

[Guvi Capstone Project]

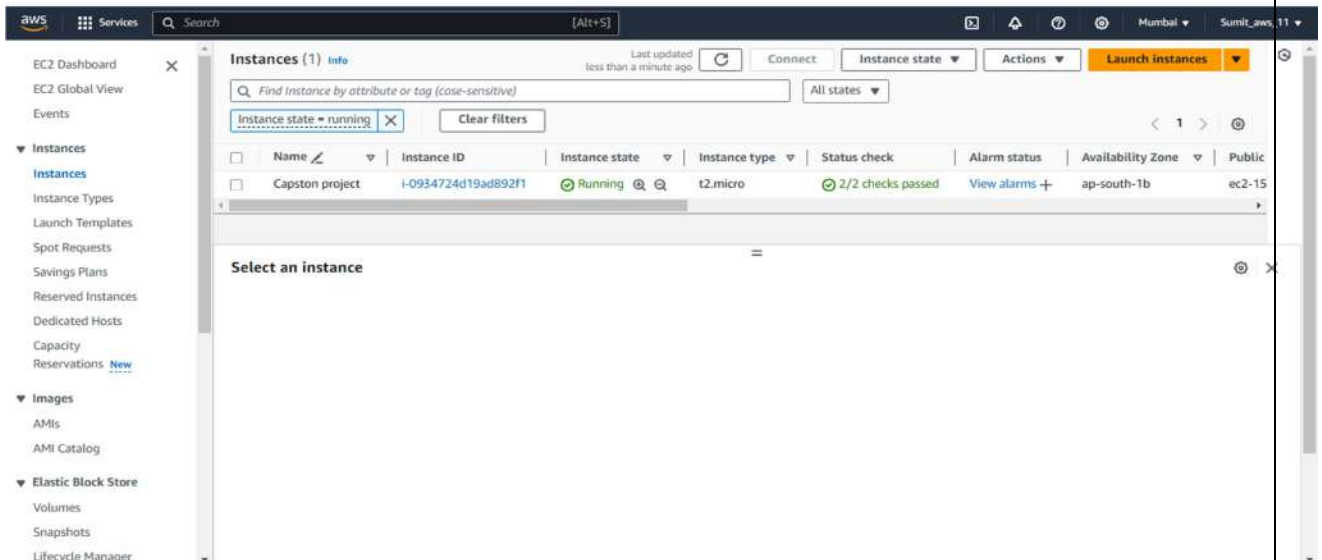
DevOps Application Deployment

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 ->

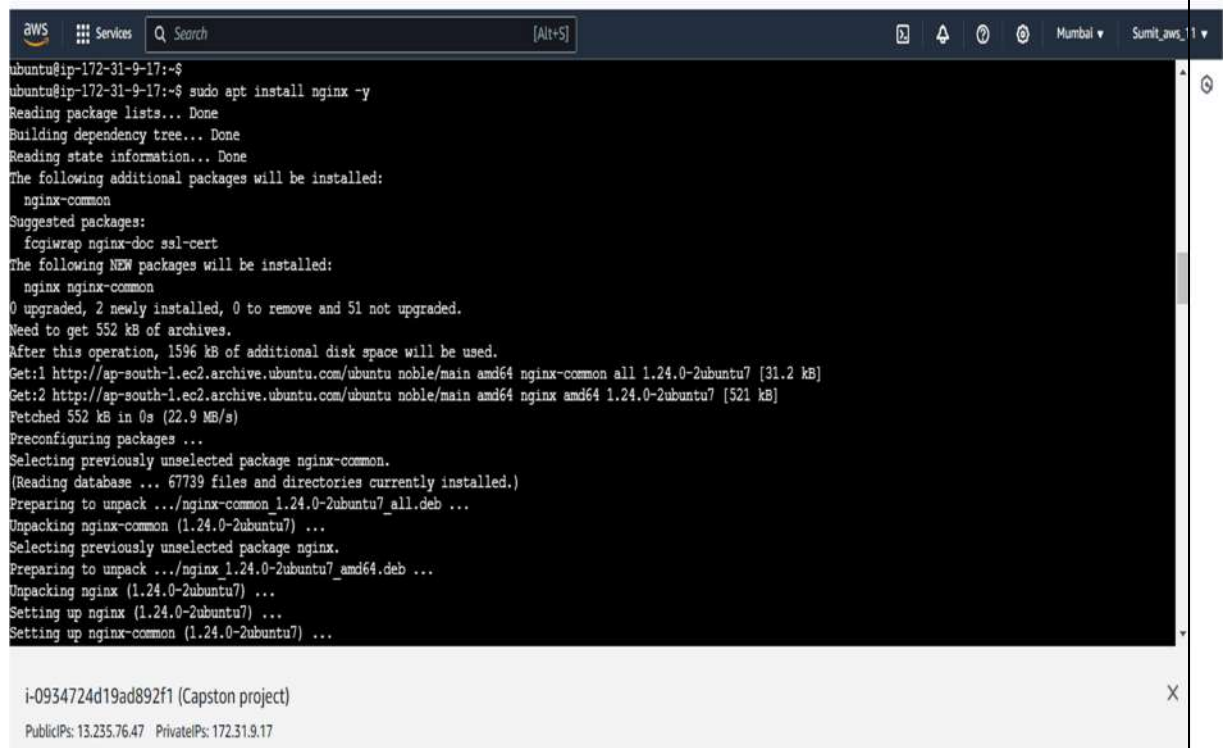
```
server {  
    listen 80;  
    server_name 15.207.109.116; (ip address)  
  
    root /var/www/mysite;  
    index index.html;  
  
    location / {  
        try_files $uri $uri/ =404;  
    }  
}
```

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
- After 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 Security 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_1

