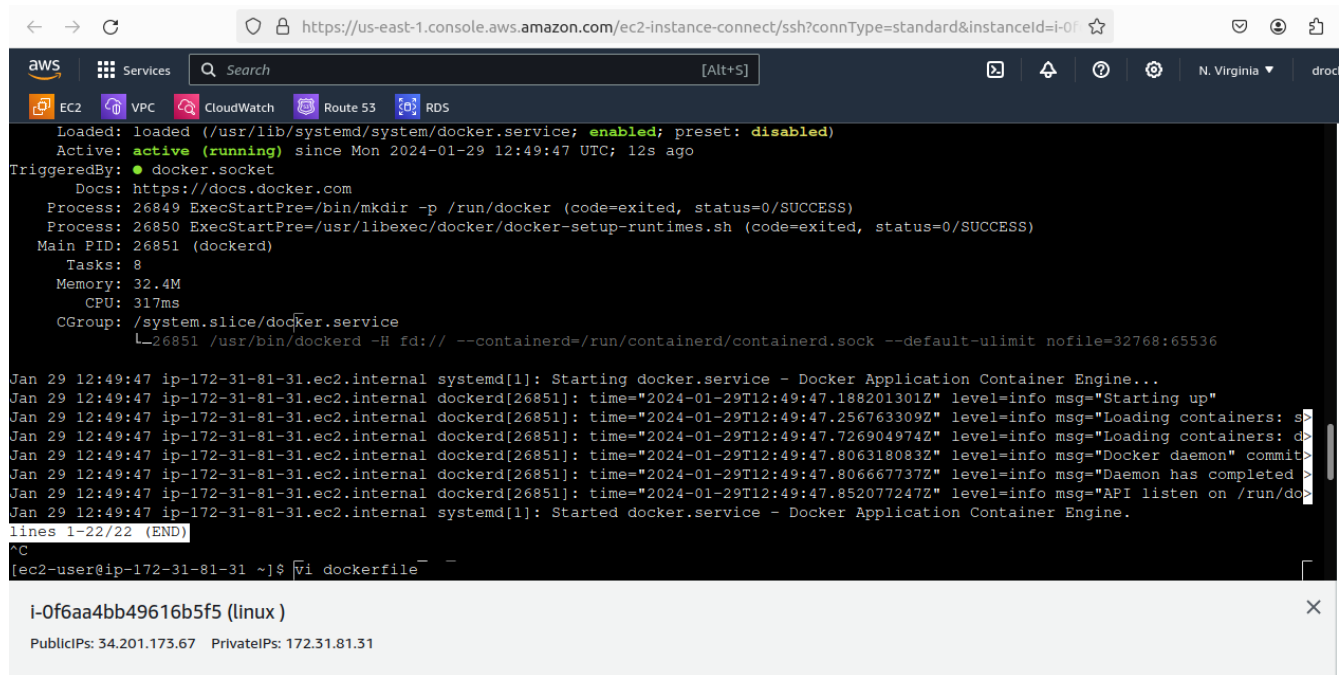


3.

create a Dockerfile with the following specs:

- Ubuntu container
- Apache2 installed
- Apache2 should automatically run once the container starts



