Assignment 4

Question

1.Pull an Image from docker hub and run it docker playground

Code

FROM python:3.10

COPY requirements.txt ./app/requirements.txt

WORKDIR /app

RUN pip install -r requirements.txt

COPY . .

EXPOSE 5000

CMD ["python","./app.py"

Output

2.Create a docker file for the job portal application and deploy it in Docker desktop application

Code

FROM python:3.10

COPY requirements.txt ./app/requirements.txt

WORKDIR /app
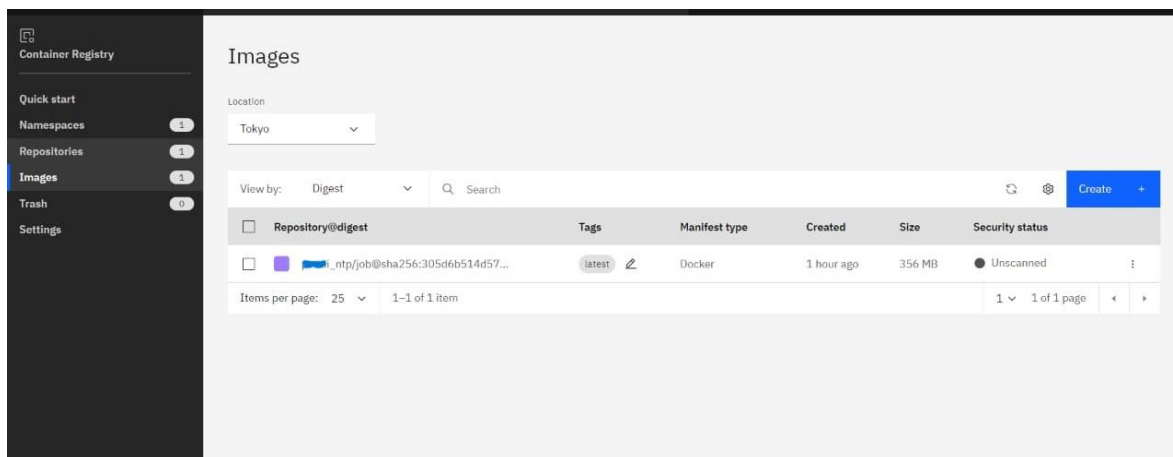
RUN pip install -r requirements.txt

COPY . .

EXPOSE 5000

CMD ["python","./app.py"]

Output

3.Create a IBM container Registry and deploy hello world app or job portal app

Output

4.Create a Kubernetes cluster in IBM cloud and deploy hello world image or job portal image and also expose the same app to run in node port

Code

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <style type="text/css">
        body{
    background-image: -webkit-linear-gradient(rgb(226, 60, 60),rgb(223, 223, 98));
}
.box1,.box2,.box3{
    width: 60vw;
    text-align: center;
    font-size: 20px;
    border-style: solid;
    border-radius: 10px;
    background-color: rgb(127, 164, 197);
    margin: 20px 200px;
    padding: 20px;
}

.btn{
    background-color: #090909; /* Green */
 border: solid green 3px;
 border-radius: 9px;
 color: white;
 padding: 16px 32px;
 text-align: center;
 text-decoration: none;
 display: inline-block;
 font-size: 16px;
 margin: 4px 2px;
 transition-duration: 0.4s;
 cursor: pointer;
 size: 30px;
```

```
}
    </style>
</head>
<body>
        <h2><center>Job Portal</center></h2>
        <h1><center>Apply For Requirement</center><h1>
        <div class="box1">
            Front End Developer<br><hr>
            Location:Chennai, TamilNadu.<br>
            From Rs.40,000 a month<br>
            Front End Developement Knowledge with HTML,CSS,JS and React
js<br><br>
            <button class="btn">Apply Now</button>
        </div>
        <div class="box2">
            Java Developer<br><hr>
            Location:Chennai, Tamil Nadu.<br>
            From Rs.1,60,000 a month<br>
            A Java Developer is a programmer who designs, develops, and manages
Java-based applications and software. With most large organizations using Java to
implement software systems and backend services, a Java developer is one of the
most sought-after jobs today.<br><br>
            <button class="btn">Apply Now</button>
        </div>
        <div class="box3">
            Full Stack Developer<br><hr>
            Location:Bengaluru, Karnataka.<br>
            From Rs90,000 a month<br>
            Front-End developers create and manage the client-facing and server
sides of websites and applications. Understanding the "full stack" requires a
broad skill set and high-level knowledge of how front-end and back-end
development work together, communicate, and connect.<br><br>
            <button class="btn">Apply Now</button>
        </div>
</body>
</html>
```

Flask file

```
Flask file
from flask import Flask, render_template

app = Flask(_name_)
```

```python
app.config['SECRET_KEY'] =
'df3asd24sfasd4asd26@45tas0331cefc6c2b9a5d0208a726a5d1c0fd37324feba25506'

