ASSIGNMENT 4

Kubernetes:

i)dashboard admin.yaml code:

```yaml
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
```

```yaml
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:

```yaml
apiversion : apps/v1
kind: Deployment
metadata:
  name: flask-app

spec:
  replicas: 3
  selector:
    matchLabels:
      app: flask-app
```

```yaml
    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:

```yaml
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"
```

```yaml
spec:
  # ingressClassName: nginx
  rules:
    - http:
        paths:
          - backend:
              service:
                name: flask-app-service
                port:
                  number: 5000
            path: /
            pathtype:Prefix
```

iv)flask_service :

```yaml
apiversion: v1
kind: Service
metadata:
  name: flask-app-service
spec:
  type: ClusterIP
  ports:
```

```yaml
    - port: 5000
  selector:
    app:flask-app
```

v)ibm deploy code:

```yaml
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:

```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>JOB PORTAL</title>

</head>
<style>
 form{text-align: center;}
 <p style = "background-image: url('jp.jpg');">
```

```html
 </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>
    <p>We're here to land you to your dream job!</p>
   </div>


   <form>
     <h2>Enter Your Credentials</h2>
     <label for="fname">First name:</label><br>
     <input type="text" id="fname"
name="fname"><br>
     <label for="lname">Last name:</label><br>
     <input type="text" id="lname"
name="lname"><br><br>
     <label for="email">Email i'd:</label><br>
     <input type="text" id="email"
name="email"><br><br>
     <label for="phone">Phone Number:</label><br>
```

```html
        <input type="text" id="phone"
name="phone"><br><br>

        <label for="quali">Educational
Qualification:</label><br>

        <input type="text" id="quali"
name="quali"><br><br>

        <label for="Percentage">Percentage:</label><br>

        <input type="text" id="Percentage"
name="Percentage">


        <p>Choose your Web language:</p>


        <input type="radio" id="html"
name="web_language" value="HTML">

        <label for="html">HTML</label><br>

        <input type="radio" id="css" name="web_language"
value="CSS">

        <label for="css">CSS</label><br>

        <input type="radio" id="javascript"
name="web_languageweb_language"
value="JavaScript">
```

```html
    <label for="javascript">JavaScript</label>
    <p>How many language do you know?</p>
    <input type="checkbox" id="vehicle1"
name="vehicle1" value="Bike">
    <label for="vehicle1"> 1</label><br>
    <input type="checkbox" id="vehicle2"
name="vehicle2" value="Car">
    <label for="vehicle2"> 2</label><br>
    <input type="checkbox" id="vehicle3"
name="vehicle3" value="Boat">
    <label for="vehicle3"> morethan 2</label>

    <br><br><br><input type="submit"
value="Submit">
    </form>



</body>
</html>
```

App.py code:

```python
from flask import Flask, render_template
```

```python
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 :

```dockerfile
FROM python:3.10.7-alpine
WORKDIR /Assignment4
ADD . /Assignment4
RUN pip install -r requirements.txt
CMD ["python","app.py"]
```

Requirements:

Flask

Output:

JOB PORTAL

We're here to lead you to your dream job!

Enter Your Credentials

First name:

Last name:

Email id:

Phone Number:

Educational Qualification:

Percentage:

Choose your Web language:

- HTML
- CSS
- JavaScript

How many language do you know?

- 1
- 2
- more than 2

Submit