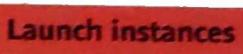
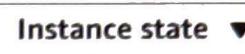


## **Module-3: Docker - I Assignment - 1**

---

**You have been asked to:**

- Pull ubuntu container
  - Run this container, and map port 80 on the local
  - Install apache2 on this container
  - Check if you are able to access the apache page on your browser
-

Instances (1/1) [Info](#) Find instance by attribute or tag (case-sensitive)[<](#) [1](#) [>](#) [@](#)

<input checked="" type="checkbox"/> Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input checked="" type="checkbox"/> Docker-test	i-0cdc547b0c1f3000d	<input checked="" type="checkbox"/> Running	t2.micro	<input checked="" type="checkbox"/> 2/2 checks passed	No alarms <a href="#">+</a>	us-east-1a

Instance: i-0cdc547b0c1f3000d (Docker-test) [@](#) [X](#)[Details](#) [Security](#) [Networking](#) [Storage](#) [Status checks](#) [Monitoring](#) [Tags](#)[▼ Instance summary](#) [Info](#)

## Instance ID

[i-0cdc547b0c1f3000d \(Docker-test\)](#)

## Public IPv4 address

[54.226.113.97 | open address](#)

## Private IPv4 addresses

[172.31.31.157](#)

## IPv6 address

-

## Instance state

 Running

## Public IPv4 DNS

[ec2-54-226-113-97.compute-1.amazonaws.com | open address](#)

## Hostname type

IP name: ip-172-31-31-157.ec2.internal

## Private IP DNS name (IPv4 only)

[ip-172-31-31-157.ec2.internal](#)

## Answer private resource DNS name

IPv4 (A)

## Instance type

t2.micro

## Elastic IP addresses

-

## Auto-assigned IP address

## VPC ID

AWS Compute Optimizer [Find out](#)

```
ubuntu@ip-172-31-31-157:~$ sudo apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [107 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [943 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [204 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [13.6 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [679 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [106 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [584 B]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [883 kB]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [174 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [18.0 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [9652 B]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [3260 B]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [444 B]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [40.7 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [9800 B]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [392 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [19.5 kB]
```

i-0cdc547b0c1f3000d (Docker-test)

Public IPs: 54.226.113.97 Private IPs: 172.31.31.157



Services

Search

[Alt+S]



N. Virginia

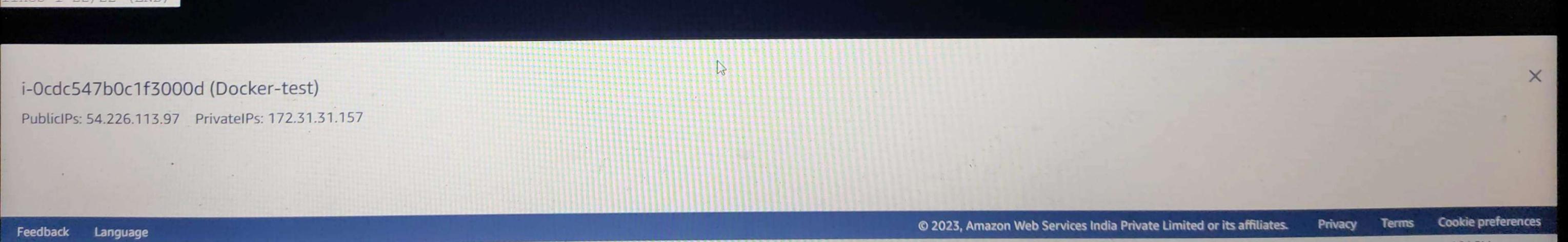
VAIBHAV VERMA

```
ubuntu@ip-172-31-31-157:~$ 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 zfs-fuse | zfsutils
The following NEW packages will be installed:
  bridge-utils containerd dns-root-data dnsmasq-base docker.io pigz runc ubuntu-fan
0 upgraded, 8 newly installed, 0 to remove and 47 not upgraded.
Need to get 72.4 MB of archives.
After this operation, 287 MB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 pigz amd64 2.6-1 [63.6 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 bridge-utils amd64 1.7-1ubuntu3 [34.4 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 runc amd64 1.1.4-0ubuntu1~22.04.1 [4241 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 containerd amd64 1.6.12-0ubuntu1~22.04.1 [34.4 MB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 dns-root-data all 2021011101 [5256 B]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 dnsmasq-base amd64 2.86-1.1ubuntu0.1 [354 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 docker.io amd64 20.10.21-0ubuntu1~22.04.2 [33.2 MB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 ubuntu-fan all 0.12.16 [35.2 kB]
Fetched 72.4 MB in 1s (51.4 MB/s)
Preconfiguring packages ...
Selecting previously unselected package pigz.
(Reading database ... 63605 files and directories currently installed.)
Preparing to unpack .../0-pigz_2.6-1_amd64.deb ...
Unpacking pigz (2.6-1) ...
Selecting previously unselected package bridge-utils.
```

