

Module-3: Docker – I

Assignment - 1

```
ubuntu@ip-172-31-92-163:~$ sudo apt update -y
sudo apt install docker.io -y
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 [128 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 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 [2311 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [386 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [2940 kB]
Get:14 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [2075 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [514 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1184 kB]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [290 kB]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [26.4 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [44.5 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [11.5 kB]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [440 B]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [67.7 kB]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [11.1 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [388 B]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [30.0 kB]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [16.6 kB]
Get:28 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [672 B]
Get:29 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:30 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [324 kB]
Get:31 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [2836 kB]
93% [31 Packages 2140 kB/2836 kB 75%]
```

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.

```
ubuntu@ip-172-31-92-163:~$ sudo systemctl enable docker
```

```
sudo systemctl start docker
```

```
ubuntu@ip-172-31-92-163:~$ docker --version
```

```
Docker version 26.1.3, build 26.1.3-0ubuntu1~22.04.1
```

```
ubuntu@ip-172-31-92-163:~$
```

```
ubuntu@ip-172-31-92-163:~$ sudo docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
5a7813e071bf: Pull complete
Digest: sha256:72297848456d5d37d1262630108ab308d3e9ec7ed1c3286a32fe09856619a782
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
ubuntu@ip-172-31-92-163:~$
```

```
ubuntu@ip-172-31-92-163:~$ sudo su
root@ip-172-31-92-163:/home/ubuntu# docker run -dit --name myapache -p 80:80 ubuntu
856f21a5e4e8f6d6510b21cb9dbf893a5a707da7141a6f00a11124b390ebf79c
root@ip-172-31-92-163:/home/ubuntu#
```

```
56f21a5e4e8f6d6510b21cb9dbf893a5a707da7141a6f00a11124b390ebf79c
root@ip-172-31-92-163:/home/ubuntu# docker exec -it myapache bash
root@856f21a5e4e8:/# apt update
apt install apache2 -y
Get:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble InRelease [256 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:5 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [15.5 kB]
Get:6 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [784 kB]
Get:7 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [19.3 MB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [1038 kB]
Get:9 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [774 kB]
Get:10 http://archive.ubuntu.com/ubuntu noble/restricted amd64 Packages [117 kB]
Get:11 http://archive.ubuntu.com/ubuntu noble/main amd64 Packages [1808 kB]
Get:12 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [331 kB]
Get:13 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1303 kB]
Get:14 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [20.1 kB]
Get:15 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [799 kB]
Get:16 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1065 kB]
Get:17 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [15.1 kB]
Fetched 28.0 MB in 2s (13.2 MB/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.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
```



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 virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective `*-available/`