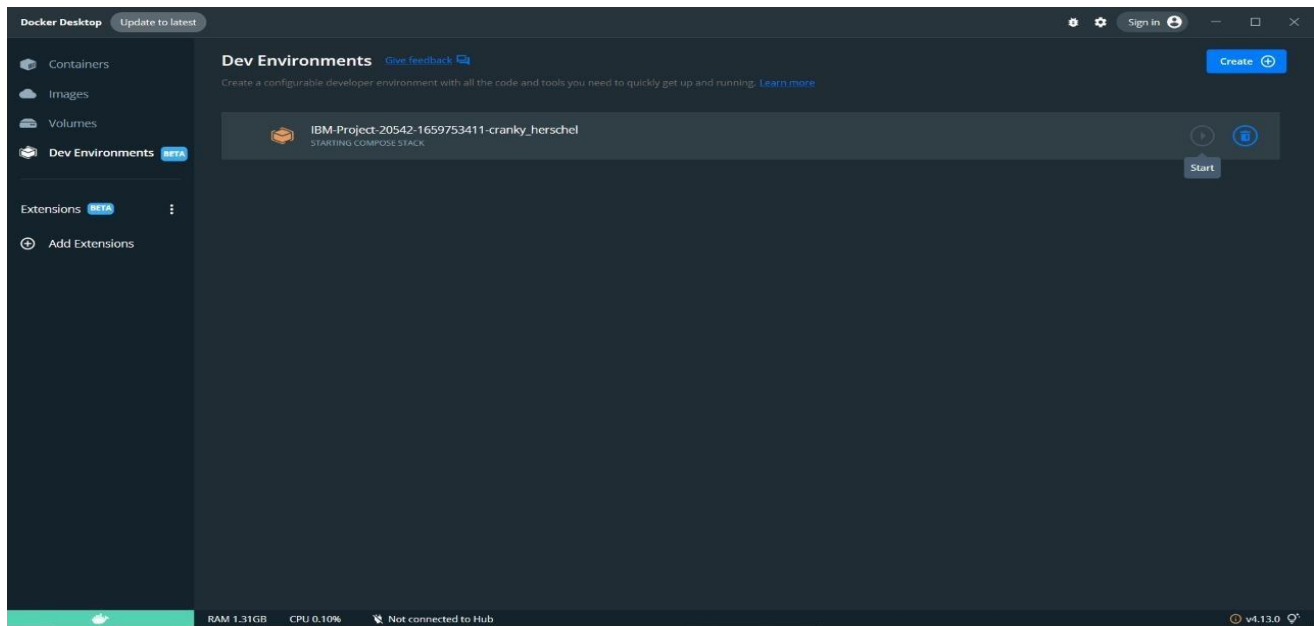


## ASSIGNMENT-4

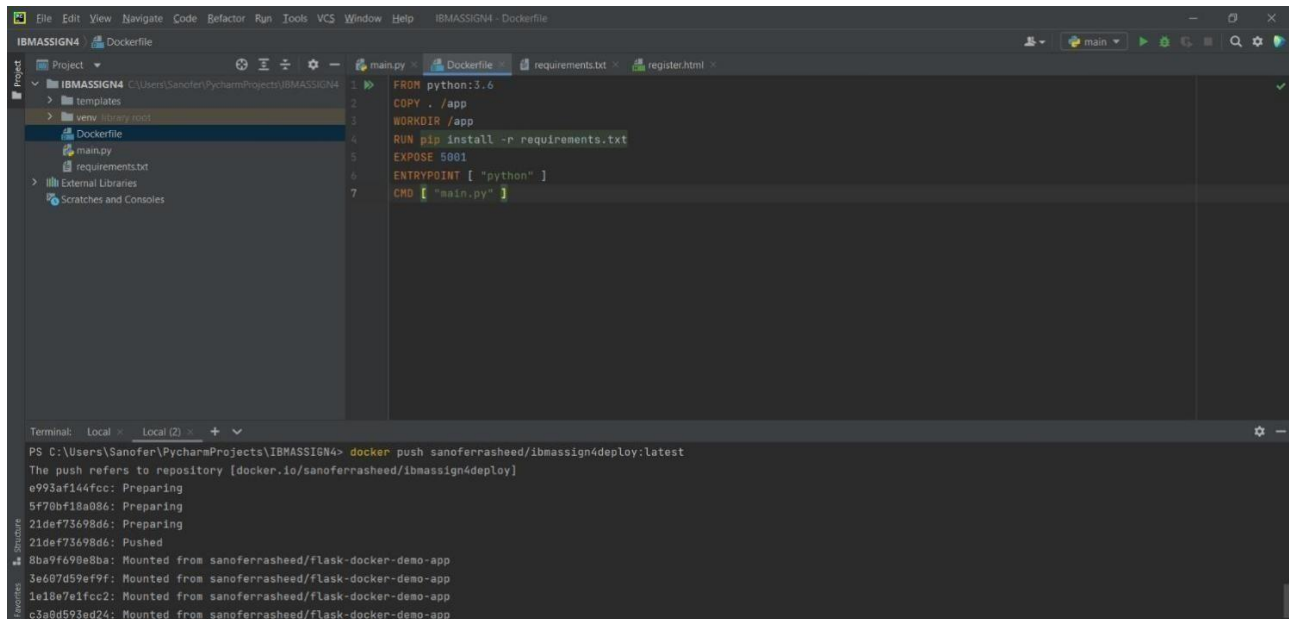
**RAGURAM S V – 732219EC076**

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

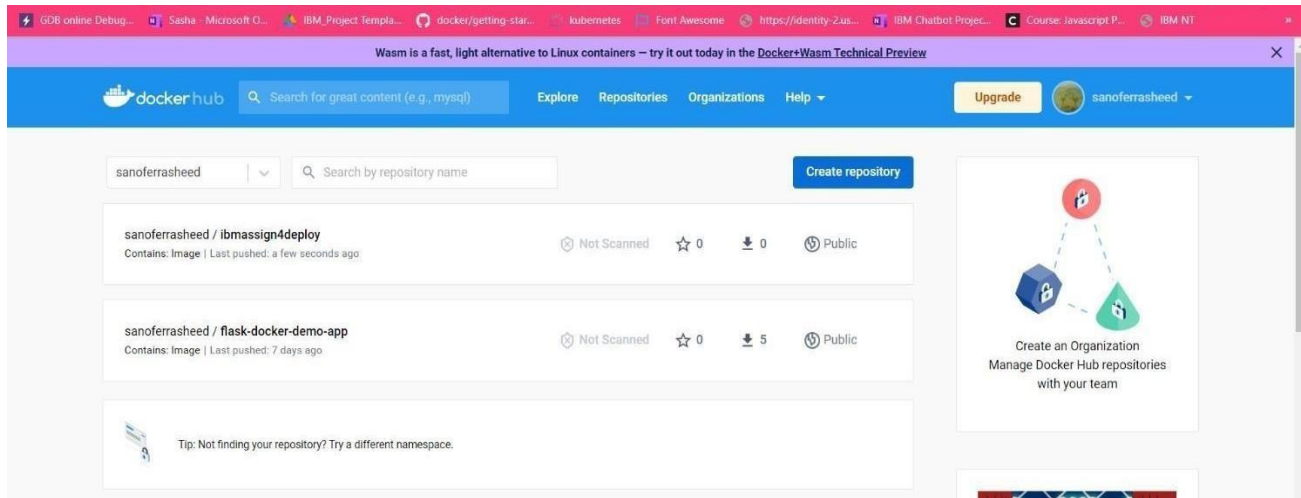
The image is built.



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.

A screenshot of a web browser showing a 'Registration Form'. The browser's address bar shows '6036 online Debug...'. The form has a title 'Registration Form' and several input fields: 'Enter name', 'Enter Email', 'Enter Mobile', 'Enter City', 'Enter State', and 'Enter Country'. A 'Submit' button is located at the bottom right of the form fields.

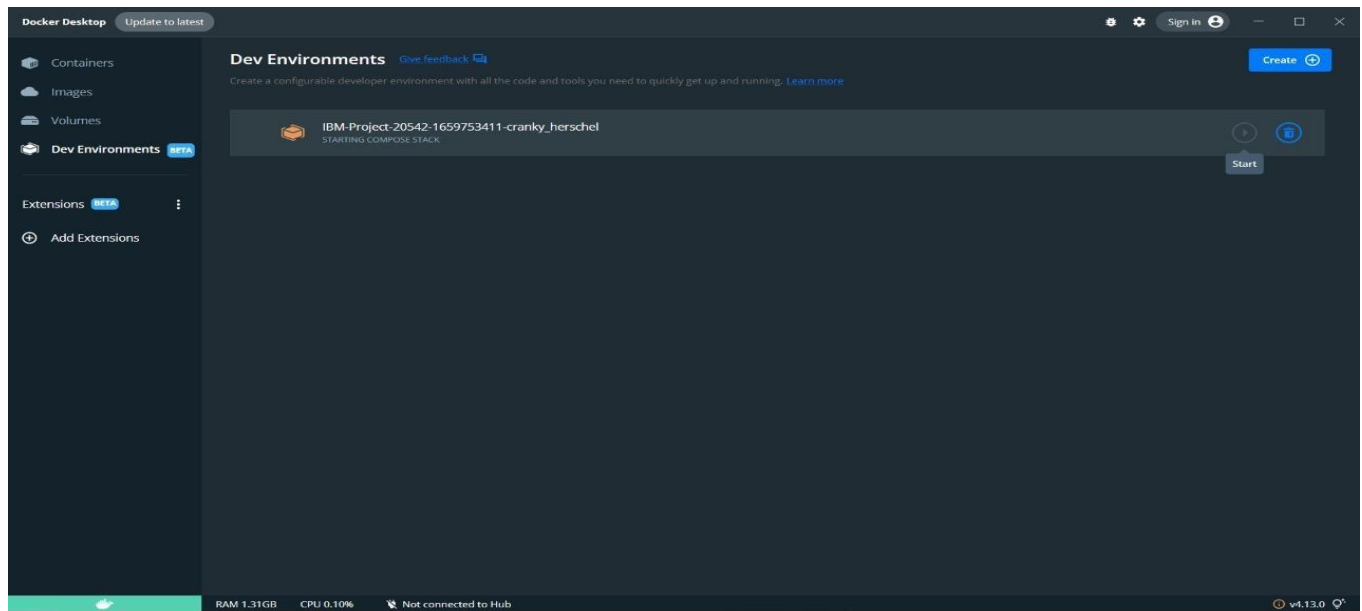
---

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

Dockerfile:

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

Thus docker file created and deployed in docker desktop.



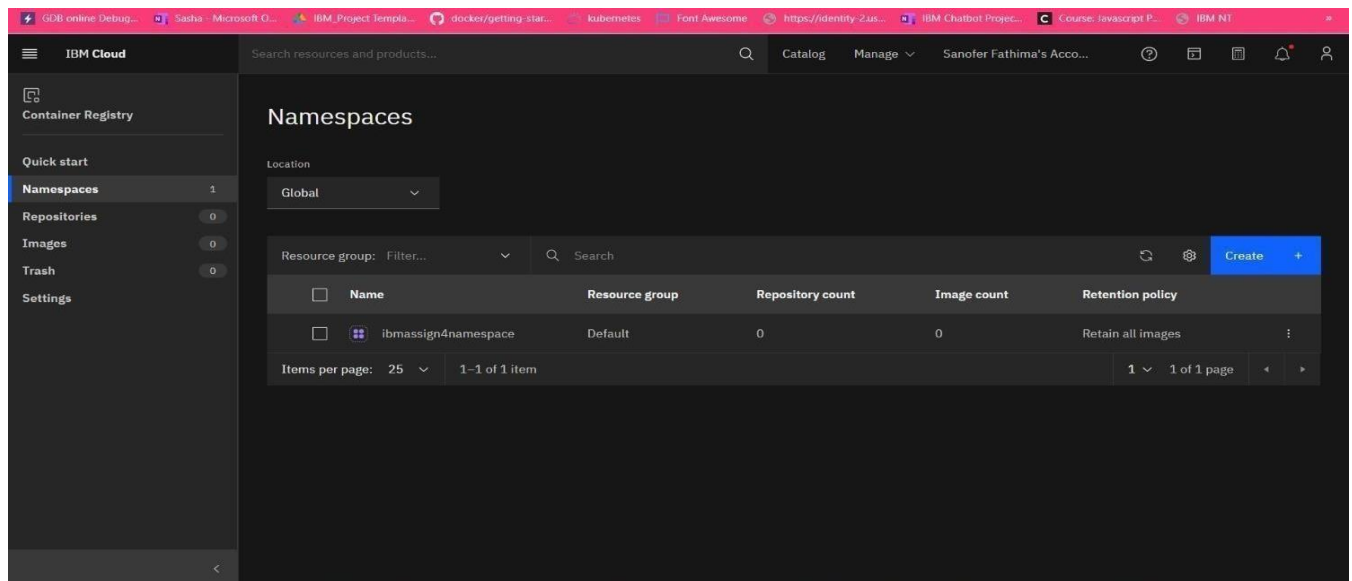
### 3. Create a IBM container registry and deploy hello world app.

