## Assgn 1: q.2

sol: Docker application:

#### steps:

- 1. Open docker desktop
- 2. Come to command prompt..

create a directory - mkdir my-web-app

Cd my-web-app

Pwd:

C:\Users\jyoth\my-web-app>

```
Directory of C:\Users\jyoth\my-web-app
16-09-2023 12:50
                    <DIR>
16-09-2023
          12:09
                    <DIR>
16-09-2023
           12:52
                                211 арр.ру
16-09-2023 12:10
                                186 Dockerfile
16-09-2023 12:22
                                15 requirements.txt
16-09-2023 13:31
                    <DIR>
                                    templates
               3 File(s)
                                    412 bytes
              3 Dir(s) 668,575,043,584 bytes free
C:\Users\jyoth\my-web-app>
```

```
C:\Users\jyoth\my-web-app>cd templates
C:\Users\jyoth\my-web-app\templates>dir
Volume in drive C is Windows-SSD
Volume Serial Number is 6815-26D4
Directory of C:\Users\jyoth\my-web-app\templates
16-09-2023 13:31
                     <DIR>
16-09-2023 12:50
                     <DIR>
                              8,907 girl.jpg
16-09-2023 13:30
                              9,893 image.jpg
16-09-2023 12:43
16-09-2023 13:32
                                535 index.html
               3 File(s)
                                19,335 bytes
               2 Dir(s) 668,572,614,656 bytes free
C:\Users\jyoth\my-web-app\templates>
```

# Create all files:

1. App.py

```
C:\Users\jyoth\my-web-app\templates>cd ..

C:\Users\jyoth\my-web-app>type app.py
from flask import Flask, render_template

app = Flask(__name__)

@app.route('/')
def index():
    return render_template('index.html')

if __name__ == '__main__':
    app.run(host='0.0.0.0')

C:\Users\jyoth\my-web-app>
```

## 2. requirements.txt

```
C:\Users\jyoth\my-web-app>type requirements.txt
Flask==2.1.1
```

#### 3. Dockerfile

```
C:\Users\jyoth\my-web-app>type Dockerfile
FROM python:3.9-slim
WORKDIR /app
COPY app.py .
COPY requirements.txt .
COPY templates templates
RUN pip install -r requirements.txt
EXPOSE 5000
CMD ["python", "app.py"]
```

# 4. index.html

```
C:\Users\jyoth\my-web-app>cd templates
C:\Users\jyoth\my-web-app\templates>type index.html
<!DOCTYPE html>
<html>
<body>
<h2>Assignment-1</h2>
Virtualization and Cloud Computing

Hi, I am Ajjarapu Jyothi<br>
Roll number : M22CS007<br>
Department : Computer Science<br>
This is a Docker Application.<br>
Made from scratch..no in build images were used.<br
My image name is my-web-app.<br>
The details of how I executed this will be shared in a read-me file<br
Thank you<br>
Bye Bye!!!!<br>
</body>
</htmĺ>
```

To build the images and container:

run this dockerfile.. it will create an image... run the image.. then the container is created

```
C:\Users\jyoth\my-web-app>docker build -t my-web-app .

[-] Building 2.7s (11/11) FINISHED

= [internal] load build definition from Dockerfile

= >= > transferring dockerfile: 328

=> > transferring dockerfile: 328

=> > transferring context: 28

=| internal] load deckeringore

= 0.6s

=> | internal] load deckeringore

= 0.6s

=> | internal] load metadata for docker.io/library/python:3.9-slim

=| internal] load build context: 28

=> | internal] load build context: 298

=> > transferring context: 2098

=> CACHED [2/6] WORDUR /app

=> CACHED [3/6] COPV app.py .

=> CACHED [3/6] COPV requirements.tt .

=> CACHED [5/6] COPV requirements.tt .

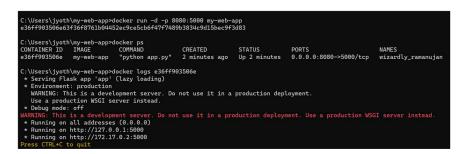
=> CACHED [5/6] COPV requirements.txt .

=> content | second | seco
```

Running the docker image:

```
C:\Users\jyoth\my-web-app>docker run -d -p 8080:5000 my-web-app
e36ff903506e63f36f8761b04452ec9ce5cb6f47f7489b3834c9d15bec9f3d83
C:\Users\jyoth\my-web-app>
```

To check if there are any errors in the application:



#### In the web browser:



