Deployment of App in IBM Cloud

Containerize the App (Docker Image Creation)

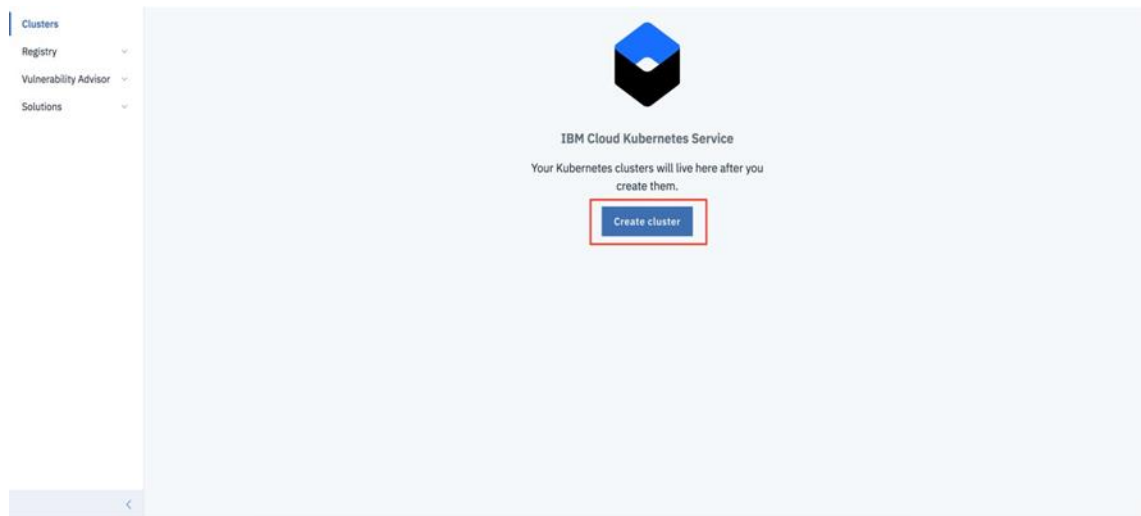| Date	11 NOV 2022
Team ID	PNT2022TMID17378
Project Name	Skill and Job Recommender
Team Members:	Vimalan V, Vinothkumar K, Visvesvaran S, Yuvaraj A

Step 1 :

Sign in to your [IBM Cloud Dashboard](#) And Open **IBM Kubernetes Service**.
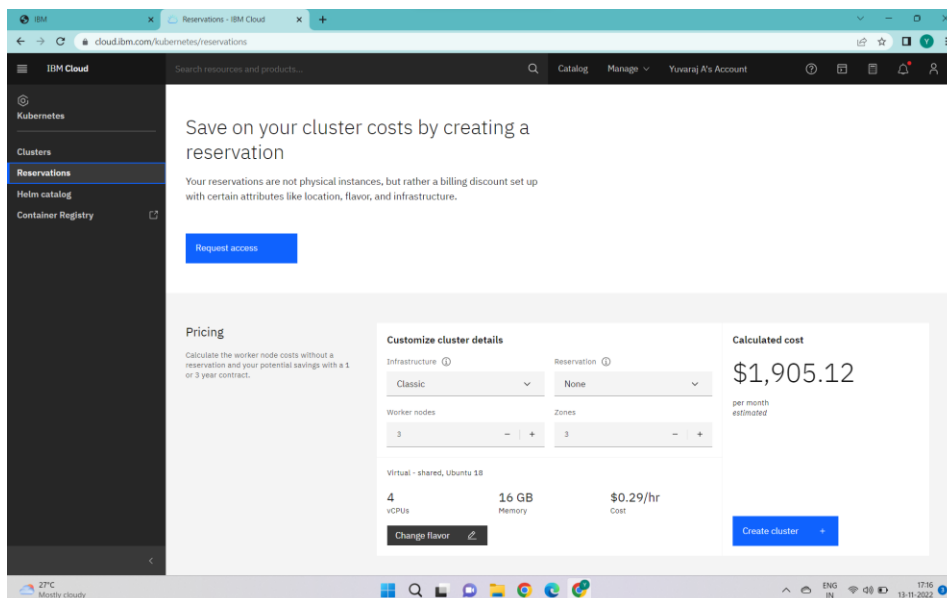
Step 2 :

Create the **Cluster**. Give the Region and cluster type are need to create cluster.

