

ASSIGNMENT 4

CLOUD APPLICATION DEVELOPMENT

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Maximum Marks	2 Marks

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

The image is built.

The image shows two screenshots from a development environment. The top screenshot is Docker Desktop, displaying a list of containers. The bottom screenshot is the PyCharm IDE, showing a Dockerfile and a terminal window.

Docker Desktop Screenshot:

NAME	IMAGE	STATUS	PORT(S)	STARTED
flask-docker-demo-app	flask-docker-demo-app:latest	Exited (255)	5000	
strange_wu	icr.io/fashionclusternamespace/1	Exited (255)	-	
ibmassign4deploy	ibmassign4deploy:latest	Running	5001	11 minutes ago

PyCharm IDE Screenshot:

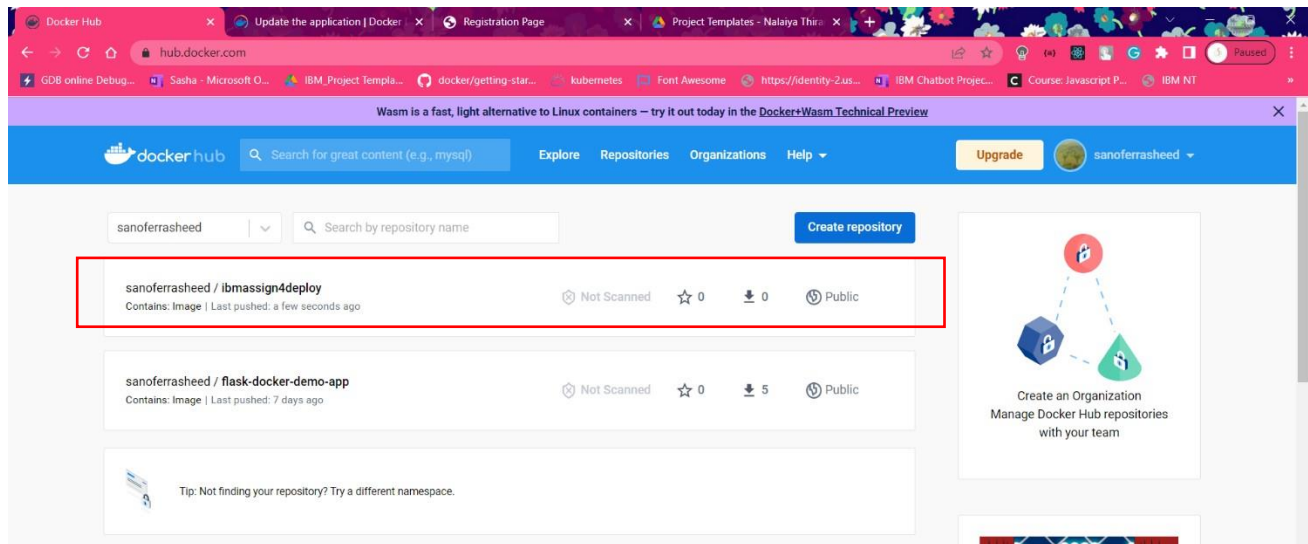
Dockerfile:

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

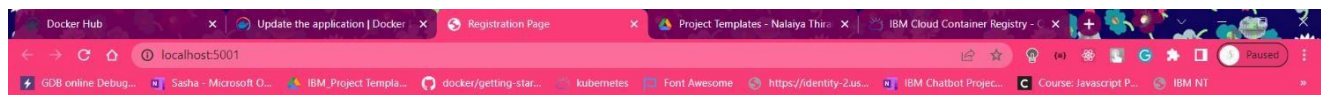
Terminal:

```
PS C:\Users\Sanofer\PycharmProjects\IBMASSIGN4> docker push sanoferrasheed/ibmassign4deploy:latest
The push refers to repository [docker.io/sanoferrasheed/ibmassign4deploy]
e993af144fcc: Preparing
5f70bf18a086: Preparing
21def73698d6: Preparing
21def73698d6: Pushed
8ba9f690a8ba: Mounted from sanoferrasheed/flask-docker-demo-app
3e607d59ef9f: Mounted from sanoferrasheed/flask-docker-demo-app
1e18e7e1fcc2: Mounted from sanoferrasheed/flask-docker-demo-app
c3a8d593ed24: Mounted from sanoferrasheed/flask-docker-demo-app
```

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



The app is running at the specified port.



