

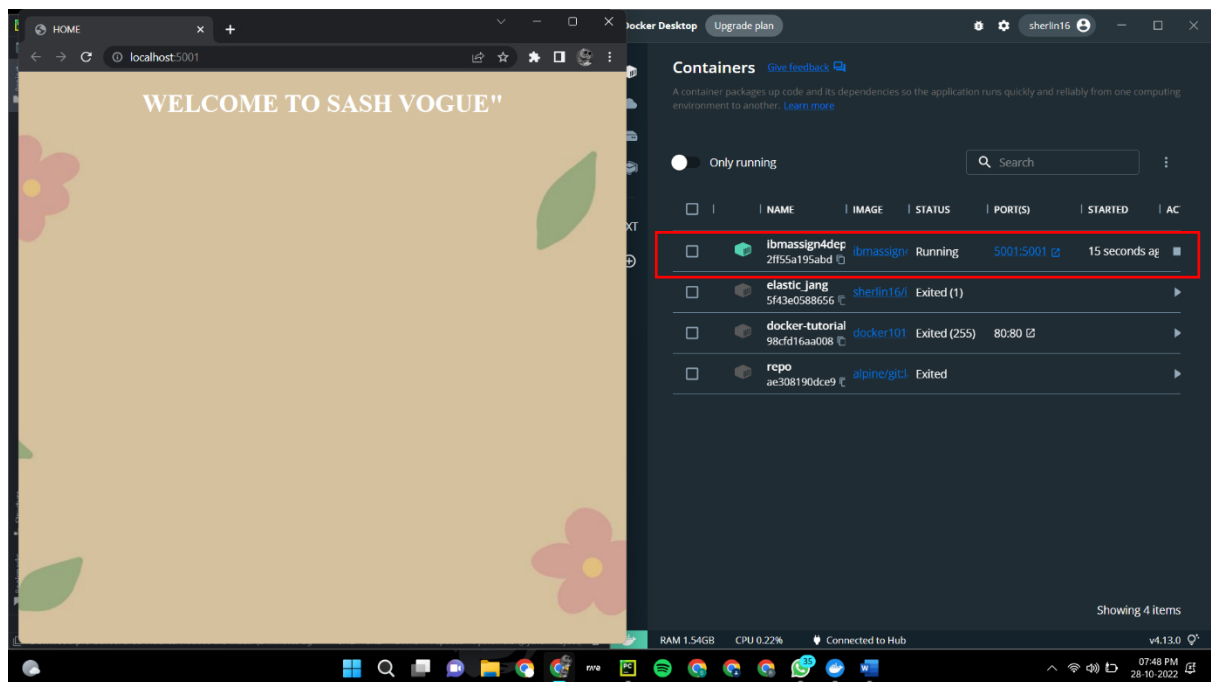
## ASSIGNMENT 4

### CLOUD APPLICATION DEVELOPMENT

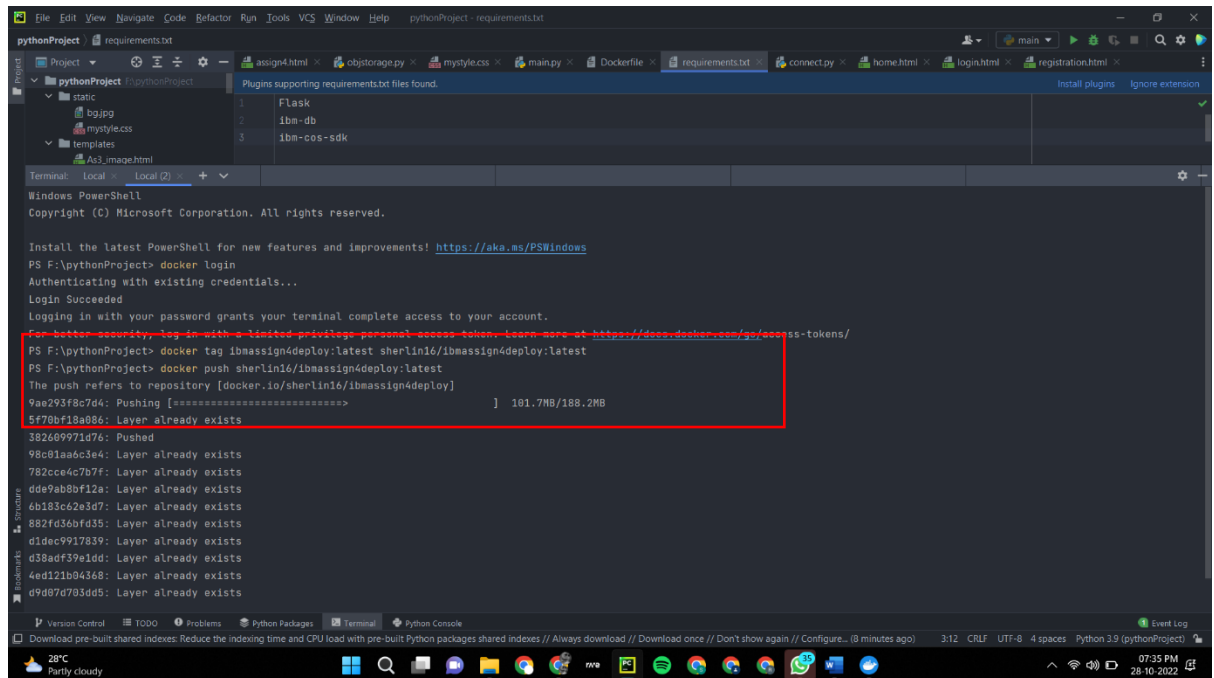
Student Name	Sherlin Retna R
Student Roll Number	813819104091
Maximum Marks	2 Marks

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

The image is built.