Step 3 :

After creating the cluster Click the Work Node to Note the pubic Id.

Step 4 :

Next Create a Docker file in Flask App and Type a Following Code within it

```
FROM python:2.7
  LABEL maintainer="Kunal Malhotra, kunal.malhotra1@ibm.com"
  RUN apt-get update
  RUN mkdir /app
  WORKDIR /app
  COPY . /app
  RUN pip install -r requirements.txt
  EXPOSE 5000
  ENTRYPOINT [ "python" ]
  CMD [ "app.py" ]
```

Step 5 :

Open the terminal and type this command to build an image from your Dockerfile: docker build -t <image_name>:<tag> .

```
kunals-mbp:web kunalmalhotra$ docker build -t app:latest .
Sending build context to Docker daemon  348.2kB
Step 1/8 : FROM python:2.7
 ---> 6c76e39e7cfe
Step 2/8 : LABEL maintainer="Kunal Malhotra, kunal.malhotra1@ibm.com"
 ---> Using cache
 ---> d8b57d41591c
Step 3/8 : RUN apt-get update
 ---> Using cache
 ---> 6262a134e40e
Step 4/8 : COPY . /app
 ---> f07f7377099f
Step 5/8 : WORKDIR /app
Removing intermediate container f9010b99d2fe
 ---> 0bcc6af20e3d
Step 6/8 : RUN pip install -r requirements.txt
 ---> Running in 8153040b00b7
Collecting click==6.7 (from -r requirements.txt (line 1))
  Downloading https://files.pythonhosted.org/packages/34/c1/8806f99713ddb993c5366c362b2f908f18269f8d792aff1abfd700775a77/click-6.7-py2.py3-none-any.whl (71kB)
Collecting Flask==1.0.2 (from -r requirements.txt (line 2))
  Downloading https://files.pythonhosted.org/packages/7f/e7/08578774ed4536d3242b14dacb4696386634607af824ea997202cd0edb4b/Flask-1.0.2-py2.py3-none-any.whl (91kB)
Collecting itsdangerous==0.24 (from -r requirements.txt (line 3))
  Downloading https://files.pythonhosted.org/packages/dc/b4/a60bcdba945c00f6d608d8975131ab3f25b22f2bcfe1dab211165194b2d4/itsdangerous-0.24.tar.gz (46kB)
Collecting Jinja2==2.10 (from -r requirements.txt (line 4))
  Downloading https://files.pythonhosted.org/packages/7f/ff/ae64bacdfc95f27a016a7bed8e8686763ba4d277a78ca76f32659220a731/Jinja2-2.10-py2.py3-none-any.whl (126kB)
Collecting MarkupSafe==1.0 (from -r requirements.txt (line 5))
  Downloading https://files.pythonhosted.org/packages/4d/de/32d741db316d8fdb7680822dd37001ef7a448255de9699ab4bfcbdf4172b/MarkupSafe-1.0.tar.gz
Collecting Werkzeug==0.14.1 (from -r requirements.txt (line 6))
  Downloading https://files.pythonhosted.org/packages/20/c4/12e3e56473e52375aa29c4764e70d1b8f3efa6682bef8d0aae04fe335243/Werkzeug-0.14.1-py2.py3-none-any.whl (322kB)
Building wheels for collected packages: itsdangerous, MarkupSafe
  Running setup.py bdist_wheel for itsdangerous: started
  Running setup.py bdist_wheel for itsdangerous: finished with status 'done'
  Stored in directory: /root/.cache/pip/wheels/2c/4a/61/5599631c1554768c6290b08c02c72d7317910374ca602ff1e5
  Running setup.py bdist_wheel for MarkupSafe: started
  Running setup.py bdist_wheel for MarkupSafe: finished with status 'done'
  Stored in directory: /root/.cache/pip/wheels/33/56/20/ebe49a5c612fffe1c5a632146b16596f9e64676768661e4e46
Successfully built itsdangerous MarkupSafe
Installing collected packages: click, itsdangerous, MarkupSafe, Jinja2, Werkzeug, Flask
Successfully installed Flask-1.0.2 Jinja2-2.10 MarkupSafe-1.0 Werkzeug-0.14.1 click-6.7 itsdangerous-0.24
Removing intermediate container 8153040b00b7
 ---> 66d2636b97bc
Step 7/8 : ENTRYPOINT [ "python" ]
 ---> Running in bdc1c83815e1
Removing intermediate container bdc1c83815e1
 ---> 73cefc38ac1c
Step 8/8 : CMD [ "app.py" ]
 ---> Running in a784d430dd6f
Removing intermediate container a784d430dd6f
 ---> d8b6b83763a5
Successfully built d8b6b83763a5
Successfully tagged app:latest
kunals-mbp:web kunalmalhotra$
```

