

ASSIGNMENT-4

PROJECT NAME : SKILL AND JOB RECOMMENDER APPLICATION

KUBERNETES

Deployment.html

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: webpage
      image: Assignment/flask
      imagePullPolicy: Never
      ports:
        - containerPort: 5000
          protocol: TCP
```

service.yaml

```
apiVersion: v1
kind: Service
metadata:
  name: flask-app-service
spec:
  type: ClusterIP
  ports:
    - port: 5000
  selector:
    app: flask-app
```

base.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title> FlaskApp</title>
```

<style>

```
.message {  
    padding: 10px;  
    margin: 5px;  
    background-color: #656362  
}
```

```
h1{  
    color: #1d78cd;  
  
}
```

```
nav a {  
    color: #1d78cd;  
    font-size: 25px;  
    margin-left: 50px;  
    text-decoration: none;  
    text-transform: uppercase;  
}
```

```
.alert {  
    padding: 20px;  
    margin: 5px;  
    color: #977c30;  
    background-color: #dda1ae;  
}
```

```
.button {  
background-color:#977c30; /* red */  
border: none;  
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;
}
```

```
.button1 {
  background-color: white;
  color: black;
  border-radius: 10px;
  border: 2px solid #036523;
}
```

```
.button1:hover {
  background-color: #00971e;
  color: rgb(47, 41, 51);
}
```

```
input[type=text],textarea {
  width: 50%;
  padding: 12px 20px;
  margin: 8px 0;
  box-sizing: border-box;
  border: 2px solid;
  border-radius: 4px;
}
```

```
</style>
```

```
</head>
```

```
<body>
  <nav>
    <a href="#">Home</a>
    <a href="{{ url_for('index') }}">FlaskApp</a>
    <a href="{{ url_for('create') }}">Create</a>

  </nav>
  <hr>
  <div class="content">
    {% for message in get_flashed_messages() %}
      <div class="alert">{{ message }}</div>
    {% endfor %}
    {% block content %} {% endblock %}
  </div>

</body>
</html>
```

create.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title> FlaskApp</title>
  <style>
    .message {
      padding: 10px;
      margin: 5px;
      background-color: #656362
```

```
}  
h1{  
    color: #1d78cd;  
  
}  
nav a {  
    color: #1d78cd;  
    font-size: 25px;  
    margin-left: 50px;  
    text-decoration: none;  
    text-transform: uppercase;  
}  
  
.alert {  
    padding: 20px;  
    margin: 5px;  
    color: #977c30;  
    background-color: #dda1ae;  
}  
.button {  
background-color:#977c30; /* red */  
border: none;  
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;
}
```

```
.button1 {
    background-color: white;
    color: black;
    border-radius: 10px;
    border: 2px solid #036523;
}
```

```
.button1:hover {
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    color: rgb(47, 41, 51);
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```
input[type=text],textarea {
    width: 50%;
    padding: 12px 20px;
    margin: 8px 0;
    box-sizing: border-box;
    border: 2px solid;
    border-radius: 4px;
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
    <nav>
```

```
        <a href="#">Home</a>
```

```
        <a href="{ { url_for('index') } }">FlaskApp</a>
```

```
        <a href="{ { url_for('create') } }">Create</a>
```

```

</nav>

<hr>

<div class="content">
    { % for message in get_flashed_messages() % }
        <div class="alert">{{ message }}</div>
    { % endfor % }
    { % block content % } { % endblock % }
</div>

</body>
</html>

```

```

    HOME    FLASKAPP    CREATE
{% for message in get_flashed_messages() %}
    {{ message }}
{% endfor %} { % block content % } { % endblock % }

```

index.html

```

{ % extends 'base.html' % }

{ % block content % }
    <h1 style="text-align: center;">WELCOME!</h1>
    <h1> { % block title % } <span style="color: rgb(29, 11, 166);">WRITE
YOUR MESSAGES</span> { % endblock % }</h1>
    { % for message in messages % }

```



```
<div class='message'>
  <h3><span style="color: rgb(255, 255, 255);">TITLE : </span>
{{ message['title'] }}</h3>
  <p><span style="color: rgb(255, 255, 255);">MESSAGE :
</span>{{ message['content'] }}</p>
</div>
{% endfor %}
{% endblock %}
```

```
PS C:\Windows\system32> docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
Digest: sha256:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Image is up to date for hello-world:latest
docker.io/library/hello-world:latest
PS C:\Windows\system32>
```

Dockerfile

FROM python:3.10-buster

WORKDIR /app

COPY . .

RUN pip install --no-cache-dir -r requirements.txt

CMD ["ibm_db2", "--bind", "0.0.0.0:5000", "app:app"]

Create a Kubernetes cluster in IBM cloud and deploy hello world image or jobportal image and also expose the same app to run in nodeport.

mycluster-free

Preparing master, workers... Expires in 10 days Add tags

Overview

Worker nodes

Worker pools

DevOps

Name	Status	Worker pool	Zone	Private IP	Public IP	Version
00000000	Provisioning	default	us-east-1a			1.24.6-eks-1.24.6

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Help

- Login to your cluster
- Deploy your app
- Expose your app
- Add storage to your app
- Connect integrations
- Install add-ons
- Troubleshoot