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 -la
.  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 -la
.  ..  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 -la
.  ..  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$ sudo 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.conf: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 -la
.  ..  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]
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]
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:/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:/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="/logo192.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" integrity="sha384-1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WzHftjDbrCEXSU1oBoqyl2Qv26jIW3" 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><div id="root"></div></body></html>
root@ip-172-31-9-17:/var/www/mysite#
```

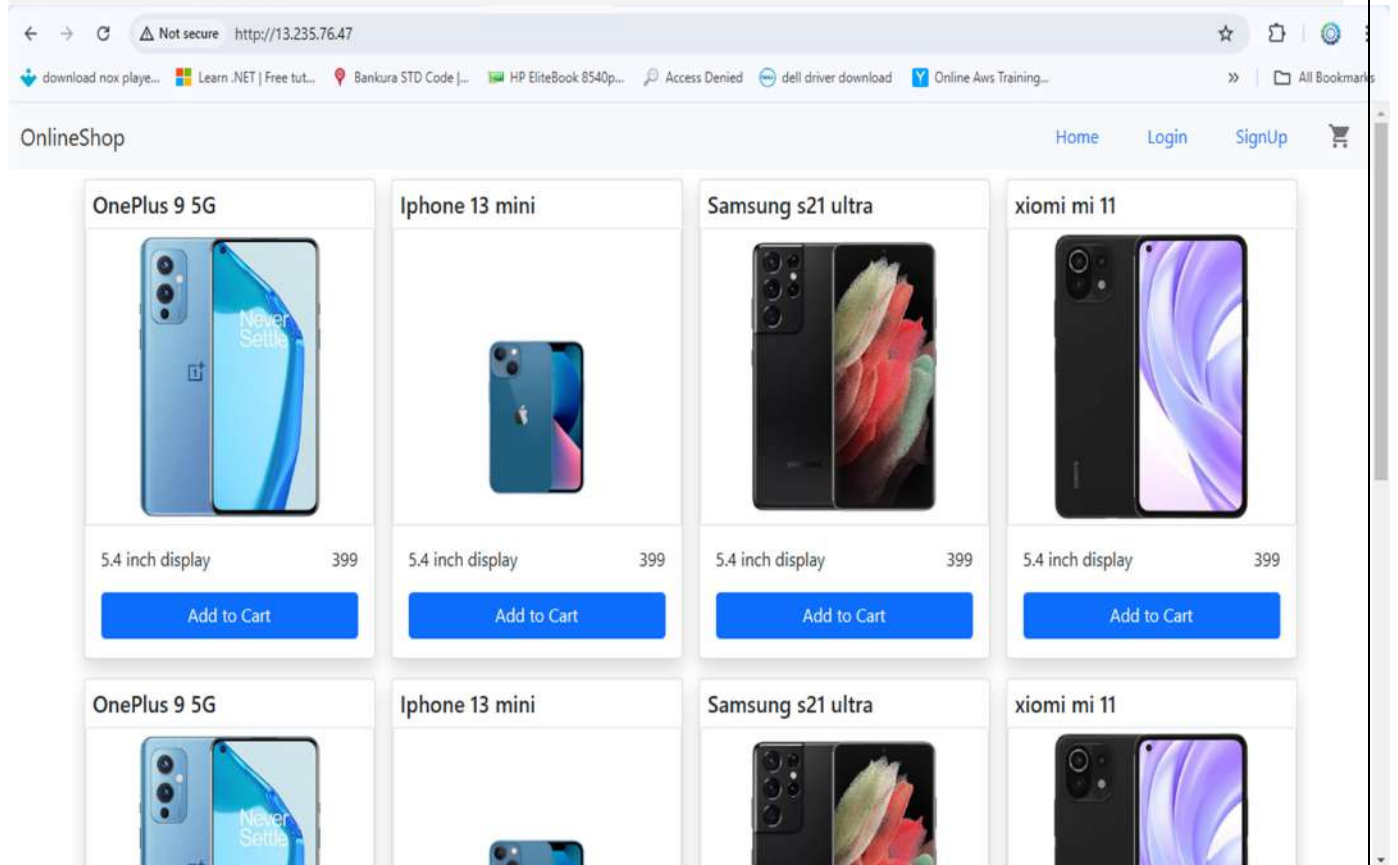
i-0934724d19ad892f1 (Capston project)

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



❑ 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.yml ->> 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
03de31a1fb035: 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 d2elbe3a449a
Removing intermediate container d2elbe3a449a
--> 62f4c049c6ce
Step 3/4 : COPY . /usr/share/nginx/html
--> 2969bcb9565e
Step 4/4 : EXPOSE 80
--> Running in b9b8f51ca961
```

i-0934724d19ad892f1 (Capston project)

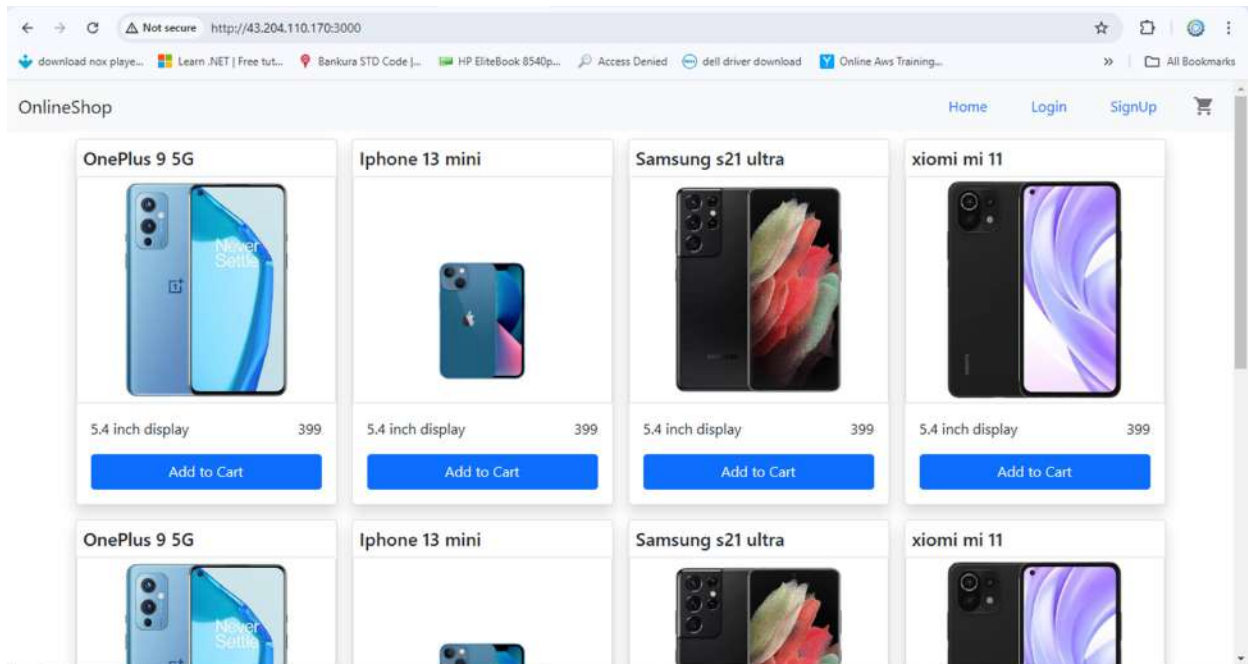
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17

```
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$ 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



❑ **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 Q 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$ 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 Q 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 resource is denied
Stopping the currently running container: buildnginximg container
Error response from daemon: No such container: buildnginximg_container
Error response from daemon: No such container: buildnginximg_container
Running a new container: buildnginximg_container
f2736719759cbc01cfd364d1f0579296dfe101f7c42cd226e0b595c1037e6420
Deployment complete!

i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17
```

```
aws Services Q Search [Alt+S] Mumbai Sumit_aws_1
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 Q Search [Alt+S] Mumbai Sumit_aws_1
# 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"

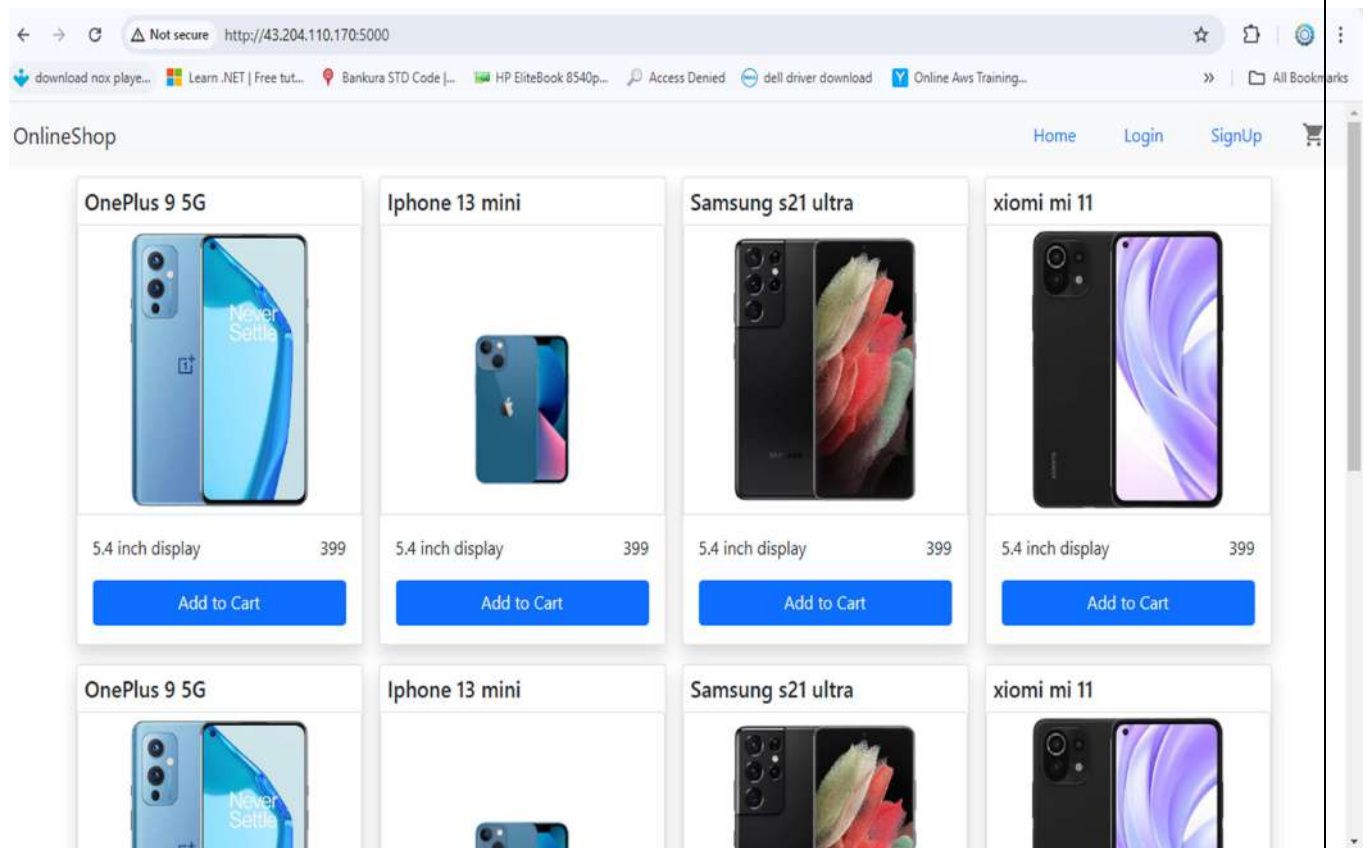
# Step 2: Stop the currently running container (if any)
echo "Stopping the currently running container: $CONTAINER_NAME"
docker stop $CONTAINER_NAME || true
docker rm $CONTAINER_NAME || true

# 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



❑ 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'
            }
        }
    }
}
```

