ASSIGNMENT 4

Kubernetes:

i)dashboard admin.yaml code:

apiversion: v1

kind: ServiceAccount

metadata:

name: admin-user

namespace: kubernetes-dashboard

apiVersion: v1

kind: Secret

metadata:

name: admin-user-token

namespace: kubernetes-dashboard

annotations:

kubernetes.io/service-account.name: admin-user

type: kubernetes.io/service-account-token

apiVersion: rbac.authorization.k8s.io/v1

kind: ClusterRoleBinding

```
metadata:
 name: admin-user
roleRef:
 apiGroup: rbac.authorization.k8s.io
 kind: ClusterRole
 name: cluster-admin
subjects:
- kind: ServiceAccount
 name: admin-user
namespace: Kubernetes - dashboard
ii)flask_deployment .yaml code:
apiversion: apps/v1
kind: Deployment
metadata:
 name: flask-app
spec:
 replicas: 3
 selector:
  matchLabels:
   app: flask-app
```

```
template:
  metadata:
   labels:
     app: flask-app
  spec:
   containers:
     - name: flask-app-container
      image: project3:latest
      imagePullPolicy: Never
      ports:
       - containerPort: 5000
Protocol:tcp
iii)flask_ingress.yaml code:
apiversion: networking.k8s.io/v1
kind: Ingress
metadata:
 name: flask-app-ingress
 annotations:
  kubernetes.io/ingress.class: nginx
  nginx.ingress.kubernetes.io/ssl-redirect: "false"
```

```
spec:
 # ingressClassName: nginx
 rules:
  - http:
     paths:
      - backend:
         service:
          name: flask-app-service
          port:
           number: 5000
       path: /
pathtype:Prefix
iv)flask_service :
apiversion: v1
kind: Service
metadata:
 name: flask-app-service
spec:
 type: ClusterIP
 ports:
```

```
- port: 5000
 selector:
  app:flask-app
v)ibm deploy code:
apiversion: apps/v1
kind: Deployment
metadata:
 name: flask-app
spec:
 replicas: 3
 selector:
  matchLabels:
   app: flask-app
 template:
  metadata:
   labels:
     app: flask-app
  spec:
   containers:
```

```
- name: flask-app-container
     image: jp.icr.io/ibmtrainning/flask-app-testing
     imagePullPolicy: Always
     ports:
      - containerPort: 5000
Protocol:tcp
Templates:
job. html code:
<!Doctype html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible"</pre>
content="IE=edge">
  <meta name="viewport" content="width=device-
width, initial-scale=1.0">
  <title>JOB PORTAL</title>
</head>
<style>
form {text-align: center;}
```

```
</style>
<body style="background-color:#dcf3f5">
  <div class="header">
   <img
src="https://i.pinimg.com/736x/d3/9b/39/d39b39a17ae8
5a106b7a82ed4ad6383e.jpg" alt="logo" width="160"
height="90">
   <h1>JOB PORTAL</h1>
   We're here to land you to your dream job!
  </div>
  <form>
    <h2>Enter Your Credentials</h2>
    <label for="fname">First name:</label><br>
    <input type="text" id="fname"</pre>
name="fname"><br>
    <label for="lname">Last name:</label><br>
    <input type="text" id="lname"</pre>
name="lname"><br><br>
    <label for="email">Email i'd:</label><br>
    <input type="text" id="email"</pre>
name="email"><br><br>
    <label for="phone">Phone Number:</label><br>
```

```
<input type="text" id="phone"</pre>
name="phone"><br><br>
    <label for="quali">Educational
Qualification:</label><br>
    <input type="text" id="quali"</pre>
name="quali"><br><br>
    <label for="Percentage">Percentage:</label><br>
    <input type="text" id="Percentage"</pre>
name="Percentage">
   Choose your Web language:
   <input type="radio" id="html"</pre>
name="web_language" value="HTML">
   <label for="html">HTML</label><br>
   <input type="radio" id="css" name="web_language"</pre>
value="CSS">
   <label for="css">CSS</label><br>
   <input type="radio" id="javascript"</pre>
name="web_languageweb_language"
value="JavaScript">
```

```
<label for="javascript">JavaScript</label>
   How many language do you know?
   <input type="checkbox" id="vehicle1"</pre>
name="vehicle1" value="Bike">
   <label for="vehicle1"> 1</label><br>
   <input type="checkbox" id="vehicle2"</pre>
name="vehicle2" value="Car">
   <label for="vehicle2"> 2</label><br>
   <input type="checkbox" id="vehicle3"</pre>
name="vehicle3" value="Boat">
   <label for="vehicle3"> morethan 2</label>
   <br/>dr><br><input type="submit"
value="Submit">
  </form>
</body>
</html>
App.py code:
```

from flask import Flask, render_template

```
app = Flask(__name__)
@app.route('/')
def job():
    return render_template('job.html')
if __name__ == '__main__':
app.run(debug=True,host ='0.0.0.0')
```

Docker file:

FROM python:3.10.7-alpine

WORKDIR / Assignment4

ADD . /Assignment4

RUN pip install -r requirements.txt

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

Requirements:

Flask

Output:

