

## Assignment-4

Plasma Donar Application

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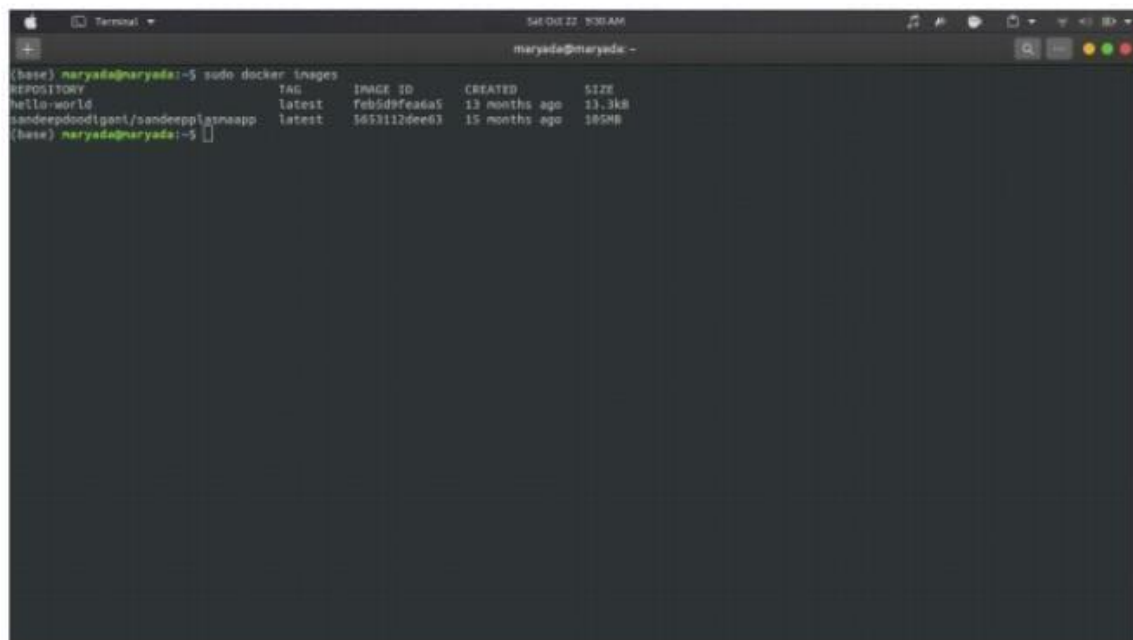
Team member:Selva mayil vengadesh R

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Team member:Sudalai raj S

1. Pull an Image from docker hub and run it in docker playground.

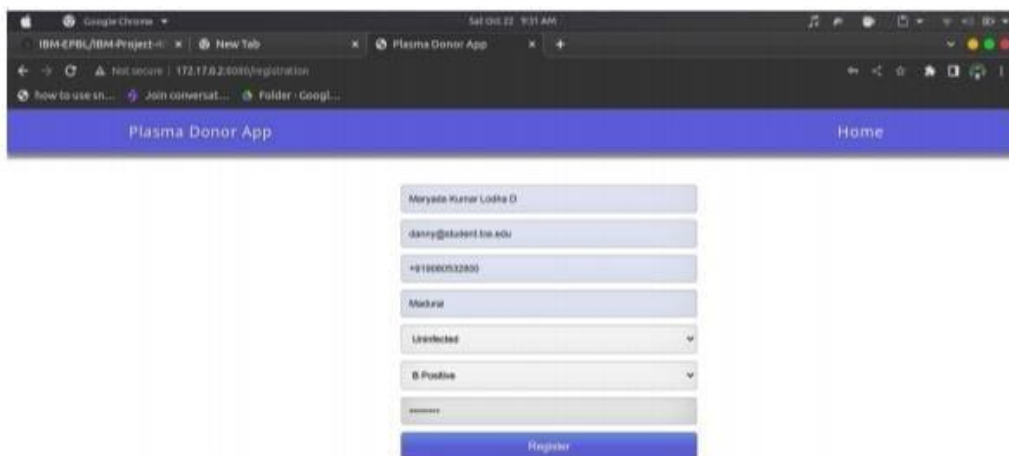
Pulled sandeepdoodigani/plasmaapplication and running in docker:



```
(base) naryada@naryada:~$ sudo docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
hello-world          latest              feb5d9fea6a5        13 months ago      13.3kB
sandeepdoodigani/sandeepplasmaapp latest              5658112dee63        15 months ago      105MB
(base) naryada@naryada:~$
```