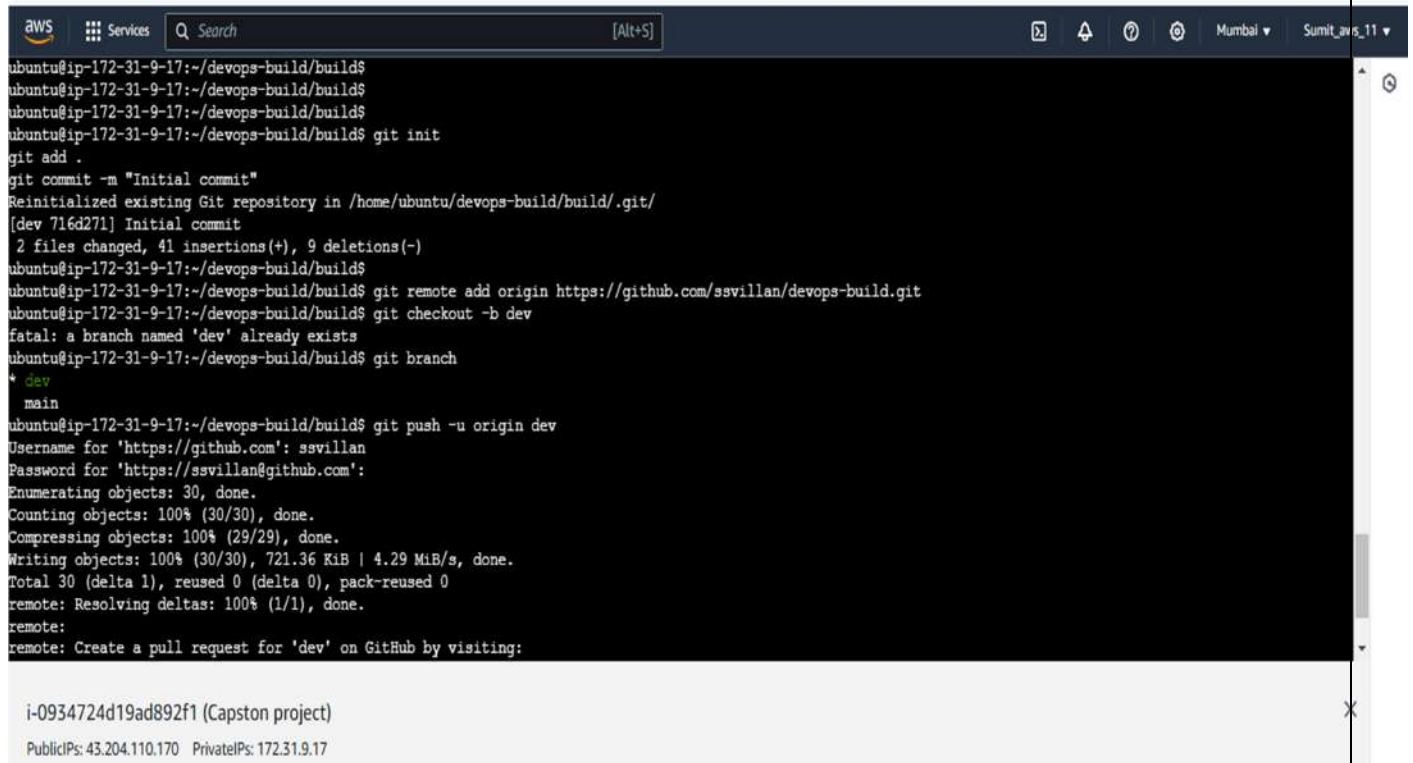
- Create the Prometheus file vi Prometheus.yaml ->> inside the file write code

```
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 Q Search [Alt+S] Mumbai Sumit_aws_11
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$ git init
git add .
git commit -m "Initial commit"
Reinitialized existing Git repository in /home/ubuntu/devops-build/build/.git/
[dev 716d271] Initial commit
 2 files changed, 41 insertions(+), 9 deletions(-)
ubuntu@ip-172-31-9-17:~/devops-build/build$
ubuntu@ip-172-31-9-17:~/devops-build/build$ git remote add origin https://github.com/ssvillan/devops-build.git
ubuntu@ip-172-31-9-17:~/devops-build/build$ git checkout -b dev
fatal: a branch named 'dev' already exists
ubuntu@ip-172-31-9-17:~/devops-build/build$ git branch
* dev
  main
ubuntu@ip-172-31-9-17:~/devops-build/build$ git push -u origin dev
Username for 'https://github.com': ssvillan
Password for 'https://ssvillan@github.com':
Enumerating objects: 30, done.
Counting objects: 100% (30/30), done.
Compressing objects: 100% (29/29), done.
Writing objects: 100% (30/30), 721.36 KiB | 4.29 MiB/s, done.
Total 30 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), done.
remote:
remote: Create a pull request for 'dev' on GitHub by visiting:
i-0934724d19ad892f1 (Capston project)
PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17
```

```
aws Services Q 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 Q 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]
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 srikan-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:~$
ubuntu@ip-172-31-9-17:~$ docker login
Log in with your Docker ID or email address to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com/ to create one.
You can log in with your password or a Personal Access Token (PAT). Using a limited-scope PAT grants better security and is required for organizations using SSO.
Learn more at https://docs.docker.com/go/access-tokens/

Username: sumitdhal
Password:
WARNING! Your password will be stored unencrypted in /home/ubuntu/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
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$
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
mynginximg           latest       060ab4c2870a     13 hours ago    190MB
sumitdhal/dev        latest       060ab4c2870a     13 hours ago    190MB
nginx                latest       5ef79149e0ec     3 days ago      188MB
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker tag buildnginximg sumitdhal/dev
ubuntu@ip-172-31-9-17:~/devops-build/build$ docker images
REPOSITORY          TAG          IMAGE ID          CREATED          SIZE
```

