Module 3: Docker Part 1 Assignment - 4

1. Create a Dockerfile with the following specs:
- Ubuntu container
- Apache2 installed
- Apache2 should automatically run once the container starts

Solution:-

* This is Dockerfile content:-

```
FROM ubuntu
RUN apt update
RUN apt install apache2 -y
RUN apt install -y apache2-utils
RUN apt clean
EXPOSE 90
CMD ["apache2ctl", "-D", "FOREGROUND"]
```

```
root@ip-172-31-84-192: /home/ubuntu
FROM ubuntu
RUN apt update
RUN apt install apache2 -y
RUN apt install -y apache2-utils
RUN apt clean
EXPOSE 90
CMD ["apache2ctl", "-D", "FOREGROUND"]
~
~
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~
~
~
~
"Dockerfile" 7L, 153B
```

docker build -t img_frm_df .

```
root@ip-172-31-84-192:/home/ubuntu# ls
Dockerfile
root@ip-172-31-84-192:/home/ubuntu# docker build -t img_frm_df .
Sending build context to Docker daemon  12.29kB
Step 1/7 : FROM ubuntu
latest: Pulling from library/ubuntu
3153aa388d02: Already exists
Digest: sha256:0bced47fffa3361afa981854fcabcd4577cd43cebbb808cea2b1f33a3dd7f508
Status: Downloaded newer image for ubuntu:latest
 ---> 5a81c4b8502e
Step 2/7 : RUN apt update
 ---> Running in 6d92af7522cd

WARNING: apt does not have a stable CLI interface. Use with caution in scripts.

Get:1 http://archive.ubuntu.com/ubuntu jammy InRelease [270 kB]
```

docker run -it --name con_frm_df_img img_frm_df /bin/bash

```
root@ip-172-31-84-192:/home/ubuntu# docker run -it --name  con_frm_df_img   img_
frm_df /bin/bash
root@17b8e1f71b71:/# root@ip-172-31-84-192:/home/ubuntu#
root@ip-172-31-84-192:/home/ubuntu# docker ps
CONTAINER ID   IMAGE                         COMMAND             CREATED            S
TATUS          PORTS                         NAMES
17b8e1f71b71   img_frm_df                    "/bin/bash"   21 seconds ago      U
p 20 seconds        90/tcp                         con_frm_df_img
25986c98ee85   dhaccamitiwari/assignment-3   "/bin/bash"   About an hour ago   U
p About an hour   0.0.0.0:80->80/tcp, :::80->80/tcp   first_con_dh_pulled
root@ip-172-31-84-192:/home/ubuntu# docker run -it --name  con_frm_df_img_1 -p 9
0:80   img_frm_df /bin/bash
root@6c82bcc15cfe:/# service apache2 status
 * apache2 is not running
root@6c82bcc15cfe:/# service apache2 start
 * Starting Apache httpd web server apache2
AH00558: apache2: Could not reliably determine the server's fully qualified doma
in name, using 172.17.0.4. Set the 'ServerName' directive globally to suppress t
his message
 *
root@6c82bcc15cfe:/# service apache2 status
 * apache2 is running
root@6c82bcc15cfe:/# exit
exit
```

2. Submit the Dockerfile for assignment completion.
Solution:- Dockerfile content:-

```
FROM ubuntu
RUN apt update
RUN apt install apache2 -y
RUN apt install -y apache2-utils
RUN apt clean
EXPOSE 90
CMD ["apache2ctl", "-D", "FOREGROUND"]
```

* Link:- http://3.82.100.85:90/

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/
|-- apache2.conf
|       `--  ports.conf
|-- mods-enabled
|       |-- *.load
|       `-- *.conf
|-- conf-enabled
|       `-- *.conf
|-- sites-enabled
```