

Module-3: Docker – I Assignment – 4

You have been asked to:

Create a dockerfile with the following specs:

- Ubuntu container
- Apache2 installed
- Apache2 should automatically run once the container starts Submit the dockerfile, for assignment completion

This task can be achieved as follows:

- Creating file named DockerFile as shown below by applying following commands

```
root@MTLP-1751:~# sudo nano DockerFile
```

- Then we need to write commands to be executed as shown below to achieve the task

```
GNU nano 6.2 Dockerfile
# Use the official Ubuntu base image
FROM ubuntu:latest

# Install Apache2
RUN apt-get update && \
    apt-get install -y apache2 && \
    apt-get clean && \
    rm -rf /var/lib/apt/lists/*

# Automatically start Apache2 when the container starts
CMD ["apache2ctl", "-D", "FOREGROUND"]

# Expose port 80 to the outside world
EXPOSE 80
```

- Then build image by using command and run the same automatically will start apache server


```

root@MTLP-1751:~# ls
DockerFile Dockerfile file1.sh file1.txt sai
root@MTLP-1751:~# sudo docker build . -t test01
[+] Building 170.9s (6/6) FINISHED
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 376B
=> [internal] load metadata for docker.io/library/ubuntu:latest
=> [1/2] FROM docker.io/library/ubuntu:latest
=> [2/2] RUN apt-get update && apt-get install -y apache2 && apt-get clean && rm -rf /var/lib/apt/lists/*
=> exporting to image
=> => exporting layers
=> => writing image sha256:4eb66f91de802b1db55d45f8d0eece1f66b6256579d644f8b0a06e6fb14e7052
=> => naming to docker.io/library/test01
root@MTLP-1751:~# sudo docker images
REPOSITORY          TAG          IMAGE ID          CREATED           SIZE
test01              latest      4eb66f91de80     11 seconds ago   193MB
sairajareddymuli/sairajareddy latest      a9072a9d2d74     7 days ago       232MB
myimage             latest      a9072a9d2d74     7 days ago       232MB
sairajareddy/myimage latest      a9072a9d2d74     7 days ago       232MB
ubuntu              myimage     c840f2a3bd27     7 days ago       232MB
<none>              <none>      6feda19911f3     7 days ago       232MB
my_docker_image     latest      8910e5deeb88     7 days ago       232MB
<none>              <none>      18a84c14d80c     7 days ago       232MB
ubuntu              latest      e4c58958181a     7 weeks ago      77.8MB
ubuntu              20.04      bf40b7bc7a11     8 weeks ago      72.8MB
root@MTLP-1751:~# sudo docker run -itd -p 87:80 test01
613c310463c21af7c961ef53c0da0c6f721b5a17e0670191034648b49659afb9
root@MTLP-1751:~# sudo docker run -itd -p 80:80 test01
296fd3500270387ee5459acc52fd453196cc67a3343e59591086303c881d1a5d

```

- As shown below by visit <http://localhost> we can achieve the task as shown below.

① localhost



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 is 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
|   |-- *.d/*.conf

```

