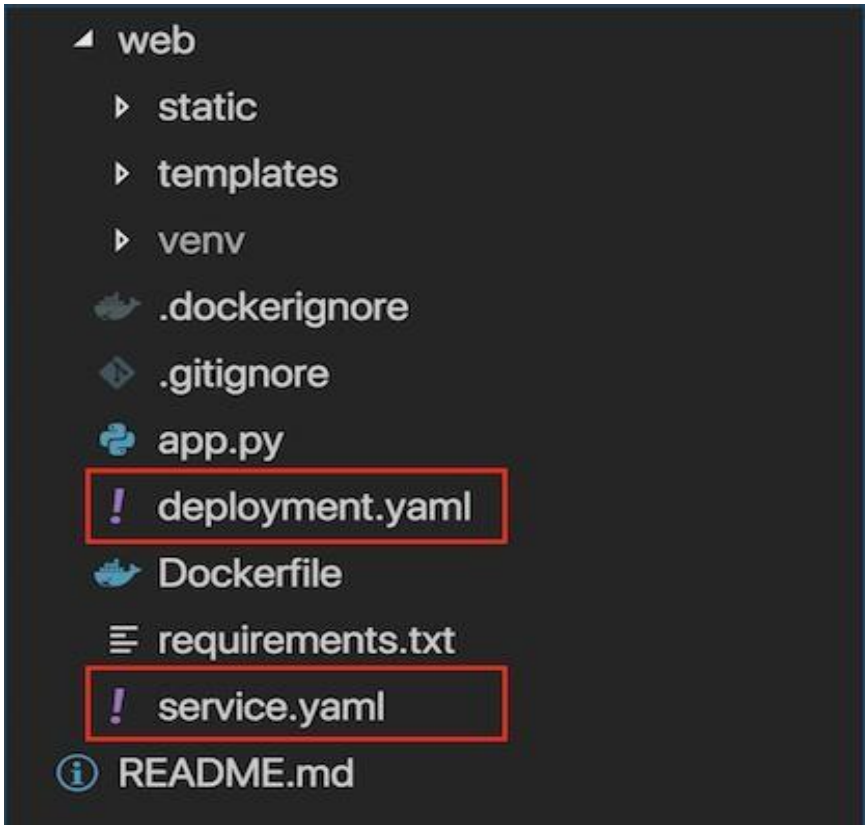
DEPLOY IN KUBERNETES CLUSTER

Date	12 November 2022
Team ID	PNT2022TMID20350
Project Name	Plasma Donor Application

CREATE CONFIGURATION FILES FOR KUBERNETES

STEP 1: Once the image is successfully uploaded to the private registry, go to your project directory and create two files: deployment.yaml and service.yaml.



STEP 2 : In the deployment.yaml file, paste this code:

```
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
```

STEP 3 : In the service.yaml file, paste this code:

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

DEPLOY YOUR APPLICATION TO KUBERNETES :

STEP 1 : Target the IBM Cloud Kubernetes Service region where you want to work.

ibmcloud cs region-set us-south

STEP 2 : Set the context for the cluster in your CLI.

a. Get the command to set the environment variable and download the Kubernetes configuration files.

ibmcloud cs cluster-config cluster_kunal

b. Set the KUBECONFIG environment variable. Copy the output from the previous command and paste it in your terminal. The command output should look similar to the following.

> export KUBECONFIG=/Users/$USER/.bluemix/plugins/container-service/clusters/< cluster_name >/< cluster_configuration_file.yaml>

STEP 3 : Verify that you can connect to your cluster by listing your worker nodes.

kubectl get nodes

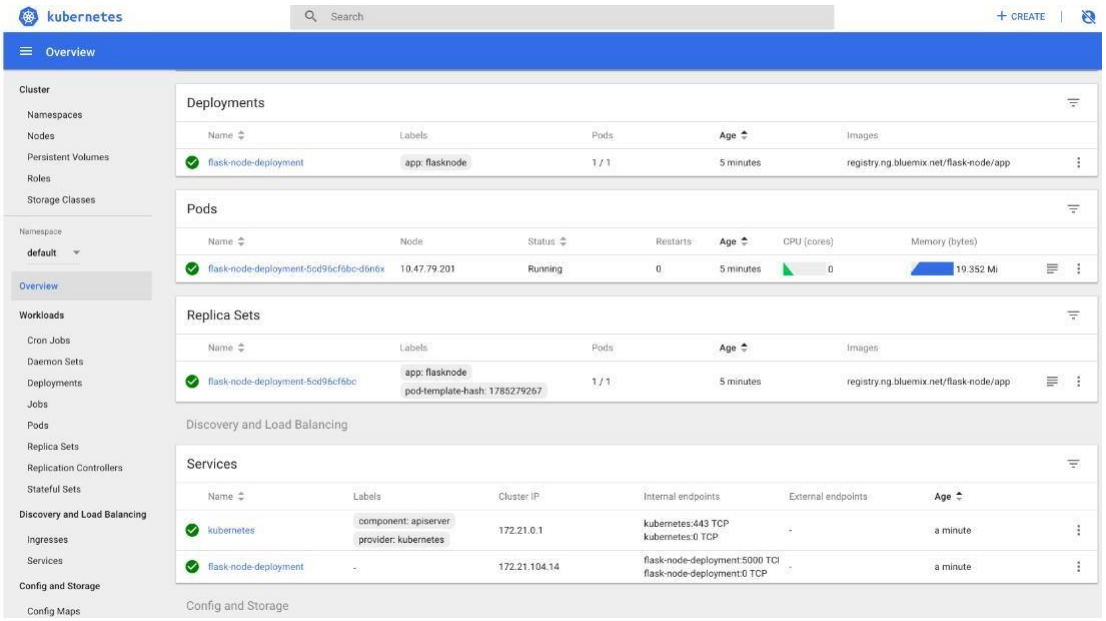
STEP 4 : Create the deployment.

kubectl create -f deployment.yaml

STEP 5 : Create the service.

kubectl create -f service.yaml

STEP 6 : Look at the Kubernetes dashboard from the IBM Kubernetes Service overview page.



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