

```
ubuntu@ip-172-31-190-9: ~$ sudo apt-get update -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Reading package lists... Done
ubuntu@ip-172-31-190-9:~$ sudo apt-get install docker.io
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
docker.io is already the newest version (26.1.3-0ubuntu1~24.04.1).
0 upgraded, 0 newly installed, 0 to remove and 106 not upgraded.
ubuntu@ip-172-31-190-9:~$ sudo systemctl enable docker
ubuntu@ip-172-31-190-9:~$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset: enabled)
   Active: active (running) since Wed 2025-02-26 04:39:17 UTC; 16min ago
   TriggeredBy: ● docker.socket
     Docs: https://docs.docker.com
    Main PID: 1913 (dockerd)
      Tasks: 7
     Memory: 35.8M (peak: 36.2M)
        CPU: 340ms
    CGroup: /system.slice/docker.service
            └─1913 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock
```

```
Feb 26 04:39:17 ip-172-31-190-9 systemd[1]: Started docker.service - Docker Application Container Engine.
ubuntu@ip-172-31-190-9:~$ sudo systemctl start docker
ubuntu@ip-172-31-190-9:~$ sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
e6590344b1a5: Pull complete
Digest: sha256:e0b569a5163a5e6be84e210a2587e7d447e08f87a0e90798363fa44a0464a1e8
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/
ubuntu@ip-172-31-190-9:~$ |
```

We launched an Ubuntu EC2 instance in AWS. We then updated the Ubuntu machine, installed Docker, enabled it, and checked the Docker status. To verify that Docker was running, we ran the hello-world command using the following commands:

```
sudo apt update
sudo apt install docker.io
sudo systemctl enable docker
sudo systemctl start docker
sudo systemctl status docker
docker run hello-world
```

```
ubuntu@ip-172-31-190-9: ~/my-website$ ls -l
total 12
-rw-rw-r-- 1 ubuntu ubuntu 245 Feb 26 04:58 Dockerfile
-rw-rw-r-- 1 ubuntu ubuntu 103 Feb 26 04:59 docker-compose.yml
-rw-rw-r-- 1 ubuntu ubuntu 713 Feb 26 04:57 index.html
ubuntu@ip-172-31-190-9:~/my-website$ sudo docker-compose build
sudo: docker-compose: command not found
ubuntu@ip-172-31-190-9:~/my-website$ docker-compose build
Command 'docker-compose' not found, but can be installed with:
sudo snap install docker # version 27.5.1, or
sudo snap install docker # version 27.2.0
sudo apt install docker-compose # version 1.29.2-6
See 'snap info <snapname>' for additional versions.
ubuntu@ip-172-31-190-9:~/my-website$ sudo apt install docker-compose
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
python3-compose python3-docker python3-dockerpty python3-dockerpty python3-dockerpty python3-dotenv python3-texttable python3-websocket
The following NEW packages will be installed:
docker-compose python3-compose python3-docker python3-dockerpty python3-dockerpty python3-dotenv python3-texttable python3-websocket
0 upgraded, 8 newly installed, 0 to remove and 106 not upgraded.
Need to get 297 kB of archives.
After this operation, 1589 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
```

Step 1: Created Project Structure using the following command

mkdir my-website - cd my-website

Step 2: Created index.html with your details with following details

```
<!DOCTYPE html>
<html>
<head>
  <title>My Details</title>
  <style>
    body { font-family: Arial, sans-serif; margin: 40px; }
    .container { max-width: 800px; margin: 0 auto; }
    h1 { color: #2c3e50; }
    .details { background: #f9f9f9; padding: 20px; border-radius: 8px; }
  </style>
</head>
<body>
  <div class="container">
    <h1>Personal Details</h1>
    <div class="details">
      <p><strong>Name:</strong> John Doe</p>
      <p><strong>Email:</strong> john.doe@example.com</p>
      <p><strong>Location:</strong> New York, USA</p>
      <p><strong>Skills:</strong> Docker, Web Development, DevOps</p>
    </div>
  </div>
</body>
</html>
```

Step 3: Created Dockerfile by following code

```
# Use official Nginx image
FROM nginx:alpine

# Copy custom HTML file to Nginx default directory
COPY index.html /usr/share/nginx/html/index.html

# Expose port 80 for web traffic
EXPOSE 80

# Nginx starts automatically by default in base image
```

