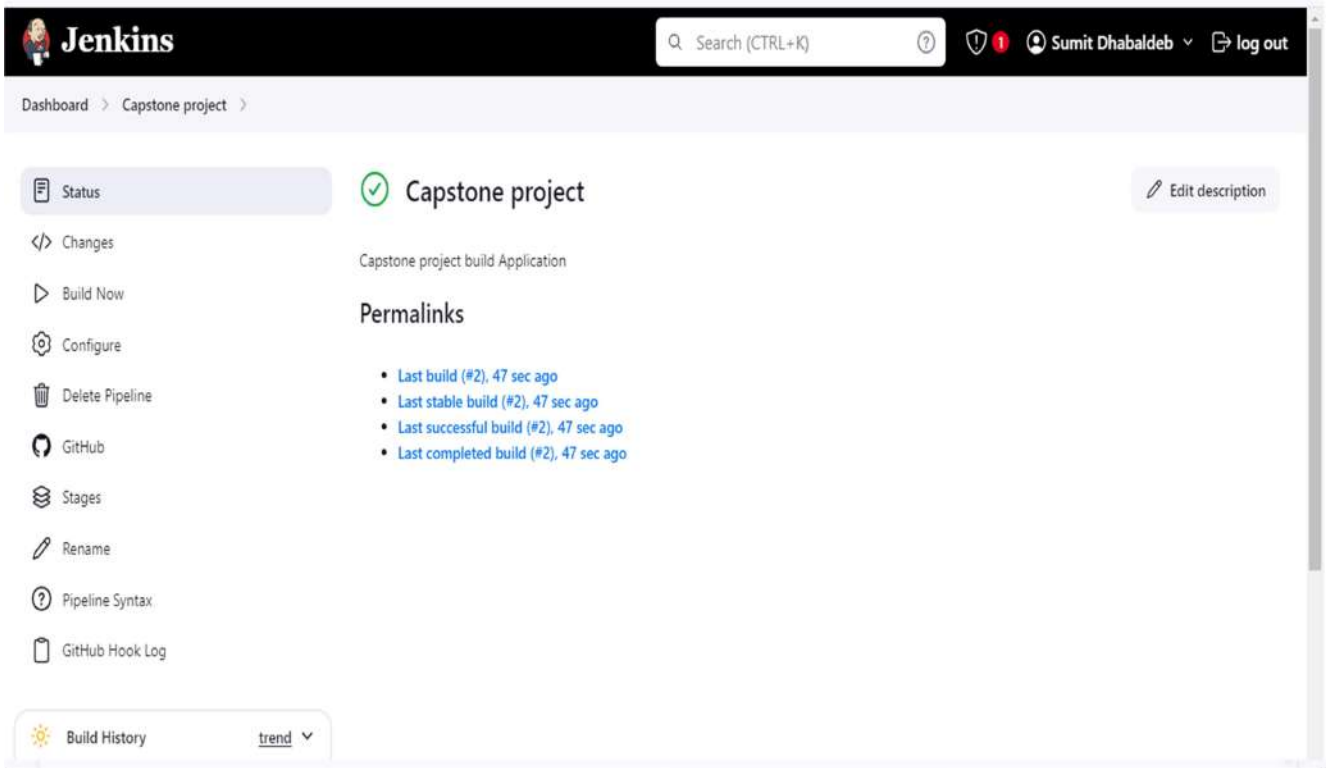


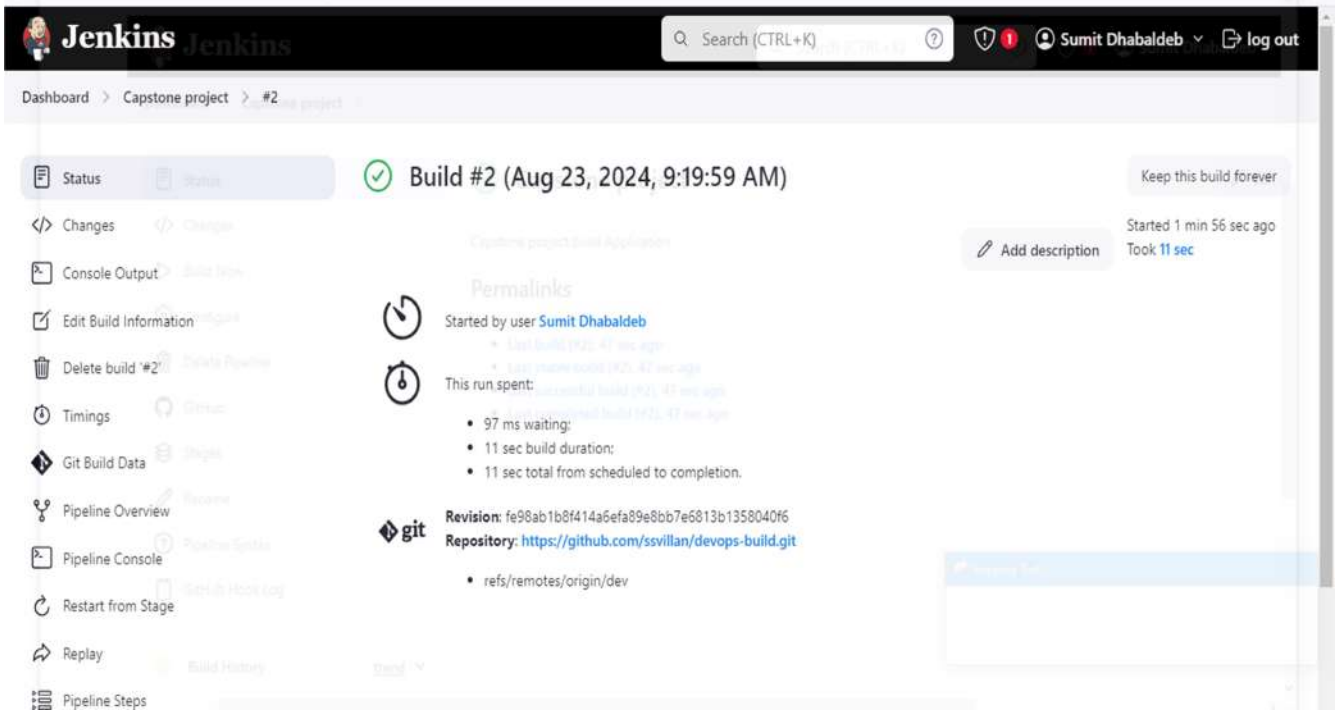
- **Connect Jenkins to Github:**

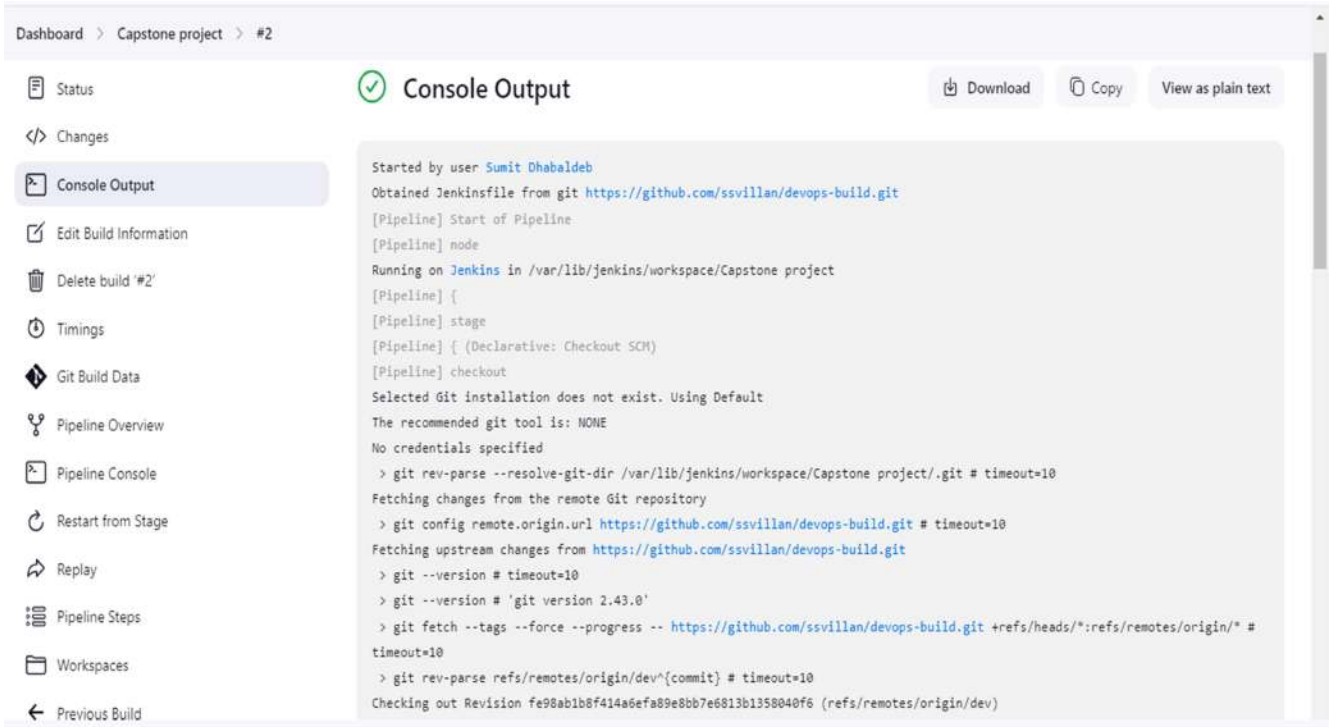
  Configure GitHub webhook to trigger builds on push events. • Go to GitHub repository settings -> Webhooks -> Add webhook -> Jenkins URL

