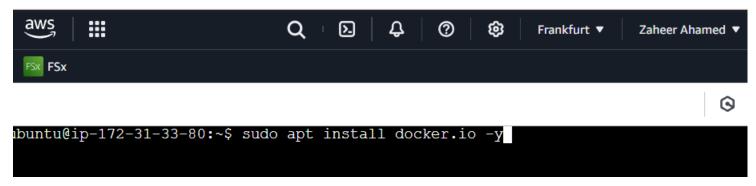
1. Install Docker



2. Check directory and version

```
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-33-80:~$ which docker
/usr/bin/docker
ubuntu@ip-172-31-33-80:~$ docker --version
Docker version 24.0.7, build 24.0.7-0ubuntu2~22.04.1
ubuntu@ip-172-31-33-80:~$
```

3. Pull ubuntu

```
ubuntu@ip-172-31-33-80:~$ sudo docker pull ubuntu
Jsing default tag: latest
latest: Pulling from library/ubuntu
de44b265507a: Pull complete
Digest: sha256:80dd3c3b9c6cecb9f1667e9290b3bc61b78c2678c02cbdae5f0fea92cc6734ab
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
ubuntu@ip-172-31-33-80:~$ [
```

4. Check pulled docker image

```
ubuntu@ip-172-31-33-80:~$ sudo docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
ubuntu latest b1d9df8ab815 3 weeks ago 78.1MB
ubuntu@ip-172-31-33-80:~$ [
```

5. Run container on port 80:80

```
ubuntu@ip-172-31-33-80:~$ sudo docker run -itd -p 80:80 --name conatiner1 ubuntu e5b2a371348b71929807adaf389bf9d8d35a93e1dcd5e560e45cb48cb9e4b3ab ubuntu@ip-172-31-33-80:~$
```

```
ubuntu@ip-172-31-33-80:~$ sudo docker ps
CONTAINER ID
               IMAGE
                         COMMAND
                                       CREATED
                                                       STATUS
                                                                      PORTS
                         NAMES
e5b2a371348b
              ubuntu
                         "/bin/bash"
                                       2 minutes ago
                                                      Up 2 minutes
                                                                      0.0.0.0:80-
>80/tcp, :::80->80/tcp
                        conatiner1
ubuntu@ip-172-31-33-80:~$ sudo docker ps -a
CONTAINER ID
                                       CREATED
              IMAGE
                        COMMAND
                                                        STATUS
                                                                        PORTS
                          NAMES
                         "/bin/bash"
                                                        Up 12 minutes
e5b2a371348b
              ubuntu
                                       12 minutes ago
                                                                        0.0.0.0:8
0->80/tcp, :::80->80/tcp
                           conatiner1
ubuntu@ip-172-31-33-80:~$ 🗌
```

rome isn't your default browser

Set as default



Apache2 Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should replace this file (located at /var/www/html/index.html) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is fully documented in /usr/share/doc/apache2/README.Debian.gz. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the manual if the apache2-doc package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

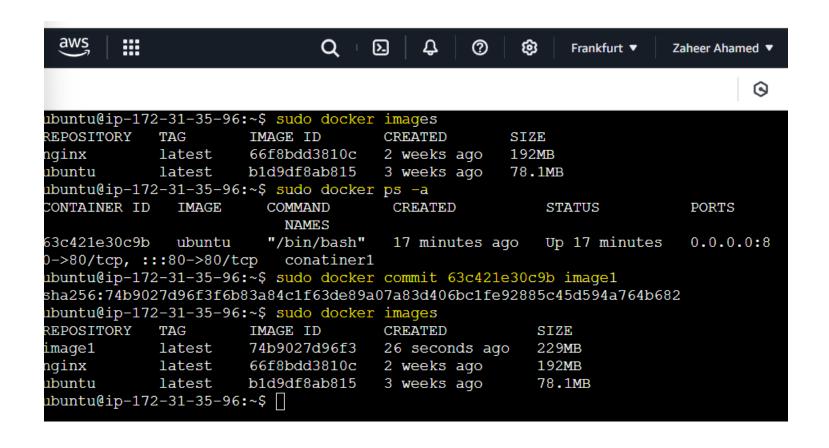
```
/etc/apache2/
|-- apache2.conf
        `-- ports.conf
 -- mods-enabled
        1-- *.Load
        `-- *.conf
 -- conf-enabled
        `-- *.conf
```



i-014cc026d574dcae9 (Docker-1)