Step 4: Created docker-compose.yml

```
version: '3.8'

services:
  web:
    build: .
    ports:
      - "8080:80"
    restart: unless-stopped
```

Step 5: installed the docker-compose using the command `sudo apt install docker-compose`

```
ubuntu@ip-172-31-190-9: ~/my-website$ sudo docker-compose build
Building web
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  4.608kB
Step 1/3 : FROM nginx:alpine
----> 1ff4bb4faebc
Step 2/3 : COPY index.html /usr/share/nginx/html/index.html
----> Using cache
----> 5c0978b2281e
Step 3/3 : EXPOSE 80
----> Using cache
----> 2eafa9f306ab
Successfully built 2eafa9f306ab
Successfully tagged my-website_web:latest
ubuntu@ip-172-31-190-9:~/my-website$ sudo docker-compose up -d
Creating network "my-website_default" with the default driver
Creating my-website_web_1 ... done
ubuntu@ip-172-31-190-9:~/my-website$ sudo docker-compose ps

```

Name	Command	State	Ports
my-website_web_1	/docker-entrypoint.sh nginx ...	Up	0.0.0.0:8080->80/tcp, :::8080->80/tcp

```
ubuntu@ip-172-31-190-9:~/my-website$
```

Step 6: created Build and Run by executing the following commands

Build the Docker image

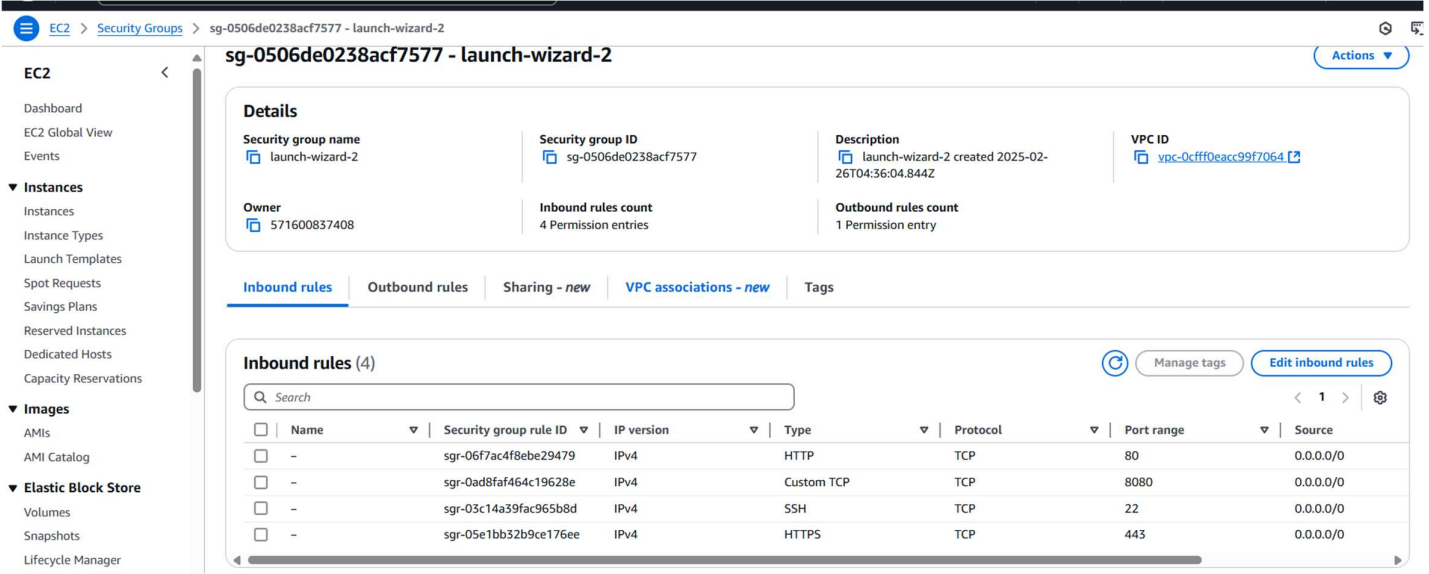
docker-compose build

Start the container

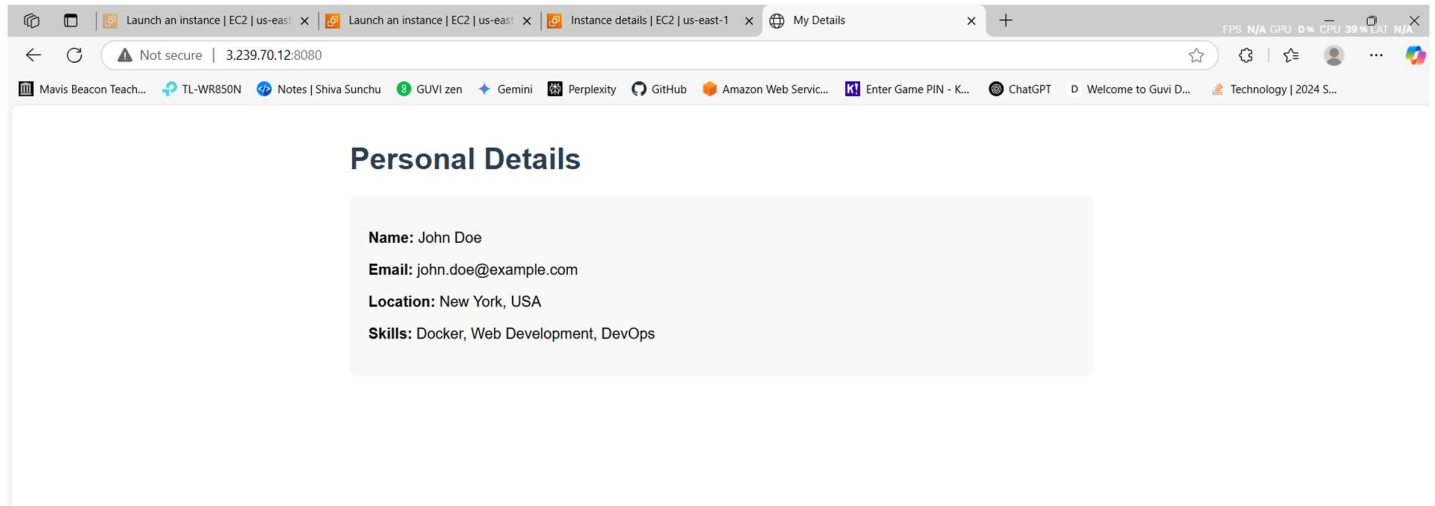
docker-compose up -d

Check running containers

docker-compose ps



Step 7: edited the Inbound rules and added our custom port 8080



Step 8 : Access Your Website with following IP address

<http://3.239.70.12:8080/>

```
ubuntu@ip-172-31-190-9: ~/my-website$ ls
Dockerfile  docker-compose.yml  index.html