i-0cdc547b0c1f3000d (Docker-test)

Public IPs: 54.226.113.97 Private IPs: 172.31.31.157

ubuntu@ip-172-31-31-157:~\$ docker --version  
Docker version 20.10.21, build 20.10.21-0ubuntu1~22.04.2  
ubuntu@ip-172-31-31-157:~\$ service docker status  
● docker.service - Docker Application Container Engine  
 Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)  
 Active: active (running) since Fri 2023-03-10 10:51:11 UTC; 2min 57s ago  
 TriggeredBy: ● docker.socket  
 Docs: https://docs.docker.com  
 Main PID: 2657 (dockerd)  
 Tasks: 7  
 Memory: 29.9M  
 CPU: 252ms  
 CGroup: /system.slice/docker.service  
 └─2657 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock  
  
Mar 10 10:51:10 ip-172-31-31-157 dockerd[2657]: time="2023-03-10T10:51:10.713451097Z" level=info msg="scheme \"unix\" not registered, fallback to default scheme" module=gr  
Mar 10 10:51:10 ip-172-31-31-157 dockerd[2657]: time="2023-03-10T10:51:10.713614833Z" level=info msg="ccResolverWrapper: sending update to cc: {{<unix>://</run/containerd/co  
Mar 10 10:51:10 ip-172-31-31-157 dockerd[2657]: time="2023-03-10T10:51:10.713769177Z" level=info msg="ClientConn switching balancer to \"pick\_first\" module=grpc  
Mar 10 10:51:10 ip-172-31-31-157 dockerd[2657]: time="2023-03-10T10:51:10.753993965Z" level=info msg="Loading containers: start."  
Mar 10 10:51:10 ip-172-31-31-157 dockerd[2657]: time="2023-03-10T10:51:10.950933945Z" level=info msg="Default bridge (docker0) is assigned with an IP address 172.17.0.0/16  
Mar 10 10:51:11 ip-172-31-31-157 dockerd[2657]: time="2023-03-10T10:51:11.052053357Z" level=info msg="Loading containers: done."  
Mar 10 10:51:11 ip-172-31-31-157 dockerd[2657]: time="2023-03-10T10:51:11.129262861Z" level=info msg="Docker daemon" commit="20.10.21-0ubuntu1~22.04.2" graphdriver(s)=over  
Mar 10 10:51:11 ip-172-31-31-157 dockerd[2657]: time="2023-03-10T10:51:11.129675078Z" level=info msg="Daemon has completed initialization"  
Mar 10 10:51:11 ip-172-31-31-157 systemd[1]: Started Docker Application Container Engine.  
Mar 10 10:51:11 ip-172-31-31-157 dockerd[2657]: time="2023-03-10T10:51:11.166661918Z" level=info msg="API listen on /run/docker.sock"  
lines 1-22/22 (END)



