

# Project Development Phase

## Delivery of Sprint - 4

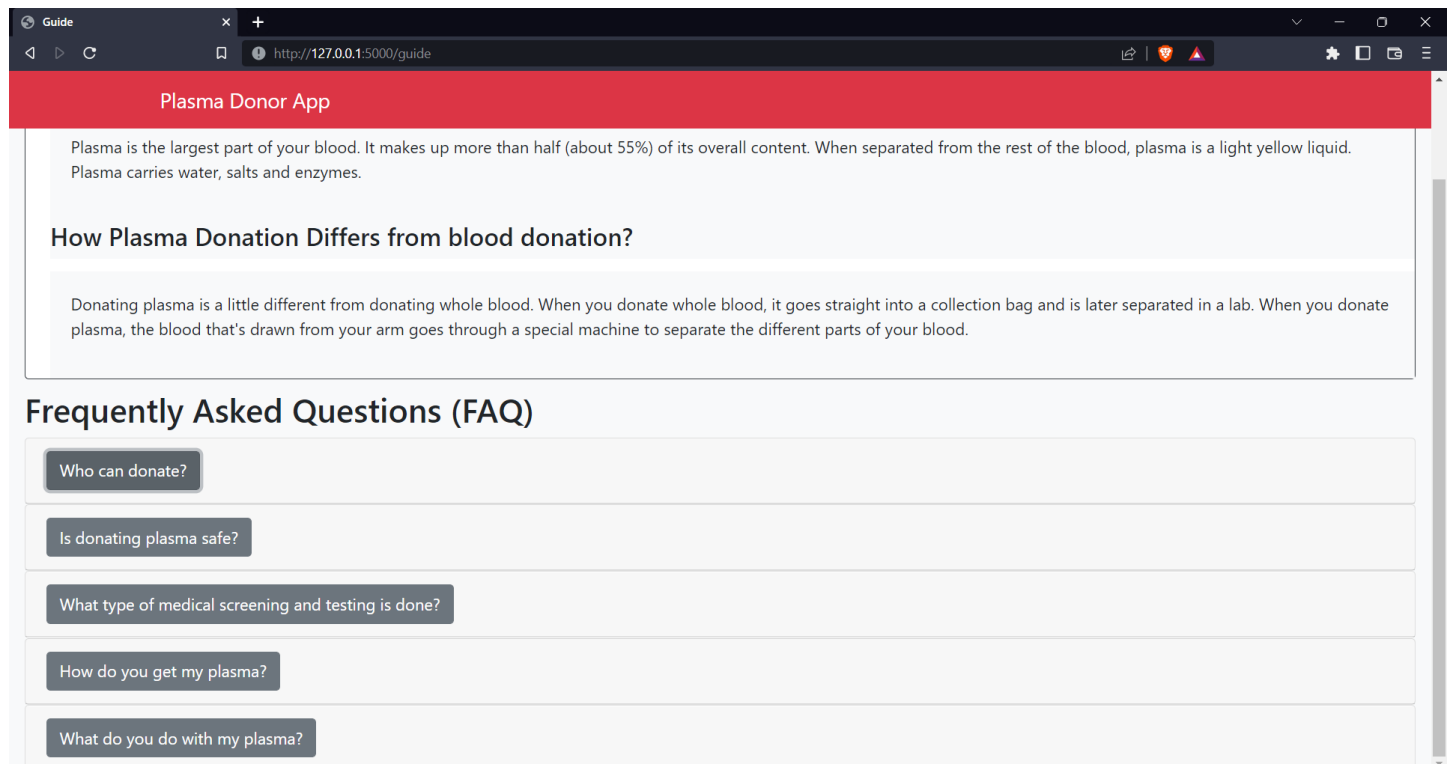
|                     |                          |
|---------------------|--------------------------|
| <b>Date</b>         | 17 November 2022         |
| <b>Team ID</b>      | PNT2022TMID39311         |
| <b>Project Name</b> | Plasma Donor Application |
| <b>Sprint</b>       | 4                        |

## TEAM MEMBERS

| <b>ROLE</b>   | <b>NAME</b>         | <b>ROLL NO</b> |
|---------------|---------------------|----------------|
| TEAM LEADER   | SANJAY J            | 422619104036   |
| TEAM MEMBER 1 | ARUL NIRANJAN V     | 422619104005   |
| TEAM MEMBER 2 | DINESH S            | 422619104010   |
| TEAM MEMBER 3 | THIRUVENKADAKUMAR L | 422619104045   |

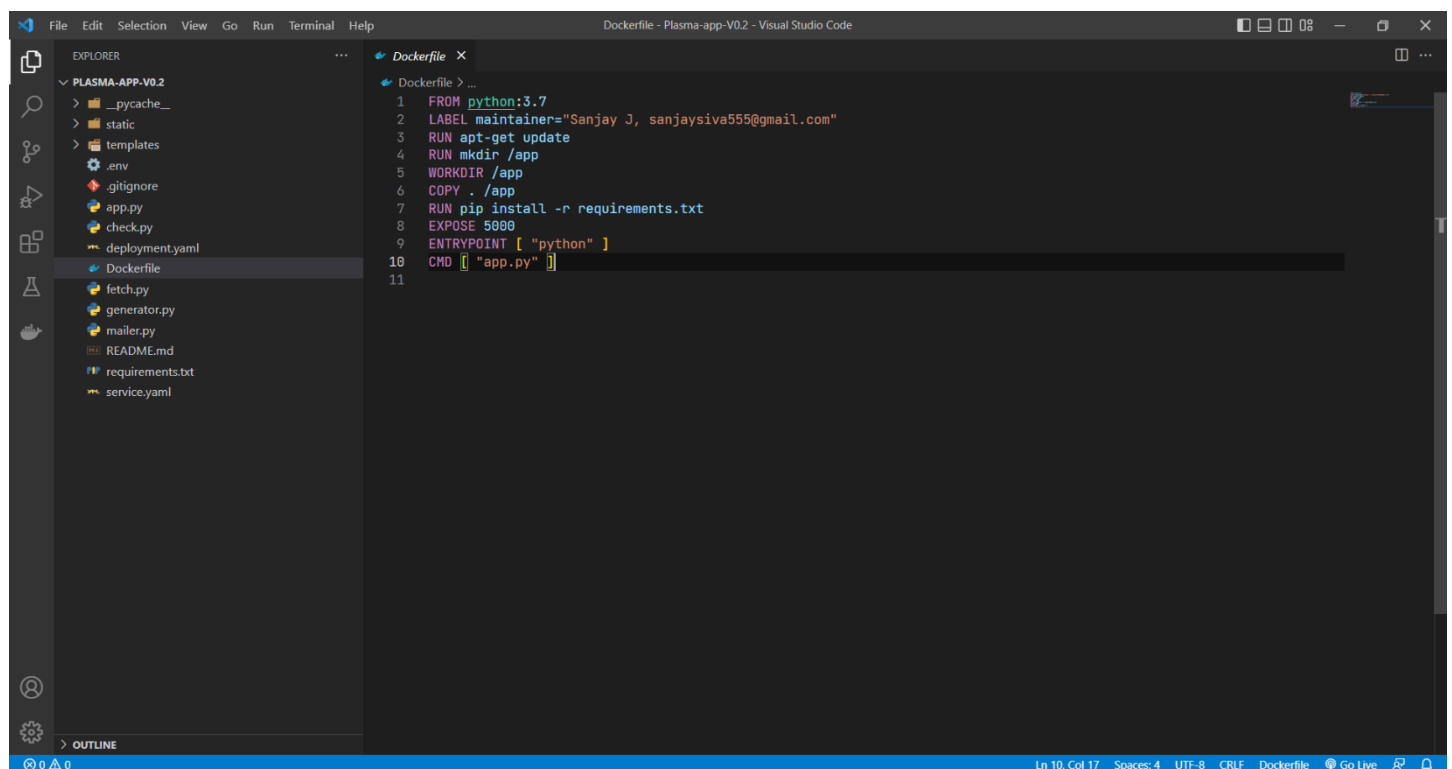
## Progress – 1

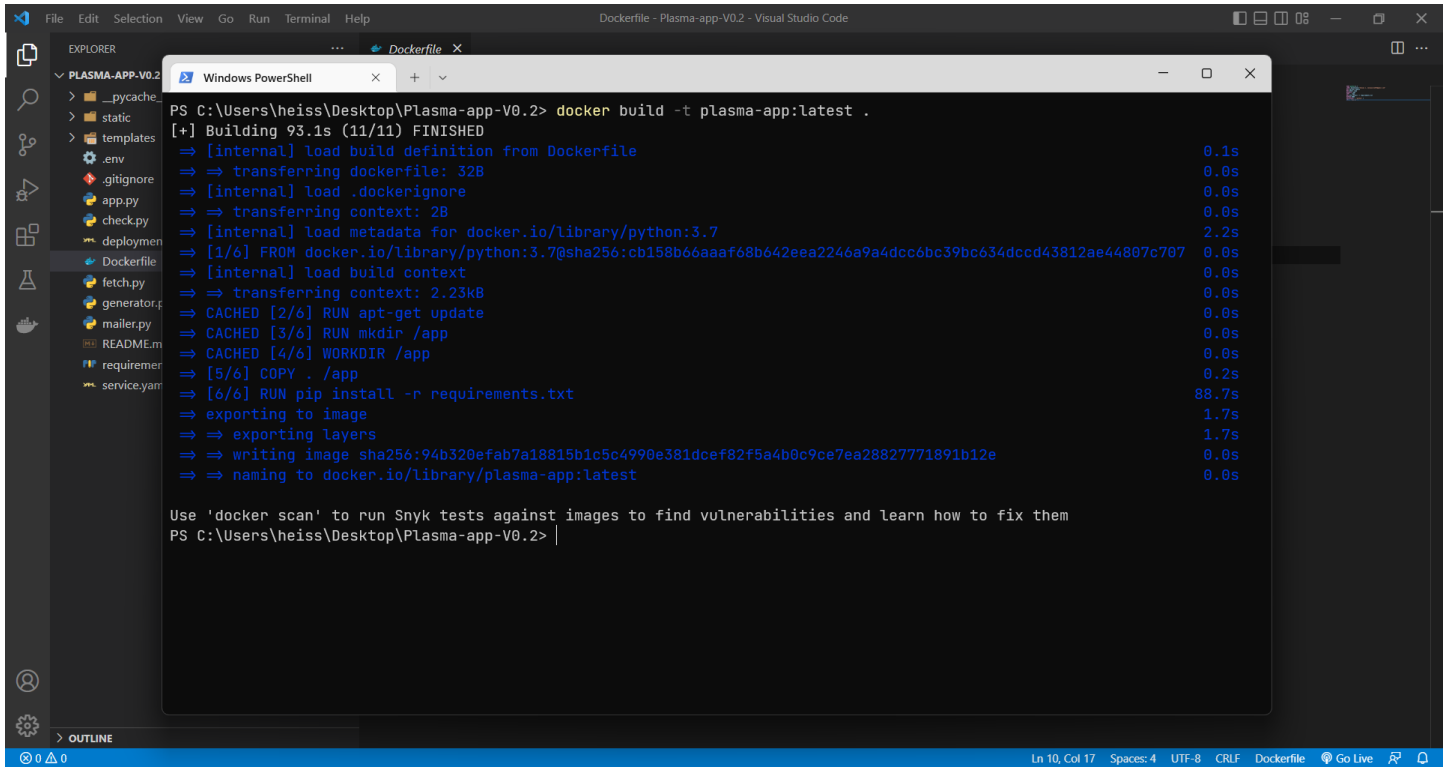
The guide section will contain the all the information needed by the users to know about the plasma donation



## Progress 2

Building the Docker Image using the Docker file for Containerize the application



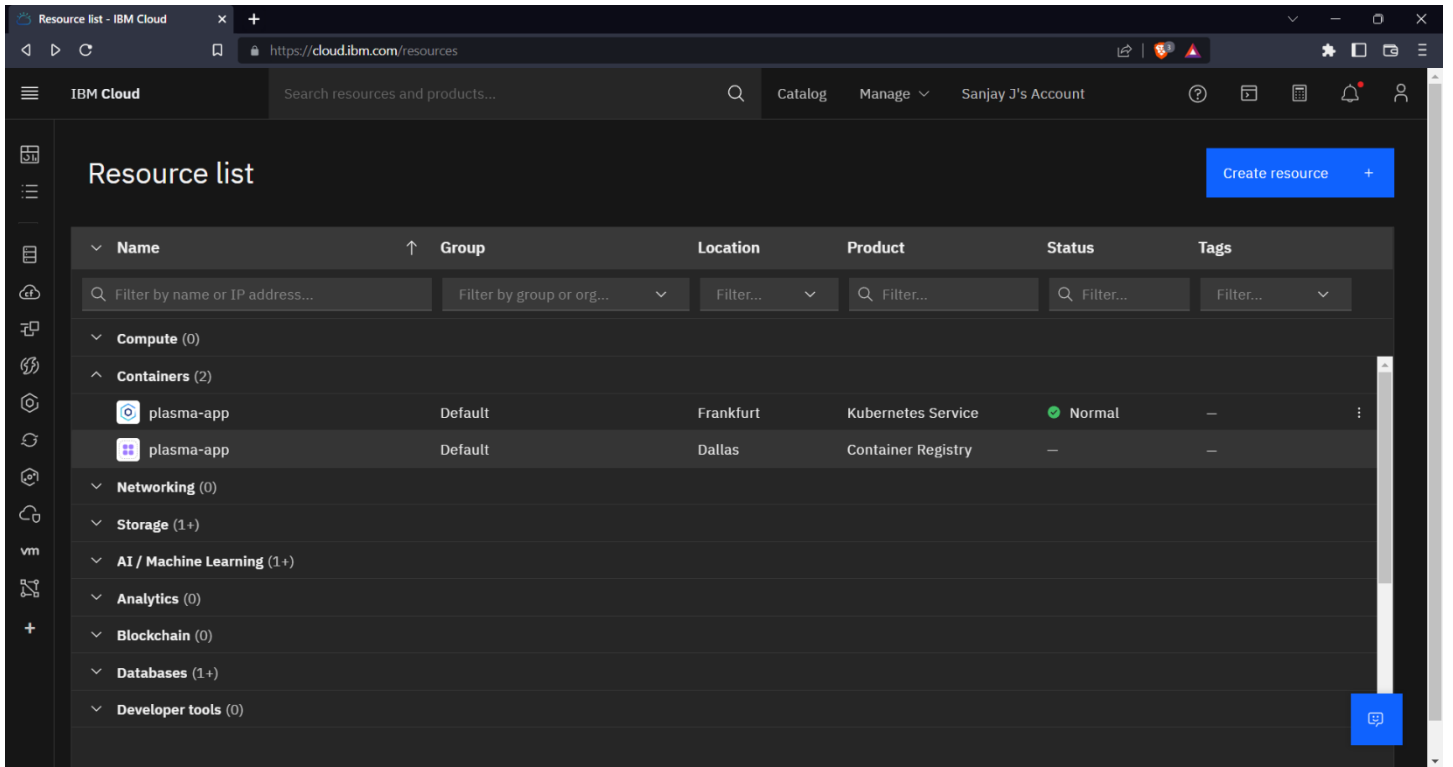


```
PS C:\Users\heiss\Desktop\Plasma-app-V0.2> docker build -t plasma-app:latest .
[+] Building 93.1s (11/11) FINISHED
=> [internal] load build definition from Dockerfile                                0.1s
=> => transferring dockerfile: 32B                                                0.0s
=> [internal] load .dockerignore                                                  0.0s
=> => transferring context: 2B                                                    0.0s
=> [internal] load metadata for docker.io/library/python:3.7                    2.2s
=> [1/6] FROM docker.io/library/python:3.7@sha256:cb158b66aaaf68b642eea2246a9a4dcc6bc39bc634d43812ae44807c707  0.0s
=> [internal] load build context                                                0.0s
=> => transferring context: 2.23kB                                               0.0s
=> CACHED [2/6] RUN apt-get update                                               0.0s
=> CACHED [3/6] RUN mkdir /app                                                  0.0s
=> CACHED [4/6] WORKDIR /app                                                    0.0s
=> [5/6] COPY . /app                                                            0.2s
=> [6/6] RUN pip install -r requirements.txt                                    88.7s
=> exporting to image                                                            1.7s
=> => exporting layers                                                            1.7s
=> => writing image sha256:94b320efab7a18815b1c5c4990e381dcef82f5a4b0c9ce7ea28827771891b12e  0.0s
=> => naming to docker.io/library/plasma-app:latest                             0.0s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
PS C:\Users\heiss\Desktop\Plasma-app-V0.2>
```

Progress 3

Uploading the Image to the IBM Container registry.



| Name  | Group   | Location  | Product            | Status | Tags |
|---|---------|-----------|--------------------|--------|------|
| Filter by name or IP address... Filter by group or org... Filter... Filter... Filter... |         |           |                    |        |      |
| Compute (0)   |         |           |                    |        |      |
| Containers (2)  |         |           |                    |        |      |
| plasma-app  | Default | Frankfurt | Kubernetes Service | Normal | —    |
| plasma-app  | Default | Dallas    | Container Registry | —      | —    |
| Networking (0)  |         |           |                    |        |      |
| Storage (1+)  |         |           |                    |        |      |
| AI / Machine Learning (1+)  |         |           |                    |        |      |
| Analytics (0)   |         |           |                    |        |      |
| Blockchain (0)  |         |           |                    |        |      |
| Databases (1+)  |         |           |                    |        |      |
| Developer tools (0)   |         |           |                    |        |      |

IBM Cloud Container Registry - N

https://cloud.ibm.com/registry/namespaces

IBM Cloud

Search resources and products...

CatalogManageSanjay J's Account

Container Registry

Quick start

Namespaces1

Repositories1

Images1

Trash0

Settings

Namespaces

Location

Dallas

Viewing filtered namespaces

A filter is applied so that only the namespace plasma-app is included in the table.

Show all namespaces

Resource group: Filter...SearchCreate

|  | Name       | Resource group | Repository count | Image count | Retention policy  |
|--|------------|----------------|------------------|-------------|-------------------|
|  | plasma-app | Default        | 1                | 1           | Retain all images |

Items per page: 251-1 of 1 item11 of 1 page

IBM Cloud Container Registry - R

https://cloud.ibm.com/registry/repos

IBM Cloud

Search resources and products...

CatalogManageSanjay J's Account

Container Registry

Quick start

Namespaces1

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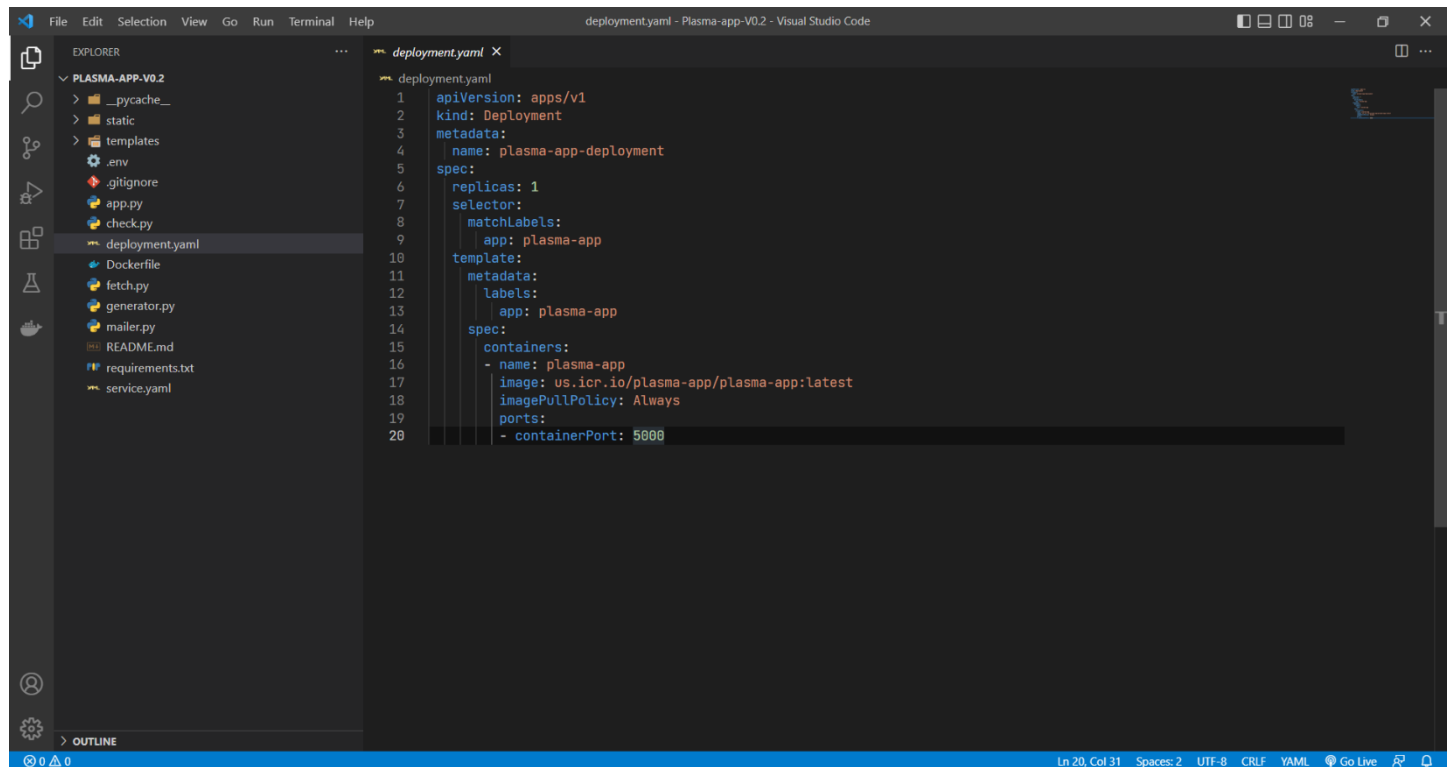
SearchCreate

|  | Name  | Image count | Namespace  | Last updated |
|--|---|-------------|------------|--------------|
|  | plasma-app<br>us.icr.io/plasma-app/plasma-app | 1           | plasma-app | 2 hours ago  |

Items per page: 251-1 of 1 item11 of 1 page

## Progress 4

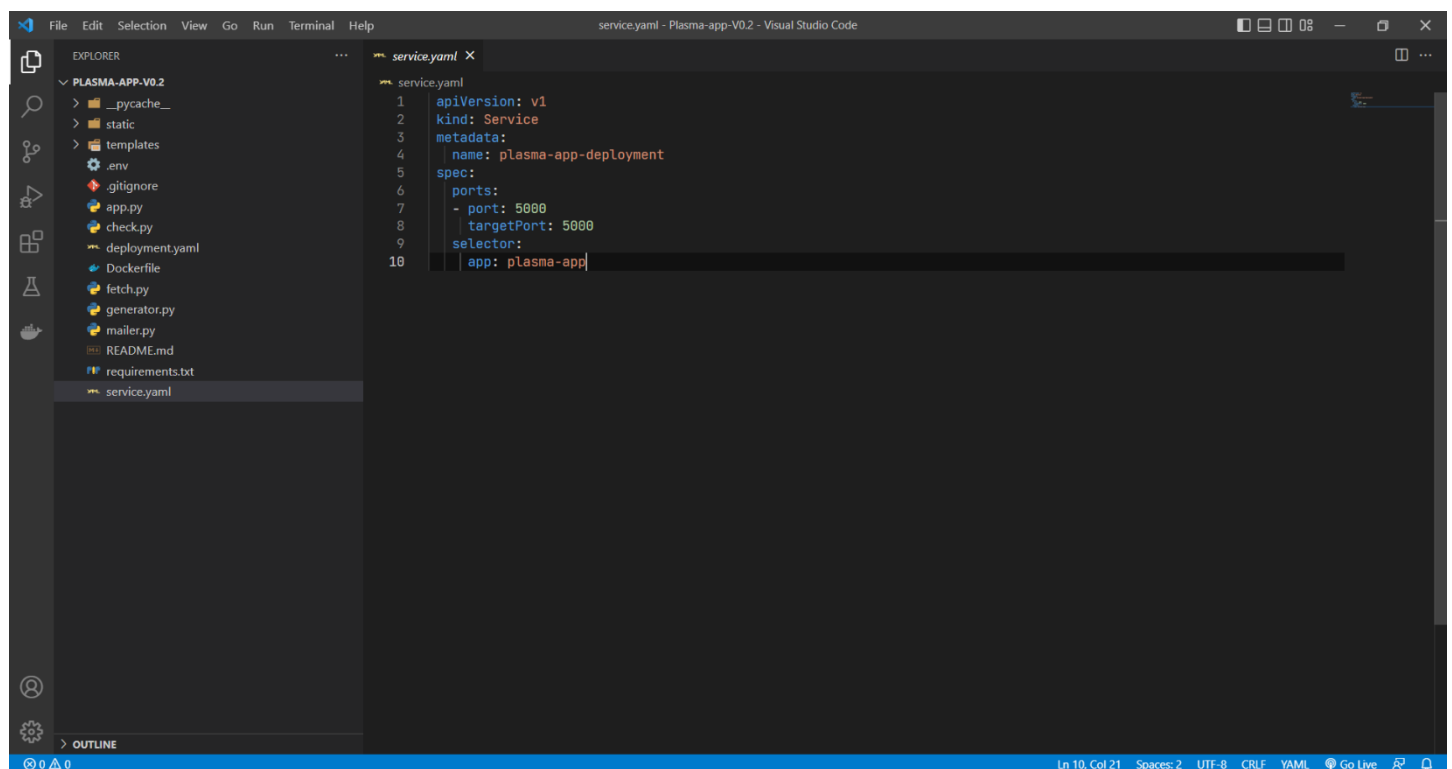
Deploy the image in Kubernetes cluster.



The screenshot shows the Visual Studio Code editor with the `deployment.yaml` file open. The Explorer sidebar on the left shows the project structure for `PLASMA-APP-V0.2`, including files like `__pycache__`, `static`, `templates`, `env`, `gitignore`, `app.py`, `check.py`, `deployment.yaml` (selected), `Dockerfile`, `fetch.py`, `generator.py`, `mailer.py`, `README.md`, `requirements.txt`, and `service.yaml`. The `deployment.yaml` file contains the following YAML configuration:

```
1 apiVersion: apps/v1
2 kind: Deployment
3 metadata:
4   name: plasma-app-deployment
5 spec:
6   replicas: 1
7   selector:
8     matchLabels:
9       app: plasma-app
10  template:
11    metadata:
12      labels:
13        app: plasma-app
14    spec:
15      containers:
16      - name: plasma-app
17        image: us.icr.io/plasma-app/plasma-app:latest
18        imagePullPolicy: Always
19        ports:
20        - containerPort: 5000
```

The status bar at the bottom indicates the cursor is at line 20, column 31, with 2 spaces, UTF-8 encoding, CRLF line endings, and the file is a YAML document.



The screenshot shows the Visual Studio Code editor with the `service.yaml` file open. The Explorer sidebar on the left shows the project structure for `PLASMA-APP-V0.2`, with `service.yaml` selected. The `service.yaml` file contains the following YAML configuration:

```
1 apiVersion: v1
2 kind: Service
3 metadata:
4   name: plasma-app-deployment
5 spec:
6   ports:
7     - port: 5000
8       targetPort: 5000
9   selector:
10     app: plasma-app
```

The status bar at the bottom indicates the cursor is at line 10, column 21, with 2 spaces, UTF-8 encoding, CRLF line endings, and the file is a YAML document.

plasma-app - IBM Cloud

https://cloud.ibm.com/kubernetes/clusters/cdr4c5qf0ucaauc17jgg/overview

IBM Cloud Search resources and products... Catalog Manage Sanjay J's Account

Clusters / **plasma-app** Normal Expires in 30 days Add tags Help [Kubernetes dashboard](#) Actions...

**Overview**

Worker nodes  
Worker pools  
DevOps New

**Expires in 30 days:**  
Be sure to back up your data, your cluster will be deleted in 30 days. To access the full capabilities of the service, try out a [standard cluster](#).

**Node status**  
**1 of 1**  
Normal  
[Details](#)

**Add-on status**  
**0 of 0**  
Normal  
[Details](#)

**Master status**  
**Normal**  
[Docs](#)

**Ingress status**  
**Healthy**  
[Docs](#)

**Details**

|                     |                |                            |          |
|---------------------|----------------|----------------------------|----------|
| Cluster ID          | Version        | Infrastructure             | Zones    |
| cd4c5qf0ucaauc17jgg | 1.24.8_1544    | Classic                    | Milan 01 |
| Created             | Resource group | Image security enforcement |          |
| 11/17/2022, 8:02 PM | Default        | <a href="#">Enable</a>     |          |

plasma-app - Kubernetes Dashboard

https://eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdr4c5qf0ucaauc17jgg/service/#/workloads?namespace=default

kubernetes default Search

**Workloads**

Jobs  
Pods  
Replica Sets  
Replication Controllers  
Stateful Sets  
Service  
Ingresses  
Ingress Classes  
Services  
Config and Storage  
Config Maps  
Persistent Volume Claims  
Secrets  
Storage Classes  
Cluster  
Cluster Role Bindings

**Workload Status**

Running: 1 **Deployments** Running: 1 **Pods** Running: 1 **Replica Sets**

**Deployments**

| Name                  | Images                                 | Labels | Pods  | Created        |
|-----------------------|--|--------|-------|----------------|
| plasma-app-deployment | us.icr.io/plasma-app/plasma-app:latest |        | 1 / 1 | 46 minutes ago |

--- Completed Sprint – 4 ---