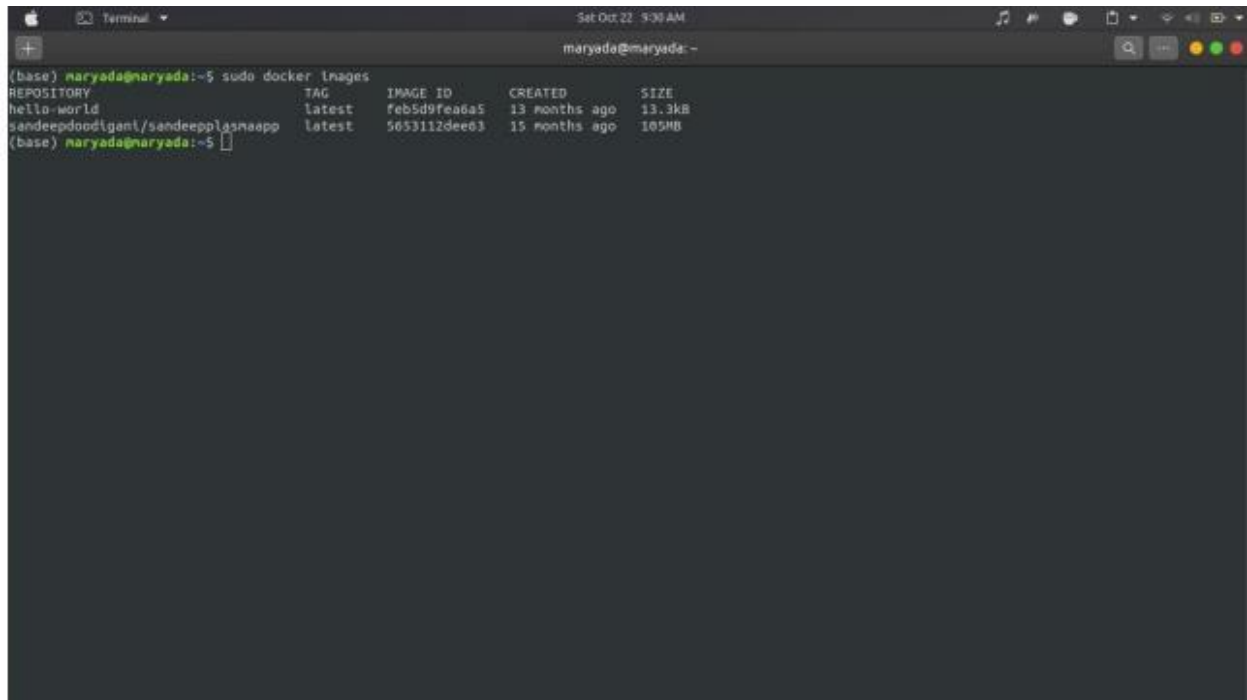


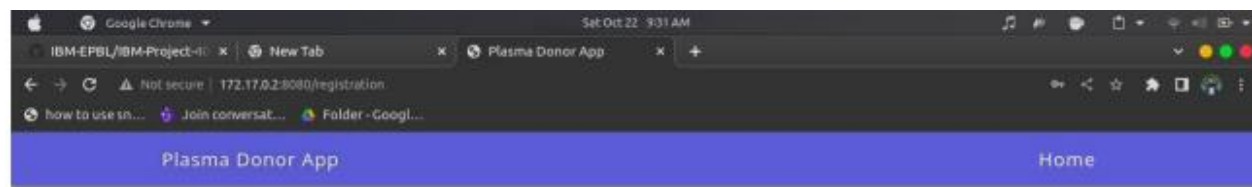
ASSIGNMENT-4

Student Name	Mohana Priya , Divya , Kiruthika , Monesha
Student Roll Number	6113191031056 , 6113191031023 , 6113191031050 , 6113191031058
Maximum Marks	

1.Pull an Image from docker hub and run it in docker playground. Pulled sandeepdoodigani/plasmaapplication and running in docker:

A screenshot of a terminal window on a macOS system. The terminal title bar shows 'Terminal' and the date 'Sat Oct 22 9:30 AM'. The prompt is 'maryada@maryada: ~'. The user has entered the command 'sudo docker images'. The output shows a table of 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 '5653112dee63', created '15 months ago', and size '105MB'. The prompt is now 'maryada@maryada:~\$'.

```
Terminal Set Oct 22, 9:31 AM
maryada@maryada: ~
(base) maryada@maryada:~$ sudo docker run -p 8080:8080 sandeepdoodigant/sandeepplasnaapp
* 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)
```



