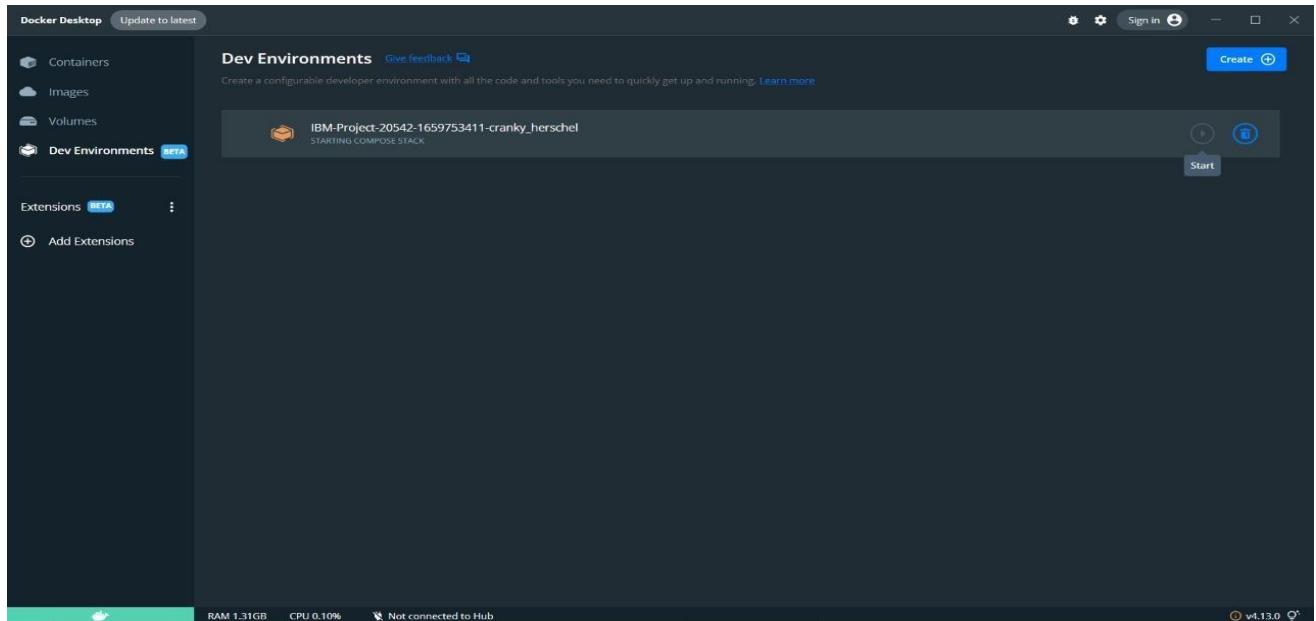


## ASSIGNMENT-4

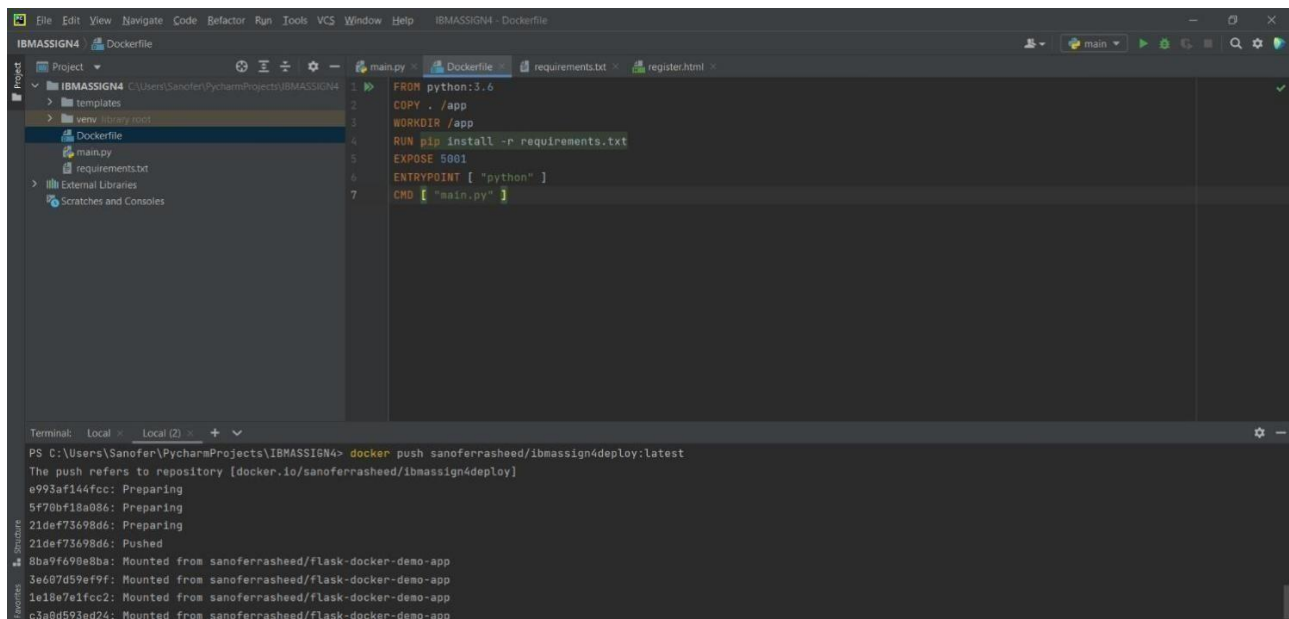
Assignment Date	10 NOVEMBER 2022
Student Name	MONISH KUMAR N
Student Roll Number	732219EC059
Maximum Marks	2 Marks