i-0934724d19ad892f1 (Capston project)

PublicIPs: 43.204.110.170 PrivateIPs: 172.31.9.17

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]
55fblcbeaed2: Pushed
5f0272c6e96d: Mounted from library/nginx
f4f00eaeedec7: Mounted from library/nginx
55e54df86207: Mounted from library/nginx
ecla2ca4ac87: 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

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]
55fblcbeaed2: Mounted from sumitdhal/dev
5f0272c6e96d: Mounted from sumitdhal/dev
f4f00eaeedec7: Mounted from sumitdhal/dev
55e54df86207: Mounted from sumitdhal/dev
ecla2ca4ac87: 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

sumitdhal / [Repositories](#) / [dev](#) / [General](#)

Using 1 of 1 private repositories.

GeneralTagsBuildsCollaboratorsWebhooksSettings

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:

```
docker push sumitdhal/dev:tagname
```

Public View

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

sumitdhal / [Repositories](#) / [prod](#) / [General](#)

Using 1 of 1 private repositories.

GeneralTagsBuildsCollaboratorsWebhooksSettings

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

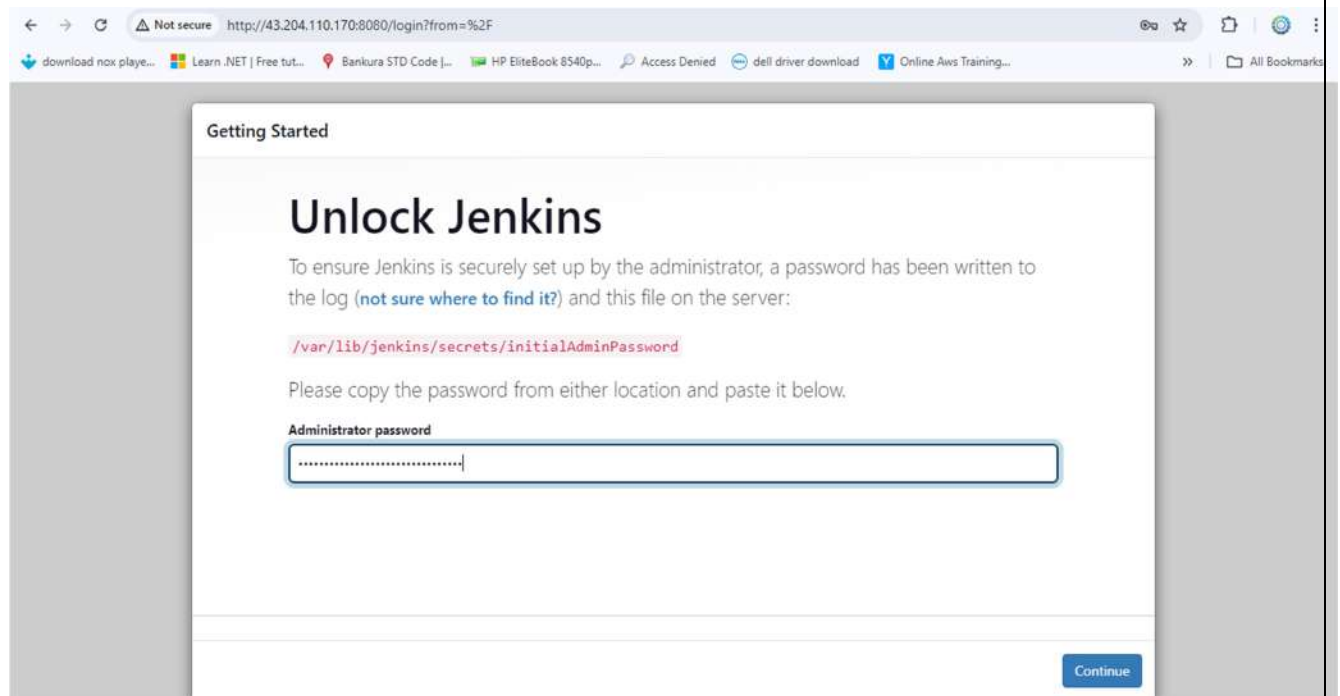
Automated Builds

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](#)

❑ 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 search in google with port 8080
- Next open Unlock jenkins file use code in Ubuntu
sudo cat /var/lib/Jenkins/secrets/initialAdminpassword
after open this file one password is there and copy the password. go to the Unlock Jenkins page Administrator password is there paste the password and click 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 jenkins is ready page is there go and start using Jenkins.....



Getting Started

Create First Admin User

Username

Password

Confirm password

Full name

Jenkins 2.462.1

[Skip and continue as admin](#)

[Save and Continue](#)

Getting Started

Instance Configuration

Jenkins URL:

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'