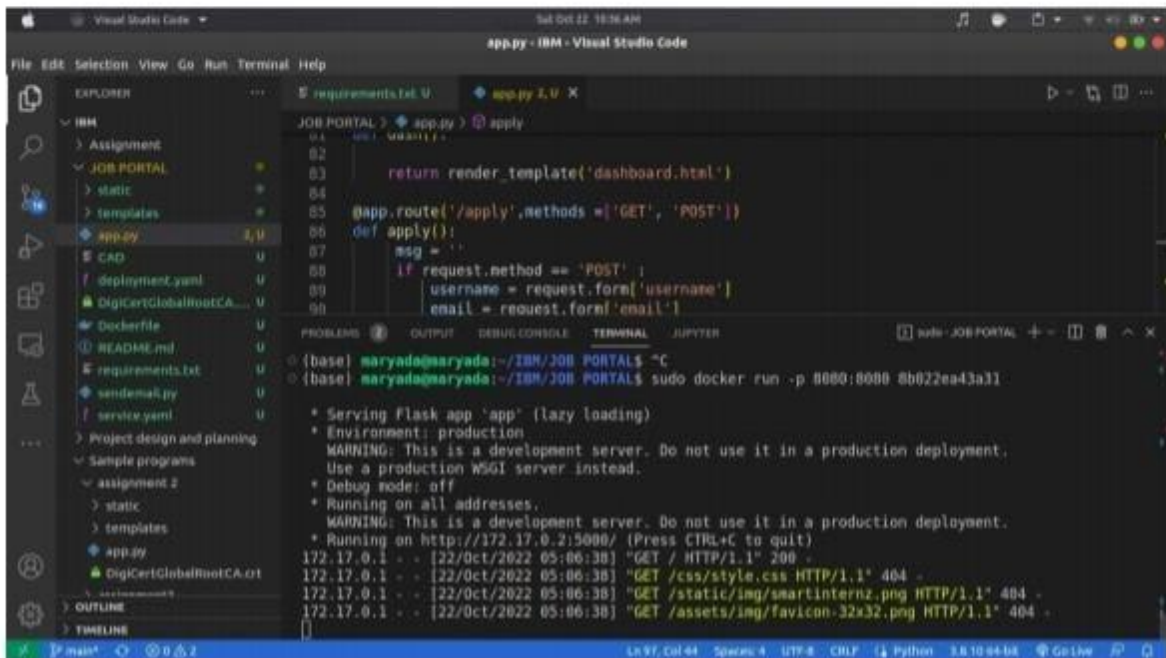
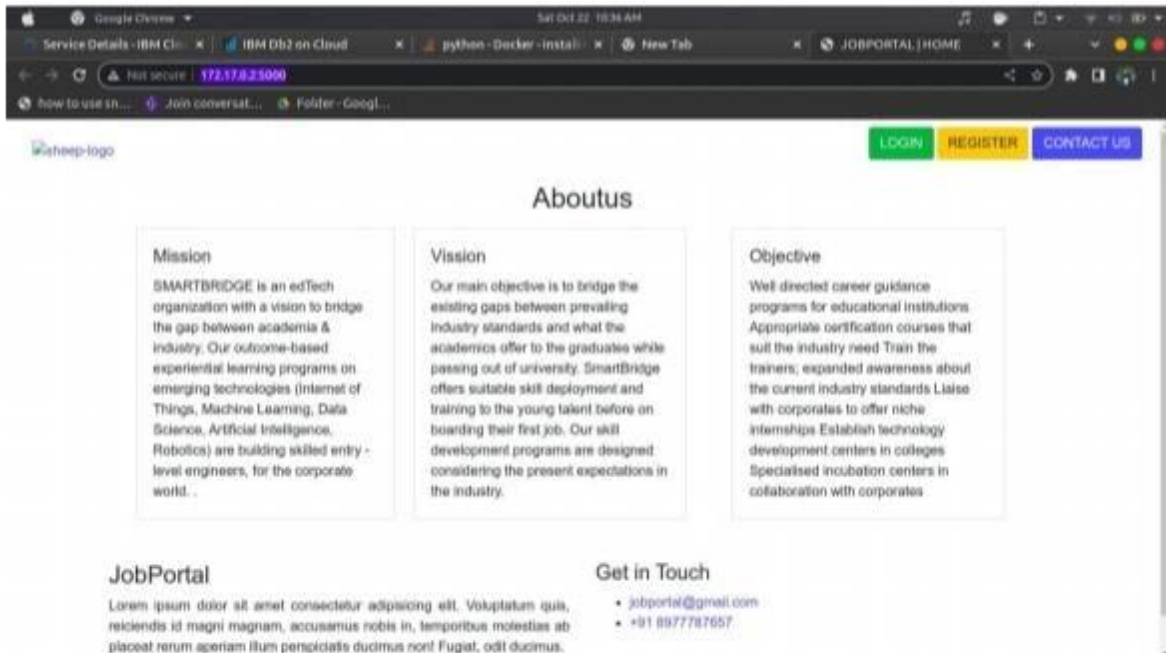
The image shows a terminal window with the command `sudo docker images` executed. The output is a table listing Docker images. The first image is `hello-world` with tag `latest`, image ID `feb5d9fea6a5`, created 13 months ago, and size 13.3kB. The second image is `sandeepdoodigani/sandeepplasmaapp` with tag `latest`, image ID `5658112dee63`, created 15 months ago, and size 105MB. The prompt `(base) naryada@naryada:~$` is shown at the bottom.

```
Terminal
Sat Oct 22 9:31 AM
maryada@maryada: ~
(base) maryada@maryada:~$ sudo docker run -p 8080:8080 sandeepdoodigani/sandeepplasmaapp
* Serving Flask app 'app' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on all addresses.
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://172.17.0.2:8080/ (Press CTRL+C to quit)
```