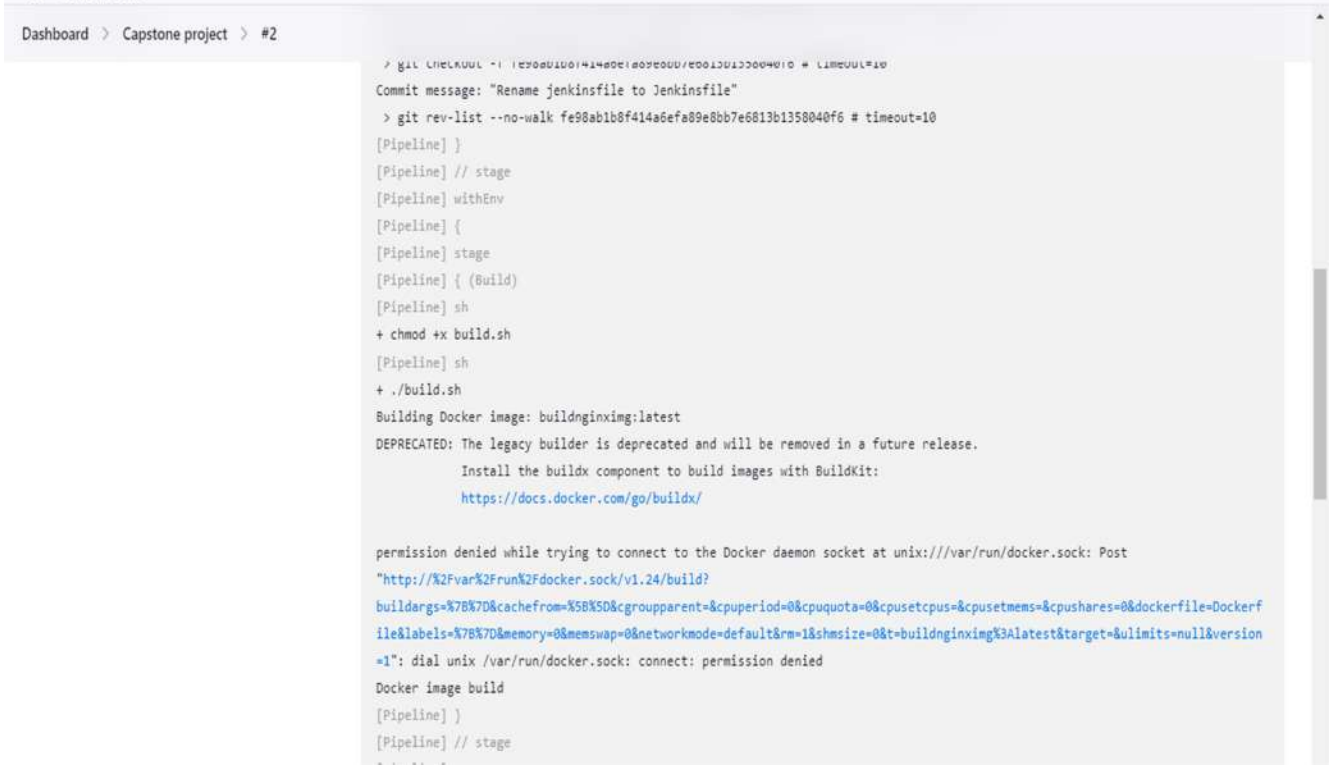


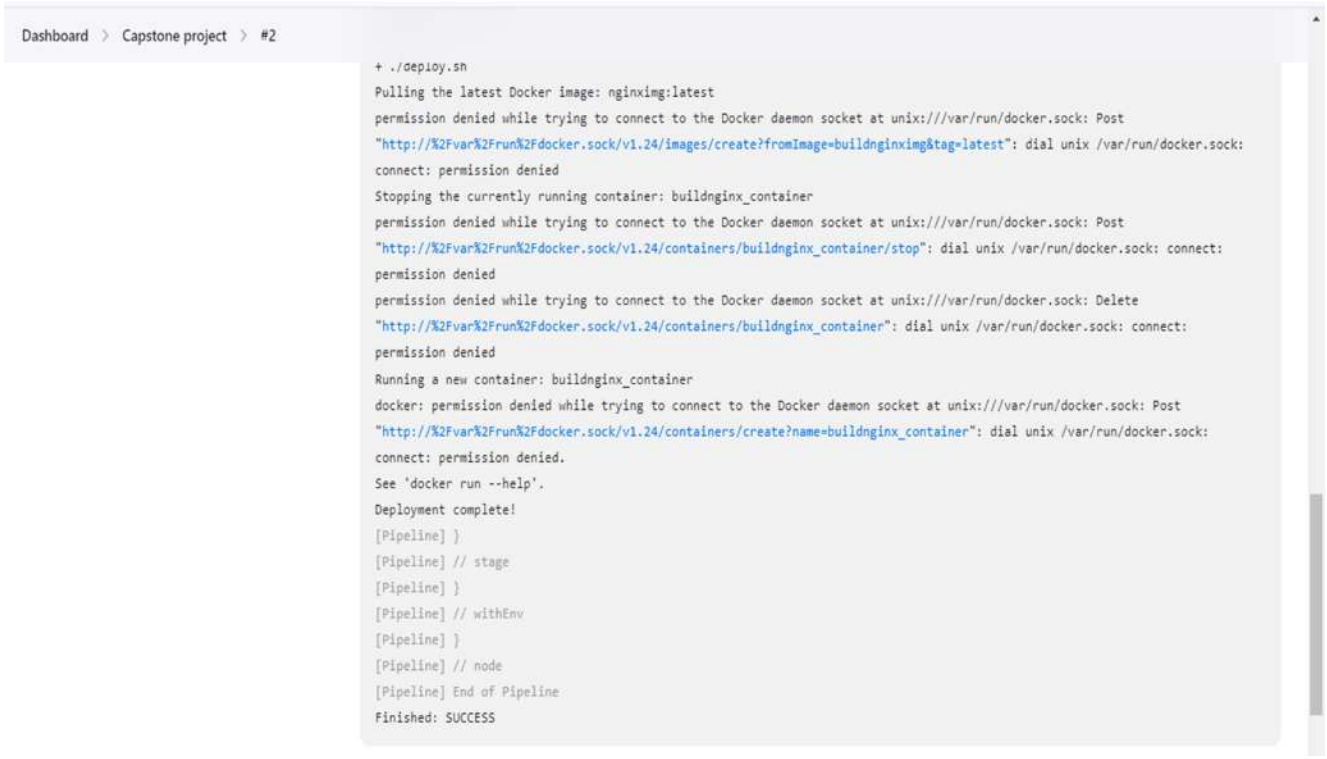
- Go to your Jenkins item [Capstone project] and click build now.
- Check the console output whether docker image gets created and pushed
- Also I got some error so I did update commit .
- Then you can check in Jenkins build gets triggered automatically .

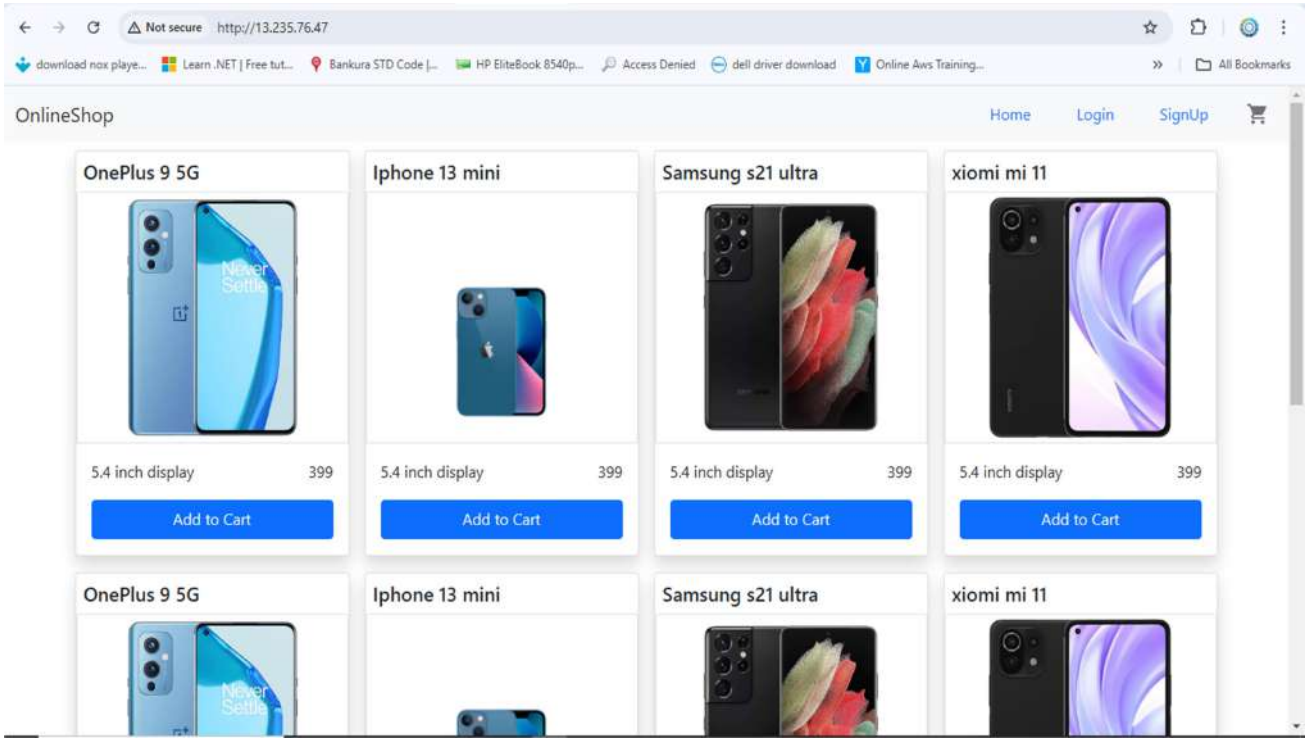





Dashboard > Capstone project > #2
Status
Changes
Console Output
Edit Build Information
Delete build '#2'
Timings
Git Build Data
Pipeline Overview
Pipeline Console
Restart from Stage
Replay
Pipeline Steps
Workspaces
Previous Build
Console Output
Download
Copy
View as plain text
Started by user Sumit Dhabaldeb
Obtained Jenkinsfile from git https://github.com/ssvillan/devops-build.git
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/Capstone project
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Capstone project/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/ssvillan/devops-build.git # timeout=10
Fetching upstream changes from https://github.com/ssvillan/devops-build.git
> git --version # timeout=10
> git --version # 'git version 2.43.0'
> git fetch --tags --force --progress -- https://github.com/ssvillan/devops-build.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/dev^{commit} # timeout=10
Checking out Revision fe98ab1b8f414a6efa89e8bb7e6813b1358040f6 (refs/remotes/origin/dev)