ubuntu@ip-172-31-31-157:~\$ sudo docker images  
REPOSITORY TAG IMAGE ID CREATED SIZE  
ubuntu@ip-172-31-31-157:~\$ sudo docker pull ubuntu  
Using default tag: latest  
latest: Pulling from library/ubuntu  
76769433fd8a: Pull complete  
Digest: sha256:2adf22367284330af9f832ffefb717c78239f6251d9d0f58de50b86229ed1427  
Status: Downloaded newer image for ubuntu:latest  
docker.io/library/ubuntu:latest  
ubuntu@ip-172-31-31-157:~\$ sudo docker run -itd -p 80:80 ubuntu  
bcd5a76060945318719722c669901710f2af27ef893f53481dd8116516ab93f2  
ubuntu@ip-172-31-31-157:~\$ sudo docker ps  
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES  
bcd5a7606094 ubuntu "/bin/bash" 17 seconds ago Up 15 seconds 0.0.0.0:80->80/tcp, :::80->80/tcp cranky\_napier  
ubuntu@ip-172-31-31-157:~\$ sudo docker exec -it bcd5a7606094 bash  
root@bcd5a7606094:/#

i-0cdc547b0c1f3000d (Docker-test)

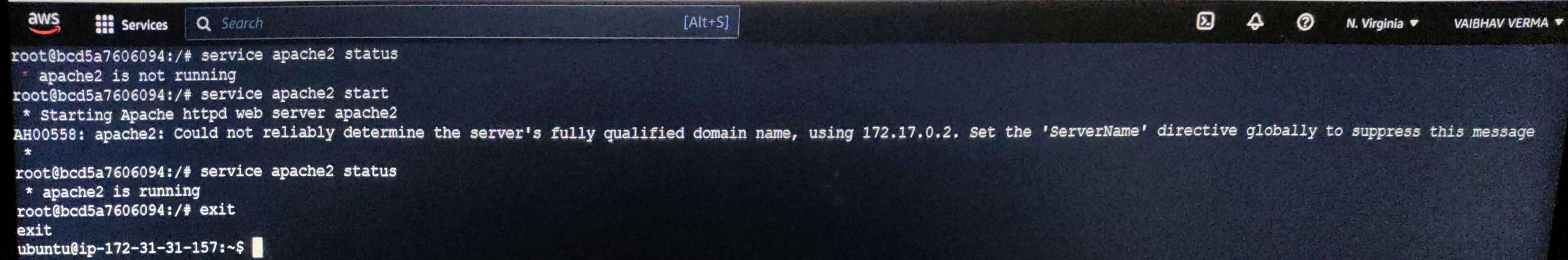
Public IPs: 54.226.113.97 Private IPs: 172.31.31.157

```
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
bcd5a7606094 ubuntu "/bin/bash" 17 seconds ago Up 15 seconds 0.0.0.0:80->80/tcp, :::80->80/tcp cranky_napier
ubuntu@ip-172-31-31-157:~$ sudo docker exec -it bcd5a7606094 bash
root@bcd5a7606094:/# apt update
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy InRelease [270 kB]
Get:3 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [5557 B]
Get:4 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [862 kB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [823 kB]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [889 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [107 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy/main amd64 Packages [1792 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy/restricted amd64 Packages [164 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [266 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [17.5 MB]
Get:13 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1193 kB]
Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1129 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [10.9 kB]
Get:16 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [880 kB]
Get:17 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [22.4 kB]
Get:18 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [49.0 kB]
Fetched 26.2 MB in 7s (3915 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
2 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@bcd5a7606094:/#
```

i-0cdc547b0c1f3000d (Docker-test)

Public IPs: 54.226.113.97 Private IPs: 172.31.31.15







# Ubuntu

## 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  
|   '-- *.Load  
|   '-- *.conf  
|-- conf-enabled  
|   '-- *.conf  
|-- sites-enabled  
|   '-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or