2. Create a docker file for the jobportal application and deploy it in Docker desktop application.

Dockerfile:  
FROM python:3.6  
WORKDIR /app  
ADD . /app  
COPY requirements.txt /app  
RUN python3 -m pip install -r requirements.txt  
RUN python3 -m pip install ibm\_db  
EXPOSE 5000



CMD ["python","app.py"]

The image consists of two screenshots of a Visual Studio Code editor window, showing the process of building and running a Docker container for a web application.

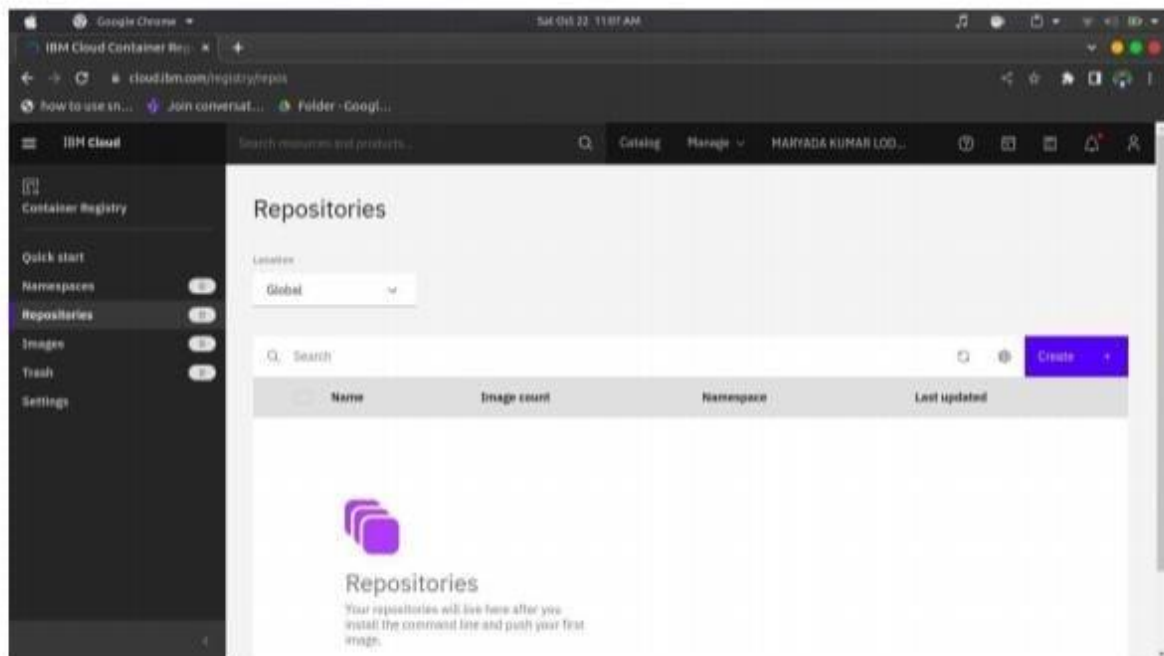
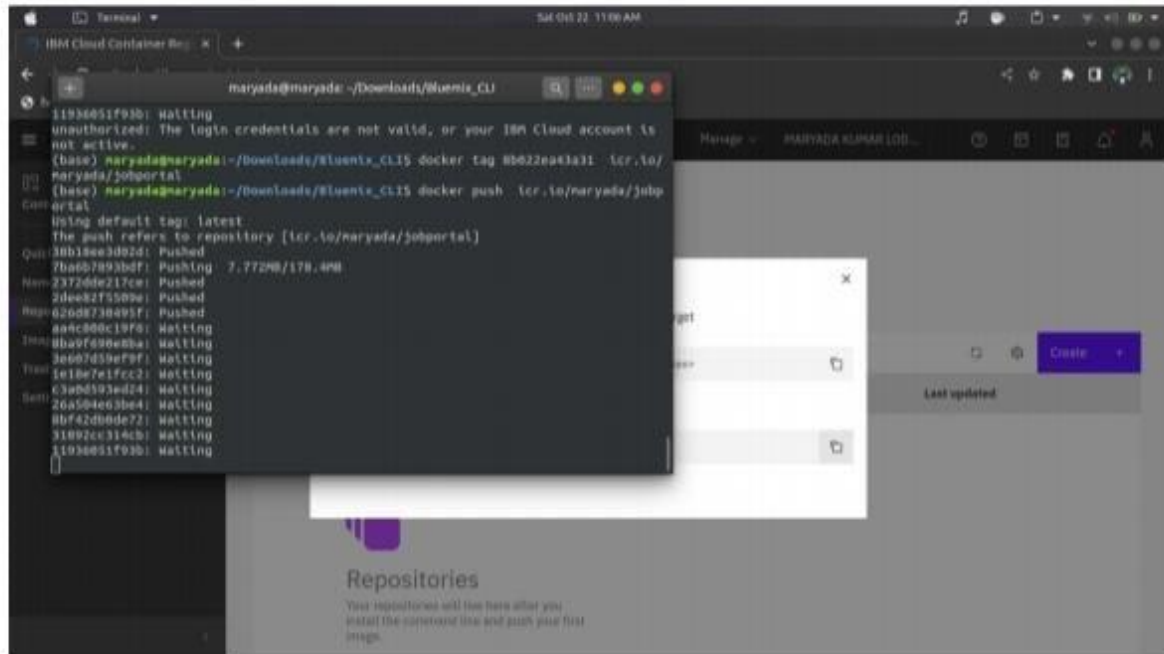
**Top Screenshot:**