Dashboard > Capstone project > #2
Commit message: "Rename jenkinsfile to Jenkinsfile"
> git rev-list --no-walk fe98ab1b8f414a6efa89e8bb7e6813b1358040f6 # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] sh
+ chmod +x build.sh
[Pipeline] sh
+ ./build.sh
Building Docker image: buildnginximg:latest
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
Install the buildx component to build images with BuildKit:
https://docs.docker.com/go/buildx/
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/build?buildargs=%7B%7D&cachefrom=%5B%5D&cgroupparent=&cpuperiod=0&cpuquota=0&cpusetcpus=&cpusetmems=&cpushares=0&dockerfile=Dockerfile&labels=%7B%7D&memory=0&memswap=0&networkmode=default&rm=1&shmsize=0&t=buildnginximg%3Alatest&target=&ulimits=null&version=1": dial unix /var/run/docker.sock: connect: permission denied
Docker image build
[Pipeline] }
[Pipeline] // stage


Dashboard > Capstone project > #2
+ ./deploy.sh
Pulling the latest Docker image: nginximg:latest
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/images/create?fromImage=buildnginximg&tag=latest": dial unix /var/run/docker.sock: connect: permission denied
Stopping the currently running container: buildnginx_container
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/containers/buildnginx_container/stop": dial unix /var/run/docker.sock: connect: permission denied
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Delete "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/containers/buildnginx_container": dial unix /var/run/docker.sock: connect: permission denied
Running a new container: buildnginx_container
docker: permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/containers/create?name=buildnginx_container": dial unix /var/run/docker.sock: connect: permission denied.
See 'docker run --help'.
Deployment complete!
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS


Not secure http://13.235.76.47
OnlineShop
Home
Login
SignUp
OnePlus 9 5G
Iphone 13 mini
Samsung s21 ultra
xiomi mi 11
5.4 inch display 399
Add to Cart

❒ AWS:

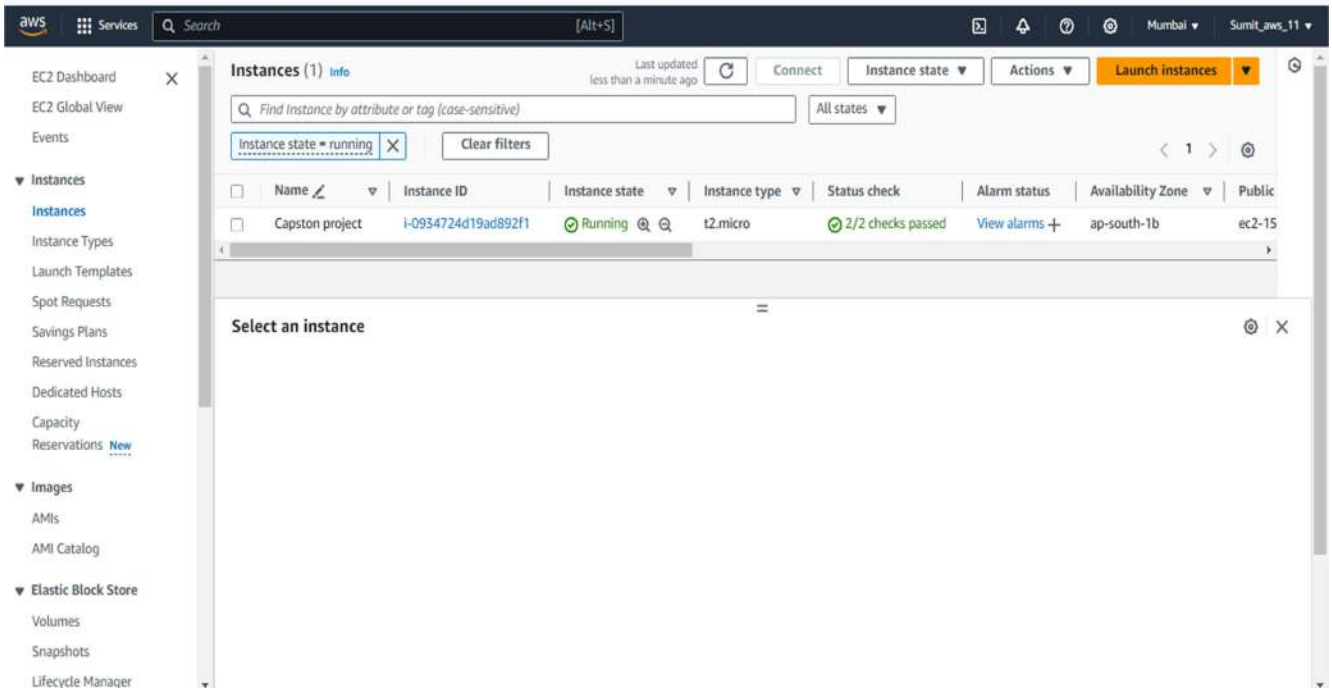
- Launch t2.micro instance and deploy the create application.
- Configure SG as below:
- Whoever has the ip address can access the application
- Login to server can should be made only from your ip address

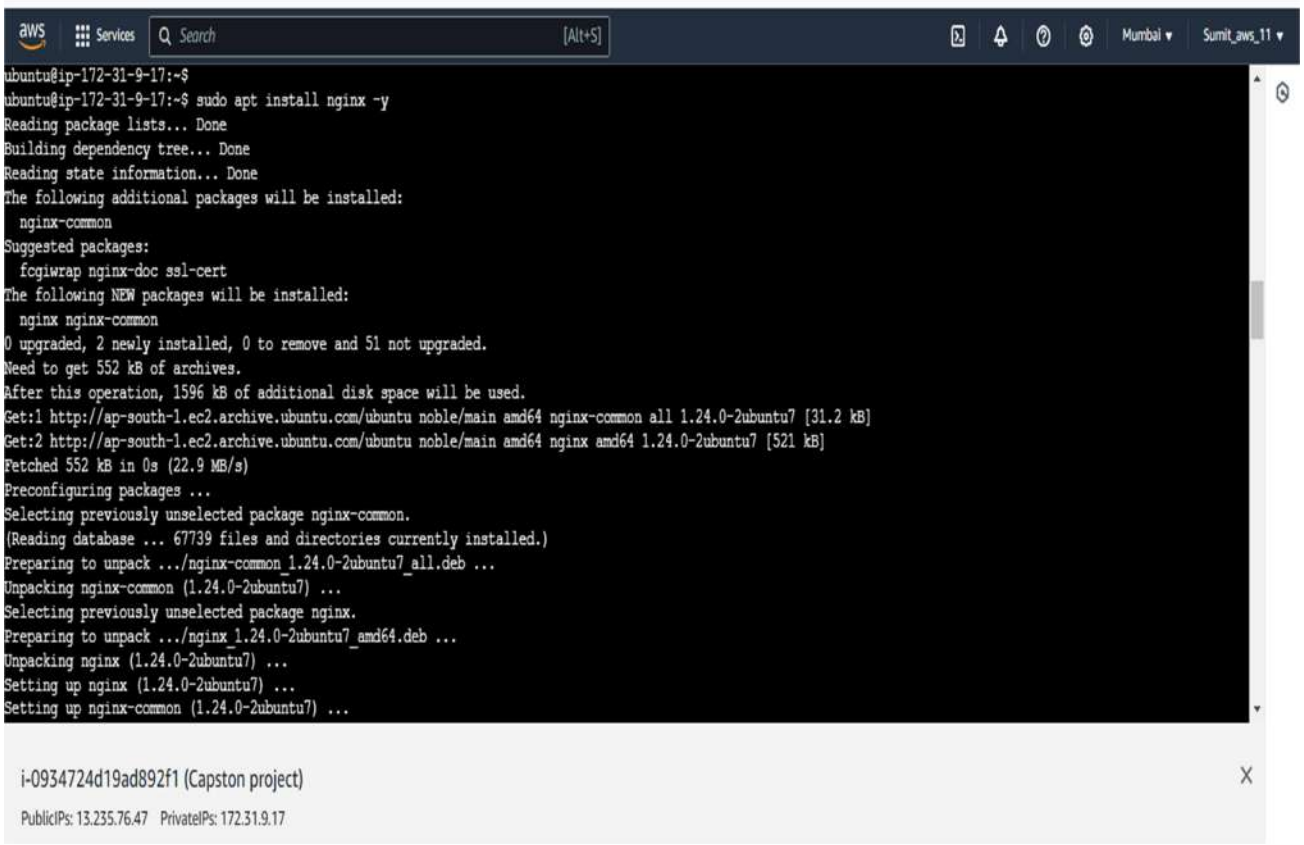
➢ Create `Instance` > Connect to the **Capstone project** Instance
➢ Before install any in Ubuntu you have to do Update first [`sudo apt update ]`
Install the Nginx server [`sudo apt-get install nginx –y]`
➢ Next `cd /etc/nginx/ -> ls –a ->` cd sites-available/ -> Inside the directory write `vi mysite ->`