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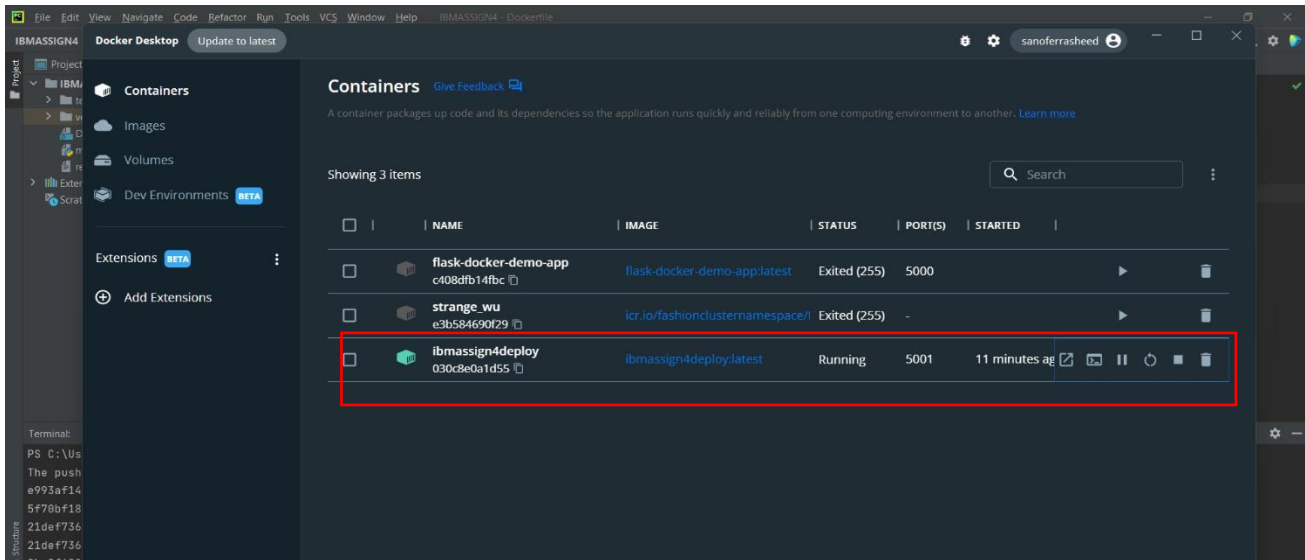
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2. Create a docker file for the application and deploy it in Docker desktop application.

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.