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Madurai
Uninfected
Positive

Register

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

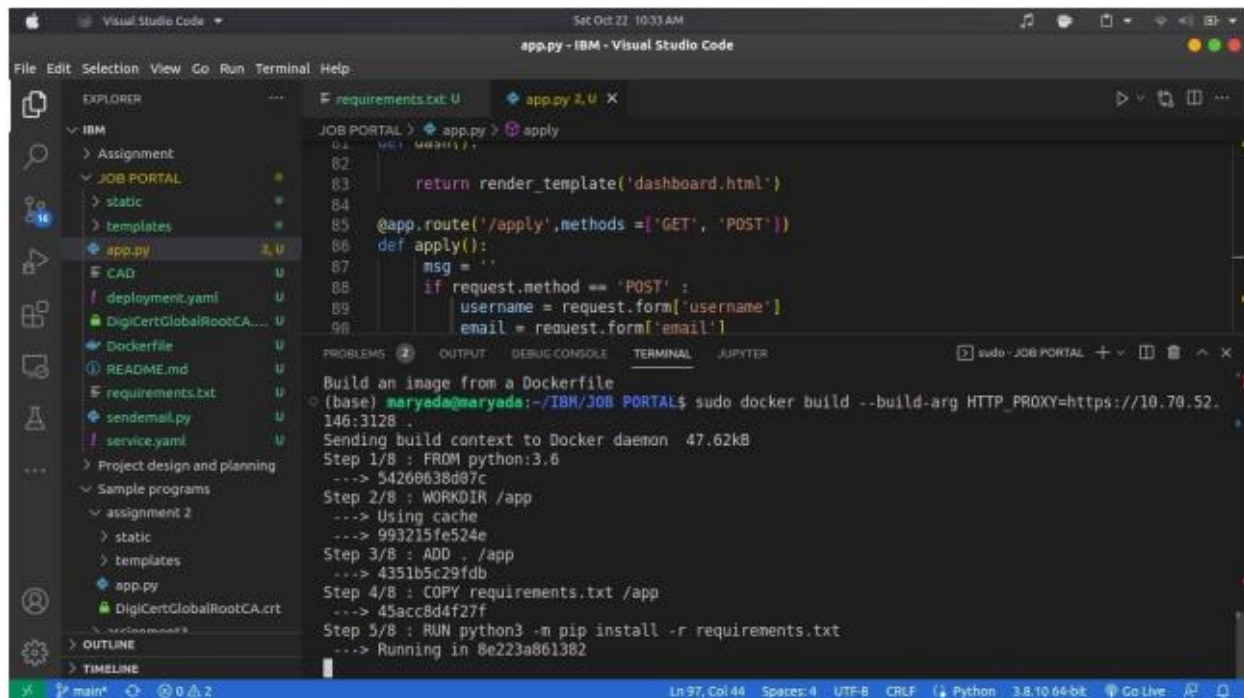
COPY requirements.txt /app

RUN python3 -m pip install -r requirements.txt

RUN python3 -m pip install ibm_db

EXPOSE 5000

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



The screenshot shows the Visual Studio Code interface with a Docker build process running in the terminal. The Explorer panel on the left shows the project structure, including files like `requirements.txt`, `app.py`, and `Dockerfile`. The terminal output shows the following steps:

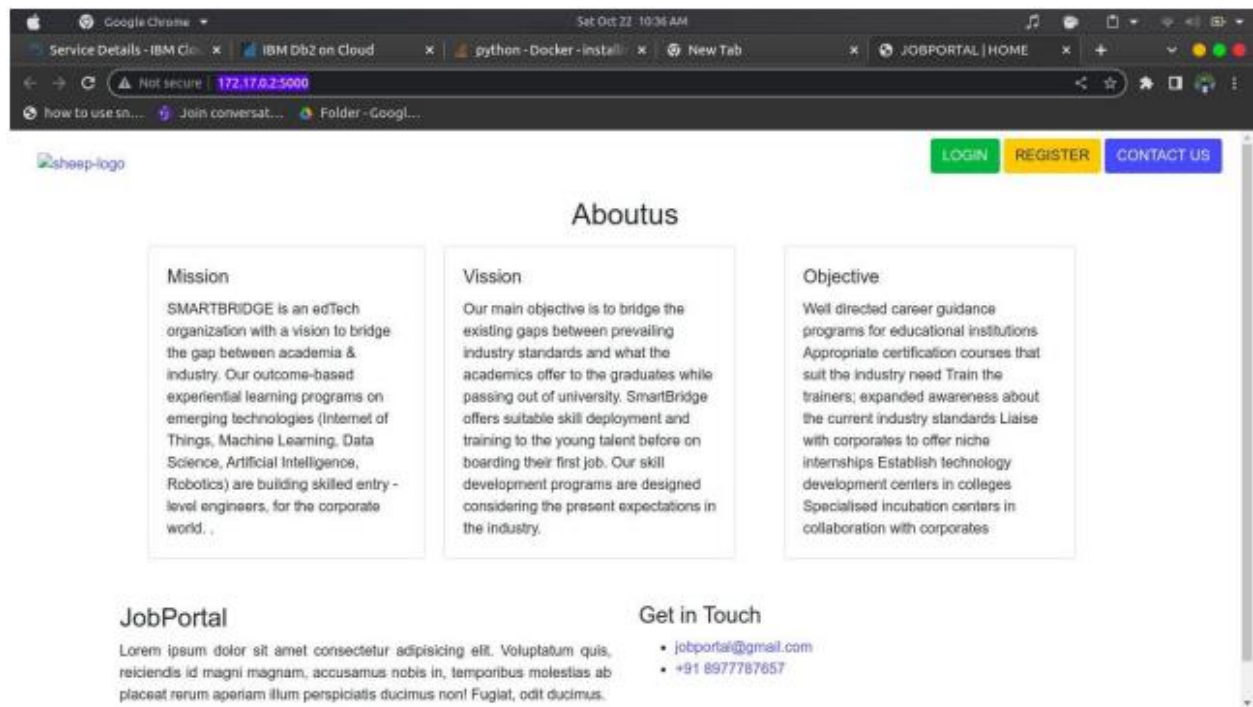
```
Build an image from a Dockerfile
(base) maryada@maryada:~/IBM/JOB PORTAL$ sudo docker build --build-arg HTTP_PROXY=https://10.70.52.146:3128 .
Sending build context to Docker daemon 47.62kB
Step 1/8 : FROM python:3.6
--> 54260638d07c
Step 2/8 : WORKDIR /app
--> Using cache
--> 993215fe524e
Step 3/8 : ADD ./app
--> 4351b5c29fdb
Step 4/8 : COPY requirements.txt /app
--> 45acc8d4f27f
Step 5/8 : RUN python3 -m pip install -r requirements.txt
--> Running in Be223a061382
```

The screenshot shows the Visual Studio Code interface with the file explorer on the left displaying a project structure for 'JOB PORTAL'. The main editor shows the 'app.py' file with the following code:

```
82 def apply():
83     return render_template('dashboard.html')
84
85 @app.route('/apply', methods=['GET', 'POST'])
86 def apply():
87     msg = ''
88     if request.method == 'POST':
89         username = request.form['username']
90         email = request.form['email']
```