Container registry created using

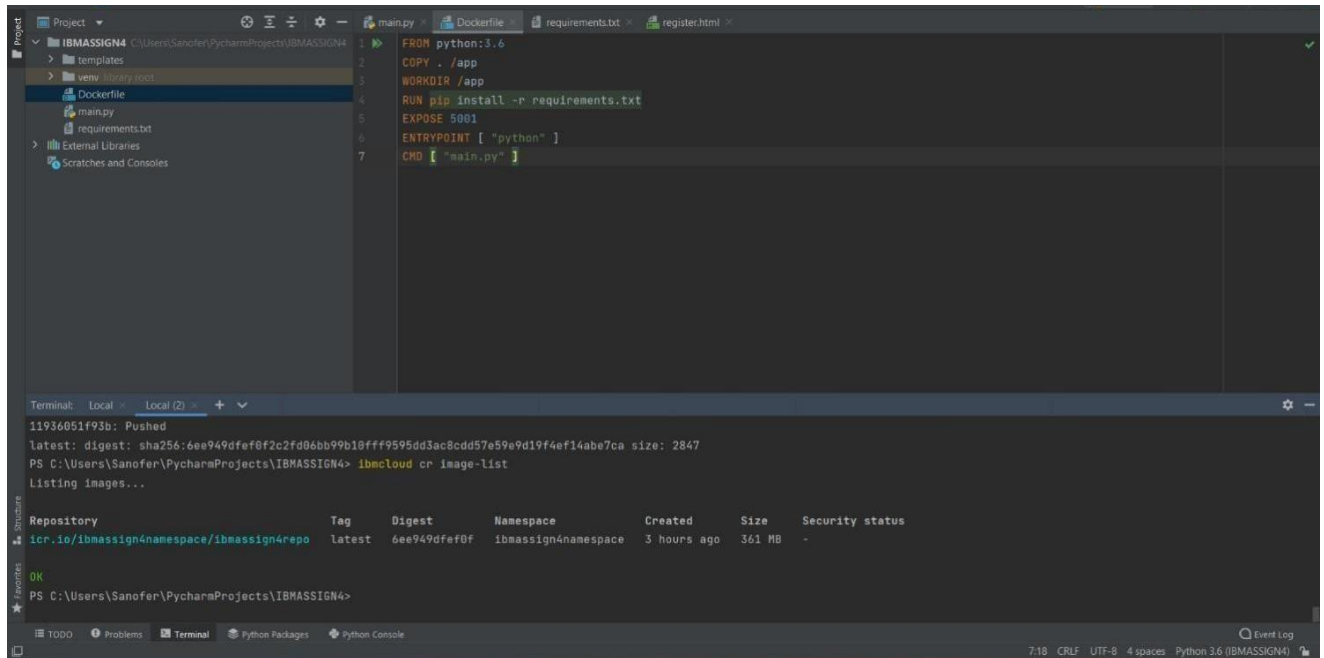
```
> docker tag sanoferrasheed/ibmassign4deploy:latest
```

```
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 'Dockerfile' tab 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" ]
```