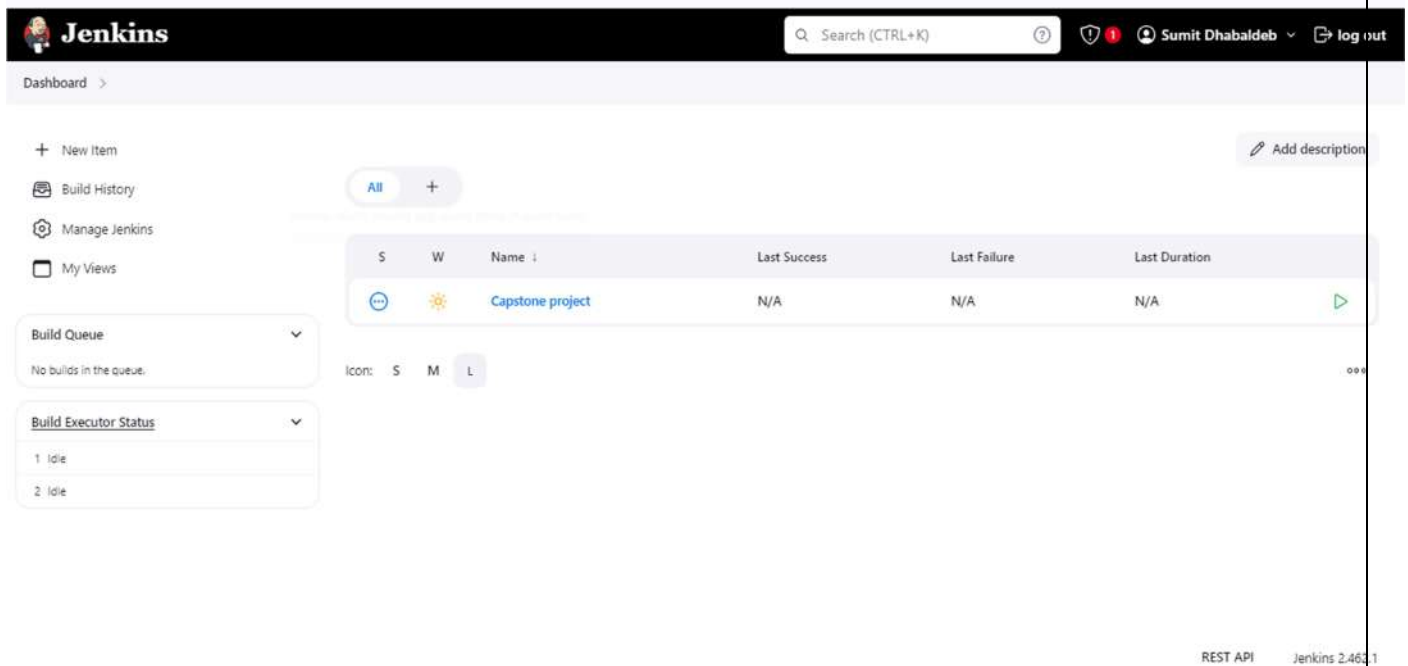
        // Build the Docker image using the build script
        sh './build.sh'
      }
    }

    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

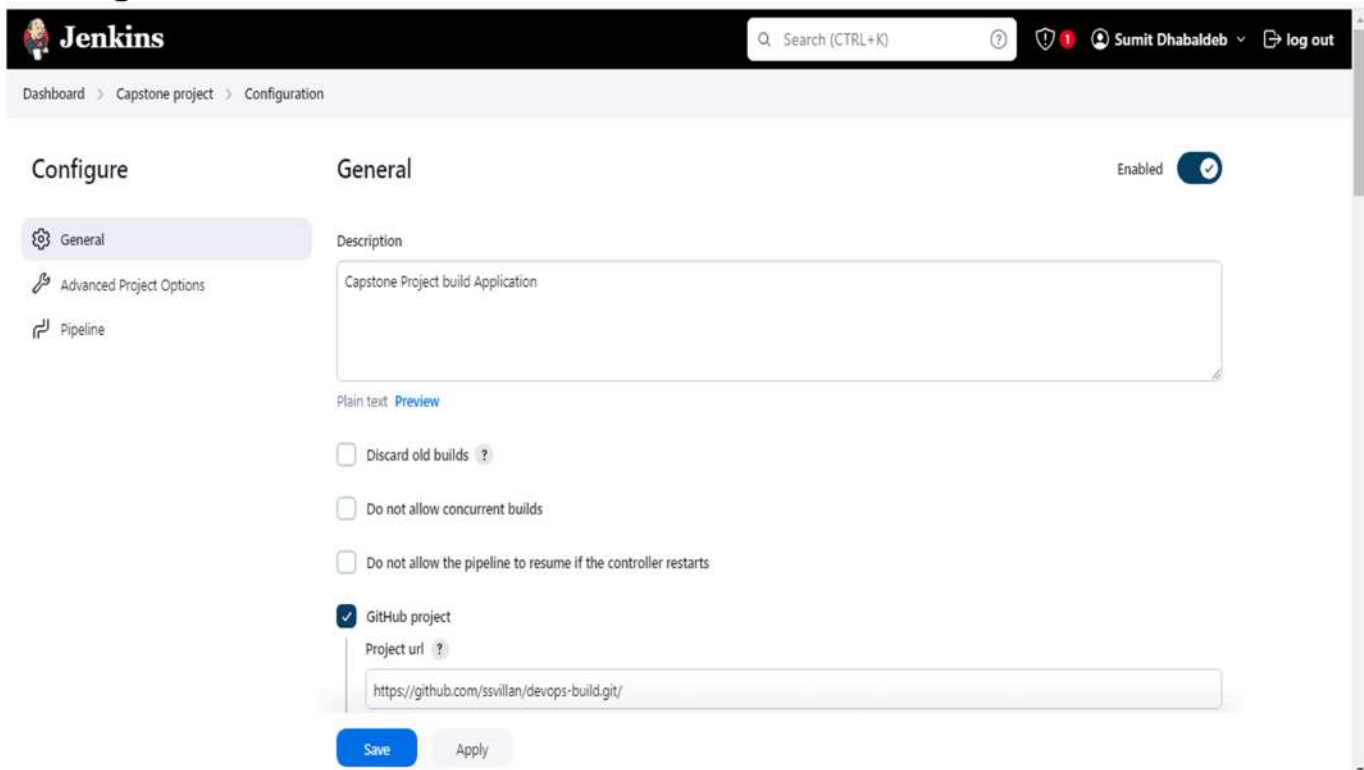
➤ This is already build but just for reference I've showed you here



The screenshot shows the Jenkins Dashboard. At the top, there's a header with the Jenkins logo, a search bar, and user information (Sumit Dhabaldeh). Below the header, there's a sidebar with navigation links: New Item, Build History, Manage Jenkins, and My Views. The main area displays a table of builds for the 'Capstone project'. The table has columns for S (Success), W (Warning), Name, Last Success, Last Failure, and Last Duration. The 'Capstone project' row shows 'N/A' for Last Success and Last Failure, and 'N/A' for Last Duration. Below the table, there's a section for 'Build Queue' and 'Build Executor Status'.

S	W	Name	Last Success	Last Failure	Last Duration
...	...	Capstone project	N/A	N/A	N/A

Config it



The screenshot shows the Jenkins Configuration page for the 'Capstone project'. The page has a sidebar with navigation links: General, Advanced Project Options, and Pipeline. The main area is titled 'Configure' and 'General'. It includes a 'Description' field with the text 'Capstone Project build Application'. Below the description, there are several checkboxes: 'Discard old builds', 'Do not allow concurrent builds', and 'Do not allow the pipeline to resume if the controller restarts'. The 'GitHub project' checkbox is checked, and the 'Project url' field contains the URL 'https://github.com/ssvillan/devops-build.git/'. At the bottom, there are 'Save' and 'Apply' buttons.


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) ?

Configure

General

Advanced Project Options

Pipeline

Pipeline

Definition

Pipeline script from SCM

SCM ?

Git

Repositories ?

Repository URL ?