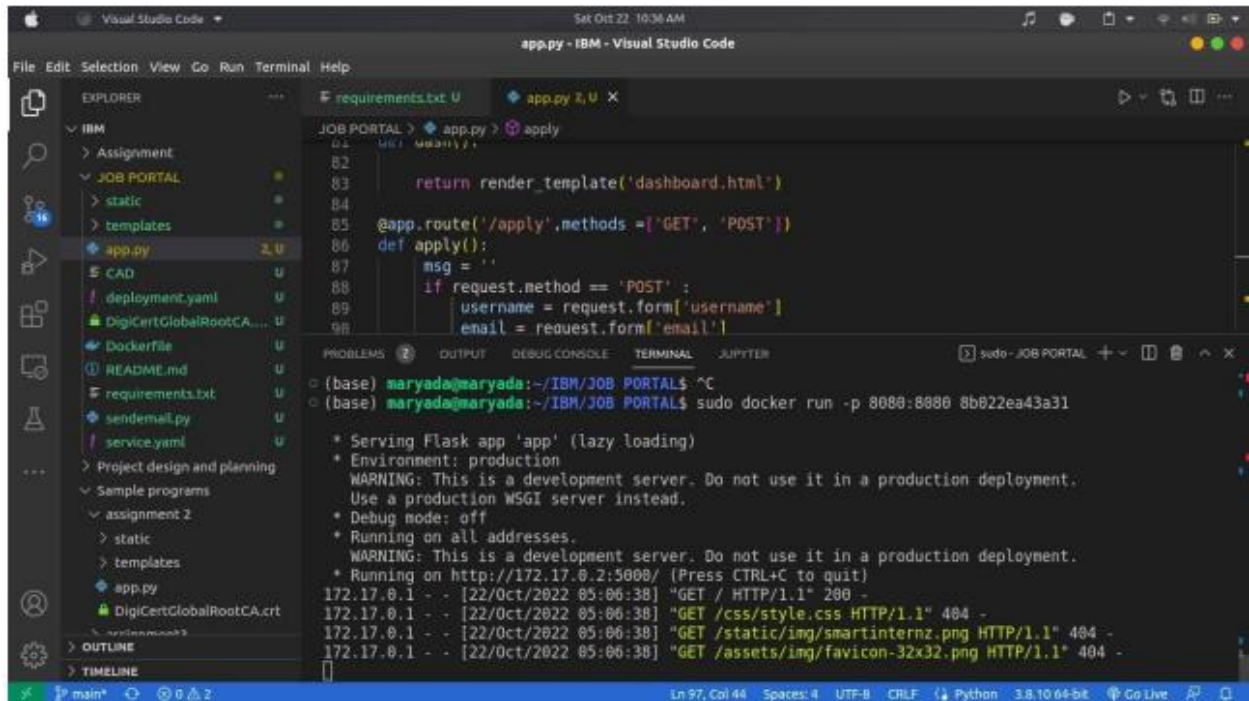
The terminal at the bottom shows the command 'python app.py' being executed, resulting in a successful build of the Docker image '8b022ea43a31'. It also displays the output of 'docker images' showing the local repository.

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
<none>	<none>	8b022ea43a31	12 seconds ago	1.88GB
<none>	<none>	32695b39480c	26 minutes ago	982MB
python	3.6	54260638d87c	10 months ago	982MB
hello-world	latest	feb5d9fea6a5	13 months ago	13.3kB
sandeepdoodigani/sandeepplasmaapp	latest	5653112dee63	15 months ago	185MB



The screenshot shows the Visual Studio Code interface with the file explorer on the left displaying the project structure. The main editor shows the 'app.py' file with the following code:

```
82 def apply():
```

