

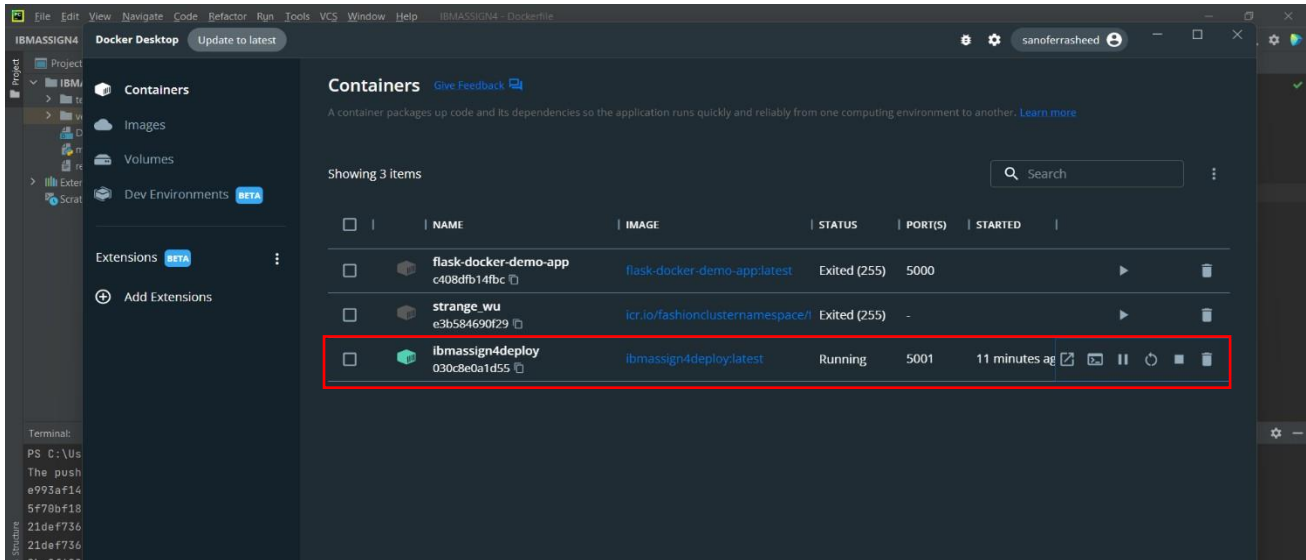
ASSIGNMENT 4

CLOUD APPLICATION DEVELOPMENT

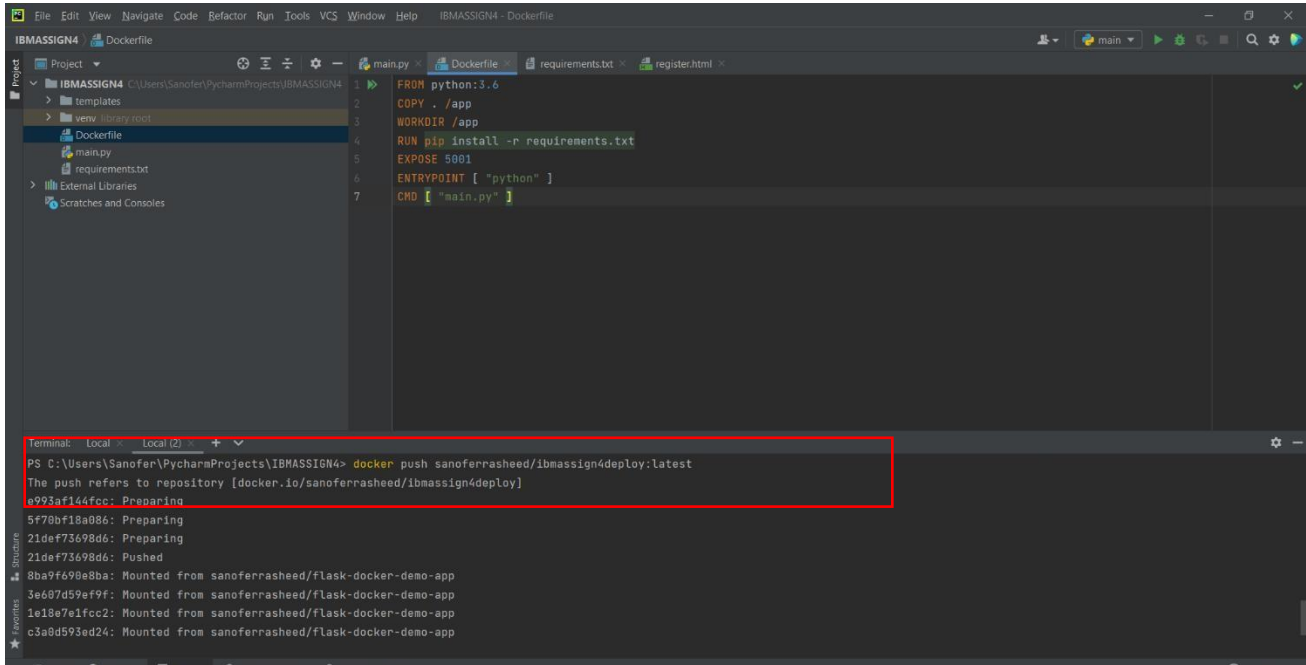
Team Id	PNT2022TMID09989
Project Name	Smart Fashion Recommender Application
Maximum Marks	2 Marks

