

ASSIGNMENT-4

PROJECT NAME :NEWS TRACKER APPLICATION

TEAM ID :PNT2022TMID40290

REG NO :513219106501

NAME :T KABILAN

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>MESSAGE :
{{ 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"]


```
Administrator: Windows PowerShell (x64)
PS C:\Windows\system32> docker tag hello-world:ip.1n71111no/hello-world
PS C:\Windows\system32> docker push ip.1n71111no/hello-world
Using default tag: latest
The push refers to repository [ip.1n71111no/hello-world]
a00e8aa5b: manifest from 000104/hello-world
latest: digest: sha256:f5d8b8ba5d5a525d5ea8705c2285f7ee128a5a1b000ebf7f1d8e4 size: 519
PS C:\Windows\system32>
```

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 30 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 |

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Help

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