@app.route("/")
def home():
    return render_template("home.html")

if _name_ == '_main_':
    app.run(host='0.0.0.0', port=5000, debug=True)
```

Output
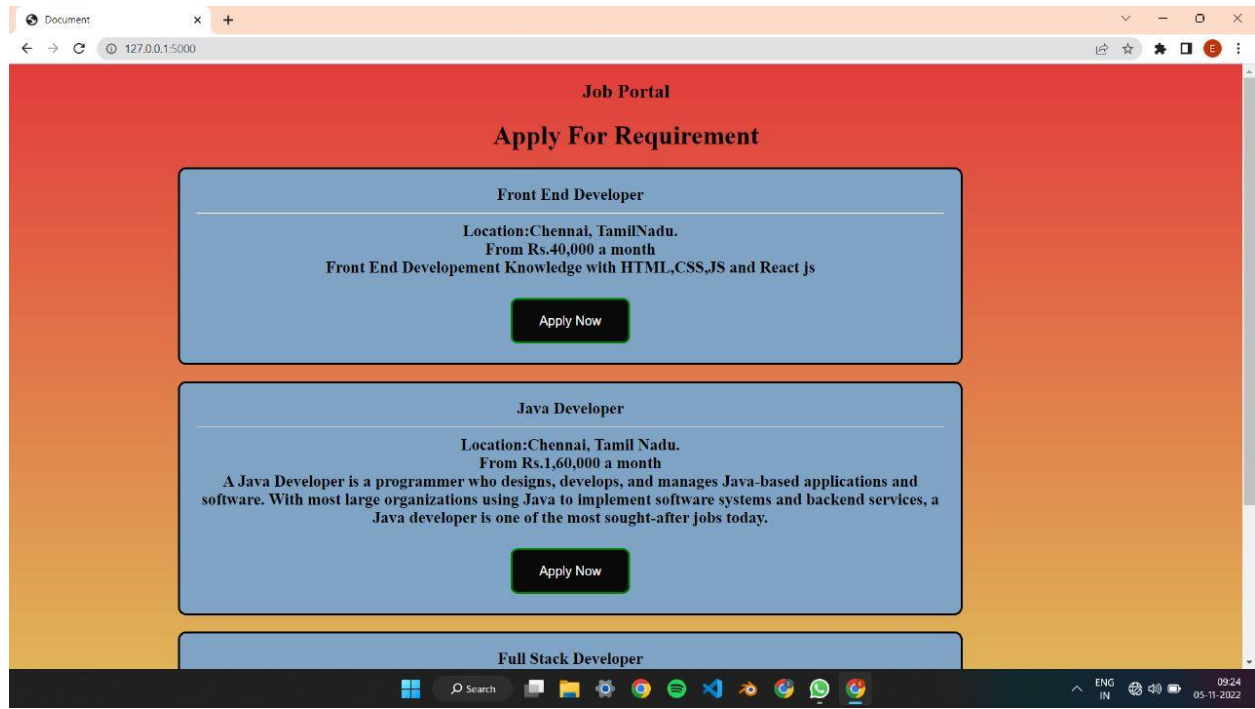
```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    JUPYTER                                                          python + ∨ ⊞ 🗑 ∧ ✕

      from flask import Flask, render_template
IndentationError: unexpected indent
PS C:\Users\Deepak Santhosh\Desktop\ASSIGNMENT\Assignment 3\flask> python "app.py"
 * Serving Flask app 'app'
 * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on all addresses (0.0.0.0)
 * Running on http://127.0.0.1:5000
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 831-514-859
[]
```

Job Portal

Apply For Requirement

Front End Developer

Location:Chennai, TamilNadu.
From Rs.40,000 a month
Front End Developement Knowledge with HTML,CSS,JS and React js

Apply Now

Java Developer

Location:Chennai, Tamil Nadu.
From Rs.1,60,000 a month
A Java Developer is a programmer who designs, develops, and manages Java-based applications and software. With most large organizations using Java to implement software systems and backend services, a Java developer is one of the most sought-after jobs today.

Apply Now

Full Stack Developer

```
Command Prompt                                                                    —    □    ×

C:\Users\hp\OneDrive\Desktop\New folder\JobPortal>kubectl apply -f kubernetes/flask_deployment.yaml
deployment.apps/flask-app configured

C:\Users\hp\OneDrive\Desktop\New folder\JobPortal>kubectl expose deployment flask-app --type=NodePort --name=job-portal-
1
Error from server (AlreadyExists): services "job-portal-1" already exists

C:\Users\hp\OneDrive\Desktop\New folder\JobPortal>kubectl expose deployment flask-app --type=NodePort --name=job-portal
service/job-portal exposed

C:\Users\hp\OneDrive\Desktop\New folder\JobPortal>kubectl describe svc job-portal
Name:                      job-portal
Namespace:                 default
Labels:                    <none>
Annotations:               <none>
Selector:                  app=flask-app
Type:                      NodePort
IP Family Policy:          SingleStack
IP Families:               IPv4
IP:                        172.21.218.151
IPs:                       172.21.218.151
Port:                      <unset>  5000/TCP
TargetPort:                5000/TCP
NodePort:                  <unset>  30542/TCP
Endpoints:
Session Affinity:          None
External Traffic Policy:   Cluster
Events:                    <none>

C:\Users\hp\OneDrive\Desktop\New folder\JobPortal>_
```