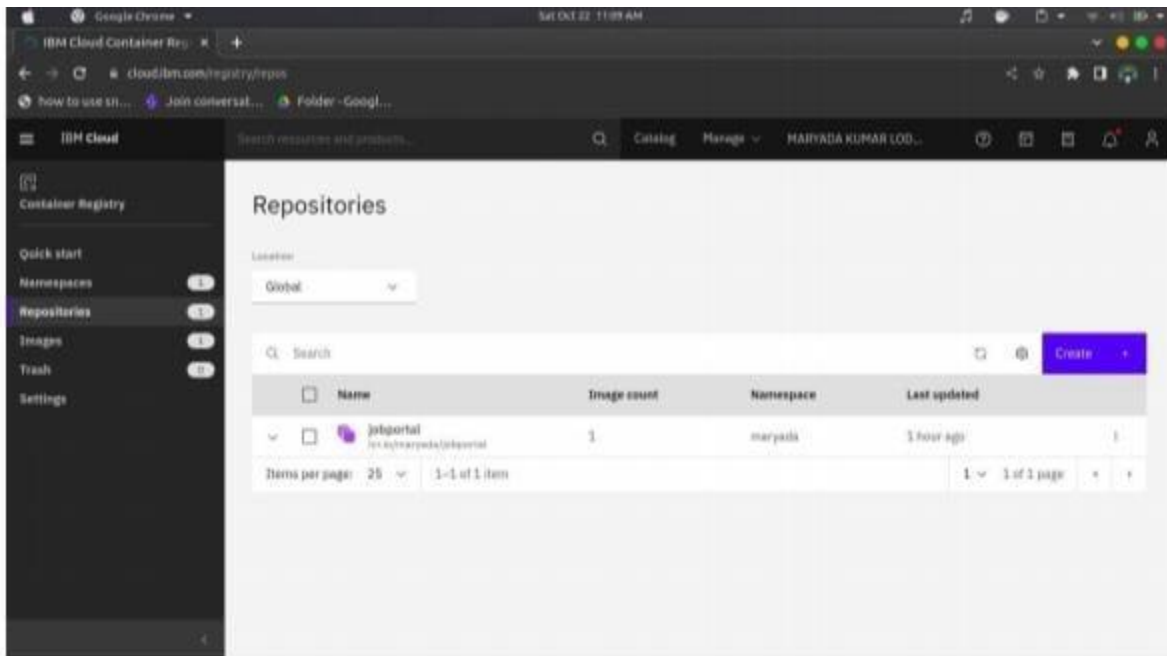
- The **EXPLORER** panel on the left shows the project structure, including files like `requirements.txt`, `app.py`, `Dockerfile`, and `README.md`.
- The **TERMINAL** panel at the bottom shows the output of the `docker build` command. The build process is successful, creating an image with ID `8b022ea43a31`.
- The **CODE** editor shows the `app.py` file, which contains a Flask application with a `render_template` function and a `run` method.

**Bottom Screenshot:**

- The **EXPLORER** panel on the left shows the project structure, including files like `requirements.txt`, `app.py`, `Dockerfile`, and `README.md`.
- The **TERMINAL** panel at the bottom shows the output of the `docker run` command. The container is successfully built and run, displaying the output of the `python` command.
- The **CODE** editor shows the `app.py` file, which contains a Flask application with a `render_template` function and a `run` method.

### 3. Create a IBM container registry and deploy helloworld app or jobportalapp.





4. Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.