The screenshot shows the AWS Management Console interface. The top navigation bar includes the AWS logo, a search bar, and a list of services (EC2, VPC, CloudWatch, Route 53, RDS). The main content area displays the status of the 'docker.service' on an EC2 instance. The service is 'loaded' and 'active (running)'. Below the status, there are logs showing the service's startup process, including the execution of 'systemd' and 'dockerd' commands. The logs indicate that the Docker daemon has started successfully and is listening on the /run/docker.sock. At the bottom of the console, there is a terminal window showing the command 'vi dockerfile' being executed.

```
Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset: disabled)
Active: active (running) since Mon 2024-01-29 12:49:47 UTC; 12s ago
TriggeredBy: ● docker.socket
Docs: https://docs.docker.com
Process: 26849 ExecStartPre=bin/mkdir -p /run/docker (code=exited, status=0/SUCCESS)
Process: 26850 ExecStartPre=/usr/libexec/docker/docker-setup-runtimes.sh (code=exited, status=0/SUCCESS)
Main PID: 26851 (dockerd)
Tasks: 8
Memory: 32.4M
CPU: 317ms
CGroup: /system.slice/docker.service
└─26851 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock --default-ulimit nofile=32768:65536

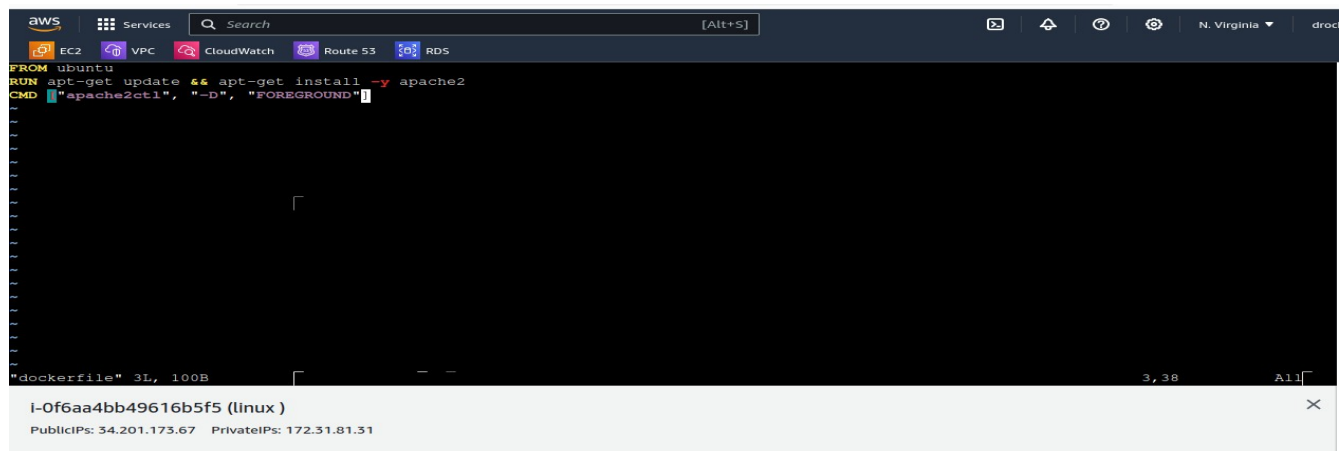
Jan 29 12:49:47 ip-172-31-81-31.ec2.internal systemd[1]: Starting docker.service - Docker Application Container Engine...
Jan 29 12:49:47 ip-172-31-81-31.ec2.internal dockerd[26851]: time="2024-01-29T12:49:47.188201301Z" level=info msg="Starting up"
Jan 29 12:49:47 ip-172-31-81-31.ec2.internal dockerd[26851]: time="2024-01-29T12:49:47.256763309Z" level=info msg="Loading containers: s
Jan 29 12:49:47 ip-172-31-81-31.ec2.internal dockerd[26851]: time="2024-01-29T12:49:47.726904974Z" level=info msg="Loading containers: d
Jan 29 12:49:47 ip-172-31-81-31.ec2.internal dockerd[26851]: time="2024-01-29T12:49:47.806318083Z" level=info msg="Docker daemon" commit
Jan 29 12:49:47 ip-172-31-81-31.ec2.internal dockerd[26851]: time="2024-01-29T12:49:47.806667737Z" level=info msg="Daemon has completed
Jan 29 12:49:47 ip-172-31-81-31.ec2.internal dockerd[26851]: time="2024-01-29T12:49:47.852077247Z" level=info msg="API listen on /run/do
Jan 29 12:49:47 ip-172-31-81-31.ec2.internal systemd[1]: Started docker.service - Docker Application Container Engine.
lines 1-22/22 (END)
^C
[ec2-user@ip-172-31-81-31 ~]$ vi dockerfile
```

vi dockerfile

FROM ubuntu

RUN apt-get update && apt-get install -y apache2

CMD ["apache2ctl", "-D", "FOREGROUND"]



The screenshot shows the AWS Management Console interface. The top navigation bar includes the AWS logo, a search bar, and a list of services (EC2, VPC, CloudWatch, Route 53, RDS). The main content area displays the content of a Dockerfile. The Dockerfile starts with 'FROM ubuntu', followed by 'RUN apt-get update && apt-get install -y apache2', and ends with 'CMD ["apache2ctl", "-D", "FOREGROUND"]'. The bottom of the console shows a terminal window with the command 'vi dockerfile' being executed.

```
FROM ubuntu
RUN apt-get update && apt-get install -y apache2
CMD ["apache2ctl", "-D", "FOREGROUND"]
```

docker build -t demoimage .

← → ↻

🔒 https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-0f6aa4bb49616b5f5

🔒 📧 📌

aws

Services

Search

[Alt+S]

EC2

VPC

CloudWatch

Route 53

RDS

```
[ec2-user@ip-172-31-81-31 ~]$ sudo docker build -t demoimage .
[+] Building 21.6s (6/6) FINISHED
=> [internal] load build definition from dockerfile 0.0s
=> => transferring dockerfile: 196B 0.0s
=> [internal] load .dockerignore 0.0s
=> => transferring context: 2B 0.0s
=> [internal] load metadata for docker.io/library/ubuntu:latest 0.4s
=> [1/2] FROM docker.io/library/ubuntu@sha256:e6173d4dc55e76b87c4af8db8821b1feae4146dd47341e4d431118c7dd060a74 2.5s
=> => resolve docker.io/library/ubuntu@sha256:e6173d4dc55e76b87c4af8db8821b1feae4146dd47341e4d431118c7dd060a74 0.0s
=> => sha256:29202e855b2021a2d7f92800619ed5f5e8ac402e267cfbb3d29a791feb13c1ee 29.55MB / 29.55MB 0.5s
=> => sha256:e6173d4dc55e76b87c4af8db8821b1feae4146dd47341e4d431118c7dd060a74 1.13kB / 1.13kB 0.0s
=> => sha256:cb2af41f42b9c9bc9bcd7cf1735e3c4b3d95b2137be86fd940373471a34c8b0 424B / 424B 0.0s
=> => sha256:e34e831650c1bb0be9b6f61c6755749cb8ea2053ba91c6cda27fded9e089811f 2.30kB / 2.30kB 0.0s
=> => extracting sha256:29202e855b2021a2d7f92800619ed5f5e8ac402e267cfbb3d29a791feb13c1ee 1.8s
=> [2/2] RUN apt-get update && apt-get install -y apache2 16.9s
=> exporting to image 1.7s
=> => exporting layers 1.6s
=> => writing image sha256:7c1c321b07499094a736ae4d34bf6f997d60d57e378ef7ace62378532702b7c2 0.0s
=> => naming to docker.io/library/demoimage 0.0s
[ec2-user@ip-172-31-81-31 ~]$ 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/v1.24/images/json": dial unix /var/run/docker.sock: connect: permission denied
[ec2-user@ip-172-31-81-31 ~]$ sudo docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
i-0f6aa4bb49616b5f5 (linux)				

PublicIPs: 34.201.173.67 PrivateIPs: 172.31.81.31

```
[ec2-user@ip-172-31-81-31 ~]$ sudo docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
demoimage latest 7c1c321b0749 8 minutes ago 233MB
[ec2-user@ip-172-31-81-31 ~]$
```

i-0f6aa4bb49616b5f5 (linux)

PublicIPs: 34.201.173.67 PrivateIPs: 172.31.81.31

sudo docker run -d -p 80:80 dockerimage

```
[ec2-user@ip-172-31-81-31 ~]$ sudo docker run -d -p 80:80 demoimage
ea57f3bd69c0210c8a2ede04df6d64f9b4bae078034c08446d4653fa650fa47
[ec2-user@ip-172-31-81-31 ~]$ sudo docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
ea57f3bd69c0	demoimage	"apache2ctl -D FOREG..."	7 seconds ago	Up 6 seconds	0.0.0.0:80->80/tcp, :::80->80/tcp	vibrant_joliot

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🔒 34.201.173.67

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Apache2 Default Page

Ubuntu

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.