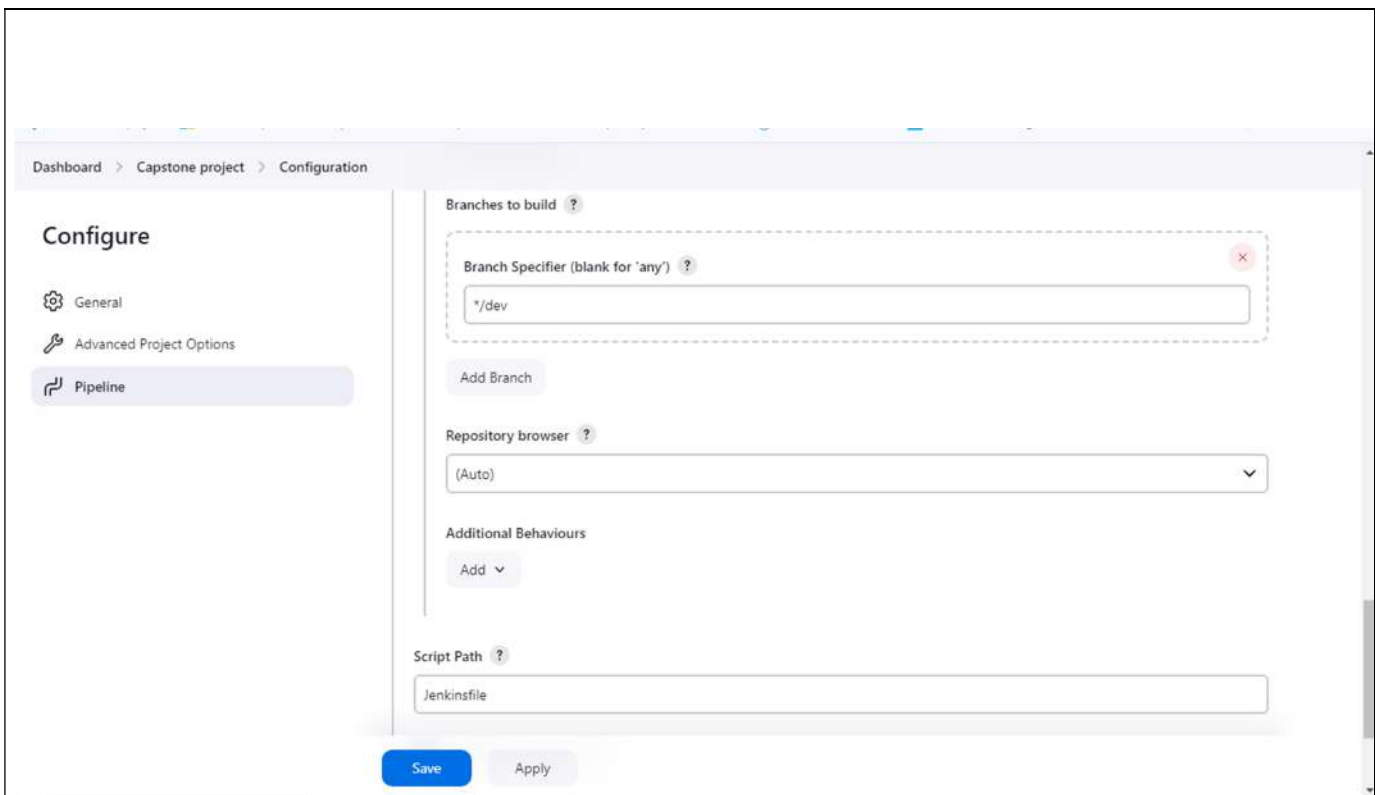
<https://github.com/ssvillan/devops-build.git>

Credentials ?

- none -

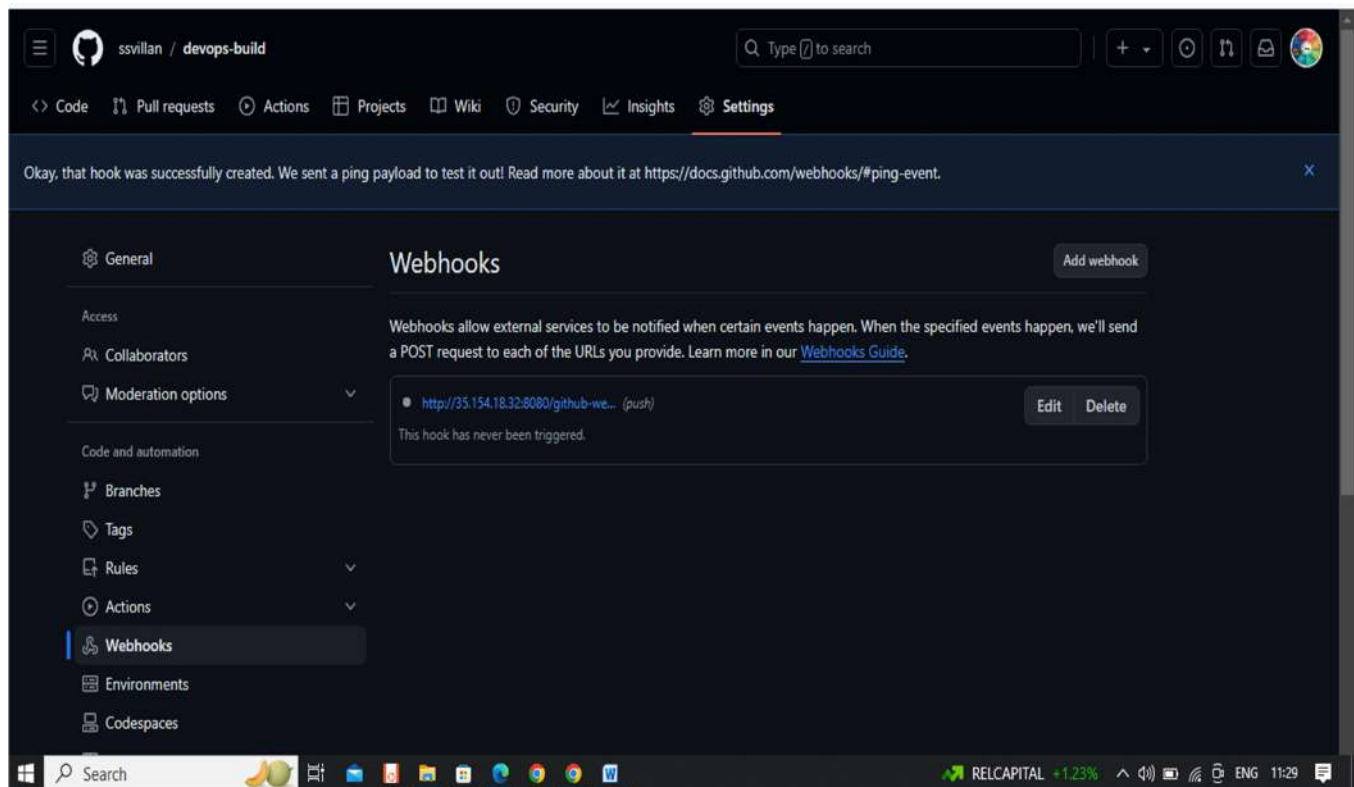
+ Add +

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 .

The screenshot displays the Jenkins web interface. At the top, the Jenkins logo and a search bar are visible. The user 'Sumit Dhabaldeb' is logged in. The breadcrumb trail shows 'Dashboard > Capstone project > #2'. The main content area shows the 'Capstone project' status as 'Build #2 (Aug 23, 2024, 9:19:59 AM)' with a green checkmark icon. A sidebar on the left contains various links like 'Status', 'Changes', 'Build Now', 'Configure', etc. The right sidebar shows 'Keep this build forever', 'Add description', and 'Started 1 min 56 sec ago Took 11 sec'. The main content area includes 'Permalinks' for the last build, stable build, successful build, and completed build. Below this, it shows 'Started by user Sumit Dhabaldeb' and 'This run spent: 97 ms waiting, 11 sec build duration, 11 sec total from scheduled to completion.' The 'git' section shows the 'Revision: fe98ab1b8f414a6efa89e8bb7e6813b1358040f6' and 'Repository: https://github.com/ssvillan/devops-build.git'.

