

# Project Development Phase

## Delivery of Sprint - 4

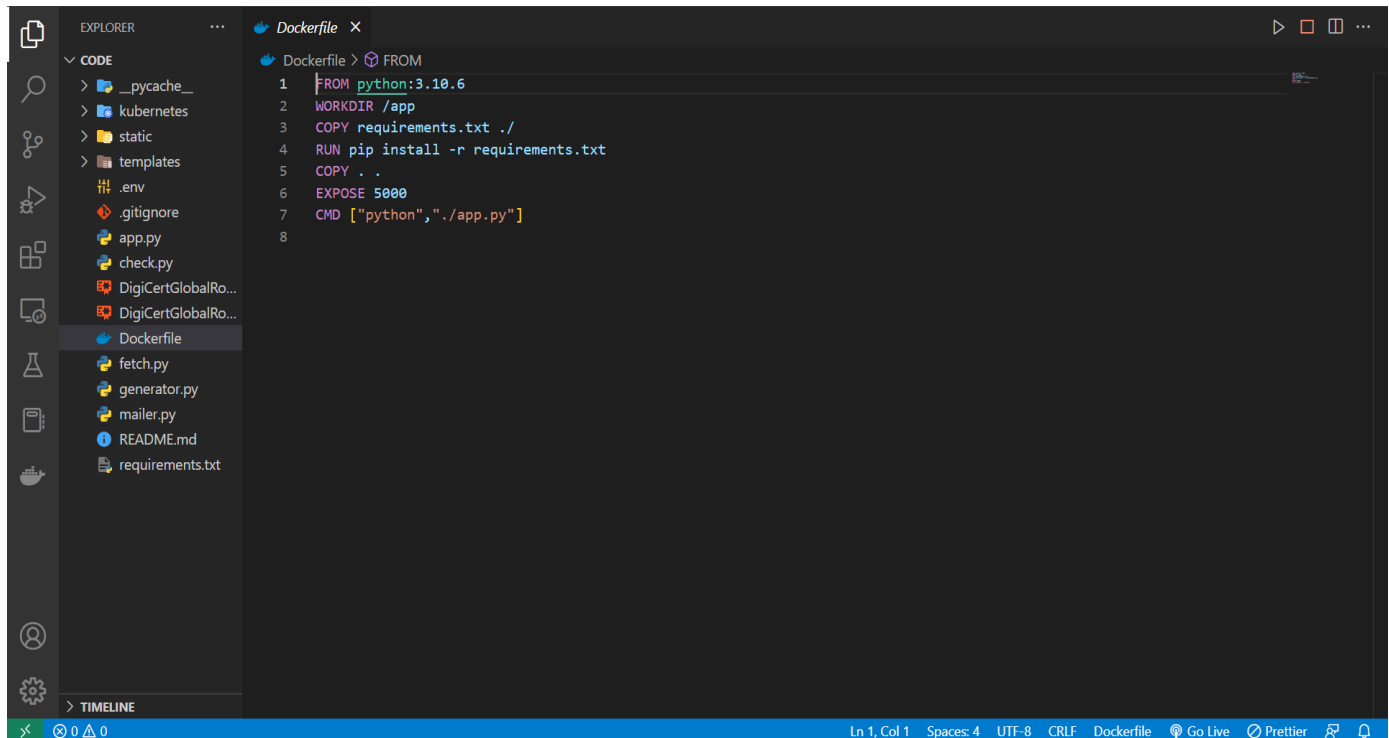
<b>Date</b>	18 November 2022
<b>Team ID</b>	PNT2022TMID43307
<b>Project Name</b>	Plasma Donor Application
<b>Sprint</b>	4

## TEAM MEMBERS

<b>ROLE</b>	<b>NAME</b>	<b>ROLL NO</b>
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# Progress – 1

## Building docker image using docker container



The screenshot shows the Visual Studio Code editor interface. On the left, the Explorer sidebar displays a file tree with the following structure:

- CODE
  - > \_\_pycache\_\_
  - > kubernetes
  - > static
  - > templates
  - .env
  - .gitignore
  - app.py
  - check.py
  - DigiCertGlobalRo...
  - DigiCertGlobalRo...
  - Dockerfile (selected)
  - fetch.py
  - generator.py
  - mailer.py
  - README.md
  - requirements.txt
- > TIMELINE

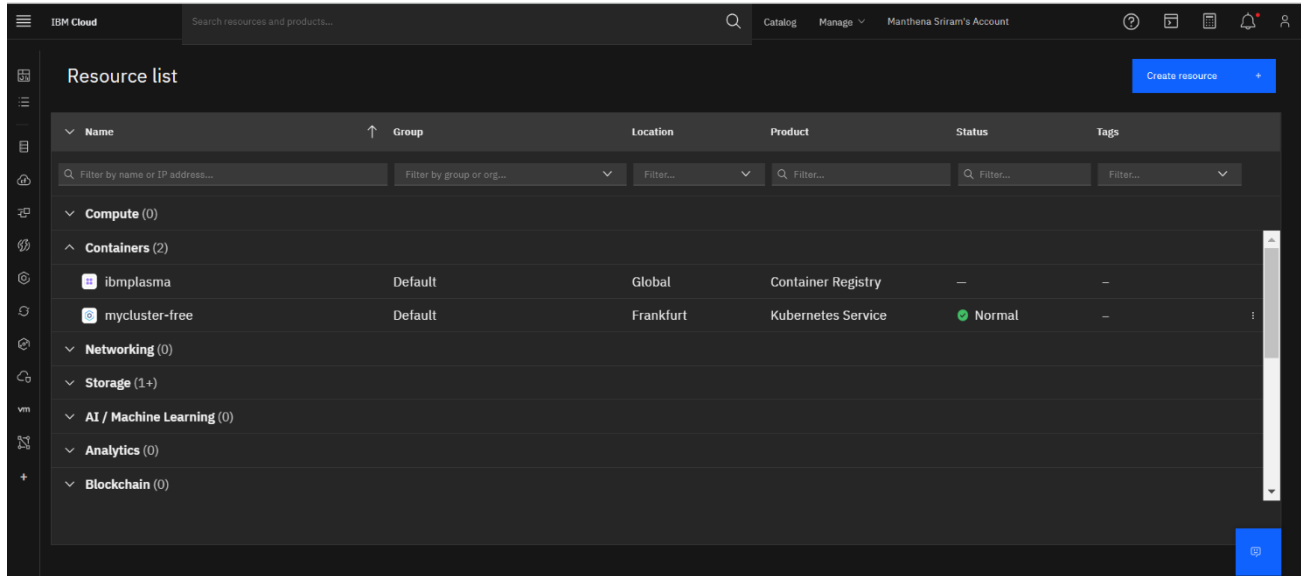
The main editor window displays the content of the `Dockerfile` file:

```
1 FROM python:3.10.6
2 WORKDIR /app
3 COPY requirements.txt ./
4 RUN pip install -r requirements.txt
5 COPY . .
6 EXPOSE 5000
7 CMD ["python", "./app.py"]
8
```

The status bar at the bottom indicates the current line and column (Ln 1, Col 1), the number of spaces (4), the encoding (UTF-8), the line ending (CRLF), and the active file (Dockerfile). It also shows icons for Go Live, Prettier, and a bell notification.

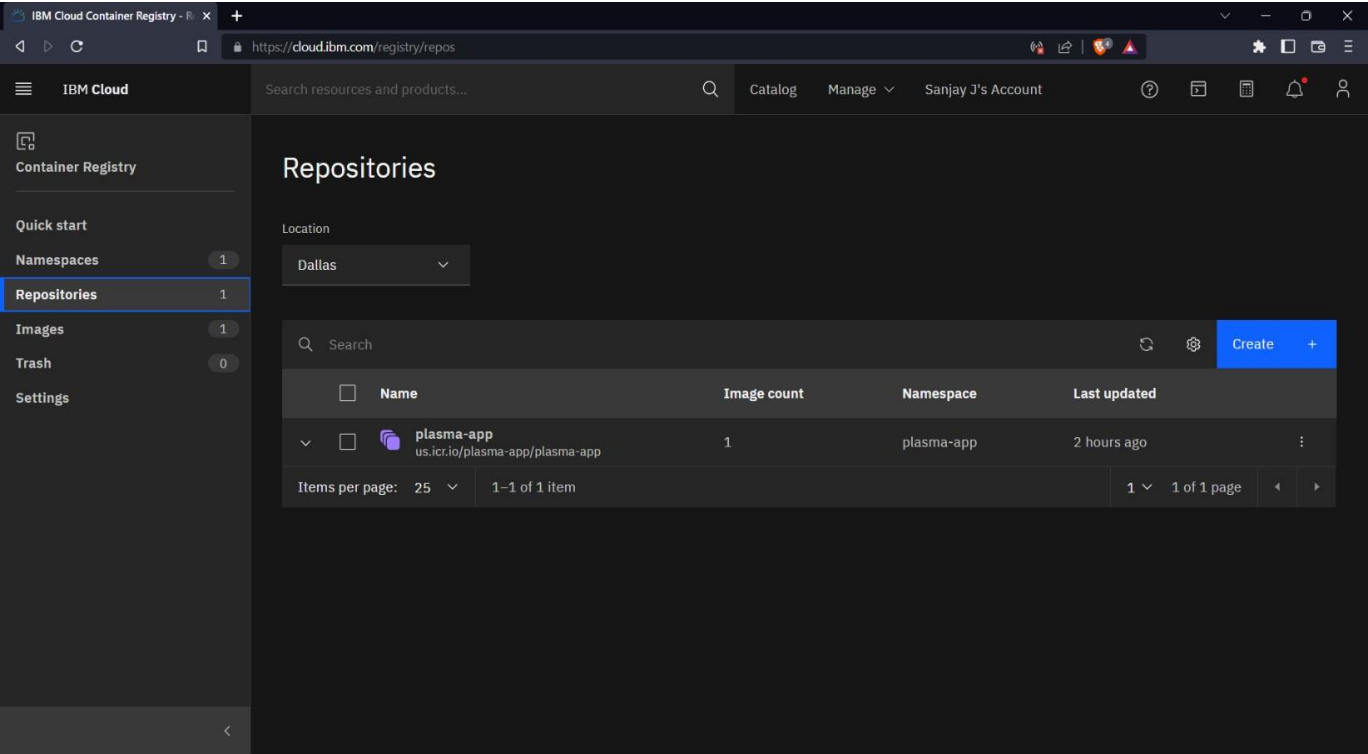
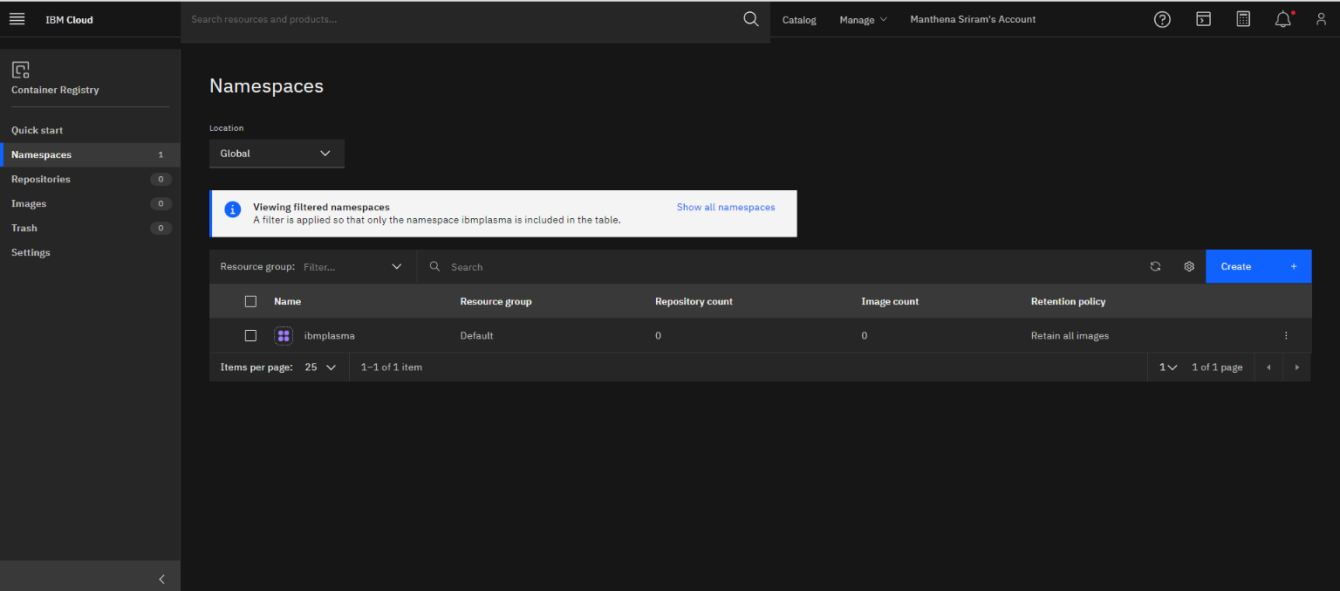
## Progress 2

Uploading the Image to the IBM Container registry.



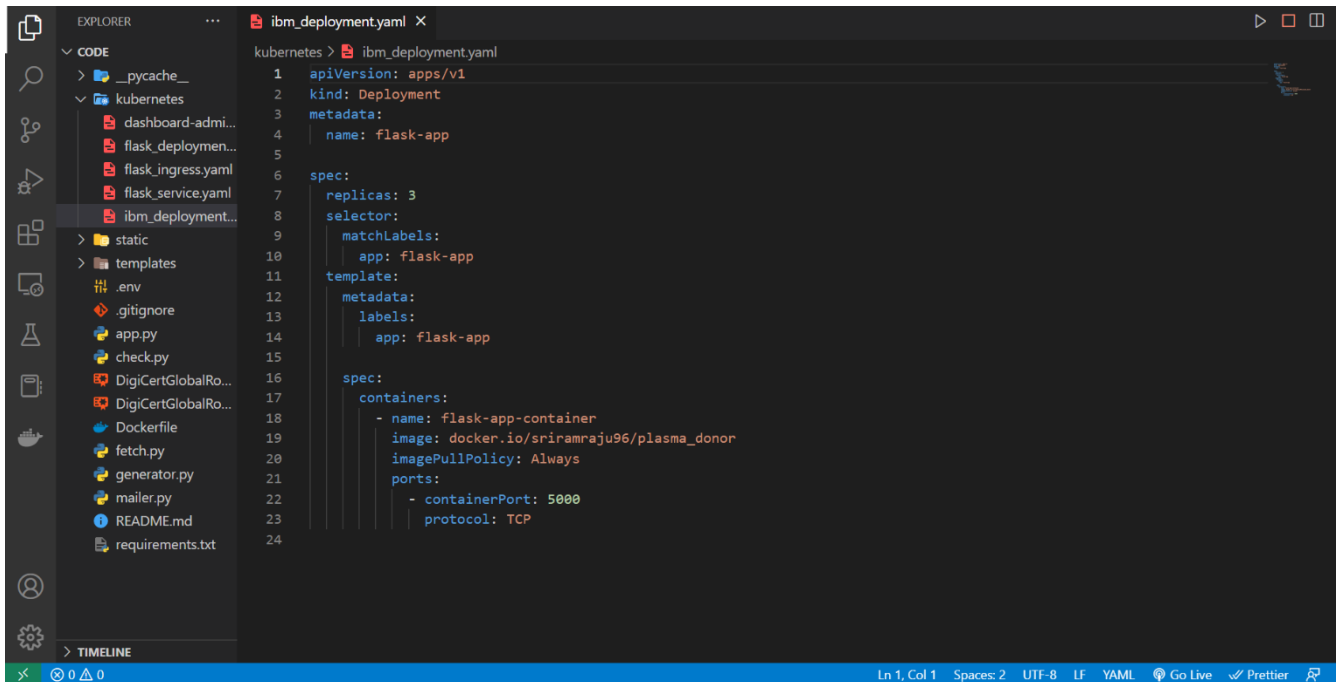
The screenshot displays the IBM Cloud console's 'Resource list' page. The interface features a dark theme with a sidebar on the left containing navigation icons. The main content area shows a table of resources. The table has columns for Name, Group, Location, Product, Status, and Tags. Under the 'Containers' category, two resources are listed: 'ibmplasma' and 'mycluster-free'. The 'mycluster-free' resource is highlighted with a green status indicator and the text 'Normal'.

Name	Group	Location	Product	Status	Tags
<b>Compute (0)</b>					
<b>Containers (2)</b>					
ibmplasma	Default	Global	Container Registry	—	—
mycluster-free	Default	Frankfurt	Kubernetes Service	Normal	—
<b>Networking (0)</b>					
<b>Storage (1+)</b>					
<b>AI / Machine Learning (0)</b>					
<b>Analytics (0)</b>					
<b>Blockchain (0)</b>					



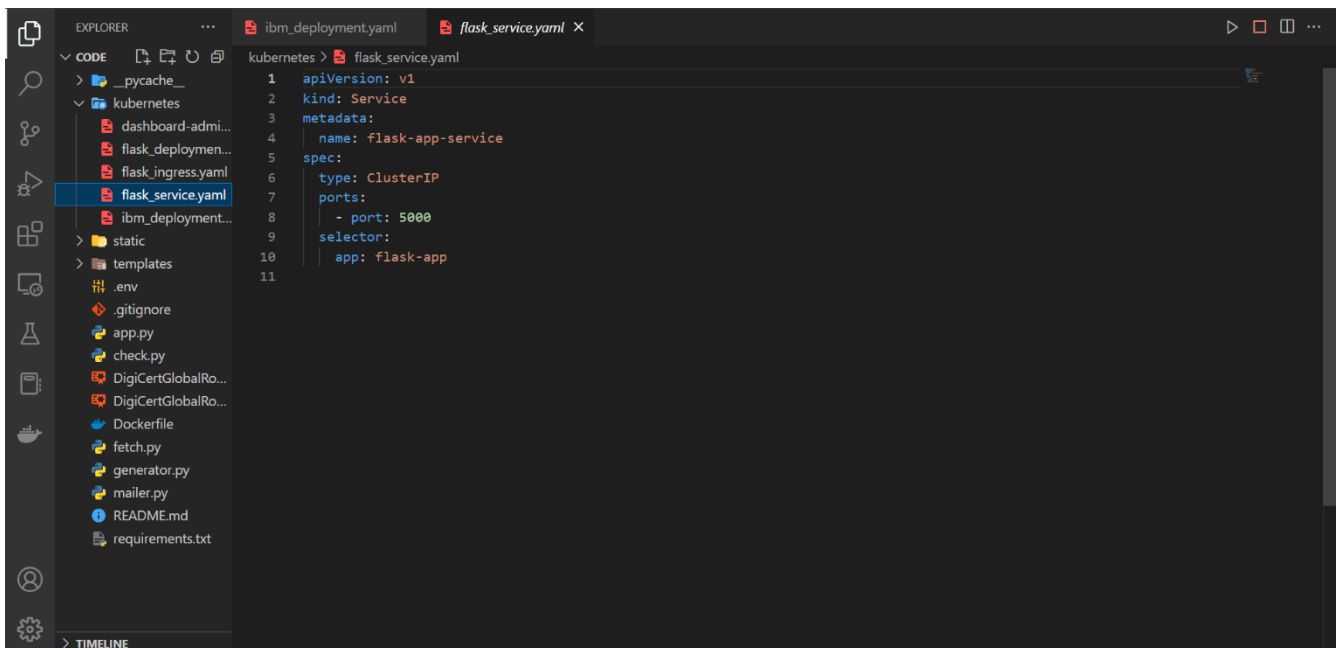
## Progress 3

Deploy the image in Kubernetes cluster.



The screenshot shows the Visual Studio Code interface with the Explorer sidebar on the left and the Code editor on the right. The Explorer sidebar shows a project structure with a 'kubernetes' directory. The Code editor displays the 'ibm\_deployment.yaml' file, which contains a Kubernetes Deployment manifest for a Flask application. The manifest specifies 3 replicas, a selector for 'flask-app', and a container named 'flask-app-container' using the 'docker.io/sriramraju96/plasma\_donor' image. The container is configured to listen on port 5000 using TCP.

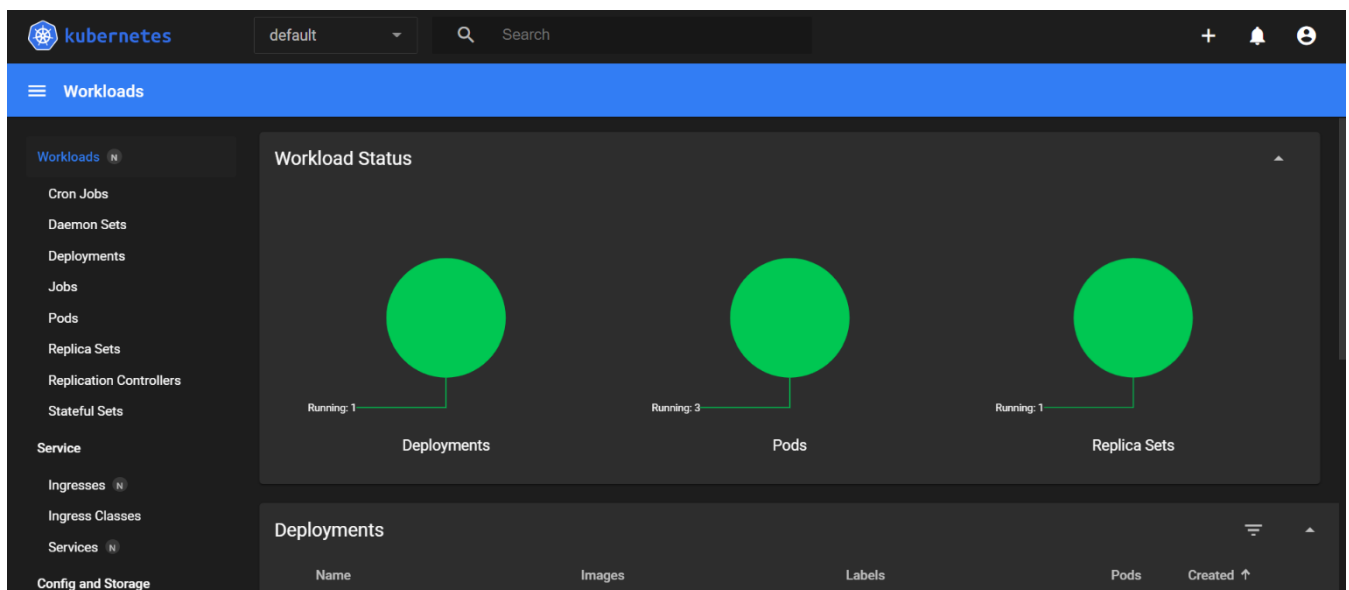
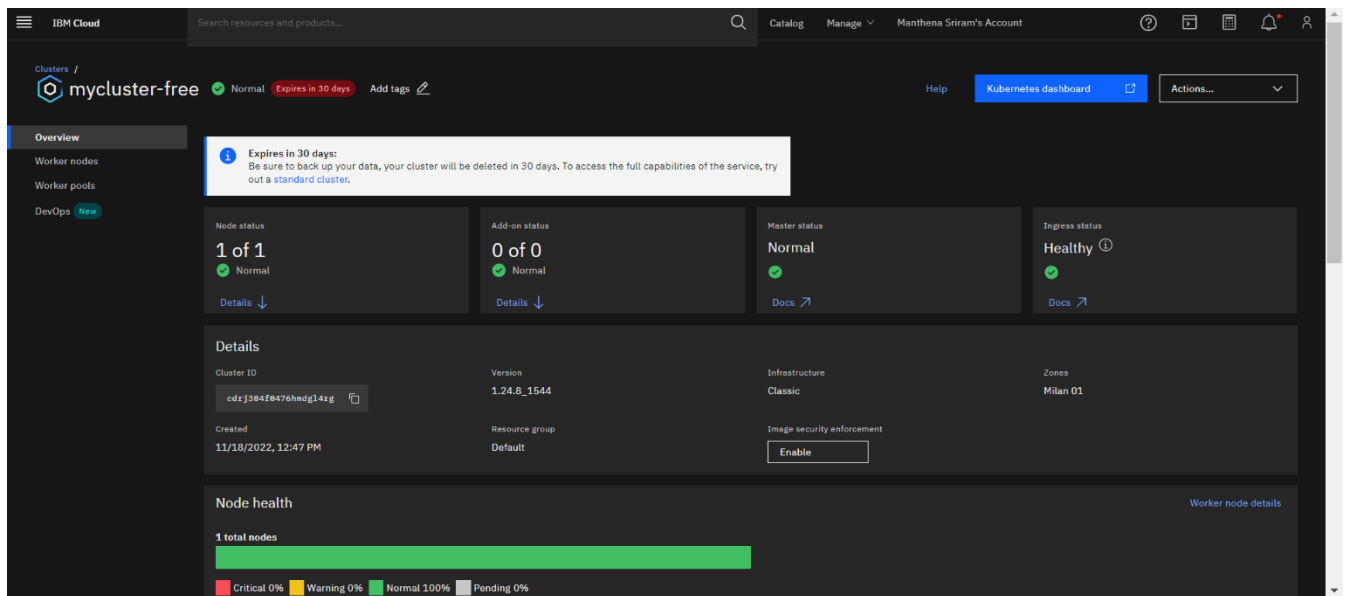
```
1 apiVersion: apps/v1
2 kind: Deployment
3 metadata:
4   name: flask-app
5
6 spec:
7   replicas: 3
8   selector:
9     matchLabels:
10      app: flask-app
11   template:
12     metadata:
13       labels:
14         app: flask-app
15
16     spec:
17       containers:
18         - name: flask-app-container
19           image: docker.io/sriramraju96/plasma_donor
20           imagePullPolicy: Always
21           ports:
22             - containerPort: 5000
23               protocol: TCP
24
```



The screenshot shows the Visual Studio Code interface with the Explorer sidebar on the left and the Code editor on the right. The Explorer sidebar shows the 'kubernetes' directory with the 'flask\_service.yaml' file selected. The Code editor displays the 'flask\_service.yaml' file, which contains a Kubernetes Service manifest. The manifest specifies a ClusterIP service type, listening on port 5000, and a selector for 'flask-app'.

```
1 apiVersion: v1
2 kind: Service
3 metadata:
4   name: flask-app-service
5
6 spec:
7   type: ClusterIP
8   ports:
9     - port: 5000
10   selector:
11     app: flask-app

```



--- Completed Sprint – 4 ---