ubuntu@ip-172-31-190-9:~/my-website$ git init
Reinitialized existing Git repository in /home/ubuntu/my-website/.git/
ubuntu@ip-172-31-190-9:~/my-website$ git add .
ubuntu@ip-172-31-190-9:~/my-website$ git status
On branch master
nothing to commit, working tree clean
ubuntu@ip-172-31-190-9:~/my-website$ ls
Dockerfile  docker-compose.yml  index.html
ubuntu@ip-172-31-190-9:~/my-website$ git commit -m "initial commit"
On branch master
nothing to commit, working tree clean
ubuntu@ip-172-31-190-9:~/my-website$ git commit -m "first commit"
On branch master
nothing to commit, working tree clean
ubuntu@ip-172-31-190-9:~/my-website$ git branch -M main
ubuntu@ip-172-31-190-9:~/my-website$ git remote add origin https://github.com/Madhusudhanhub/Dock.git
ubuntu@ip-172-31-190-9:~/my-website$ git push -u origin main
Username for 'https://github.com': Madhusudhanhub
Password for 'https://Madhusudhanhub@github.com':
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 946 bytes | 946.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/Madhusudhanhub/Dock.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
ubuntu@ip-172-31-190-9:~/my-website$
```

Ubuntu	Docker website	73b5d26 · 8 minutes ago	1 Commit
Dockerfile	Docker website	8 minutes ago	
docker-compose.yml	Docker website	8 minutes ago	
index.html	Docker website	8 minutes ago	

README

Add a README

Help people interested in this repository understand your project by adding a README.

Add a README

Final step: pushed all the documents to GitHub by using the following commands.