Task

Hosting Python Flask App using Docker

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1. Create EC2 instance with ubuntu image.
2. In instance install docker. (before installing docker you should be in root user using command – sudo -i)
   Link - https://docs.docker.com/engine/install/ubuntu/

3. Make git clone of repo .
   # git clone https://github.com/shashanksharma1309/python-flask-docker-image.git
   (for files you can clone my repo using
   Link - https://github.com/shashanksharma1309/python-flask-docker-image.git)

```
root@ip-172-31-23-222:~# git clone https://github.com/shashanksharma1309/python-flask-docker-image.git
Cloning into 'python-flask-docker-image'...
remote: Enumerating objects: 23, done.
remote: Counting objects: 100% (23/23), done.
remote: Compressing objects: 100% (21/21), done.
remote: Total 23 (delta 2), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (23/23), 1.31 MiB | 5.74 MiB/s, done.
Resolving deltas: 100% (2/2), done.
```

4. After completing the git clone go upto the your repo.
   In my case
   # ls
   # cd python-flask-docker-image

ls

vim Docker file (create a docker file)

```
root@ip-172-31-23-222:~# ls
python-flask-docker-image  snap
root@ip-172-31-23-222:~# cd python-flask-docker-image/
root@ip-172-31-23-222:~/python-flask-docker-image# ls
Procfile  README.md  app.py  nltk.txt  readme_images  requirements.txt  runtime.txt  static  summarizer.py  templates
root@ip-172-31-23-222:~/python-flask-docker-image# vim Dockerfile
```

5. After entering into the Dockerfile add docker image script.

   # vim Dockerfile

```
FROM python:3.8

LABEL Folder="FlaskApp"

LABEL Author="shashank"

COPY . .

RUN pip install -r requirements.txt

EXPOSE 5000

CMD ["flask" ,"run" ,"--host","0.0.0.0"]
~
~
~
```

6. After writing script save & exit from it.

7. Use command to build docker image.

   # docker build .

8. After completion of image building use command to see docker image.

   # docker images

```
root@ip-172-31-23-222:~/python-flask-docker-image# docker images
REPOSITORY                    TAG       IMAGE ID       CREATED              SIZE
<none>                        <none>    49f032826faa   About a minute ago   1.68GB
shashank9532dockerhub/docker  flask     a89aa627562e   45 minutes ago       1.68GB
root@ip-172-31-23-222:~/python-flask-docker-image#
```

9. Add port 5000 to the image.

   # docker run -d -p 5000:5000 <image-id>

```
root@ip-172-31-23-222:~/python-flask-docker-image# docker run -d -p 5000:5000 49f
da33af0df10810123638ef0bf2d7200c11a809793386bdea71eac9f08ff9e39b
root@ip-172-31-23-222:~/python-flask-docker-image#
```

10. Hit the instance IP to check application.

http://<instance-ip>:5000/web/

In my case

http://13.57.237.154:5000/web/