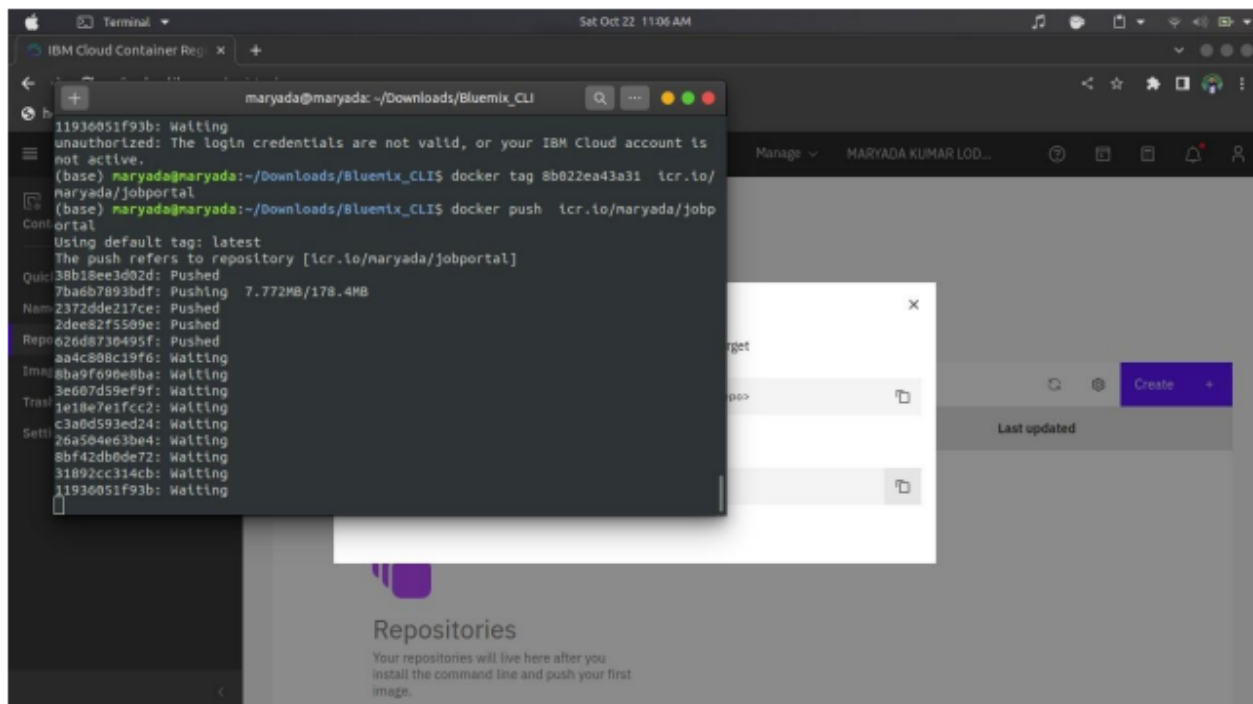


The screenshot shows the Visual Studio Code interface with a file explorer on the left displaying a project structure for 'JOB PORTAL'. The main editor shows the 'app.py' file with the following code:

```
01 #!/usr/bin/env python
02 # coding: utf-8
03
04 return render_template('dashboard.html')
05
06 @app.route('/apply', methods=['GET', 'POST'])
07 def apply():
08     msg = ''
09     if request.method == 'POST':
10         username = request.form['username']
11         email = request.form['email']
```

The terminal window at the bottom shows the command `sudo docker run -p 8080:8080 8b022ea43a31` being executed. The output indicates that the Flask app 'app' is running on `http://172.17.0.2:5000/` and shows several HTTP requests from `172.17.0.1` to `172.17.0.2` with status codes 200 and 404.

