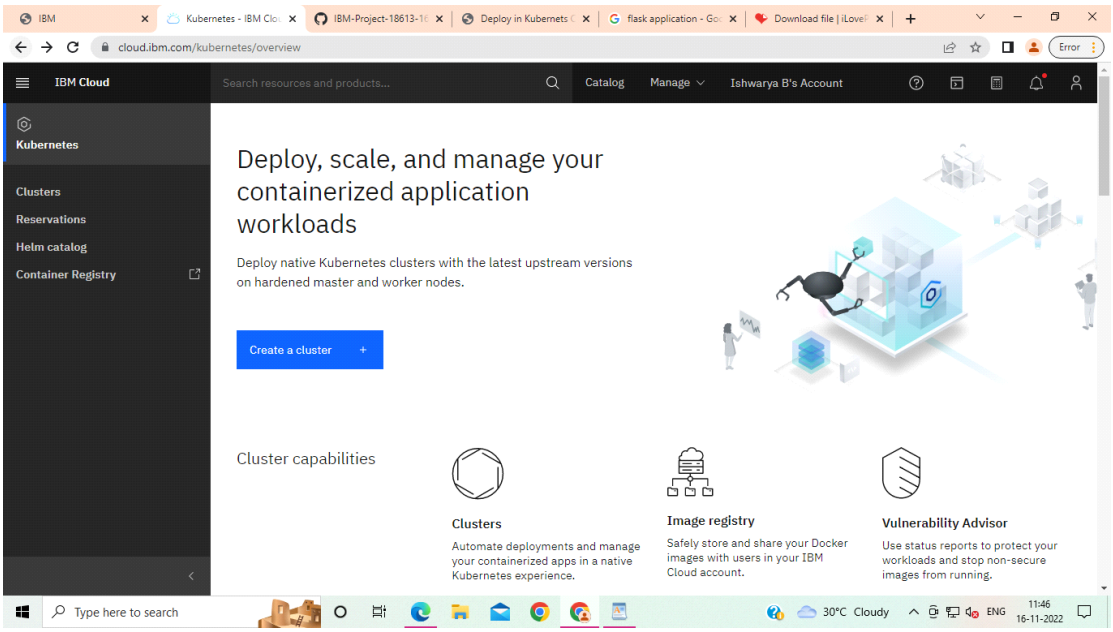
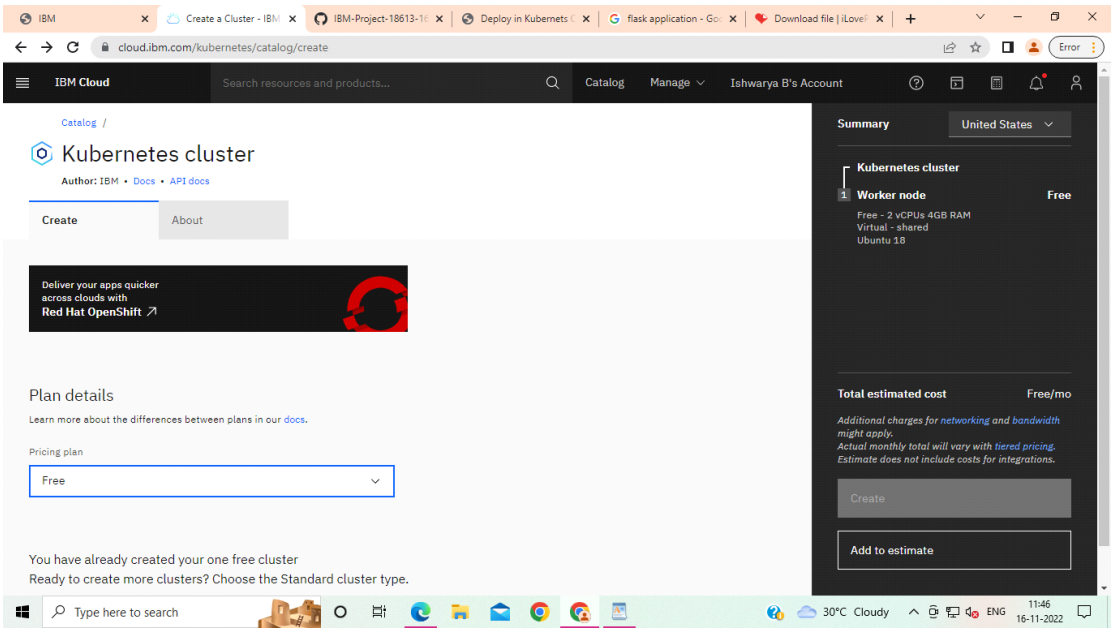
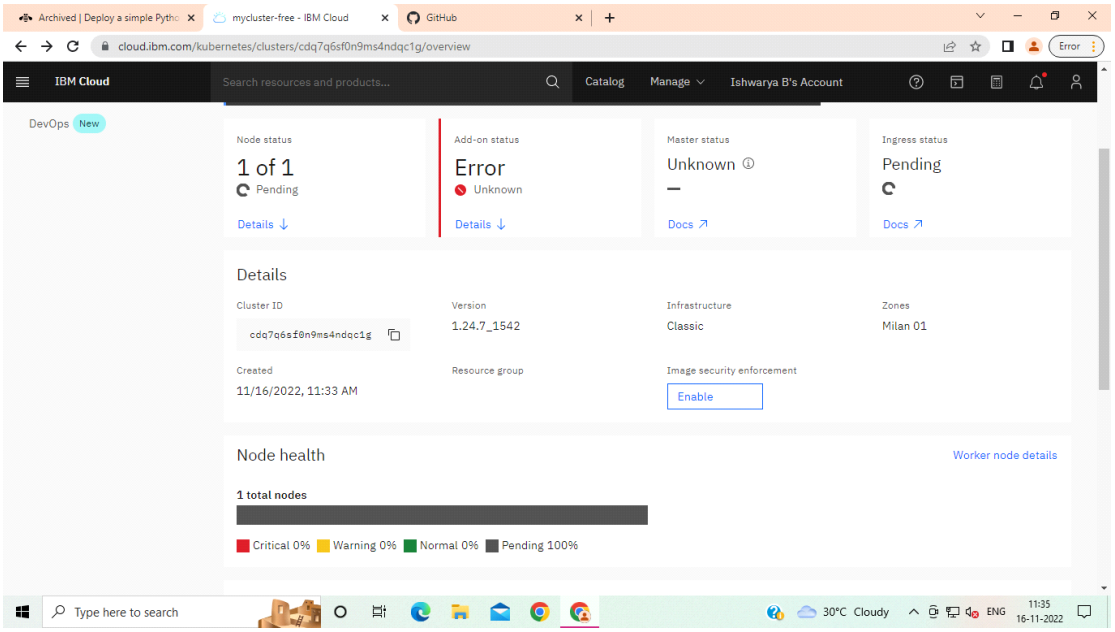
Upload Image To IBM Container Registry

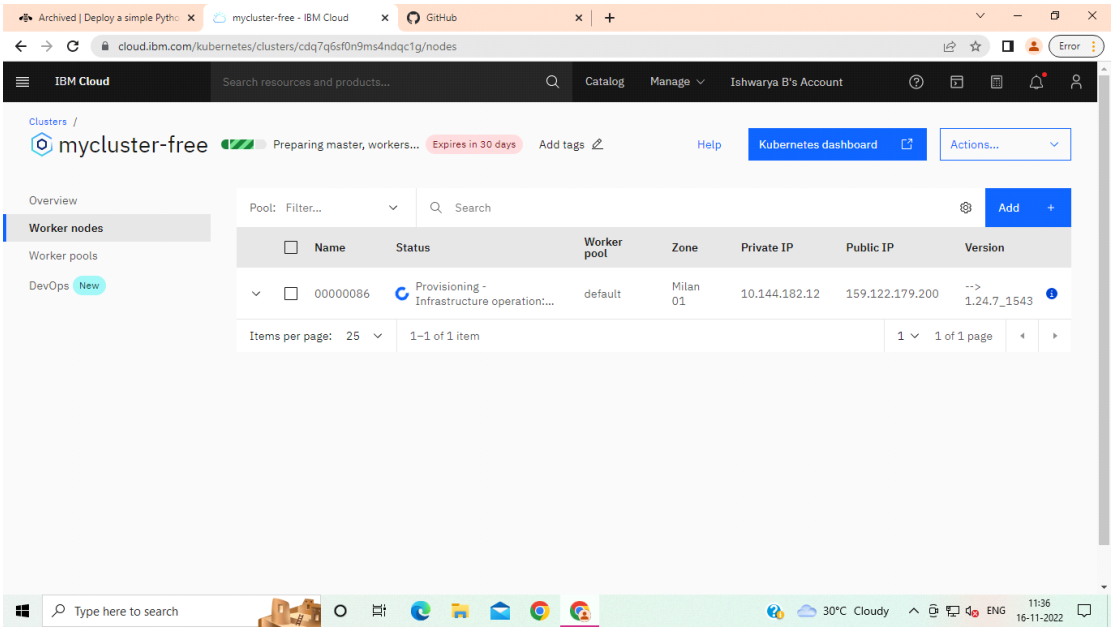
Team ID	PNT2022TMID37215
Project Name	**Project - SMART FASHION RECOMMENDER APPLICATION**

