**Push an Image to Docker Hub.**

Preparing a custom Docker image:

* Create a directory and write basic Python source code using the procedure given below:

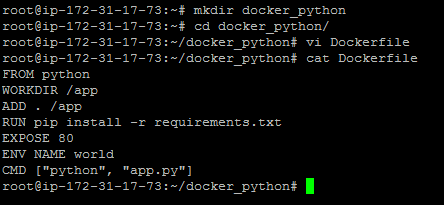
mkdirdocker\_python

cddocker\_python/

vi Dockerfile

* Add the code given below to this Dockerfile

FROM python  
WORKDIR /app  
ADD . /app  
RUN pip install -r requirements.txt  
EXPOSE 80  
ENV NAME world  
CMD [“python”, “app.py”]

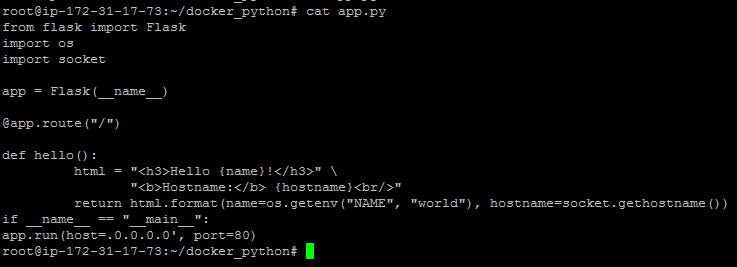


* Create a Python app. Follow the steps below to create an app.py python file

vi app.py

* Add the content below in app.py python source file

from flask import Flask  
import os  
import socket  
app = Flask(\_\_name\_\_)[@app](http://twitter.com/app).route(“/”)def hello():  
 html = “<h3>Hello {name}!</h3>” \  
 “<b>Hostname:</b> {hostname}<br/>”  
 return html.format(name=os.getenv(“NAME”, “world”), hostname=socket.gethostname())  
if \_\_name\_\_ == “\_\_main\_\_”:  
app.run(host=’0.0.0.0', port=80)

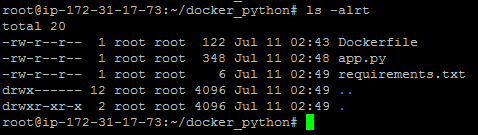


* Create a **requirements.txt** file with the content below

vi requirements.txt

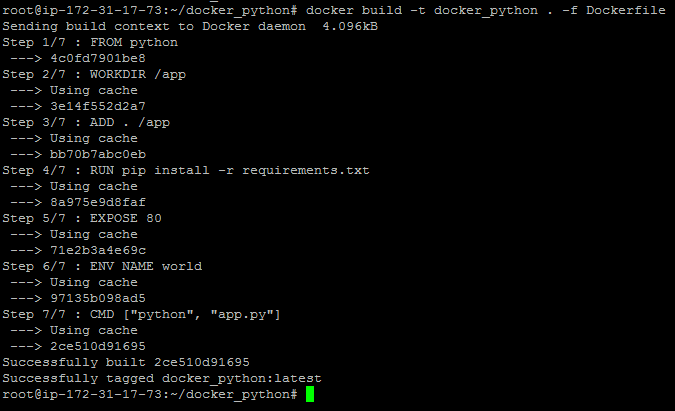
Flask

* You will get the file mentioned below for building a custom Docker image



* Proceed with docker build command to build a custom Docker image

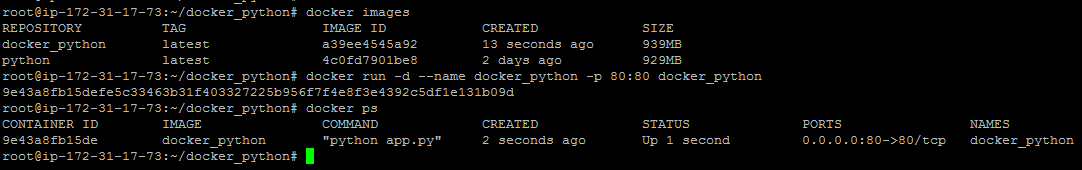
dockerbuild -t docker\_python . -f Dockerfile



* Once the image is built, check the image using **docker run** command and run it to initialize the custom container on Docker host.

docker images

docker run -d --name docker\_python-p 80:80 docker\_python



* Once the container is up and running, validate the connectivity using the **curl** command to see if Python code is running on port 80 or not.

curl localhost

