Module 3: Hands-On: Creating a Dockerfile

Step 1: Create a folder Docker in the home directory

$ mkdir docker

```
ubuntu@ip-172-31-26-120: ~
ubuntu@ip-172-31-26-120:~$ mkdir docker
ubuntu@ip-172-31-26-120:~$
```

Step 2: Enter into this directory and create a file called 'Dockerfile', with the same contents as the Sample Dockerfile. Add the following content in the Dockerfile.

$ cd docker

$ sudo nano Dockerfile

FROM ubuntu

RUN apt-get update

RUN apt-get -y install apache2

ADD . /var/www/html

ENTRYPOINT apachectl -D FOREGROUND

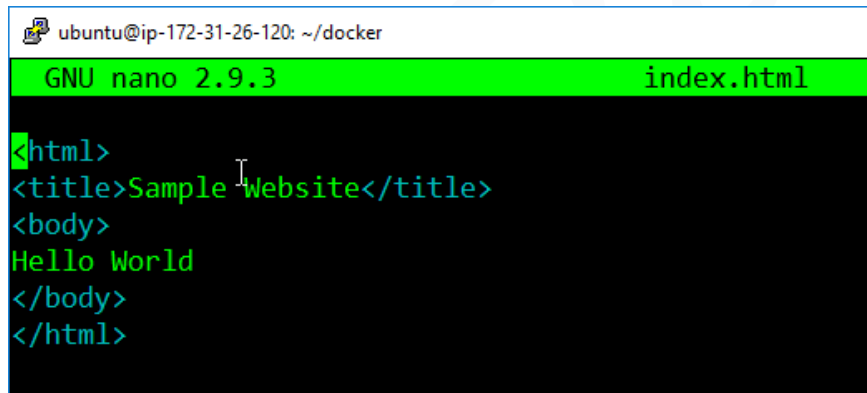ENV name Devops Intellipaat

```
ubuntu@ip-172-31-26-120: ~/docker
  GNU nano 2.9.3                          Dockerfile

FROM ubuntu
RUN apt-get update
RUN apt-get -y install apache2
ADD .  /var/www/html
ENTRYPOINT apachectl —D FOREGROUND
ENV name Devops Intellipaat
```

Step 3: Create one more file called index.html with the following contents which can verify the push on Docker Hub.

```
$ sudo nano index.html
```

```
<html>
<title> Sample Website </title>
<body>
  Hello World
</body>
</html>
```

ubuntu@ip-172-31-26-120: ~/docker

```
  GNU nano 2.9.3                          index.html

<html>
<title>Sample Website</title>
<body>
Hello World
</body>
</html>
```

Step 4: Now pass the following command:

```
$ docker build <directory-of-dockerfile> -t
          <name of container>
```
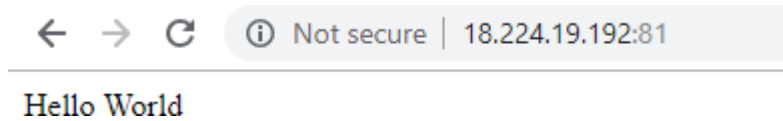
```
ubuntu@ip-172-31-26-120: ~/docker

ubuntu@ip-172-31-26-120:~/docker$ docker build . -t intellipaat/custom
Sending build context to Docker daemon   3.072kB
Step 1/6 : FROM ubuntu
 ---> 93fd78260bd1
Step 2/6 : RUN apt-get update
 ---> Using cache
 ---> 8ce3e5e6548b
Step 3/6 : RUN apt-get -y install apache2
 ---> Using cache
 ---> 296859cef2f0
Step 4/6 : ADD .  /var/www/html
 ---> a3dba497063b
Step 5/6 : ENTRYPOINT apachectl -D FOREGROUND
 ---> Running in e93d78e6de9d
Removing intermediate container e93d78e6de9d
 ---> 2a0995664eba
Step 6/6 : ENV name Devops Intellipaat
 ---> Running in 7497da476b3c
Removing intermediate container 7497da476b3c
 ---> 73370339b1d4
Successfully built 73370339b1d4
Successfully tagged intellipaat/custom:latest
ubuntu@ip-172-31-26-120:~/docker$
```

Step 5: Finally, run this built image, using the following command:
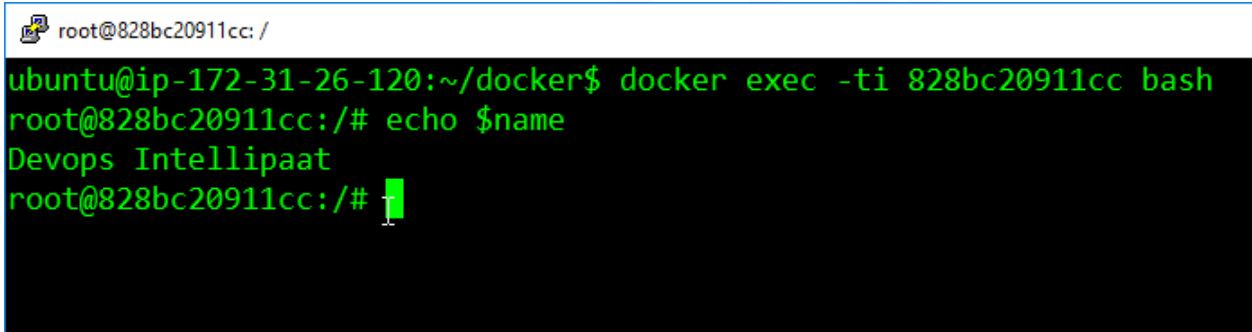
```
$ docker run –it –p 81:80 –d <name of container>
```

```
ubuntu@ip-172-31-26-120: ~/docker

ubuntu@ip-172-31-26-120:~/docker$ docker run -ti -p 81:80 -d intellipaat/custom
63df2a33c1012cc811bfa0bb88d5655ca8453bac03cba04094cd13aacd37b0fd
ubuntu@ip-172-31-26-120:~/docker$
```

Step 6: Now navigate to the server IP address on port 81

← → C ⓘ Not secure | 18.224.19.192:81

Hello World

Step 7: Finally, login into the container and check the variable $name, it will have the same value, as given in the Dockerfile.


```
root@828bc20911cc: /
ubuntu@ip-172-31-26-120:~/docker$ docker exec -ti 828bc20911cc bash
root@828bc20911cc:/# echo $name
Devops Intellipaat
root@828bc20911cc:/#
```