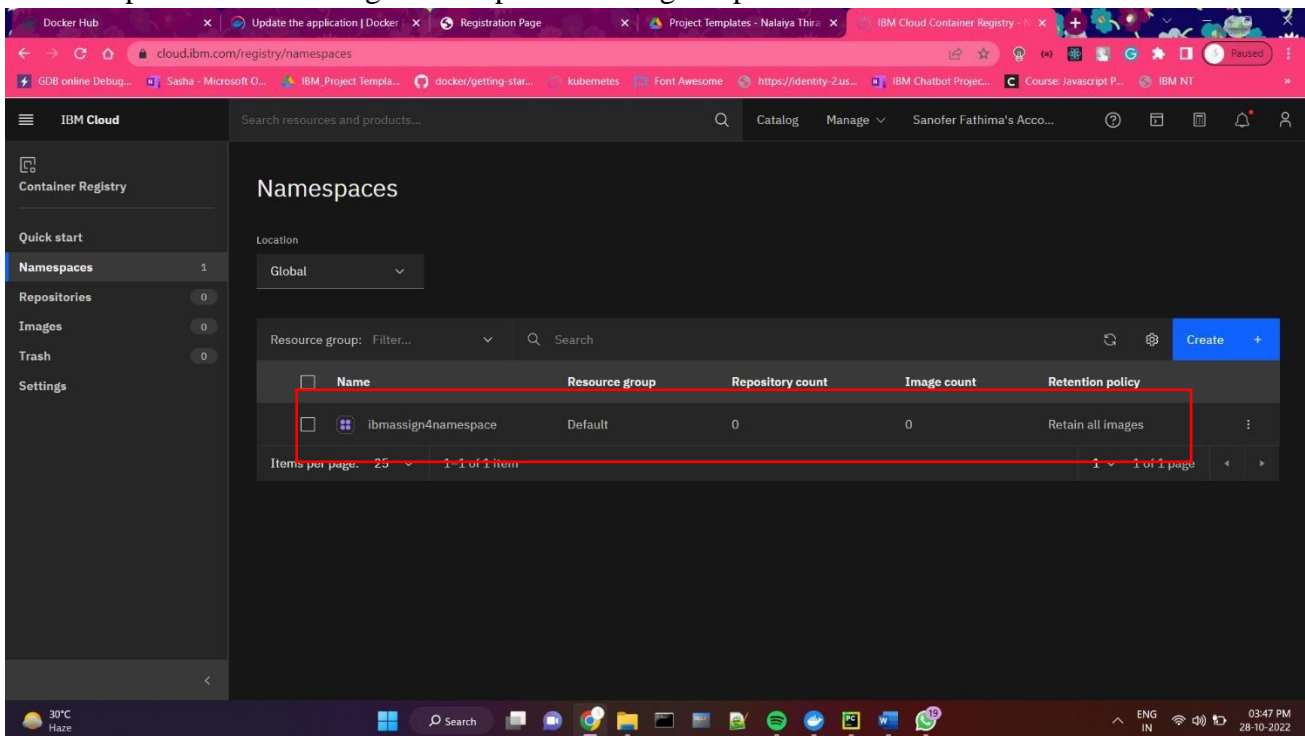
3. Create a IBM container registry and deploy hello world app.