Creation of kubernetes cluster:









Dockerfile:

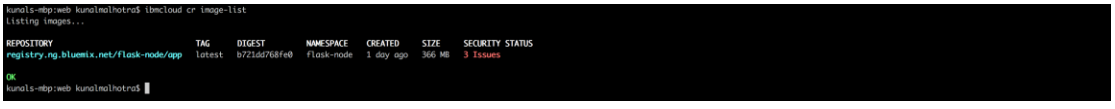
```
FROM python:2.7
LABEL maintainer="AishwaryaB, 310119205009@smartinternz.com"
RUN apt-get update
RUN mkdir /app
WORKDIR /app
COPY . /app
RUN pip install -r requirements.txt
EXPOSE 5000
```

```
ENTRYPOINT [ "python" ]
CMD [ "app.py" ]
```

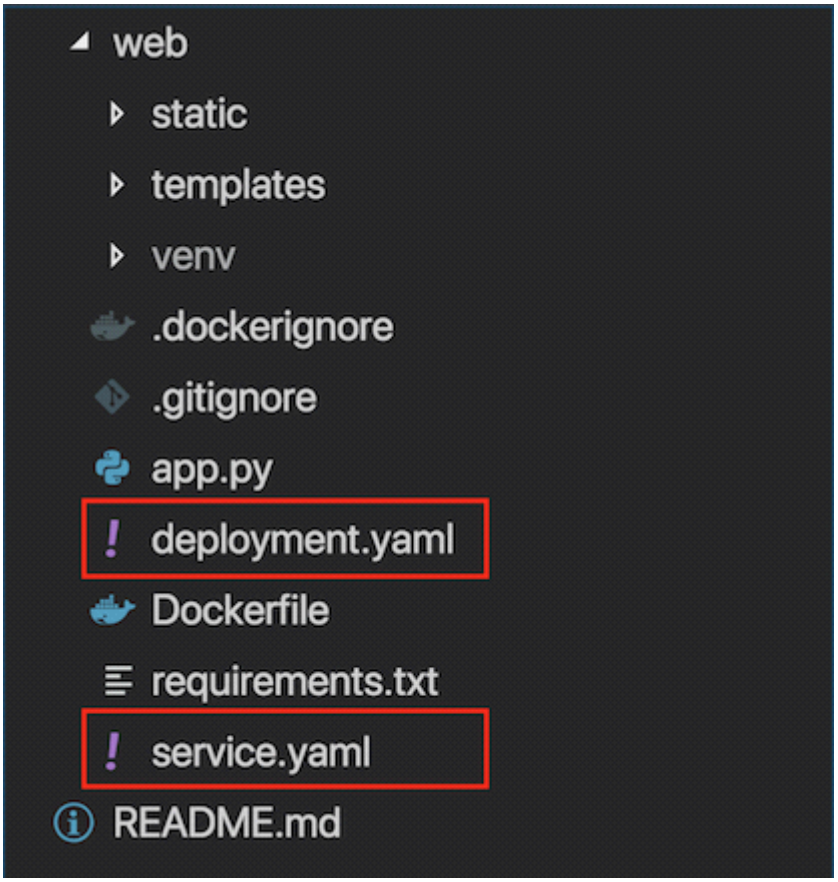
Build an image from the Dockerfile:

Push the image to the IBM Cloud Registry:

1) go to IBM Cloud Kubernetes Service.
2)select Private Repositories.
3) ibmcloud plugin install container-registry -r "IBM Cloud"
4) ibmcloud login -a <cloud_foundary_end_point_for_the_region>
5) ibmcloud cr namespace-add <namespace>
6) ibmcloud cr login
7) docker tag <image_name> <region_url>/<namespace>/<image_name>:<tag>
8) docker push <region_url>/<namespace>/<image_name>:<tag>
9) ibmcloud cr image-list



Create configuration files for Kubernetes:



deployment.yaml :

```
apiVersion: extensions/v1beta1
kind: Deployment
metadata:
  name: flask-node-deployment
spec:
  replicas: 1
  selector:
    matchLabels:
      app: flasknode
  template:
    metadata:
      labels:
        app: flasknode
    spec:
      containers:
      - name: flasknode
        image: registry.ng.bluemix.net/flask-node/app
        imagePullPolicy: Always
        ports:
```

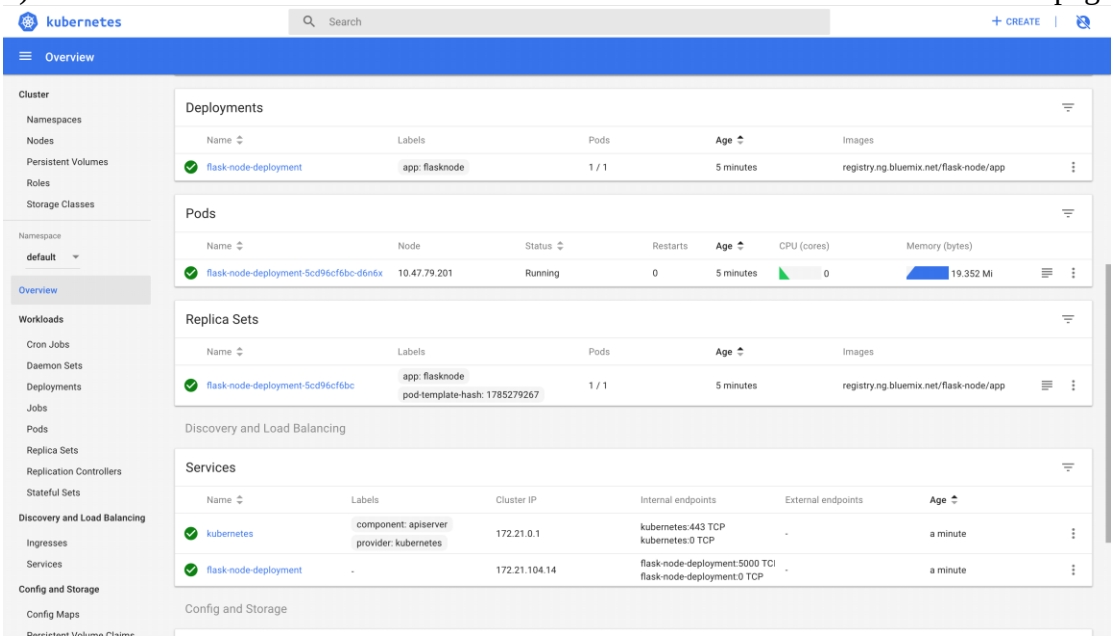
```
        - containerPort: 5000
```

service.yaml:

```
apiVersion: v1
kind: Service
metadata:
  name: flask-node-deployment
spec:
  ports:
  - port: 5000
    targetPort: 5000
  selector:
    app: flasknode
```

Deploy your application to Kubernetes:

1) ibmcloud cs region-set us-south
2.a) ibmcloud cs cluster-config cluster_kunal
2.b) > export KUBECONFIG=/Users/$USER/.bluemix/plugins/container-service/clusters/< cluster_name >/< cluster_configuration_file.yaml>
3) kubectl get nodes
4) kubectl create -f deployment.yaml
5) kubectl create -f service.yaml
6) Look at the Kubernetes dashboard from the IBM Kubernetes Service overview page.



7)Finally, go to your browser and ping the Public IP of your worker node.