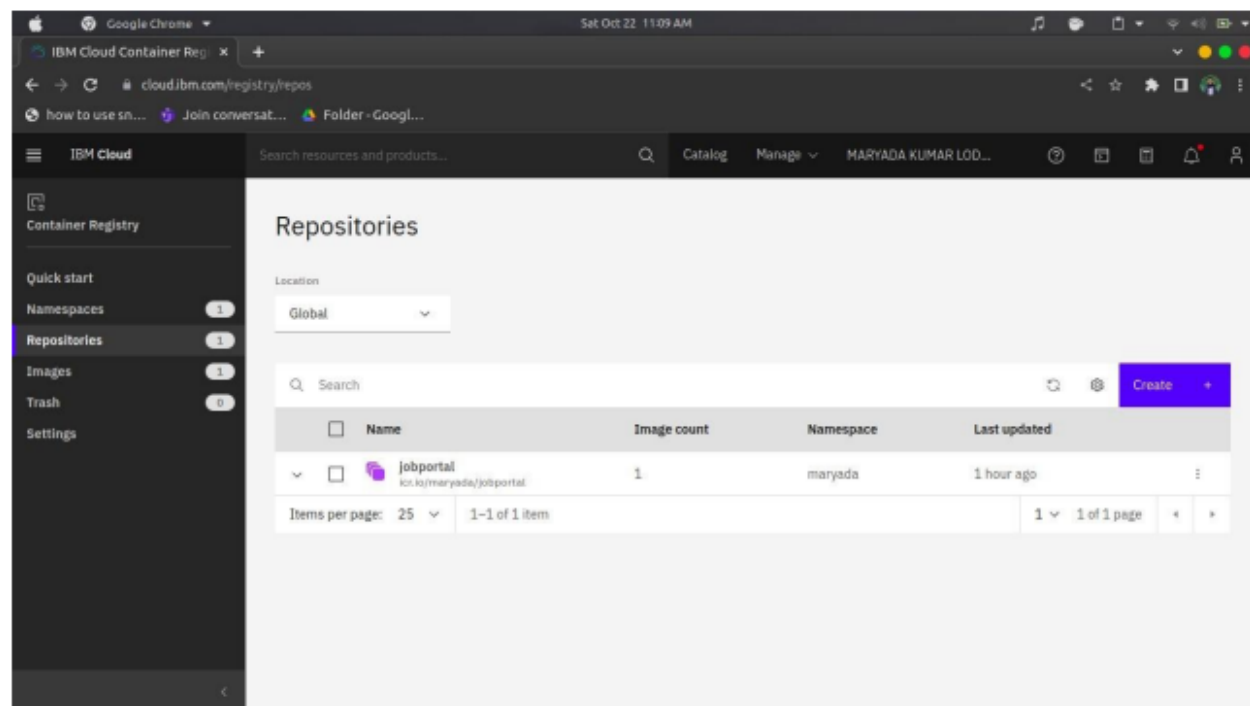
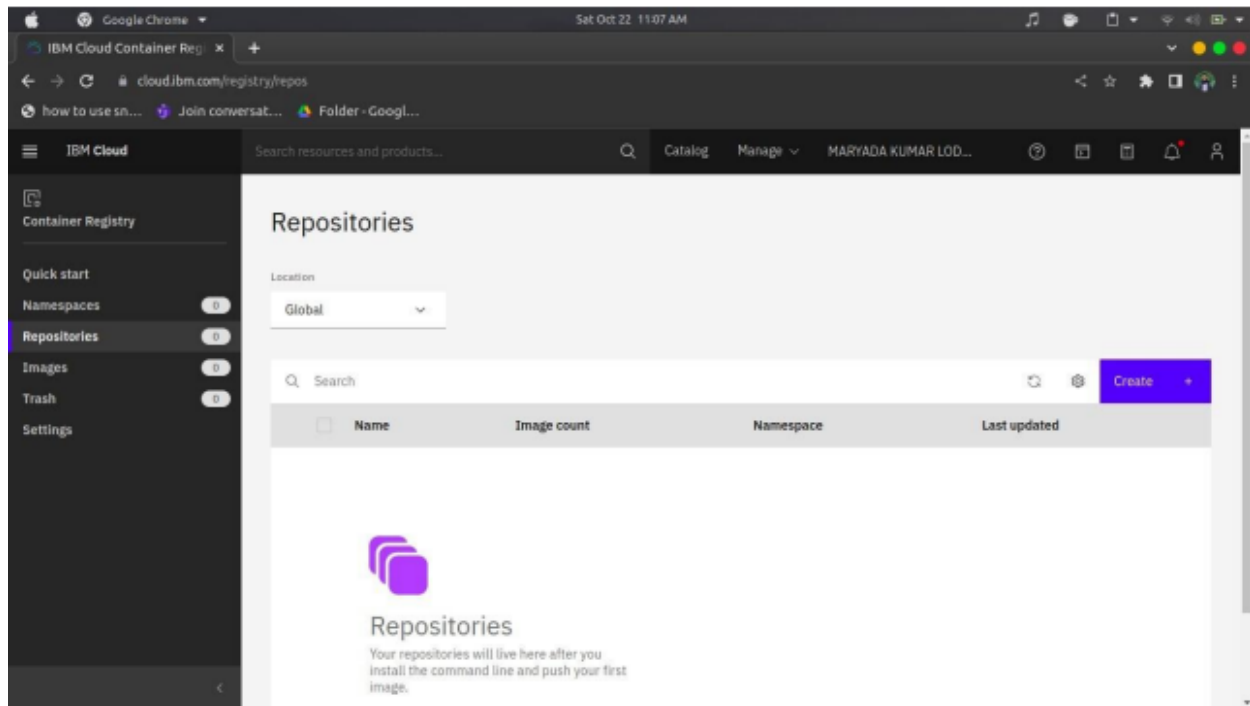
3.Create a IBM container registry and deploy helloworld app or jobportalapp.



The screenshot shows a terminal window with the following commands and output:

```
maryada@maryada: ~/Downloads/Bluemix_CLI
11936051f93b: Waiting
unauthorized: The login credentials are not valid, or your IBM Cloud account is
not active.
(base) maryada@maryada:~/Downloads/Bluemix_CLI$ docker tag 8b022ea43a31 icr.io/
maryada/jobportal
(base) maryada@maryada:~/Downloads/Bluemix_CLI$ docker push icr.io/maryada/jobp
ortal
Using default tag: latest
The push refers to repository [icr.io/maryada/jobportal]
Quick: 38b18ee3d02d: Pushed
7ba6b7893bdf: Pushing 7.772MB/178.4MB
Name: 2372dde217ce: Pushed
2dee82f5509e: Pushed
Repo: 626d8730495f: Pushed
Image: aa4c808c19f6: Waiting
8ba9f690e8ba: Waiting
3e607d59ef9f: Waiting
Tras: 1e18e7e1fcc2: Waiting
Sett: c3a0d593ed24: Waiting
26a504e63be4: Waiting
8bf42db0de72: Waiting
31892cc314cb: Waiting
11936051f93b: Waiting
```

The background shows the IBM Cloud Container Registry interface with a 'Create' button and a 'Last updated' status.



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