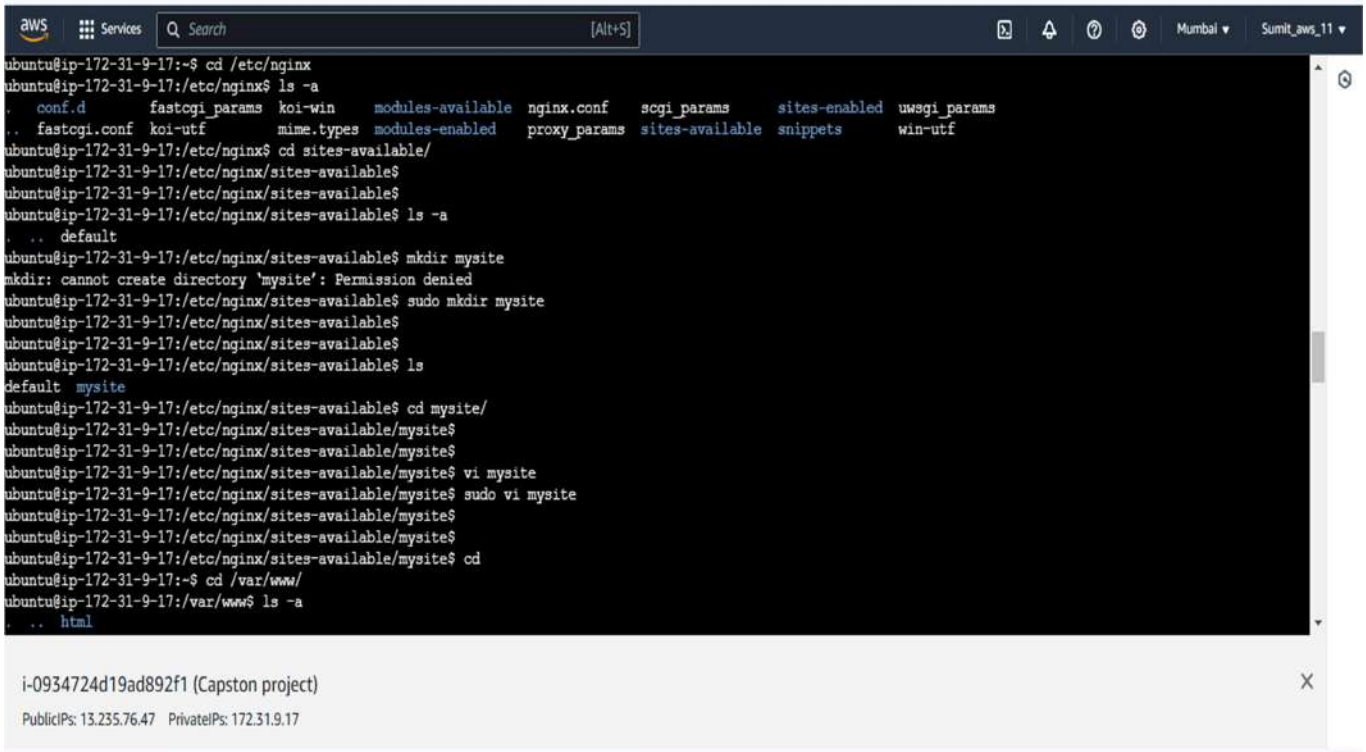
```
server {
 listen 80;
 server_name 15.207.109.116; (ip address)

 root /var/www/mysite;
index index.html;

 location / {
  try_files $uri $uri/ =404;
    }
}
```

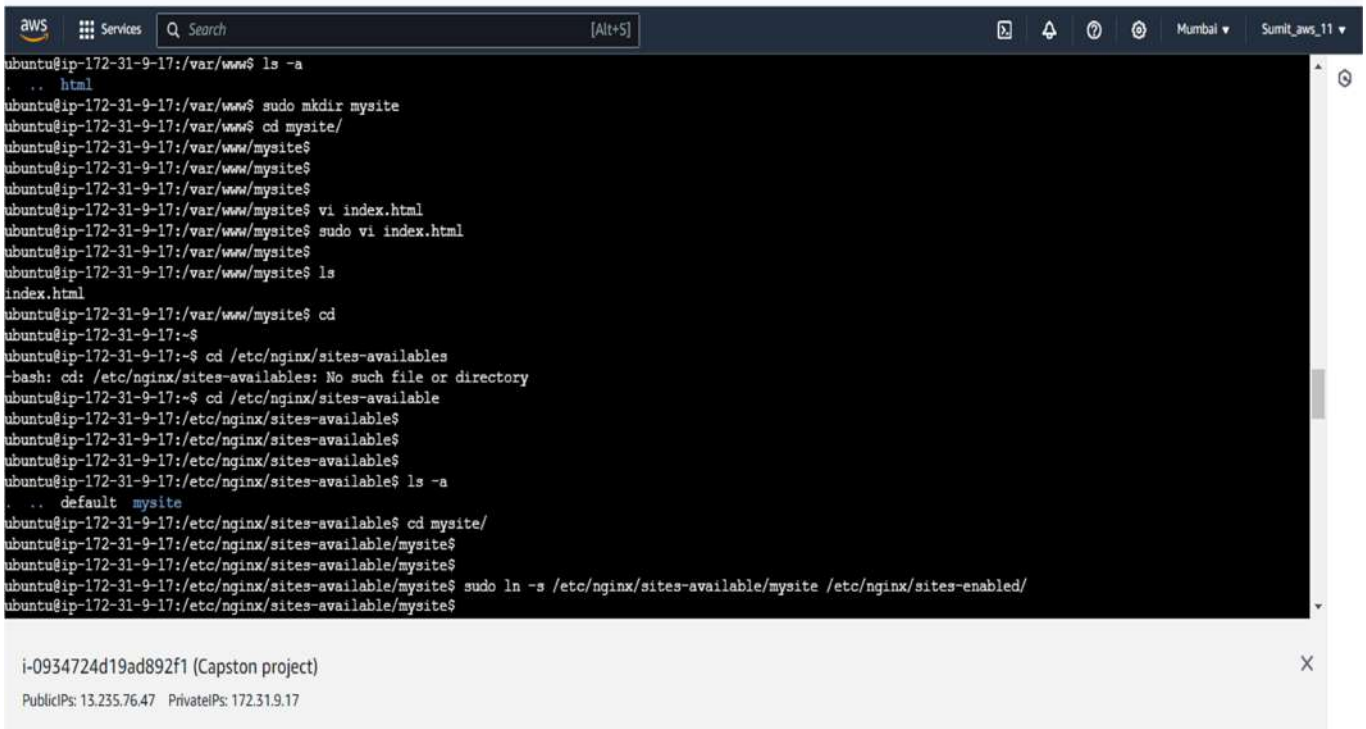
Save this file
➢ Next use this command for (This file to another file) `sudo ln –s /etc/nginx/sites-available/mysite /etc/nginx/sites-enabled/ ->`
After use that command you have use `nginx –t` -> Configure the file test is successful message come.

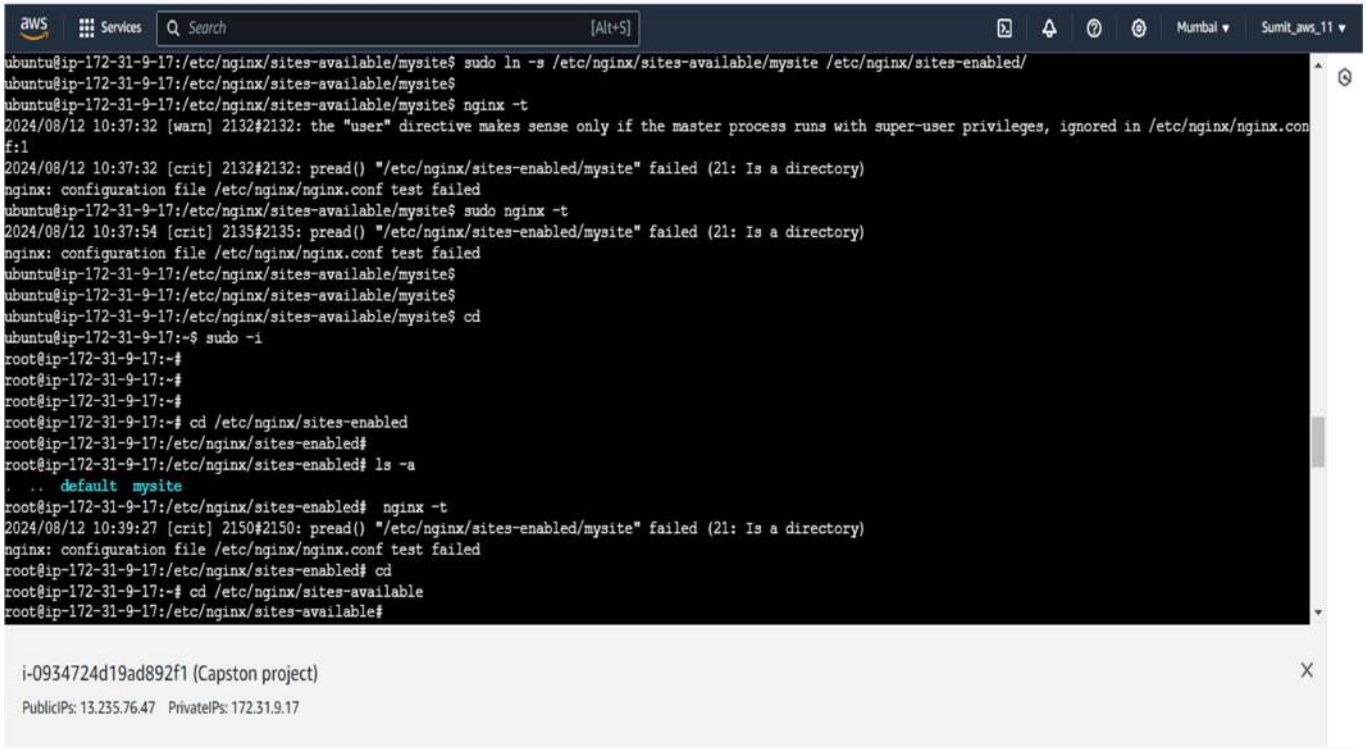
➢ Go to cd/var/www/ -> Inside this directory create directory mkdir mysite ->
➢ clone your repo in Ubuntu git clone https://github.com/ssvillan/devops-build.git
➢ `cd devops-build/ -> cd build/` -> copy all the application file use this command
`cp –r * /var/www/mysite/` -> than it will go all the files inside the `/var/www/mysite/` directory
➢ Affter that you have to go to `/var/www/mysite` directory and check what ever you copy files is there or not inside your directory .
➢ After that you have open the port 80 in AWS Secuity Group .
➢ You want to see your running application
➢ And use this IP address `15.207.109.116:80`