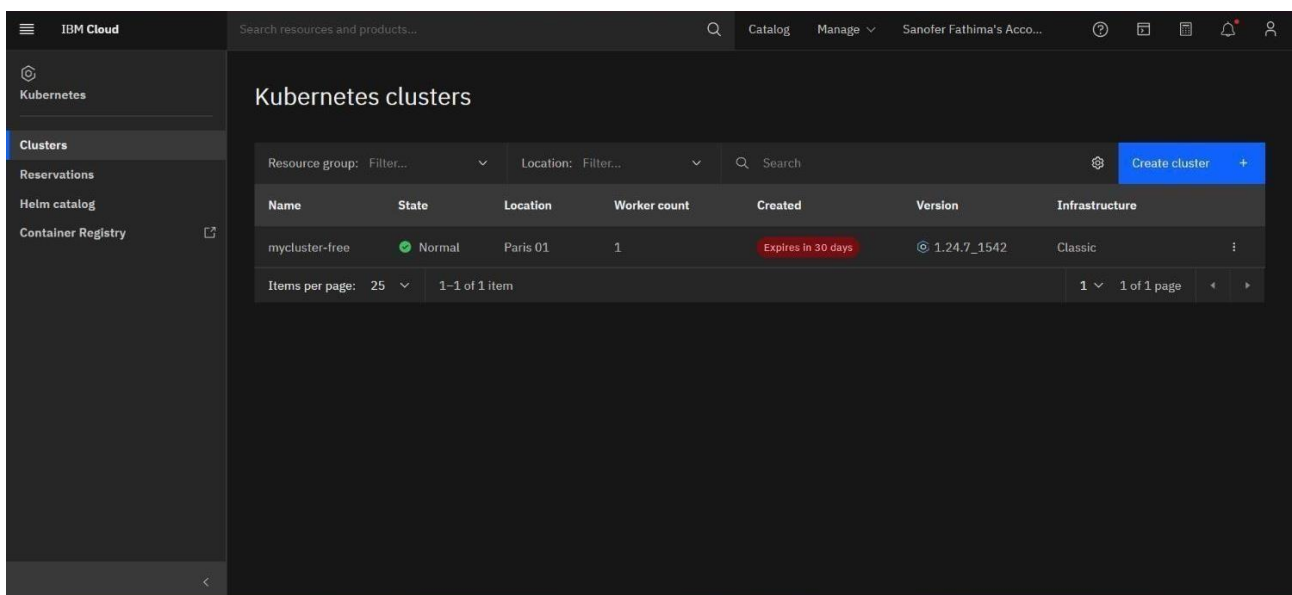
The terminal at the bottom shows the command `ibmcloud cr image-list` being executed, resulting in the following output:


```
11936051f93b: Pushed
latest: digest: sha256:6ee949dfef8f2c2fd06bb99b18fff9595dd3ac8cdd57e59e9d19f4ef14abe7ca size: 2847
PS C:\Users\Sanofer\PycharmProjects\IBMASSIGN4> ibmcloud cr image-list
Listing images...
```

Repository	Tag	Digest	Namespace	Created	Size	Security status
icr.io/ibmassign4namespace/ibmassign4repo	latest	6ee949dfef8f	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



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Persistent Volume Claims

Secrets

Services

Name	Labels	Type	Cluster IP	Internal Endpoints	External Endpoints	Created
ibmassign4appln	Show all	LoadBalancer	172.21.216.77	ibmassign4appln:5001 TCP ibmassign4appln:30878 TCP	-	7 minutes ago
kubernetes	Show all	ClusterIP	172.21.0.1	kubernetes:443 TCP kubernetes:0 TCP	-	28 minutes ago

APP IS LIVE AT <http://159.122.174.152:30089/>