PublicIPs: 35.159.73.104 PrivateIPs: 172.31.33.80

1

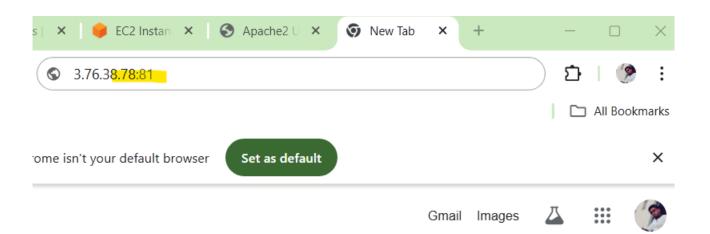


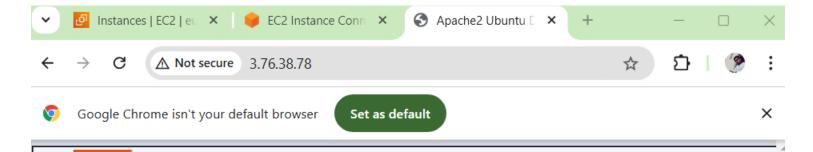


(3)

```
)->80/tcp, :::80->80/tcp
                          conatiner1
ubuntu@ip-172-31-35-96:~$ sudo docker commit 63c421e30c9b image1
sha256:74b9027d96f3f6b83a84c1f63de89a07a83d406bc1fe92885c45d594a764b682
ubuntu@ip-172-31-35-96:~$ sudo docker images
REPOSITORY
                                     CREATED
            TAG
                      IMAGE ID
                                                      SIZE
mage1
                      74b9027d96f3
                                    26 seconds ago
            latest
                                                      229MB
nginx
                      66f8bdd3810c 2 weeks ago
            latest
                                                      192MB
                      b1d9df8ab815
                                     3 weeks ago
                                                      78.1MB
ıbuntu
            latest
buntu@ip-172-31-35-96:~$ sudo docker run -itd -p 81:80 image1
55126f9bc31e657efd151afd93e5afb38a11f111a4ea715a4707f0b62adc488
ubuntu@ip-172-31-35-96:~$ sudo docker ps -a
CONTAINER ID
              IMAGE
                        COMMAND
                                      CREATED
                                                       STATUS
                                                                       PORTS
                          NAMES
                                                       Up 29 seconds
55126f9bc31
              image1
                                      30 seconds ago
                        "/bin/bash"
                                                                       0.0.0.0:8
->80/tcp, :::81->80/tcp priceless ellis
                                      22 minutes ago
53c421e30c9b
              ubuntu
                        "/bin/bash"
                                                       Up 22 minutes
                                                                       0.0.0.0:8
                          conatiner1
->80/tcp, :::80->80/tcp
ubuntu@ip-172-31-35-96:~$ sudo docker exec -it b55126f9bc31 bash
coot@b55126f9bc31:/# apt-get update
!it:1 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease
lit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
root@b55126f9bc31:/#
```

```
ubuntu@ip-172-31-35-96:~$ sudo docker exec -it b55126f9bc31 bash
root@b55126f9bc31:/# apt-get update
Hit:1 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
root@b55126f9bc31:/# service apache2 status
    apache2 is not running
root@b55126f9bc31:/# service apache2 start
    * Starting Apache httpd web server apache2
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.17.0.3. Set the 'ServerName' directive globally to suppress this s message
    * root@b55126f9bc31:/# [
```







Apache2 Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubur Apache packaging is derived. If you can read this page, it means that the Apache HTTP server install this site is working properly. You should **replace this file** (located at /var/www/html/index.html) before continuing to operate your HTTP server.

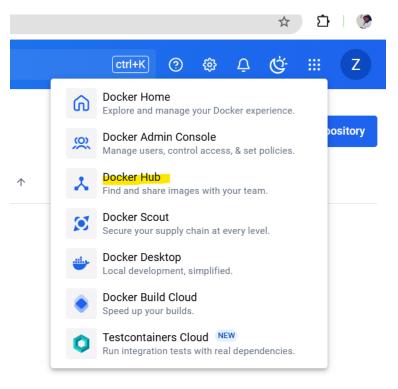
If you are a normal user of this web site and don't know what this page is about, this probably meathat the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

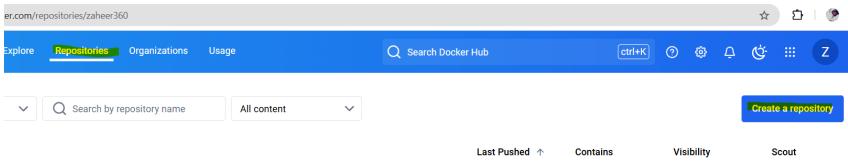
Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and spinto several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in /usr/share/doc/apache2/README.Debian.gz**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if t apache2-doc package was installed on this server.