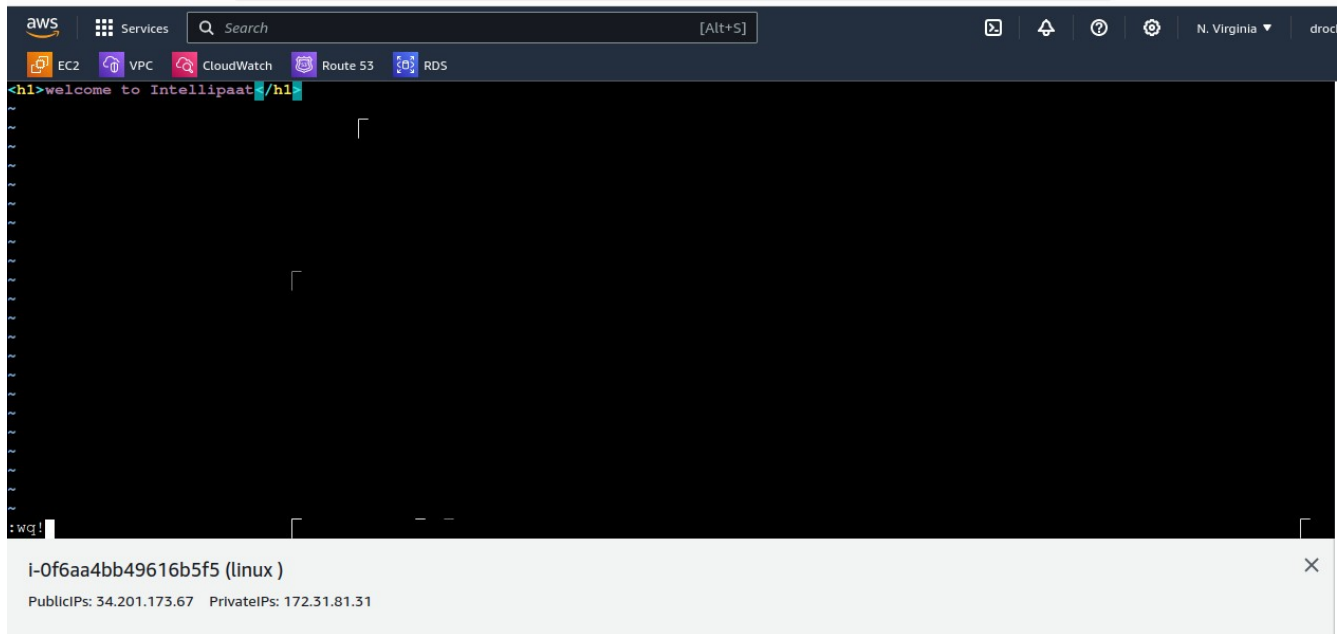
The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:

```
/etc/apache2/
```

4.

1. create a sample HTML file
2. Use the Dockerfile from the previous task
3. Replace this sample HTML file inside the Docker container with the default page

vi index.html



vi dockerfile to MODIFY

FROM ubuntu

RUN apt-get update && apt-get install -y apache2

COPY index.html /var/www/html/

CMD ["apache2ctl", "-D", "FOREGROUND"]

aws Services Search [Alt+S] N. Virginia droc

EC2 VPC CloudWatch Route 53 RDS

```
FROM ubuntu
RUN apt-get update && apt-get install -y apache2
COPY index.html /var/www/html/
CMD ["apache2ctl", "-D", "FOREGROUND"]
```

i-0f6aa4bb49616b5f5 (linux)
PublicIPs: 34.201.173.67 PrivateIPs: 172.31.81.31

sudo docker build -t demoimage2 .

sudo docker run -d -p 81:80 demoimage2

```
[ec2-user@ip-172-31-81-31 ~]$ sudo docker run -d -p 81:80 demoimage2
fa739ac600cc7ad838b94d514b9110f79bfd8c9e7d013705b4aa2233e1ef63ff
[ec2-user@ip-172-31-81-31 ~]$ sudo docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
fa739ac600cc	demoimage2	"apache2ctl -D FOREG..."	17 seconds ago	Up 16 seconds	0.0.0.0:81->80/tcp, :::81->80/tcp	nice_northcutt

```
[+] Building 0.3s (8/8) FINISHED
=> [internal] load build definition from dockerfile 0.0s
=> => transferring dockerfile: 229B 0.0s
=> [internal] load .dockerignore 0.0s
=> => transferring context: 2B 0.0s
=> [internal] load metadata for docker.io/library/ubuntu:latest 0.1s
=> [1/3] FROM docker.io/library/ubuntu@sha256:e6173d4dc55e76b87c4af8db8821b1feae4146dd47341e4d431118c7dd060a74 0.0s
=> CACHED [2/3] RUN apt-get update && apt-get install -y apache2 0.0s
=> [internal] load build context 0.0s
=> => transferring context: 128B 0.0s
=> [3/3] COPY index.html /var/www/html/ 0.0s
=> exporting to image 0.0s
=> => exporting layers 0.0s
=> => writing image sha256:299344d0bad1ea513b2b6b32cfc89c9e6f33832dee76f192b033bc9f34fa46ce 0.0s
=> => naming to docker.io/library/demoimage2 0.0s
[ec2-user@ip-172-31-81-31 ~]$
```

i-0f6aa4bb49616b5f5 (linux)
PublicIPs: 34.201.173.67 PrivateIPs: 172.31.81.31

← → ↺ 34.201.173.67:81 ☆ 📄 📧 📎

welcome to Intellipaat