

## ASSIGNMENT-4

**PROJECT NAME :NEWS TRACKER 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 {
    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>

```



## 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 pending	default	us-east-1a			1.24.6-1542

Items per page: 25 1 of 1 items

Help

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