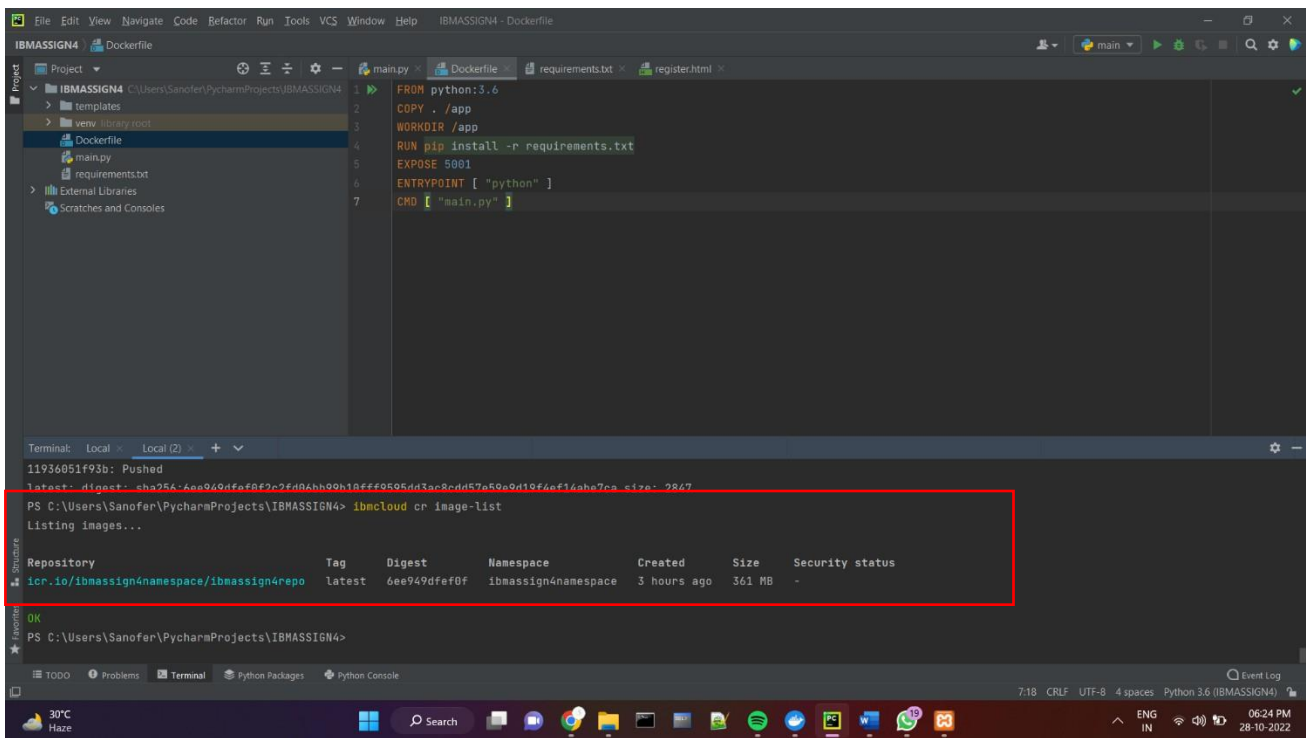
Container registry created using

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

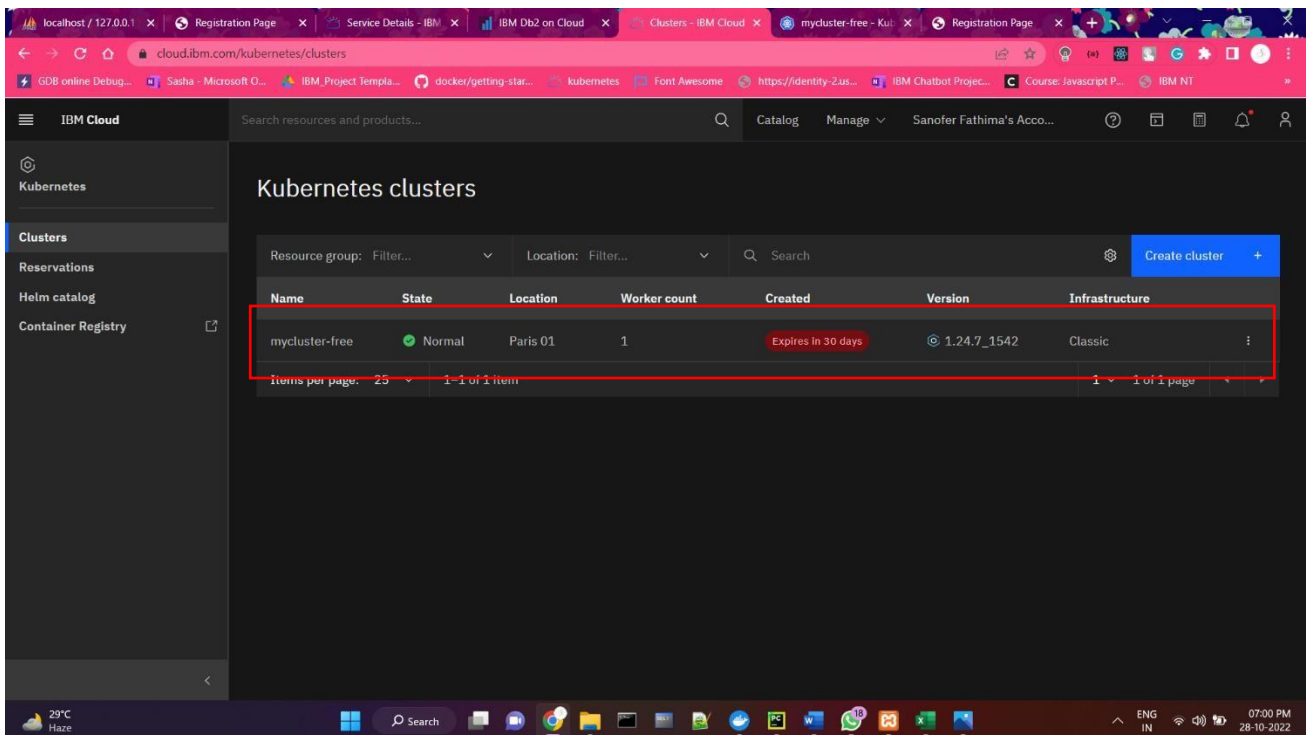
```
icr.io/ibmassign4namespace/ibmassign4repo:latest
```