The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

16 sudo docker images
17 sudo docker ps -a
18 sudo docker commit 63c421e30c9b image1
19 sudo docker images
20 sudo docker run -itd -p 81:80 image1
21 sudo docker ps -a
22 sudo docker exec -it b55126f9bc31 bash
23 history







There are no repositories in this namespace.

Explore

Repositories

Organizations

Usage



Repositories / Create

Create repository



dockerassign-3



Short description

A short description to identify your repository. If the repository is public, this description is used to index your content on Docker Hub and in search engines, and is visible to users in search results.

Visibility

Using 0 of 1 private repositories. Get more







```
ubuntu@ip-172-31-35-96:~$ sudo docker login
Log in with your Docker ID or email address to push and pull images from Docker H
ub. 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 limit
ed-scope PAT grants better security and is required for organizations using SSO.
Learn more at https://docs.docker.com/go/access-tokens/

Username: zaheer360
Password:
WARNING! Your password will be stored unencrypted in /root/.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-172-31-35-96:~$ []
```

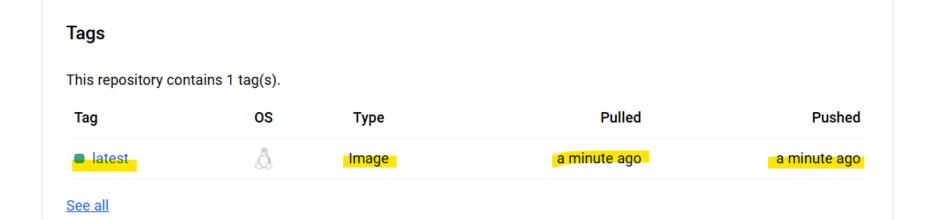


zaheer360/dockerassign-3 🚳

Last pushed 1 minute ago

Add a description 🧷 🕠 INCOMPLETE

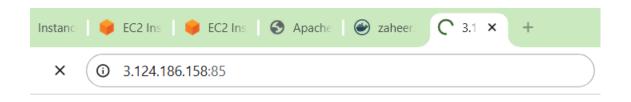
Add a category 🧷 🕠 INCOMPLETE



```
Fetched 34.8 MB in 7s (5141 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
37 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-33-167:~$ sudo apt install docker.io -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
   bridge-utils containerd dns-root-data dnsmasq-base pigz runc ubuntu-fan
Suggested packages:
   ifupdown aufs-tools cgroupfs-mount | cgroup-lite debootstrap docker-doc rinse 2
```

```
No VM quests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-33-167:~$ docker --version
Docker version 24.0.7, build 24.0.7-Oubuntu2~22.04.1
ubuntu@ip-172-31-33-167:~$ sudo docker pull zaheer360/dockerassign-3
Using default tag: latest
latest: Pulling from zaheer360/dockerassign-3
de44b265507a: Pull complete
9030277fb346: Pull complete
                                                                                 Digest: sha256:377c7b599bb70c0086b33085b64c19dd14858aba4b17533
Status: Downloaded newer image for zaheer360/dockerassign-3:latest
docker.io/zaheer360/dockerassign-3:latest
ubuntu@ip-172-31-33-167:~$ docker images
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://%2Fvar%2Frun%2Fdocker.sock/v1
nix /var/run/docker.sock: connect: permission denied
ubuntu@ip-172-31-33-167:~$ sudo docker images
REPOSITORY
                          TAG
                                     IMAGE ID
                                                    CREATED
                                                                        SIZE
                                    74b9027d96f3 About an hour ago
zaheer360/dockerassign-3 latest
                                                                        229MB
ubuntu@ip-172-31-33-167:~$ sudo docker run -itd -p 85:80 --name container2 <mark>zaheer</mark>zaheer360/dockerassign-3
44bb419c14c80fe219b8f61e880a4b2011c5378e9b5b00d27abe0fbf4cca2ae8
ubuntu@ip-172-31-33-167:~$ sudo docker ps
CONTAINER ID IMAGE
                                          COMMAND
                                                        CREATED
                                                                         STATUS
                                                                                                                             NAMES
44bb419c14c8
              zaheer360/dockerassign-3 "/bin/bash" 23 seconds ago
                                                                        Up 21 seconds
                                                                                         0.0.0.0:85->80/tcp, :::85->80/tcp
                                                                                                                             container2
ubuntu@ip-172-31-33-167:~$
```

```
Status: Downloaded newer image for zaheer360/dockerassign-3:latest
docker.io/zaheer360/dockerassign-3:latest
ubuntu@ip-172-31-33-167:~$ docker images
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://%2Fvar%2Frun%2Fdocker.soc
nix /var/run/docker.sock: connect: permission denied
ubuntu@ip-172-31-33-167:~$ sudo docker images
REPOSITORY
                          TAG
                                     IMAGE ID
                                                   CREATED
                                                                       SIZE
zaheer360/dockerassign-3 latest
                                    74b9027d96f3 About an hour ago
                                                                       229MB
ubuntu@ip-172-31-33-167:~$ sudo docker run -itd -p 85:80 --name container2 zaheerzaheer360/dockerassign-3
44bb419c14c80fe219b8f61e880a4b2011c5378e9b5b00d27abe0fbf4cca2ae8
ubuntu@ip-172-31-33-167:~$ sudo docker ps
CONTAINER ID IMAGE
                                         COMMAND
                                                       CREATED
                                                                        STATUS
                                                                                        PORTS
                                                                                                                            NAMES
44bb419c14c8 zaheer360/dockerassign-3 "/bin/bash"
                                                       23 seconds ago
                                                                        Up 21 seconds
                                                                                        0.0.0.0:85->80/tcp, :::85->80/tcp container2
ubuntu@ip-172-31-33-167:~$ sudo docker exec -it 44bb419c14c8 bash
root@44bb419c14c8:/# apt-get update
Hit:1 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Fetched 126 kB in 1s (178 kB/s)
Reading package lists... Done
root@44bb419c14c8:/# service apache2 status
  apache2 is not running
root@44bb419c14c8:/# service apache2 start
 * Starting Apache httpd web server apache2
                                                                                AH00558: apache2: Could not reliably determine the server
e, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message
root@44bb419c14c8:/#
```





Apache2 Default Page

It works!

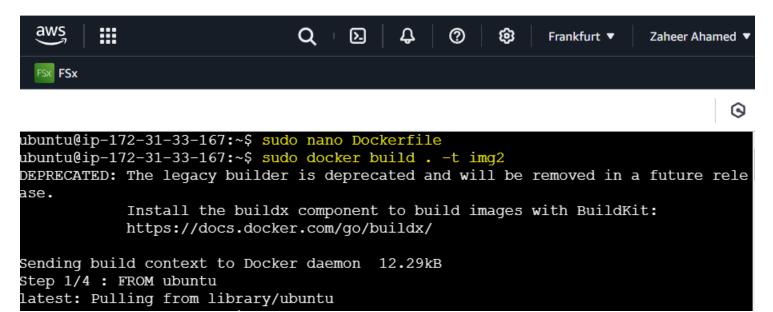
This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at /var/www/html/index.html) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in /usr/share/doc/apache2/README.Debian.gz**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the

```
root@44bb419c14c8:/# exit
exit
ubuntu@ip-172-31-33-167:~$ hidtory
hidtory: command not found
ubuntu@ip-172-31-33-167:~$ history
   1 sudo apt update
   2 sudo apt install docker.io -y
   3 docker --version
   4 sudo docker pull zaheer360/dockerassign-3
   5 docker images
   6 sudo docker images
   7 sudo docker run -itd -p 85:80 --name container2 zaheer360/dockerassign-3
   8 sudo docker ps
   9 sudo docker exec -it 44bb419c14c8 bash
  10 hidtory
  11 history
ubuntu@ip-172-31-33-167:~$
```



```
FROM ubuntu
RUN apt-get update
RUN apt-get install apache2 -y
ENTRYPOINT apachectl -D FOREGROUND

#CMD["apachectl","-D","FOREGROUND"]

Step 4/4: ENTRYPOINT apachectl -D FOREGROUND
---> Running in 796a9a2e7f90
Removing intermediate container 796a9a2e7f90
---> 956ab53cd8f0
Successfully built 956ab53cd8f0
Successfully tagged img2:latest
ubuntu@ip-172-31-33-167:~$
```

```
Successfully built 956ab53cd8f0
Successfully tagged img2:latest
ubuntu@ip-172-31-33-167:~$ sudo docker images
REPOSITORY
                          TAG
                                    IMAGE ID
                                                  CREATED
                                                                       SIZE
img2
                                    956ab53cd8f0
                                                  About a minute ago
                          latest
                                                                       229MB
zaheer360/dockerassign-3
                          latest
                                   74b9027d96f3
                                                  2 hours ago
                                                                       229MB
                                                  3 weeks ago
ubuntu
                                   b1d9df8ab815
                                                                       78.1MB
                          latest
ubuntu@ip-172-31-33-167:~$ 🛚
```