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

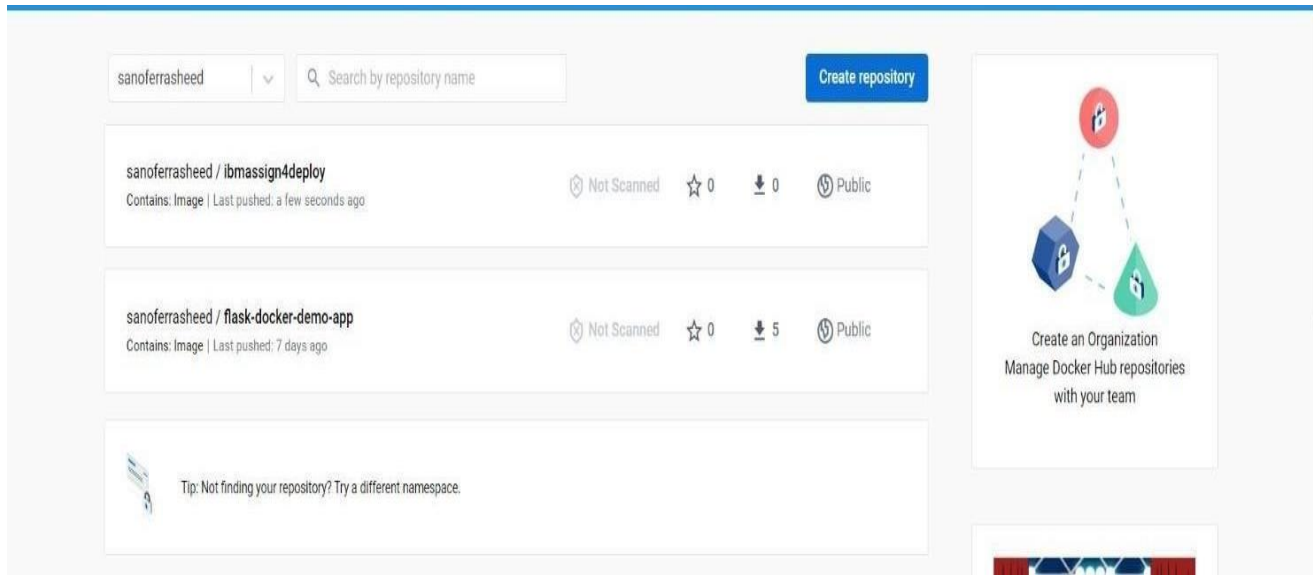
The image is built.



The same image is pushed to docker hub using the command



Here image name is ibmassign4deploy. Thus it is pushed in docker hub.



The app is running at the specified port.

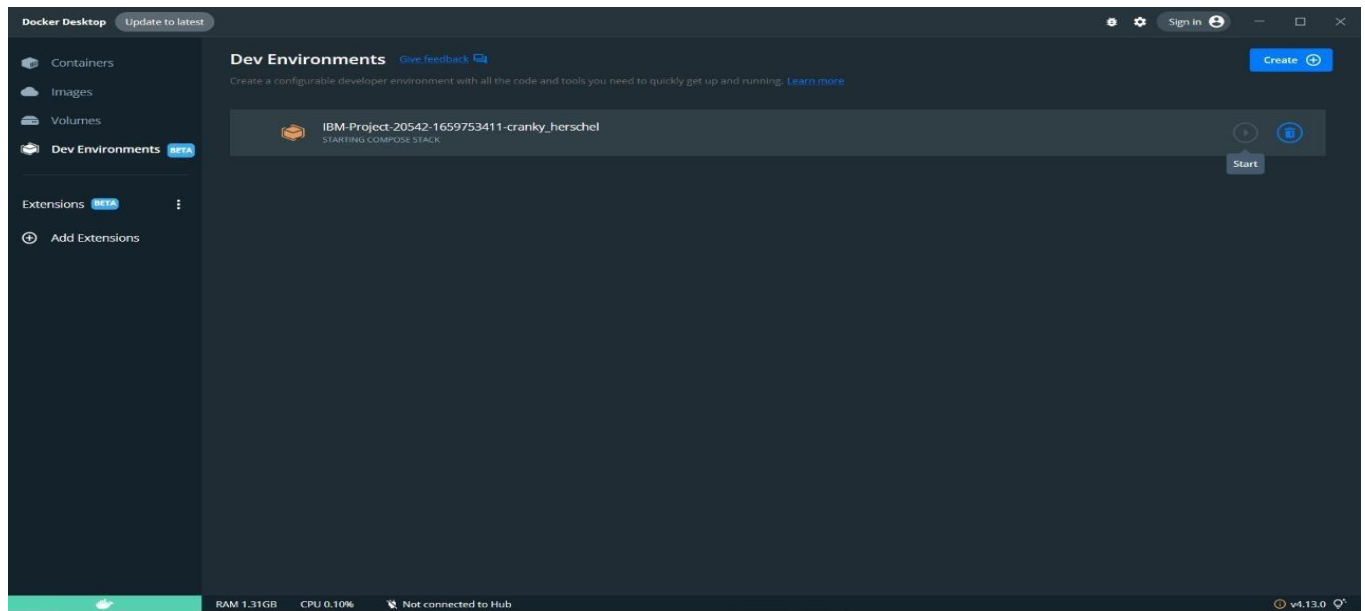
## 2. Create a docker file for the application and deploy it in Docker desktop application.

```
FROM python:3.6
COPY . /app
WORKDIR /app
RUN pip install -r requirements.txt
EXPOSE 5001
ENTRYPOINT [ "python" ]
CMD [ "main.py" ]
```

---

Dockerfile:

Thus docker file created and deployed in docker desktop.



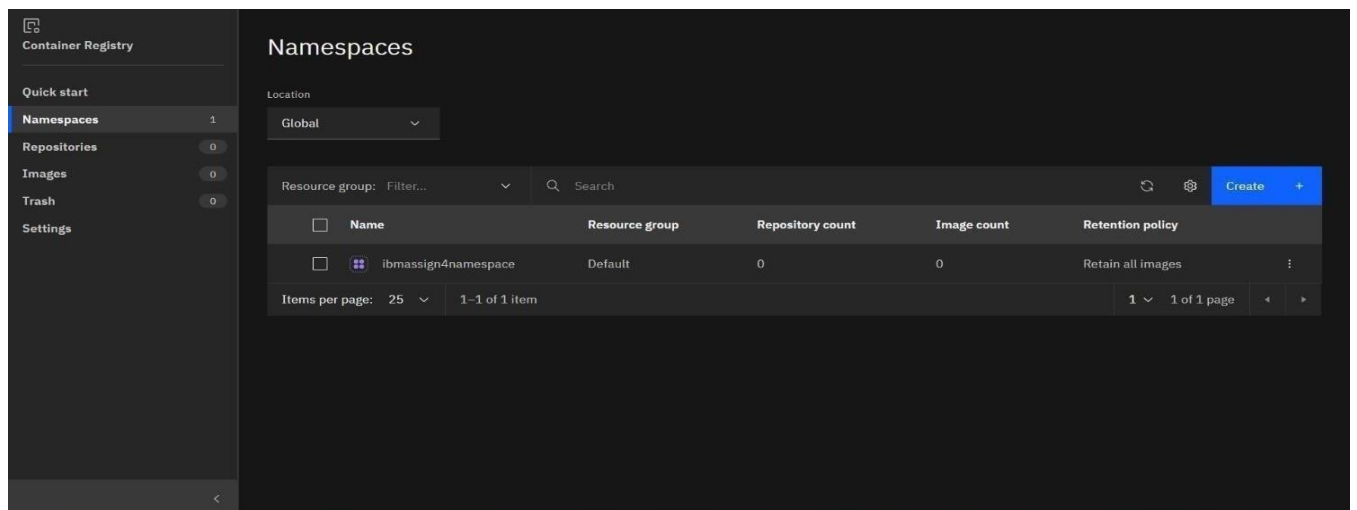
### 3. Create a IBM container registry and deploy hello world app.

Container registry created using

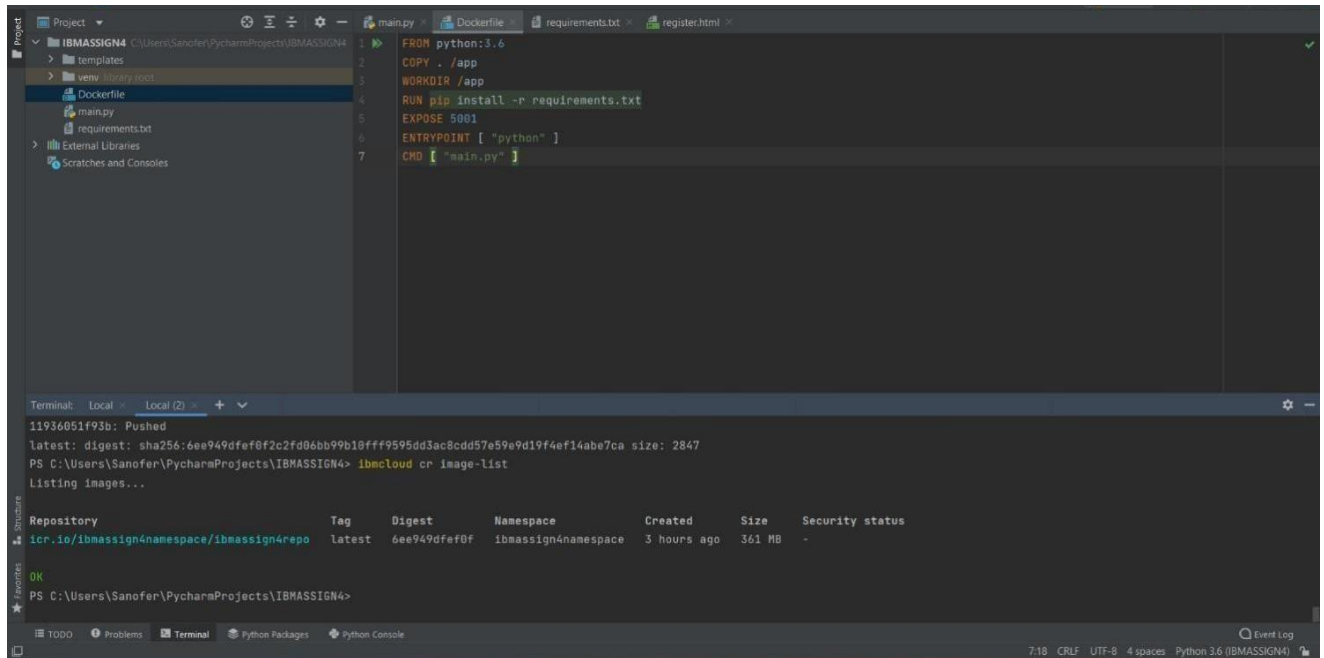
```
> docker tag sanoferrasheed/ibmassign4deploy:latest
```

```
icr.io/ibmassign4namespace/ibmassign4repo:latest
```

```
> docker push icr.io/ibmassign4namespace/ibmassign4repo:latest
```



Thus, images in container registry are listed



The screenshot shows a VS Code editor with a project named 'IBMASSIGN4'. The Dockerfile in the project contains the following content:

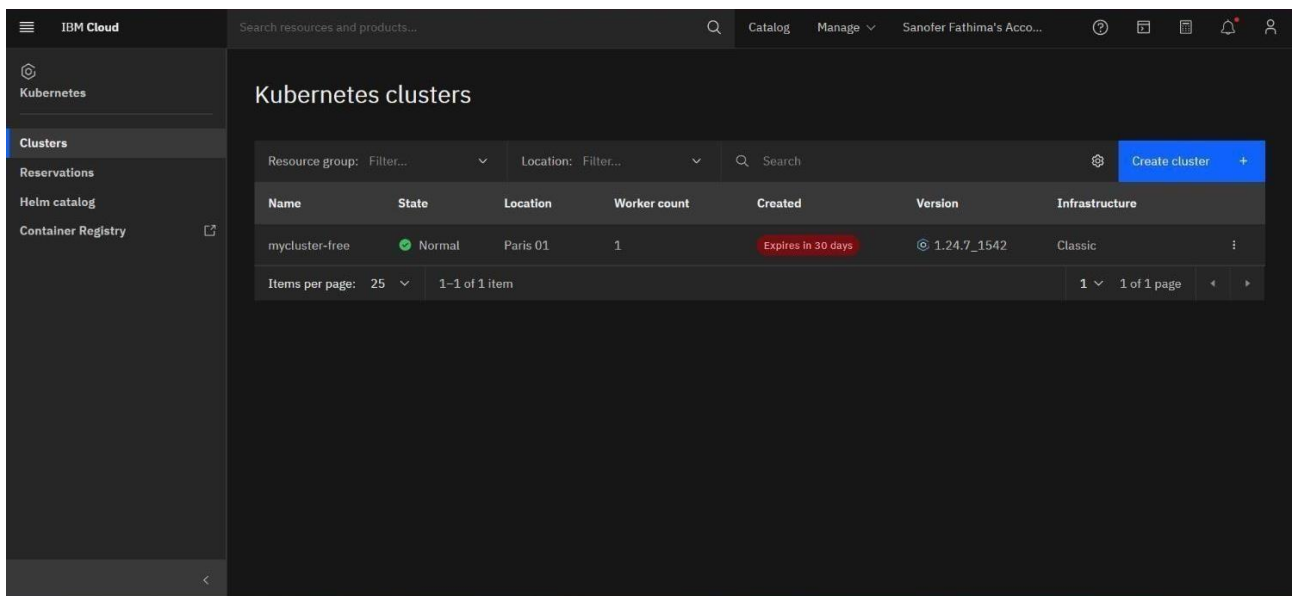
```
FROM python:3.6
COPY . /app
WORKDIR /app
RUN pip install -r requirements.txt
EXPOSE 5001
ENTRYPOINT [ "python" ]
CMD [ "main.py" ]
```


The terminal window at the bottom shows the output of the `ibmcloud cr image-list` command, listing images in the repository `icr.io/ibmassign4namespace/ibmassign4repo`.

Repository	Tag	Digest	Namespace	Created	Size	Security status
icr.io/ibmassign4namespace/ibmassign4repo	latest	6ee949dfe0f0f	ibmassign4namespace	3 hours ago	361 MB	-


#### 4. Create a Kubernetes cluster in IBM cloud and deploy hello world image or job portal image and also expose the same app to run in node port.




Thus, cluster is created.



kubernetes

default

 Search



Service > Services

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service

Ingresses 1

Ingress Classes

Services 1



Config and Storage

Config Maps 1

Persistent Volume Claims 1

Secrets 1

Services

Name	Labels	Type	Cluster IP	Internal Endpoints	External Endpoints	Created ↑
 ibmassign4appln	<a href="#">Show all</a>	LoadBalancer	172.21.216.77	ibmassign4appln:5001 TCP ibmassign4appln:30878 TCP	-	7 minutes ago
 kubernetes	<a href="#">Show all</a>	ClusterIP	172.21.0.1	kubernetes:443 TCP kubernetes:0 TCP	-	28 minutes ago