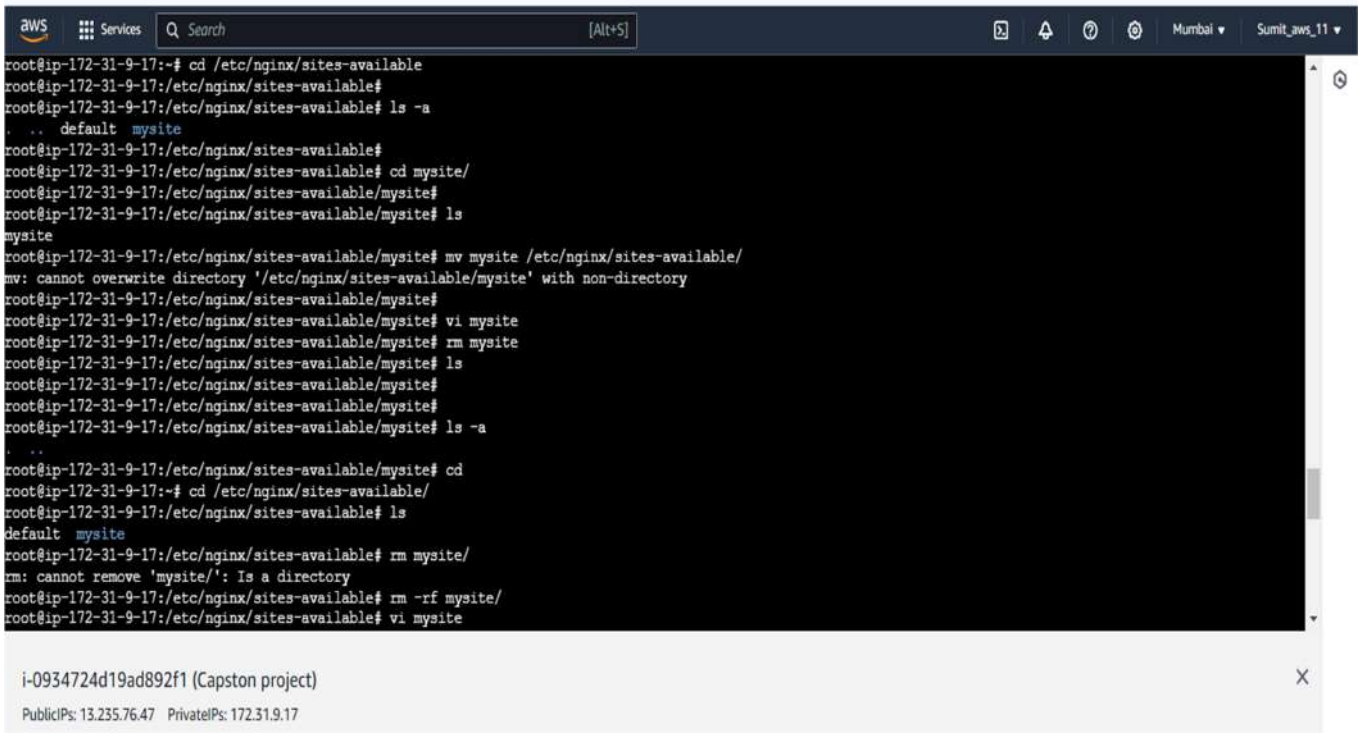

aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
EC2 Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations New
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Instances (1) Info
Last updated less than a minute ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Instance state = running
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
Public
Capston project
i-0934724d19ad892f1
Running
t2.micro
2/2 checks passed
View alarms
ap-south-1b
ec2-15
Select an instance