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

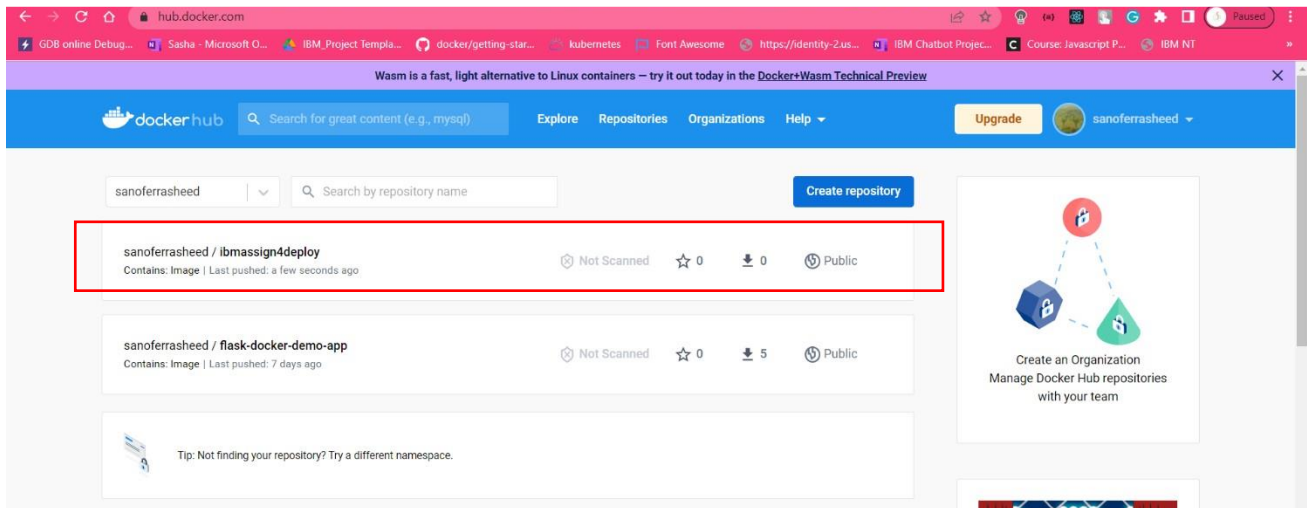
The image is built.



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.