Jenkins Search (CTRL+K) Sumit Dhabaldeb log out

Dashboard > Capstone project > #2

Capstone project Edit description

Build History trend

Build #2 (Aug 23, 2024, 9:19:59 AM) Keep this build forever

Started 1 min 56 sec ago Took 11 sec

Add description

Permalinks

- Last build (#2), 47 sec ago
- Last stable build (#2), 47 sec ago
- Last successful build (#2), 47 sec ago
- Last completed build (#2), 47 sec ago

Started by user **Sumit Dhabaldeb**

This run spent:

- 97 ms waiting:
- 11 sec build duration:
- 11 sec total from scheduled to completion.

git Revision: fe98ab1b8f414a6efa89e8bb7e6813b1358040f6
Repository: https://github.com/ssvillan/devops-build.git

- refs/remotes/origin/dev

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)

```

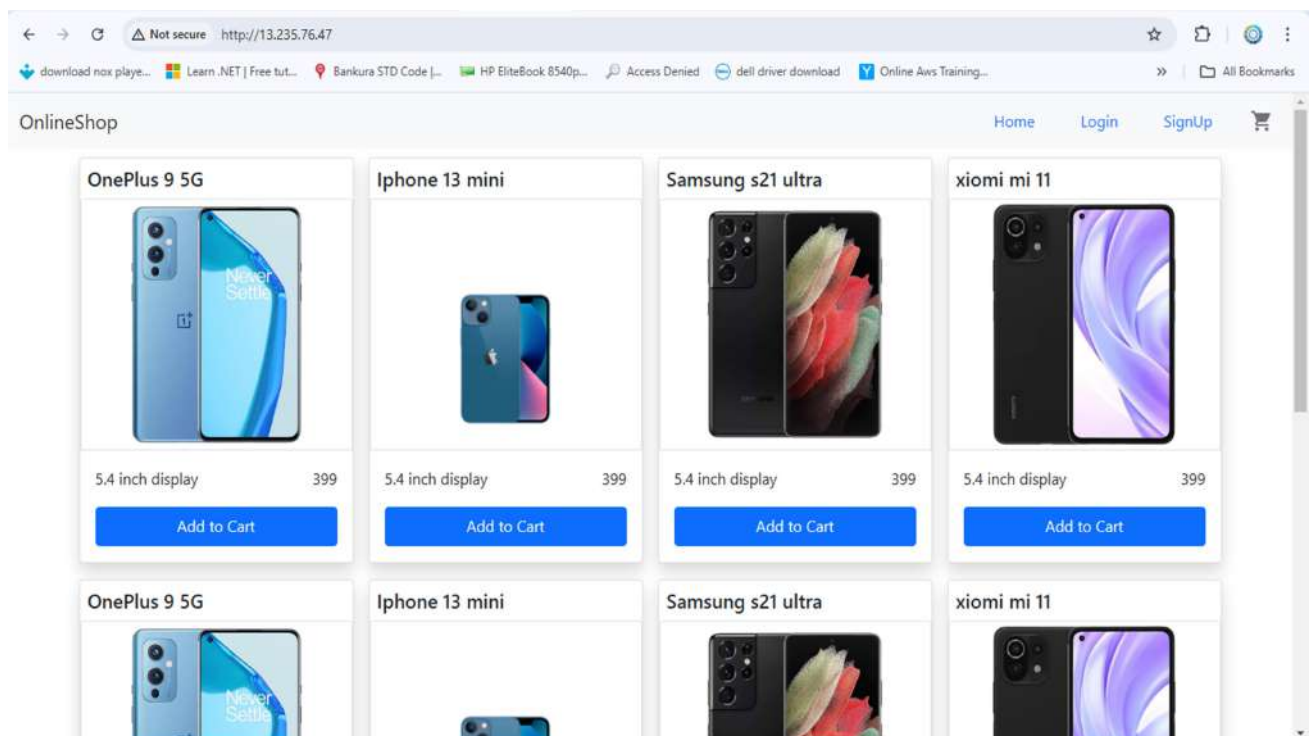
```

> git checkout -f fe98ab1b8f414a6efa89e8bb7e6813b1358040f6 # timeout=10
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=Dockerf
ile&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

```

```
+ ./deploy.sh
Pulling the latest Docker image: nginx: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=buildninxing&tag=latest": dial unix /var/run/docker.sock:
connect: permission denied
Stopping the currently running container: buildninx_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/buildninx_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/buildninx_container": dial unix /var/run/docker.sock: connect:
permission denied
Running a new container: buildninx_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=buildninx_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
```



❑ 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/` -> then it will go all the files inside the `/var/www/mysite/` directory
- After 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 Security Group .
- You want to see your running application
- And use this IP address `15.207.109.116:80`

aws Services Search [Alt+S]

EC2 Dashboard X

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 X Clear filters

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public
<input type="checkbox"/>	Capston project	i-0934724d19ad892f1	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1b	ec2-15

Select an instance