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
ubuntu@ip-172-31-9-17:~$
ubuntu@ip-172-31-9-17:~$ sudo apt install nginx -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
nginx-common
Suggested packages:
fcgiwrap nginx-doc ssl-cert
The following NEW packages will be installed:
nginx nginx-common
0 upgraded, 2 newly installed, 0 to remove and 51 not upgraded.
Need to get 552 kB of archives.
After this operation, 1596 kB of additional disk space will be used.
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 nginx-common all 1.24.0-2ubuntu7 [31.2 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/main amd64 nginx amd64 1.24.0-2ubuntu7 [521 kB]
Fetched 552 kB in 0s (22.9 MB/s)
Preconfiguring packages ...
Selecting previously unselected package nginx-common.
(Reading database ... 67739 files and directories currently installed.)
Preparing to unpack .../nginx-common_1.24.0-2ubuntu7_all.deb ...
Unpacking nginx-common (1.24.0-2ubuntu7) ...
Selecting previously unselected package nginx.
Preparing to unpack .../nginx_1.24.0-2ubuntu7_amd64.deb ...
Unpacking nginx (1.24.0-2ubuntu7) ...
Setting up nginx (1.24.0-2ubuntu7) ...
Setting up nginx-common (1.24.0-2ubuntu7) ...
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
ubuntu@ip-172-31-9-17:~$ cd /etc/nginx
ubuntu@ip-172-31-9-17:/etc/nginx$ ls -a
. conf.d fastcgi_params koi-win modules-available nginx.conf scgi_params sites-enabled uwsgi_params
.. fastcgi.conf koi-utf mime.types modules-enabled proxy_params sites-available snippets win-utf
ubuntu@ip-172-31-9-17:/etc/nginx$ cd sites-available/
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ ls -a
. .. default
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ mkdir mysite
mkdir: cannot create directory 'mysite': Permission denied
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ sudo mkdir mysite
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ ls
default mysite
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ cd mysite/
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ vi mysite
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ sudo vi mysite
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ cd
ubuntu@ip-172-31-9-17:~$ cd /var/www/
ubuntu@ip-172-31-9-17:/var/www$ ls -a
. .. html
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
ubuntu@ip-172-31-9-17:/var/www$ ls -a
. .. html
ubuntu@ip-172-31-9-17:/var/www$ sudo mkdir mysite
ubuntu@ip-172-31-9-17:/var/www$ cd mysite/
ubuntu@ip-172-31-9-17:/var/www/mysite$
ubuntu@ip-172-31-9-17:/var/www/mysite$
ubuntu@ip-172-31-9-17:/var/www/mysite$
ubuntu@ip-172-31-9-17:/var/www/mysite$ vi index.html
ubuntu@ip-172-31-9-17:/var/www/mysite$ sudo vi index.html
ubuntu@ip-172-31-9-17:/var/www/mysite$
ubuntu@ip-172-31-9-17:/var/www/mysite$ ls
index.html
ubuntu@ip-172-31-9-17:/var/www/mysite$ cd
ubuntu@ip-172-31-9-17:~$
ubuntu@ip-172-31-9-17:~$ cd /etc/nginx/sites-availables
-bash: cd: /etc/nginx/sites-availables: No such file or directory
ubuntu@ip-172-31-9-17:~$ cd /etc/nginx/sites-available
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ ls -a
. .. default mysite
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available$ cd mysite/
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ sudo ln -s /etc/nginx/sites-available/mysite /etc/nginx/sites-enabled/
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ sudo ln -s /etc/nginx/sites-available/mysite /etc/nginx/sites-enabled/
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ nginx -t
2024/08/12 10:37:32 [warn] 2132#2132: the "user" directive makes sense only if the master process runs with super-user privileges, ignored in /etc/nginx/nginx.con
f:1
2024/08/12 10:37:32 [crit] 2132#2132: pread() "/etc/nginx/sites-enabled/mysite" failed (21: Is a directory)
nginx: configuration file /etc/nginx/nginx.conf test failed
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ sudo nginx -t
2024/08/12 10:37:54 [crit] 2135#2135: pread() "/etc/nginx/sites-enabled/mysite" failed (21: Is a directory)
nginx: configuration file /etc/nginx/nginx.conf test failed
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$
ubuntu@ip-172-31-9-17:/etc/nginx/sites-available/mysite$ cd
ubuntu@ip-172-31-9-17:~$ sudo -i
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~# cd /etc/nginx/sites-enabled
root@ip-172-31-9-17:/etc/nginx/sites-enabled#
root@ip-172-31-9-17:/etc/nginx/sites-enabled# ls -a
. .. default mysite
root@ip-172-31-9-17:/etc/nginx/sites-enabled# nginx -t
2024/08/12 10:39:27 [crit] 2150#2150: pread() "/etc/nginx/sites-enabled/mysite" failed (21: Is a directory)
nginx: configuration file /etc/nginx/nginx.conf test failed
root@ip-172-31-9-17:/etc/nginx/sites-enabled# cd
root@ip-172-31-9-17:~# cd /etc/nginx/sites-available
root@ip-172-31-9-17:/etc/nginx/sites-available#
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
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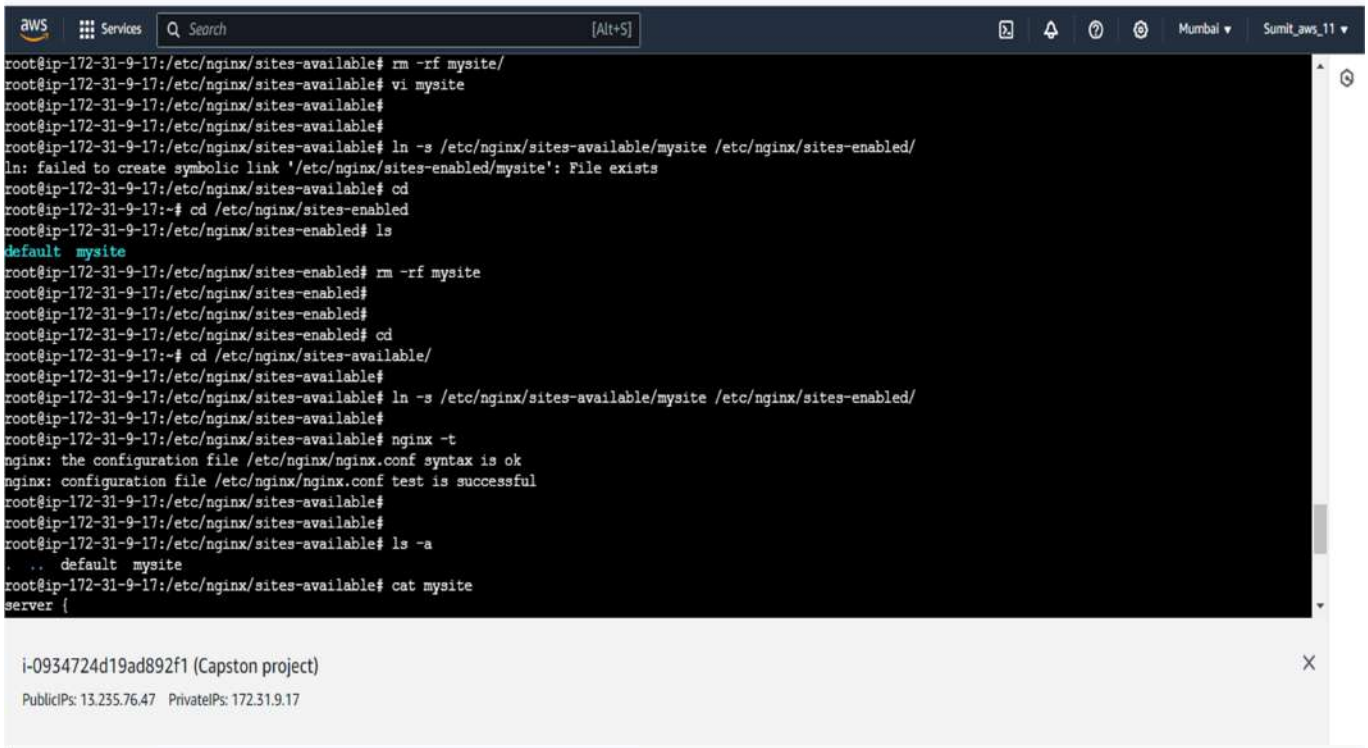
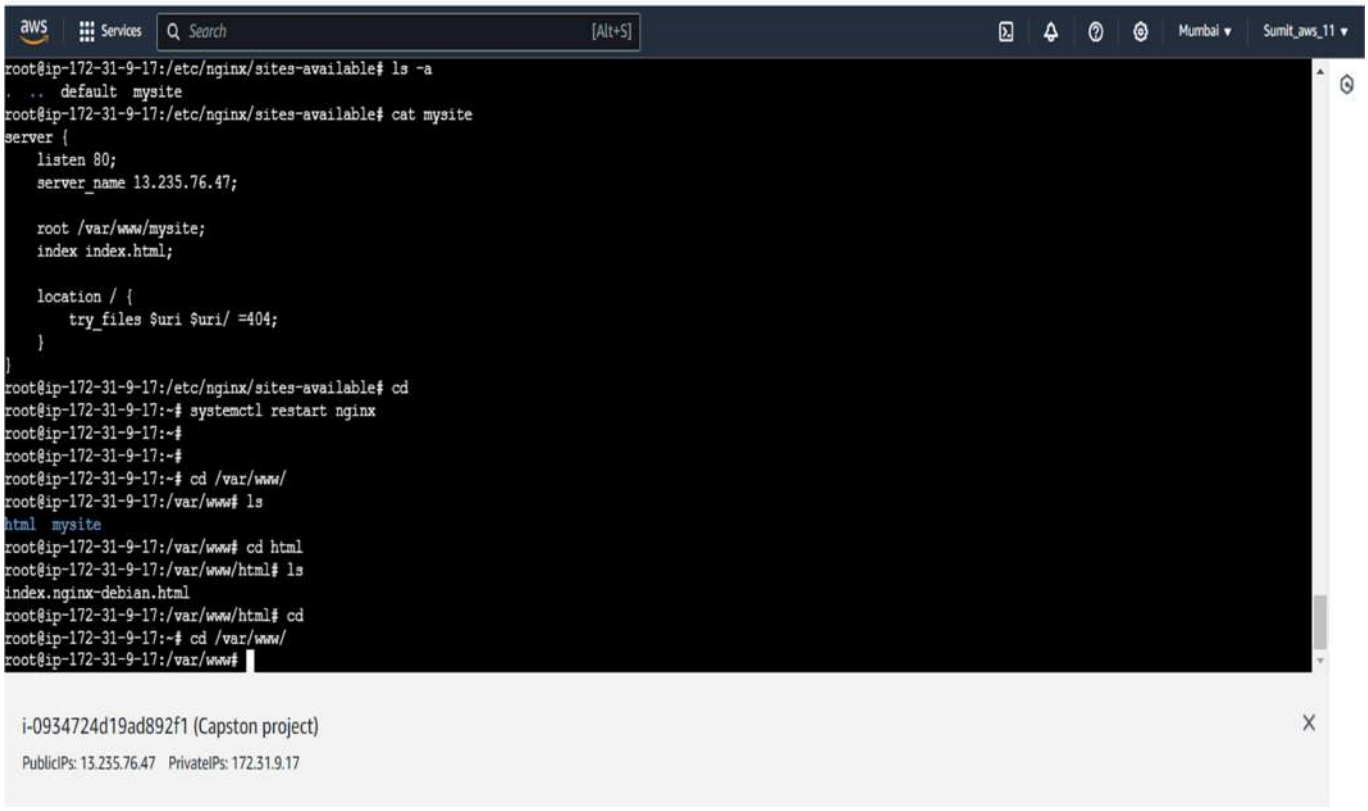
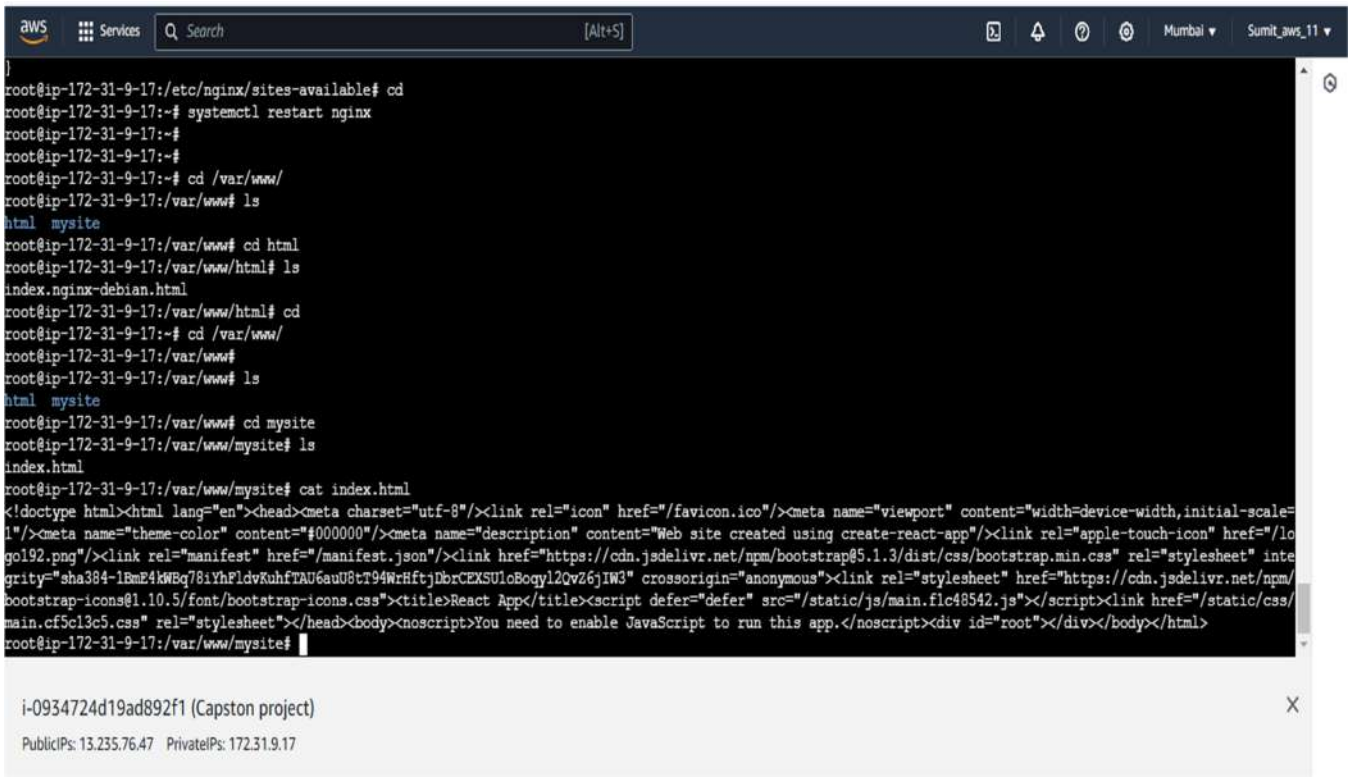
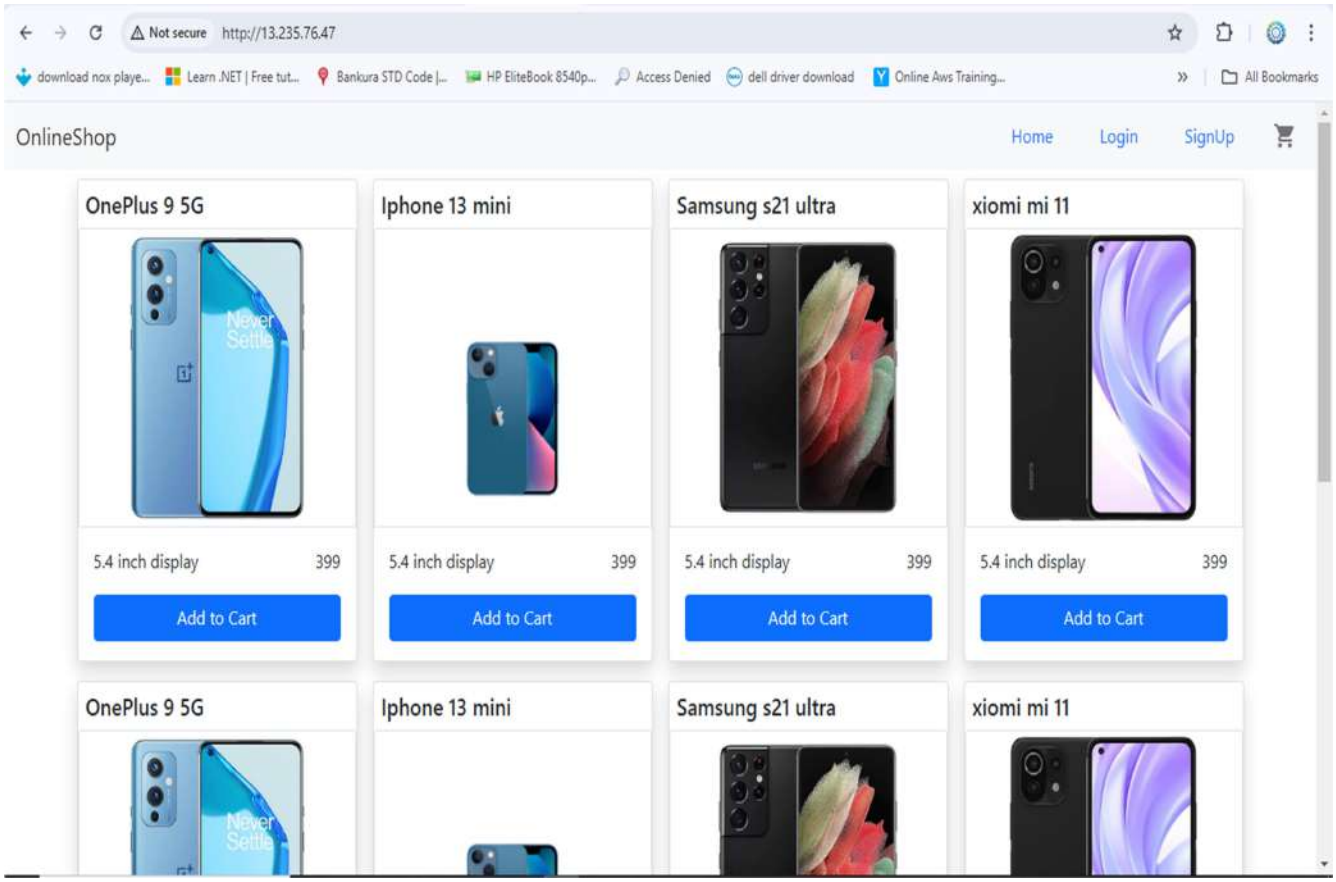
Mumbai
Sumit_aws_11
root@ip-172-31-9-17:~# cd /etc/nginx/sites-available
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# ls -a
. .. default mysite
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# cd mysite/
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite#
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# ls
mysite
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# mv mysite /etc/nginx/sites-available/
mv: cannot overwrite directory '/etc/nginx/sites-available/mysite' with non-directory
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite#
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# vi mysite
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# rm mysite
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# ls
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite#
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite#
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# ls -a
. ..
root@ip-172-31-9-17:/etc/nginx/sites-available/mysite# cd
root@ip-172-31-9-17:~# cd /etc/nginx/sites-available/
root@ip-172-31-9-17:/etc/nginx/sites-available# ls
default mysite
root@ip-172-31-9-17:/etc/nginx/sites-available# rm mysite/
rm: cannot remove 'mysite/': Is a directory
root@ip-172-31-9-17:/etc/nginx/sites-available# rm -rf mysite/
root@ip-172-31-9-17:/etc/nginx/sites-available# vi mysite
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17

