1. Installing Docker and git

```
[ec2-user@ip-172-31-31-163 ~]$ sudo systemctl start docker
[ec2-user@ip-172-31-31-163 ~]$ sudo systemctl enable docker
Created symlink from /etc/systemd/system/multi-user.target.wants/docker.service to /usr/lib/systemd/system/docker.service.
[ec2-user@ip-172-31-31-163 ~]$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; vendor preset: disabled)
   Active: active (running) since Wed 2025-04-23 12:05:43 UTC; 26s ago
     Docs: https://docs.docker.com
 Main PID: 30041 (dockerd)
   CGroup: /system.slice/docker.service
           └─30041 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock --default-ulimit nofile=32768:65536

Apr 23 12:05:38 ip-172-31-31-163.ec2.internal systemd[1]: Starting Docker Application Container Engine...
Apr 23 12:05:38 ip-172-31-31-163.ec2.internal dockerd[30041]: time="2025-04-23T12:05:38.569761922Z" level=info msg="Starting up"
Apr 23 12:05:43 ip-172-31-31-163.ec2.internal dockerd[30041]: time="2025-04-23T12:05:43.339395569Z" level=info msg="Loading containers: start."
Apr 23 12:05:43 ip-172-31-31-163.ec2.internal dockerd[30041]: time="2025-04-23T12:05:43.523355535Z" level=info msg="Loading containers: done."
Apr 23 12:05:43 ip-172-31-31-163.ec2.internal dockerd[30041]: time="2025-04-23T12:05:43.534119327Z" level=info msg="Docker daemon" commit=71907ca containerd-snapshotte...on=25.0.8
Apr 23 12:05:43 ip-172-31-31-163.ec2.internal dockerd[30041]: time="2025-04-23T12:05:43.534190342Z" level=info msg="Daemon has completed initialization"
Apr 23 12:05:43 ip-172-31-31-163.ec2.internal dockerd[30041]: time="2025-04-23T12:05:43.562661951Z" level=info msg="API listen on /run/docker.sock"
Apr 23 12:05:43 ip-172-31-31-163.ec2.internal systemd[1]: Started Docker Application Container Engine.
Hint: Some lines were ellipsized, use -l to show in full.
[ec2-user@ip-172-31-31-163 ~]$ sudo chmod 666 /var/run/docker.sock
[ec2-user@ip-172-31-31-163 ~]$
[ec2-user@ip-172-31-31-163 ~]$
[ec2-user@ip-172-31-31-163 ~]$
```
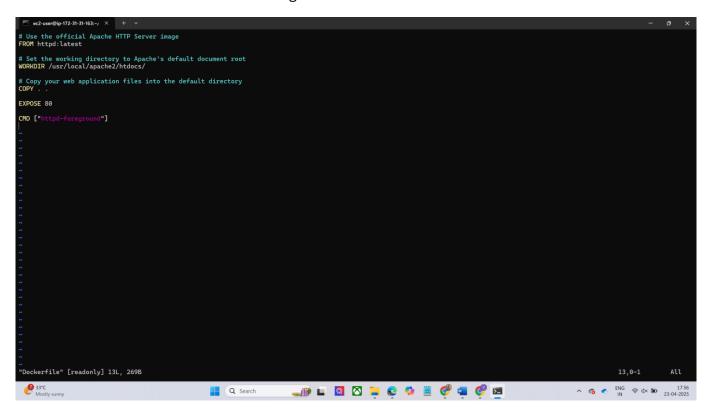
2. Write dockerfile to build new image

```
# Use the official Apache HTTP Server image
FROM httpd:latest

# Set the working directory to Apache's default document root
WORKDIR /usr/local/apache2/htdocs/

# Copy your web application files into the default directory
COPY . .

EXPOSE 80

CMD ["httpd-foreground"]
```

```
"Dockerfile" [readonly] 13L, 269B                                          13,0-1        All
```

Build docker image by using docker build -t ecomm .

```
[ec2-user@ip-172-31-31-163 ecomm]$ vi Dockerfile
[ec2-user@ip-172-31-31-163 ecomm]$ vi Dockerfile
[ec2-user@ip-172-31-31-163 ecomm]$ sudo vi Dockerfile
[ec2-user@ip-172-31-31-163 ecomm]$ docker build -t ecommm .
[+] Building 0.3s (8/8) FINISHED                                                      docker:default
 => [internal] load build definition from Dockerfile                                          0.0s
 => => transferring dockerfile: 308B                                                          0.0s
 => [internal] load metadata for docker.io/library/httpd:latest                               0.1s
 => [internal] load .dockerignore                                                             0.0s
 => => transferring context: 2B                                                               0.0s
 => CACHED [1/3] FROM docker.io/library/httpd:latest@sha256:4564ca7604957765bd2598e14134a1c6812067f0daddd7dc5a484431dd03832b   0.0s
 => [2/3] WORKDIR /usr/local/apache2/htdocs/                                                   0.0s
 => [internal] load build context                                                             0.0s
 => => transferring context: 7.39kB                                                           0.0s
 => [3/3] COPY . .                                                                            0.1s
 => exporting to image                                                                        0.1s
 => => exporting layers                                                                       0.1s
 => => writing image sha256:f53616cfcb4c5335d01c1ce69fa89bae5e327eedd5a2651f108a9e39bd914c7d  0.0s
 => => naming to docker.io/library/ecomm                                                      0.0s
WARNING: current commit information was not captured by the build: failed to read current commit information with git rev-parse --is-inside-work-tree
[ec2-user@ip-172-31-31-163 ecomm]$ docker run -dt -p 70:80 ecommm
36cc85454c9e88e90b1a480eade9c234549bf54f7773613b2d9838746612d893
[ec2-user@ip-172-31-31-163 ecomm]$ docker ps
CONTAINER ID   IMAGE     COMMAND              CREATED         STATUS         PORTS                                     NAMES
36cc85454c9e   ecommm    "httpd-foreground"   3 seconds ago   Up 3 seconds   0.0.0.0:70->80/tcp, :::70->80/tcp         nervous_pasteur
d4fae99ed249   ecomm     "httpd-foreground"   4 minutes ago   Up 4 minutes   0.0.0.0:90->80/tcp, :::90->80/tcp         sad_wescoff
a794647ac5a7   food      "httpd-foreground"   8 minutes ago   Up 8 minutes   0.0.0.0:80->80/tcp, :::80->80/tcp         food
```

Now run the docker container

```
[ec2-user@ip-172-31-31-163 ecomm]$ docker ps
CONTAINER ID   IMAGE     COMMAND               CREATED          STATUS          PORTS                                     NAMES
36cc85454c9e   ecommm    "httpd-foreground"    37 seconds ago   Up 37 seconds   0.0.0.0:70->80/tcp, :::70->80/tcp         nervous_pasteur
[ec2-user@ip-172-31-31-163 ecomm]$ vi Dockerfile
[ec2-user@ip-172-31-31-163 ecomm]$
```

Now browse your ip and check the website