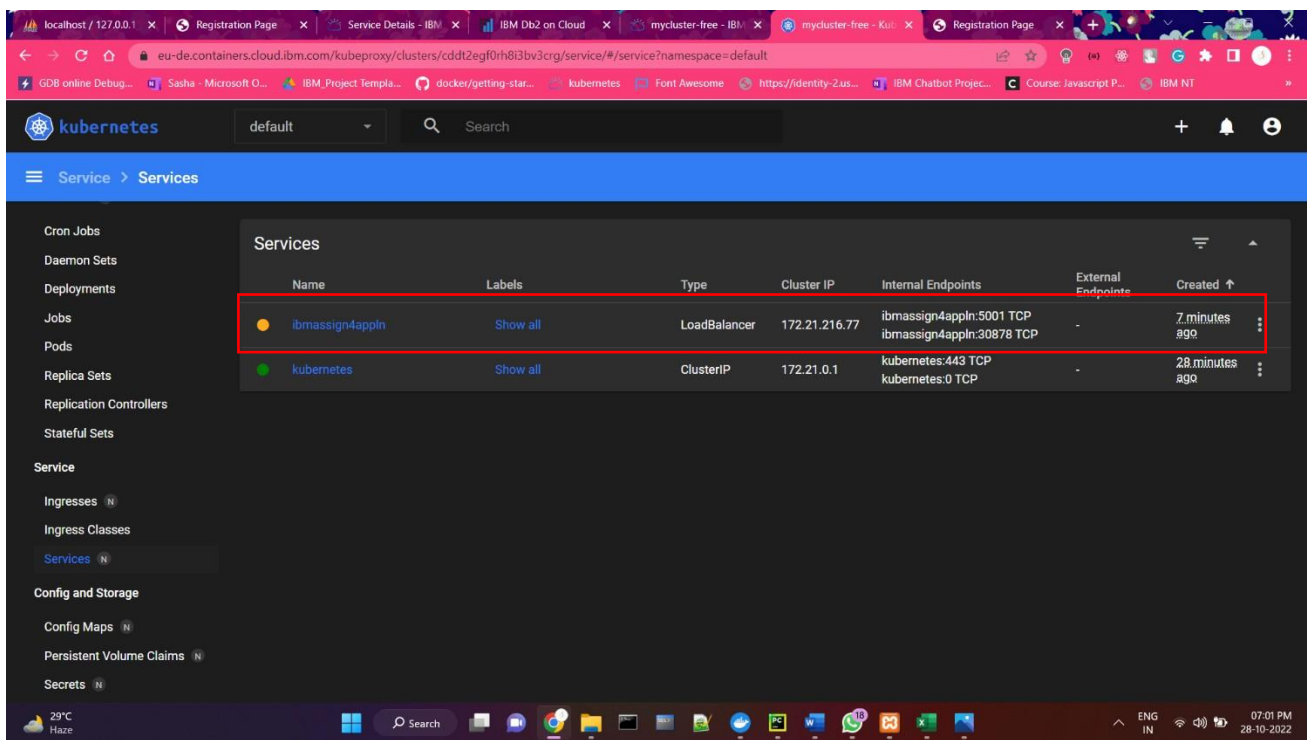
```
> docker push icr.io/ibmassign4namespace/ibmassign4repo:latest
```





Thus, cluster is created.





APP IS LIVE AT <http://159.122.174.152:30878/>