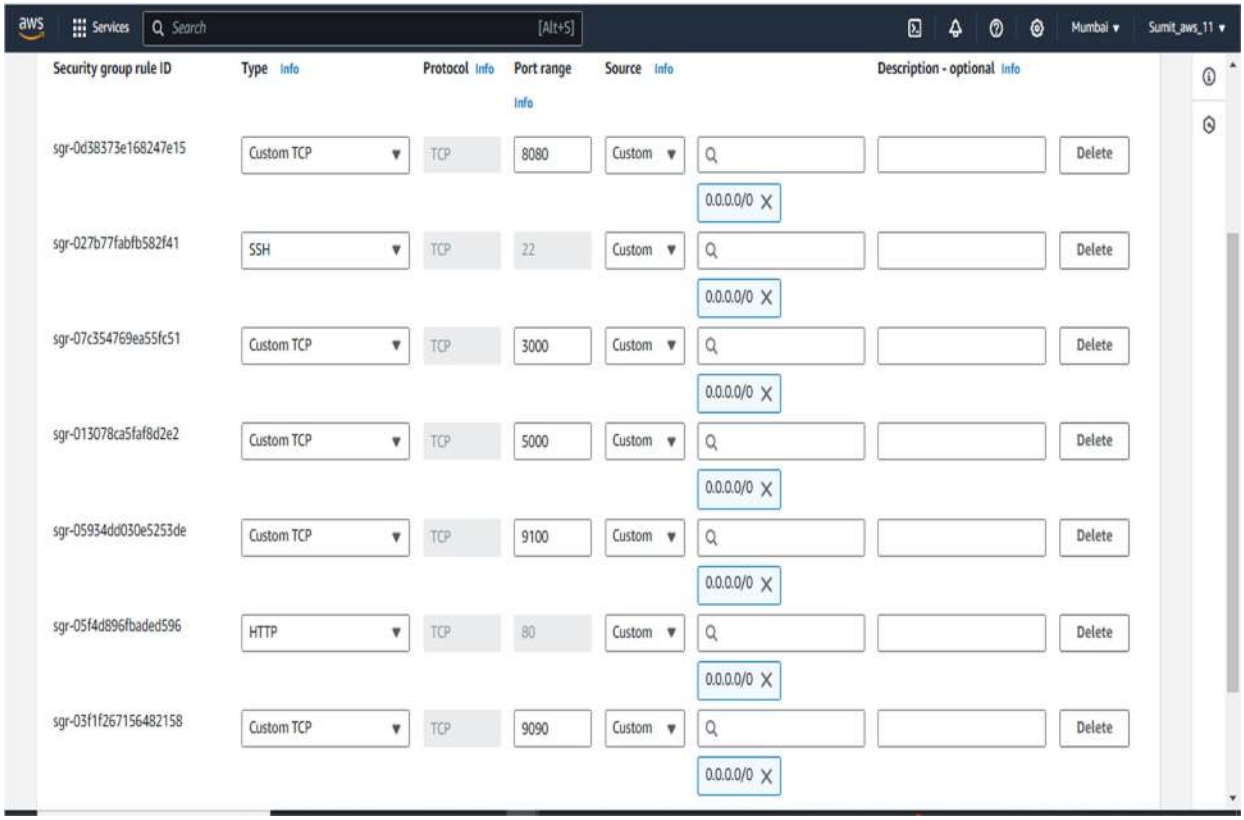

aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
root@ip-172-31-9-17:/etc/nginx/sites-available# rm -rf mysite/
root@ip-172-31-9-17:/etc/nginx/sites-available# vi mysite
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# ln -s /etc/nginx/sites-available/mysite /etc/nginx/sites-enabled/
ln: failed to create symbolic link '/etc/nginx/sites-enabled/mysite': File exists
root@ip-172-31-9-17:/etc/nginx/sites-available# cd
root@ip-172-31-9-17:~# cd /etc/nginx/sites-enabled
root@ip-172-31-9-17:/etc/nginx/sites-enabled# ls
default mysite
root@ip-172-31-9-17:/etc/nginx/sites-enabled# rm -rf mysite
root@ip-172-31-9-17:/etc/nginx/sites-enabled#
root@ip-172-31-9-17:/etc/nginx/sites-enabled#
root@ip-172-31-9-17:/etc/nginx/sites-enabled# cd
root@ip-172-31-9-17:~# cd /etc/nginx/sites-available/
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# ln -s /etc/nginx/sites-available/mysite /etc/nginx/sites-enabled/
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available#
root@ip-172-31-9-17:/etc/nginx/sites-available# ls -a
. .. default mysite
root@ip-172-31-9-17:/etc/nginx/sites-available# cat mysite
server {
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
root@ip-172-31-9-17:/etc/nginx/sites-available# ls -a
. .. default mysite
root@ip-172-31-9-17:/etc/nginx/sites-available# cat mysite
server {
listen 80;
server_name 13.235.76.47;
root /var/www/mysite;
index index.html;
location / {
try_files $uri $uri/ =404;
}
}
root@ip-172-31-9-17:/etc/nginx/sites-available# cd
root@ip-172-31-9-17:~# systemctl restart nginx
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~# cd /var/www/
root@ip-172-31-9-17:/var/www# ls
html mysite
root@ip-172-31-9-17:/var/www# cd html
root@ip-172-31-9-17:/var/www/html# ls
index.nginx-debian.html
root@ip-172-31-9-17:/var/www/html# cd
root@ip-172-31-9-17:~# cd /var/www/
root@ip-172-31-9-17:/var/www#
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


aws
Services
Search
[Alt+S]
Mumbai
Sumit_aws_11
root@ip-172-31-9-17:/etc/nginx/sites-available# cd
root@ip-172-31-9-17:~# systemctl restart nginx
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~#
root@ip-172-31-9-17:~# cd /var/www/
root@ip-172-31-9-17:/var/www# ls
html mysite
root@ip-172-31-9-17:/var/www# cd html
root@ip-172-31-9-17:/var/www/html# ls
index.nginx-debian.html
root@ip-172-31-9-17:/var/www/html# cd
root@ip-172-31-9-17:~# cd /var/www/
root@ip-172-31-9-17:/var/www#
root@ip-172-31-9-17:/var/www# ls
html mysite
root@ip-172-31-9-17:/var/www# cd mysite
root@ip-172-31-9-17:/var/www/mysite# ls
index.html
root@ip-172-31-9-17:/var/www/mysite# cat index.html
<!doctype html><html lang="en"><head><meta charset="utf-8"/><link rel="icon" href="/favicon.ico"/><meta name="viewport" content="width=device-width,initial-scale=
1"/><meta name="theme-color" content="#000000"/><meta name="description" content="Web site created using create-react-app"/><link rel="apple-touch-icon" href="/lo
go192.png"/><link rel="manifest" href="/manifest.json"/><link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet" inte
grity="sha384-1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous"><link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/
bootstrap-icons@1.10.5/font/bootstrap-icons.css"><title>React App</title><script defer="defer" src="/static/js/main.f1c48542.js"></script><link href="/static/css/
main.cf5c13c5.css" rel="stylesheet"></head><body><noscript>You need to enable JavaScript to run this app.</noscript> </body></html>
root@ip-172-31-9-17:/var/www/mysite#
i-0934724d19ad892f1 (Capston project)
PublicIPs: 13.235.76.47 PrivateIPs: 172.31.9.17