i-02426b7e20c0cd5ad (Docker2)

```
ubuntu@ip-172-31-33-167:~$ sudo docker ps -a
CONTAINER ID
               IMAGE
                                         COMMAND
                                                                   CREATED
   STATUS
                   PORTS
                                                       NAMES
                                          "/bin/sh -c 'apachec..."
723f866a8376
              ima2
                                                                  19 seconds ago
                  0.0.0.0:83->80/tcp, :::83->80/tcp
                                                       CONTR3
  Up 18 seconds
              zaheer360/dockerassign-3 "/bin/bash"
44bb419c14c8
                                                                   29 minutes ago
   Up 28 minutes 0.0.0.0:85->80/tcp, :::85->80/tcp
                                                       container2
ubuntu@ip-172-31-33-167:~$ sudo docker exec -it CONTR3 bash
root@723f866a8376:/# apt-get update
Hit:1 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
root@723f866a8376:/# service apache2 ststus
Usage: apache2 {start|stop|graceful-stop|restart|reload|force-reload}
root@723f866a8376:/# service apache2 start
 * Starting Apache httpd web server apache2
root@723f866a8376:/#
```



Apache2 Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at /var/www/html/index.html) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is **fully documented in /usr/share/doc/apache2/README.Debian.gz**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the

```
12 clear
13 sudo nano Dockerfile
14 sudo docker build . -t img2
15 sudo docker images
16 sudo docker run -itd -p 83:80 --name CONTR3 img2
17 sudo docker ps -a
18 sudo docker exec -it CONTR3 bash
19 history
untu@ip-172-31-33-167:~$
```

```
3/ packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-45-30:~$ mkdir Ass5
ubuntu@ip-172-31-45-30:~$ cd Ass5
ubuntu@ip-172-31-45-30:~/Ass5$ ls
ubuntu@ip-172-31-45-30:~/Ass5$ sudo nano index.html
ubuntu@ip-172-31-45-30:~/Ass5$ sudo nano Dockerfile
ubuntu@ip-172-31-45-30:~/Ass5$ sudo apt-qet install docker.io -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
 bridge-utils containerd dns-root-data dnsmasg-base pigz runc ubuntu-fan
Suggested packages:
 ifupdown aufs-tools cgroupfs-mount | cgroup-lite debootstrap docker-doc rin
The following NEW packages will be installed:
 bridge-utils containerd dns-root-data dnsmasq-base docker.io pigz runc ubun
0 upgraded, 8 newly installed, 0 to remove and 37 not upgraded.
Need to get 75.5 MB of archives.
After this operation, 284 MB of additional disk space will be used.
Get:1 http://eu-central-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64
```

i-0d8a82efac8f66a55 (docker4)

PublicIPs: 18.184.173.105 PrivateIPs: 172.31.45.30

Sudo nano index.html

<html>[] <head> <title>DOCKER</title> </head> <body> This is a sample html file </body> </html>

Sudo nano Dockerfile

```
GNU nano 6.2

FROM ubuntu

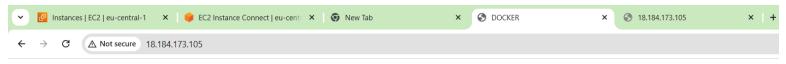
RUN apt-get update

RUN apt-get install apache2 -y

ENTRYPOINT apache2ctl -D FOREGROUND

ADD index.html /var/www/html
```

```
ubuntu@ip-172-31-45-30:~/Ass5$ sudo docker run -itd -p 80:80 ass5
7dca3a6a640ad8e56a2985e260d73eadf42df5dfba4414a9a1b0c429761b2676
ubuntu@ip-172-31-45-30:~/Ass5$ sudo docker ps
CONTAINER ID IMAGE
                         COMMAND
                                                  CREATED
                                                                   STATUS
                                                                                                                        NAMES
7dca3a6a640a
              ass5
                         "/bin/sh -c 'apache2..."
                                                  9 seconds ago
                                                                   Up 8 seconds
                                                                                    0.0.0.0:80->80/tcp, :::80->80/tcp
                                                                                                                        elastic hopper
                        "/bin/sh -c 'apache2..."
591964847a2e
              ass5
                                                  13 minutes ago
                                                                   Up 13 minutes
                                                                                    0.0.0.0:86->80/tcp, :::86->80/tcp
                                                                                                                        laughing germain
8db1a7b37f2c
              ass5
                         "/bin/sh -c 'apache2..."
                                                  31 minutes ago
                                                                   Up 31 minutes
                                                                                    0.0.0.0:85->80/tcp, :::85->80/tcp
                                                                                                                        beautiful wright
ubuntu@ip-172-31-45-30:~/Ass5$ 🗌
```



This is a sample html file