ASSIGNMENT-4

PROJECT NAME :NEWS TRACKER APPLICATION

TEAM ID :PNT2022TMID40290

REG NO :513219106003

NAME :U.SRINIVASAN

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

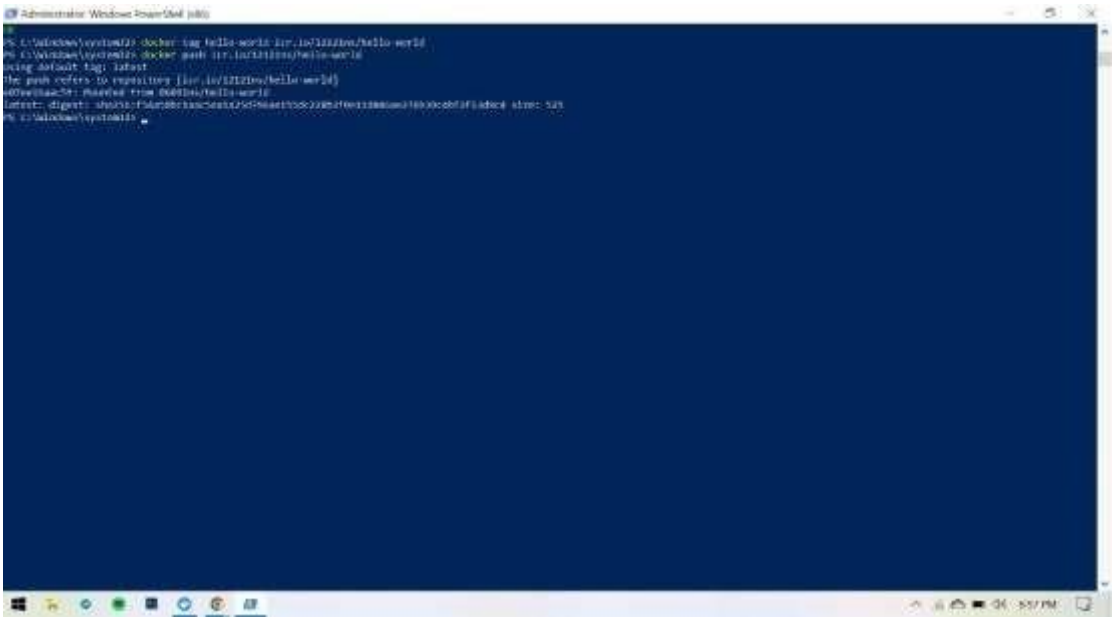
```
{% extends 'base.html' %}

{% 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 %}
```

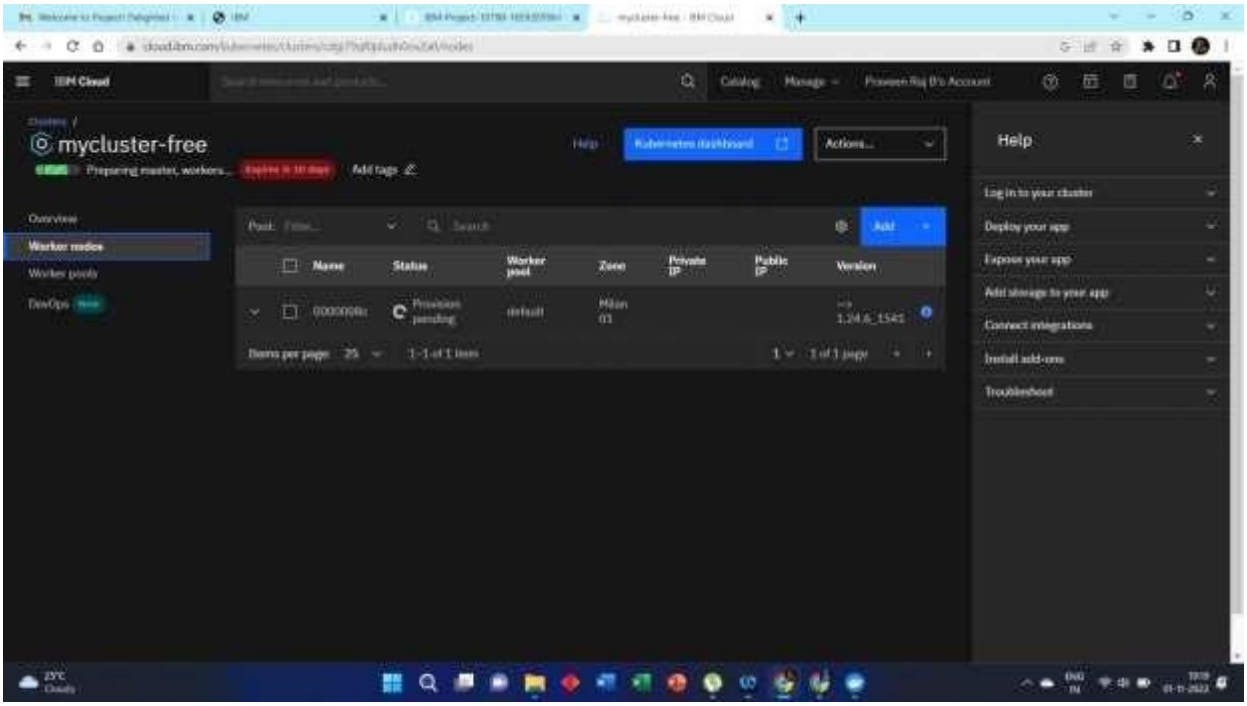
```
PS C:\Windows\system32> docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
Digest: sha256:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Image is up to date for hello-world:latest
docker.io/library/hello-world:latest
PS C:\Windows\system32>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

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.


IBM Cloud
mycluster-free
Help
Kubernetes dashboard
Actions...
Overview
Worker nodes
Worker pools
DevOps
Add tags
Add
Name
Status
Worker pool
Zone
Private IP
Public IP
Version
default
Items per page: 25
1 - 1 of 1 items
1 of 1 page
Help
Log in to your cluster
Deploy your app
Expose your app
Add storage to your app
Connect integrations
Install add-ons
Troubleshoot