```
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.conf: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$ 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#
```

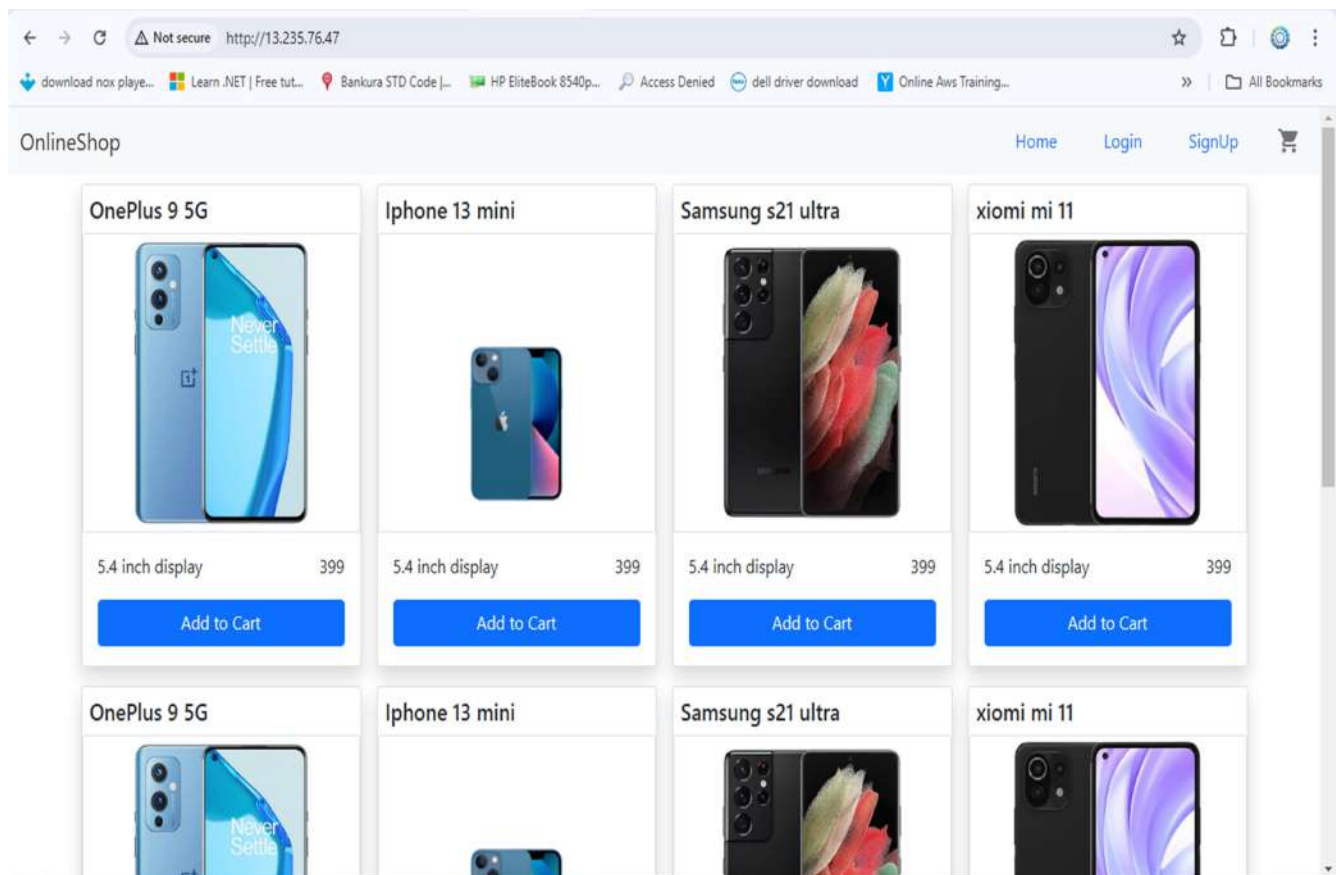
i-0934724d19ad892f1 (Capston project)

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="sha384-1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WzR85fqBE6BJC82SiOi1001"><link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.min.js" rel="script" integrity="sha384-w
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><div id="root"></div></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



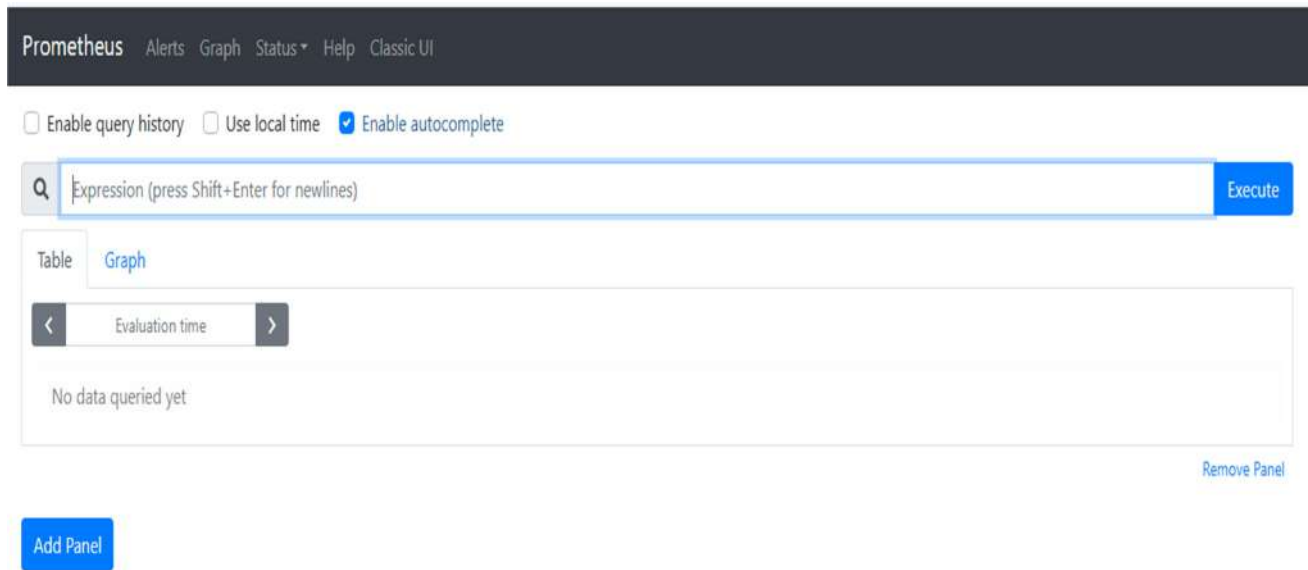
➤ These are the port I have enable and take Screenshot

Security group rule ID	Type	Protocol	Port range	Source	Description - optional	
sgr-0d38373e168247e15	Custom TCP	TCP	8080	Custom	Q	Delete
				0.0.0.0/0	X	
sgr-027b77fabfb582f41	SSH	TCP	22	Custom	Q	Delete
				0.0.0.0/0	X	
sgr-07c354769ea55fc51	Custom TCP	TCP	3000	Custom	Q	Delete
				0.0.0.0/0	X	
sgr-013078ca5faf8d2e2	Custom TCP	TCP	5000	Custom	Q	Delete
				0.0.0.0/0	X	
sgr-05934dd030e5253de	Custom TCP	TCP	9100	Custom	Q	Delete
				0.0.0.0/0	X	
sgr-05f4d896fbaded596	HTTP	TCP	80	Custom	Q	Delete
				0.0.0.0/0	X	
sgr-03f1f267156482158	Custom TCP	TCP	9090	Custom	Q	Delete
				0.0.0.0/0	X	

❑ 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 :

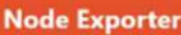


The screenshot shows the Prometheus web interface. At the top is a navigation bar with links: Prometheus, Alerts, Graph, Status, Help, and Classic UI. Below the navigation bar are three checkboxes: "Enable query history" (unchecked), "Use local time" (unchecked), and "Enable autocomplete" (checked). A search bar with a magnifying glass icon contains the placeholder text "Expression (press Shift+Enter for newlines)". To the right of the search bar is a blue "Execute" button. Below the search bar are two tabs: "Table" and "Graph", with "Graph" being the active tab. Below the tabs is a "Evaluation time" selector with left and right arrow buttons. The main area displays "No data queried yet". At the bottom right of the main area is a "Remove Panel" link. At the bottom left is a blue "Add Panel" button.



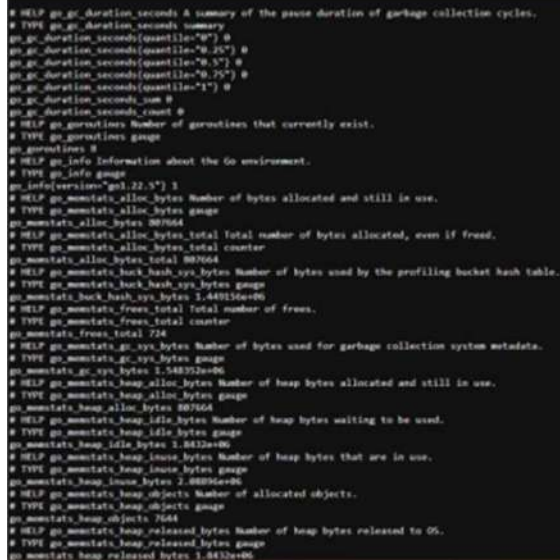
The screenshot shows the Prometheus web interface with the "Targets" page selected. The navigation bar is the same as in the previous screenshot. Below the navigation bar is the "Targets" heading. Under the heading are two buttons: "All" (selected) and "Unhealthy". Below the buttons is the text "prometheus (1/1 up)" followed by a "show less" link. Below this is a table with the following data:

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://localhost:9090/metrics	UP	instance="localhost:9090" job="prometheus"	10.884s	5.555ms	



Version: (version=1.8.2, branch=HEAD, revision=f1e0e8360aa60b6cb5e5cc1560bed348fc2c1895)

- [Metrics](#)

[illegible]