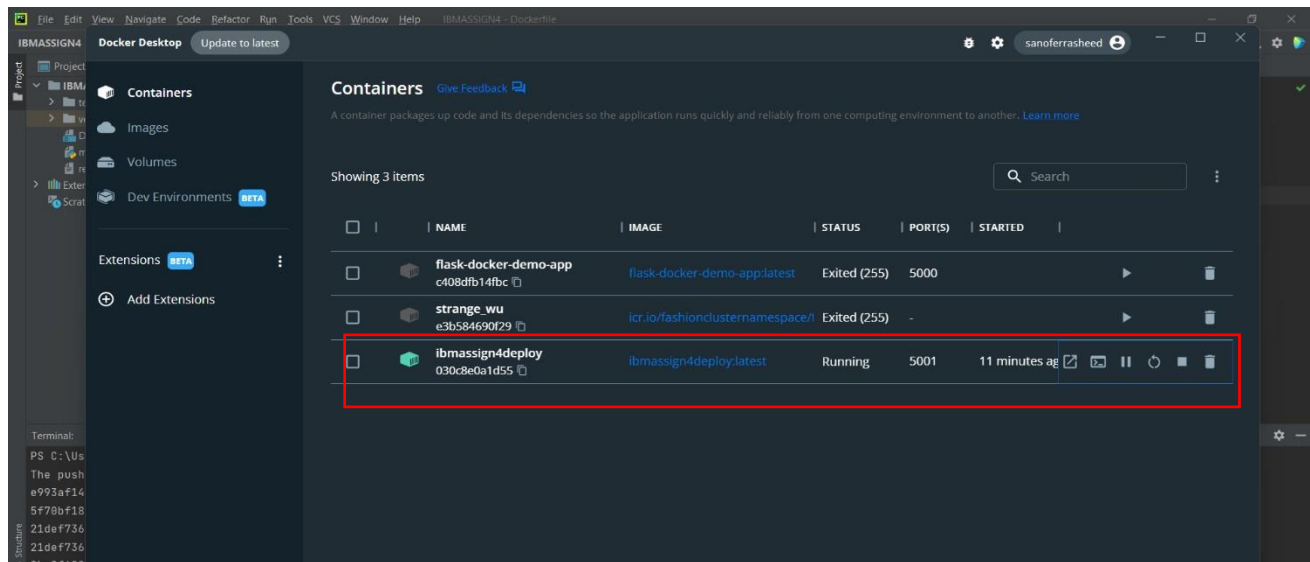
A screenshot of a web browser showing a registration form on localhost:5001. The form is titled 'Registration Form' and contains input fields for 'Enter name', 'Enter Email', 'Enter Mobile', 'Enter City', 'Enter State', and 'Enter Country'. A 'Submit' button is located at the bottom right of the form.

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.