Step 6 :

After you build your image succesfully, type: docker run -d -p 5000:5000 app.
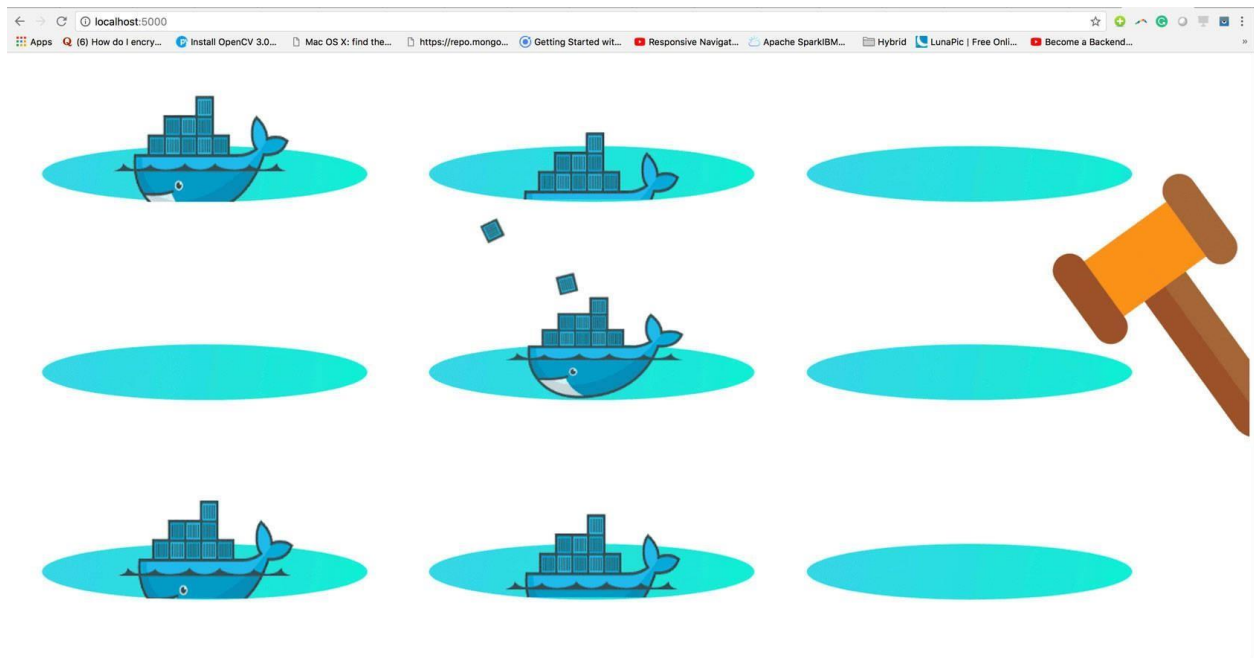
Step 7 :

Docker Image Created Successfully.