Not secure
http://13.235.76.47
OnlineShop
Home
Login
SignUp
OnePlus 9 5G
Iphone 13 mini
Samsung s21 ultra
xiomi mi 11
5.4 inch display
399
Add to Cart

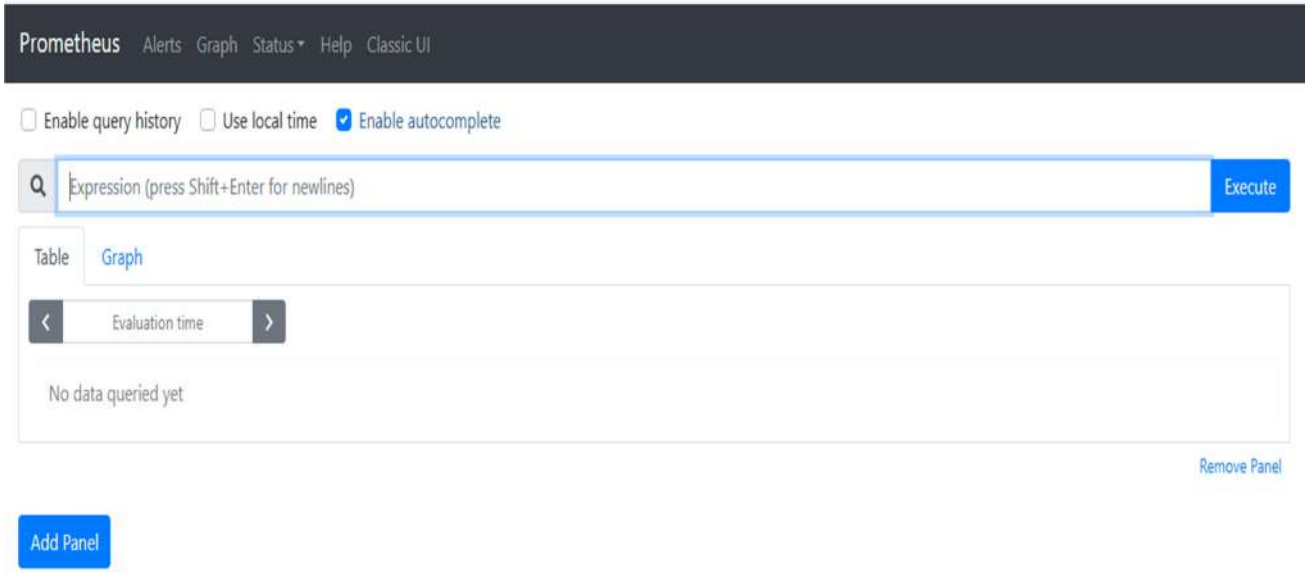
- These are the port I have enable and take Screenshot



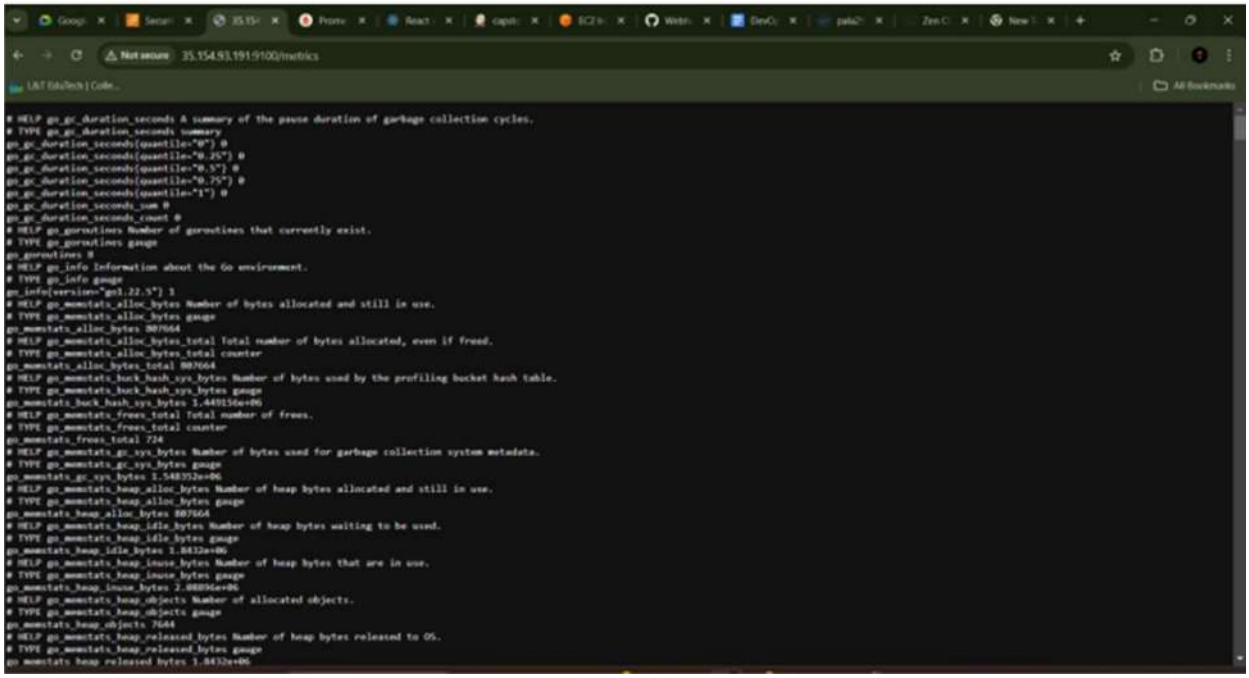
❒ Monitoring:

- Setup a monitoring system to check the health status of the application. (Open-source)
- Sending notifications only if the application goes down is highly appreciable

- Here I open two port 9090 and port 9100
- Port 9090 for Prometheus and Port 9100 for Node Exporter
- Prometheus after Install it :




Not secure 35.154.93.191:9100
Node Exporter
Prometheus Node Exporter
Version: (version=1.8.2, branch=HEAD, revision=f1e0e8360aa60b6cb5e5cc1560bed348fc2c1895)
Metrics


Not secure 35.154.93.191:9100/metrics
HELP go_gc_duration_seconds A summary of the pause duration of garbage collection cycles.
TYPE go_gc_duration_seconds summary
go_gc_duration_seconds{quantile="0"} 0
go_gc_duration_seconds{quantile="0.25"} 0
go_gc_duration_seconds{quantile="0.5"} 0
go_gc_duration_seconds{quantile="0.75"} 0
go_gc_duration_seconds{quantile="1"} 0
go_gc_duration_seconds_sum 0
go_gc_duration_seconds_count 0
HELP go_goroutines Number of goroutines that currently exist.
TYPE go_goroutines gauge
go_goroutines 8
HELP go_info Information about the Go environment.
TYPE go_info gauge
go_info{version="go1.22.5"} 1
HELP go_memstats_alloc_bytes Number of bytes allocated and still in use.
TYPE go_memstats_alloc_bytes gauge
go_memstats_alloc_bytes 807664
HELP go_memstats_alloc_bytes_total Total number of bytes allocated, even if freed.
TYPE go_memstats_alloc_bytes_total counter
go_memstats_alloc_bytes_total 807664
HELP go_memstats_buck_hash_sys_bytes Number of bytes used by the profiling bucket hash table.
TYPE go_memstats_buck_hash_sys_bytes gauge
go_memstats_buck_hash_sys_bytes 1.449156e+06
HELP go_memstats_frees_total Total number of frees.
TYPE go_memstats_frees_total counter
go_memstats_frees_total 724
HELP go_memstats_gc_sys_bytes Number of bytes used for garbage collection system metadata.
TYPE go_memstats_gc_sys_bytes gauge
go_memstats_gc_sys_bytes 1.548352e+06
HELP go_memstats_heap_alloc_bytes Number of heap bytes allocated and still in use.
TYPE go_memstats_heap_alloc_bytes gauge
go_memstats_heap_alloc_bytes 807664
HELP go_memstats_heap_idle_bytes Number of heap bytes waiting to be used.
TYPE go_memstats_heap_idle_bytes gauge
go_memstats_heap_idle_bytes 1.8432e+06
HELP go_memstats_heap_inuse_bytes Number of heap bytes that are in use.
TYPE go_memstats_heap_inuse_bytes gauge
go_memstats_heap_inuse_bytes 2.088704e+06
HELP go_memstats_heap_objects Number of allocated objects.
TYPE go_memstats_heap_objects gauge
go_memstats_heap_objects 7644
HELP go_memstats_heap_released_bytes Number of heap bytes released to OS.
TYPE go_memstats_heap_released_bytes gauge
go_memstats_heap_released_bytes 1.8432e+06

->>>>>>>>>>>>>>X<<<<<<<<<<<<<-