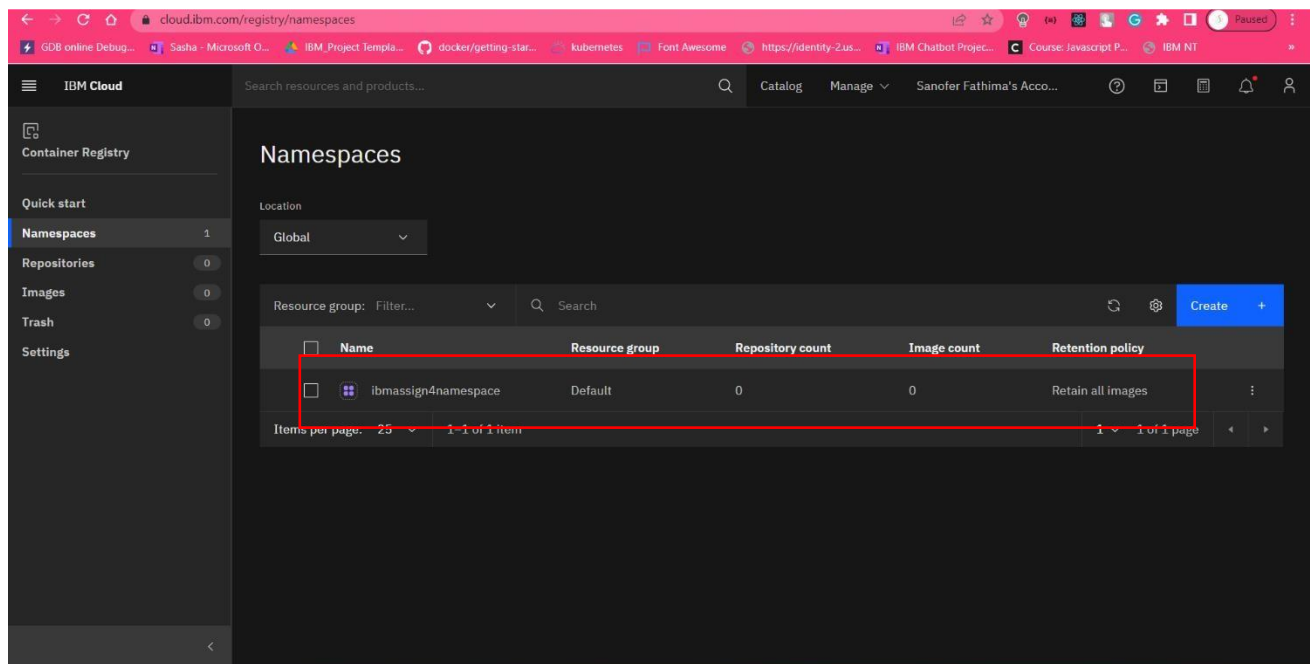


3. Create a IBM container registry and deploy hello world app.

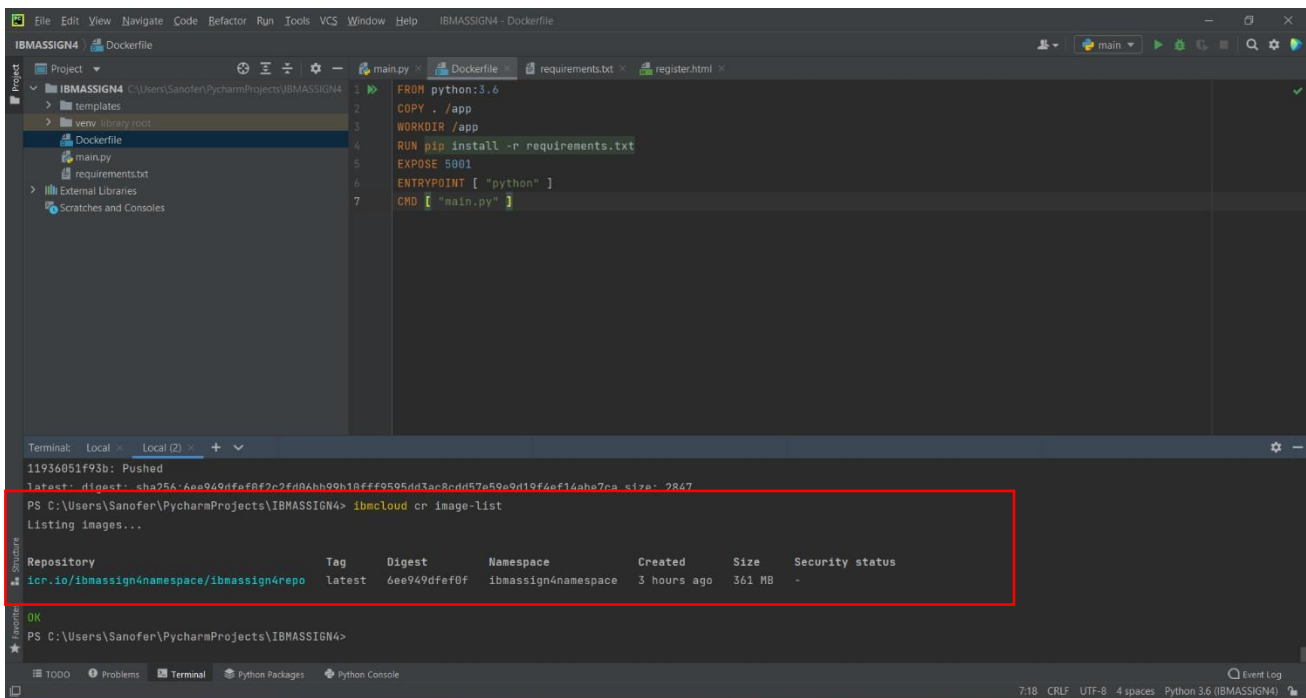
Container registry created using

```
> 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 image shows a PyCharm IDE window with a project named 'IBMASSIGN4'. The Dockerfile in the 'Dockerfile' tab contains the following content:

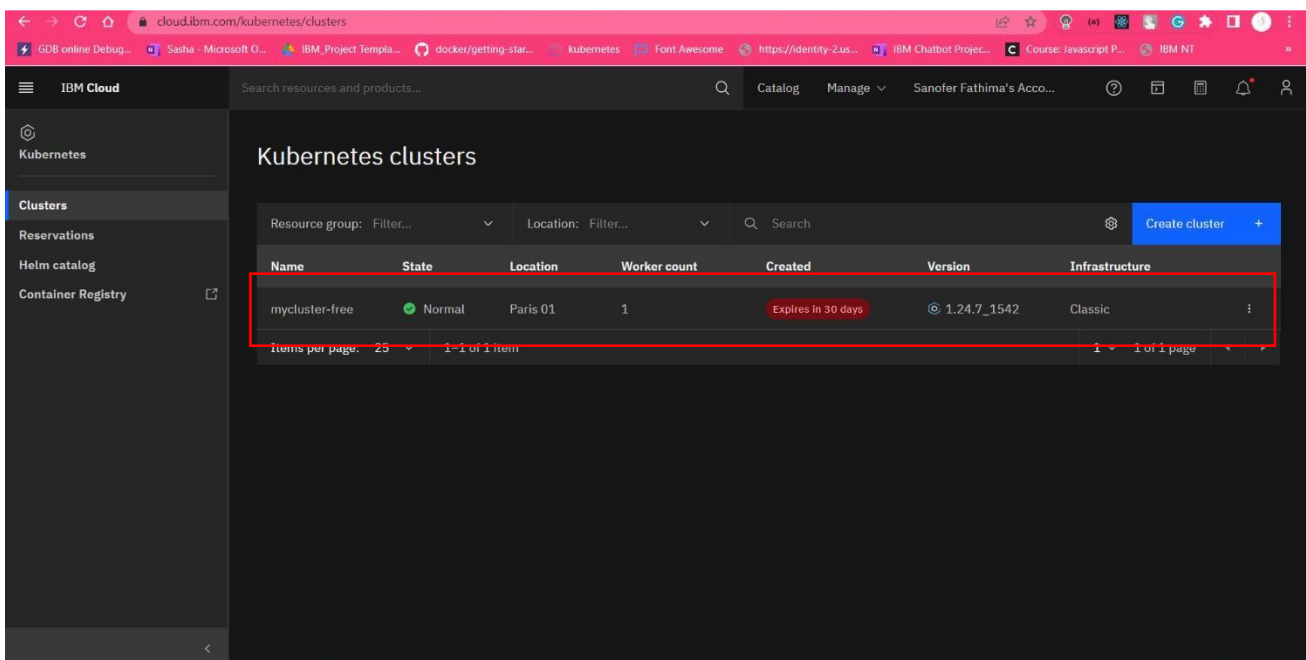
```
FROM python:3.6
COPY . /app
WORKDIR /app
RUN pip install -r requirements.txt
EXPOSE 5001
ENTRYPOINT [ "python" ]
CMD [ "main.py" ]
```

The terminal at the bottom shows the command `ibmcloud cr image-list` being executed, listing images from the repository `icr.io/ibmassign4namespace/ibmassign4repo`. The output is as follows:

Repository	Tag	Digest	Namespace	Created	Size	Security status
icr.io/ibmassign4namespace/ibmassign4repo	latest	6ee949dfef0f	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.



eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cddt2egf0rh8t3bv3crg/service/#/service?namespace=default

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kubernetes

default

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Service > Services

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service

Ingresses

Ingress Classes

Services



Config and Storage

Config Maps

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