The same image is pushed to the docker hub using the command



```
pythonProject - requirements.txt
pythonProject - requirements.txt
Plugins supporting requirements.txt files found.
1 Flask
2 ibm-db
3 ibm-cos-sdk

Terminal: Local - Local (2) -
Windows PowerShell
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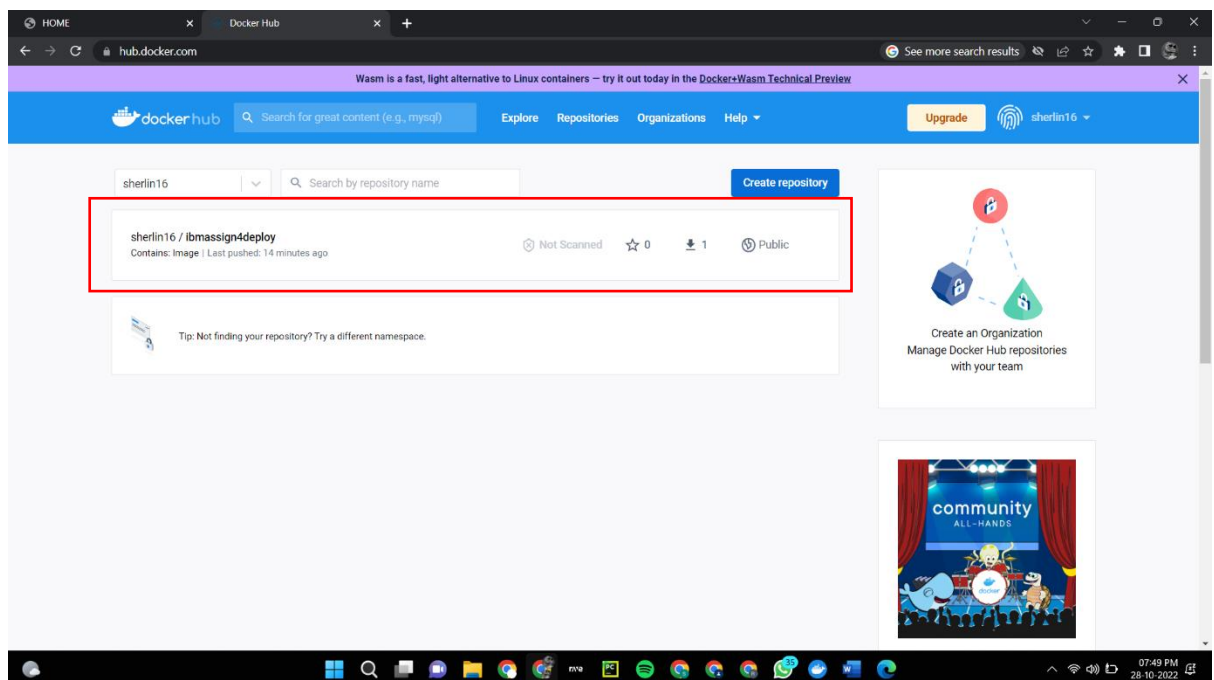
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS F:\pythonProject> docker login
Authenticating with existing credentials...
Login Succeeded
Logging in with your password grants your terminal complete access to your account.

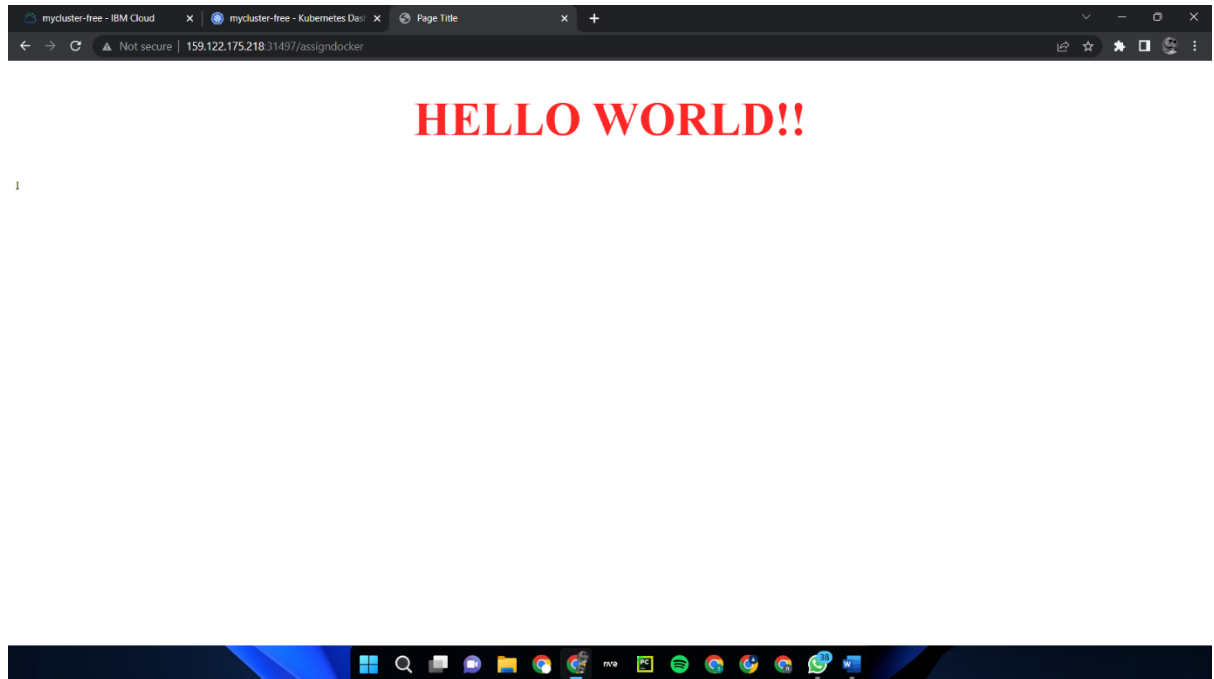
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/oauth-tokens/

PS F:\pythonProject> docker tag ibmassign4deploy:latest sherlin16/ibmassign4deploy:latest
PS F:\pythonProject> docker push sherlin16/ibmassign4deploy:latest
The push refers to repository [docker.io/sherlin16/ibmassign4deploy]
9ae293f8c7d4: Pushing [=====] 101.7MB/188.2MB
5f78bf18a886: Layer already exists
382689971d76: Pushed
98c81aa6c3e4: Layer already exists
782cce4c7b7f: Layer already exists
dde9ab8bf12a: Layer already exists
6b183c62a3d7: Layer already exists
882fd36bfd35: Layer already exists
d1dc9917839: Layer already exists
d38adf39e1dd: Layer already exists
4ed121b94368: Layer already exists
d9d87d783dd5: Layer already exists
```

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



The app is running at the specified port.

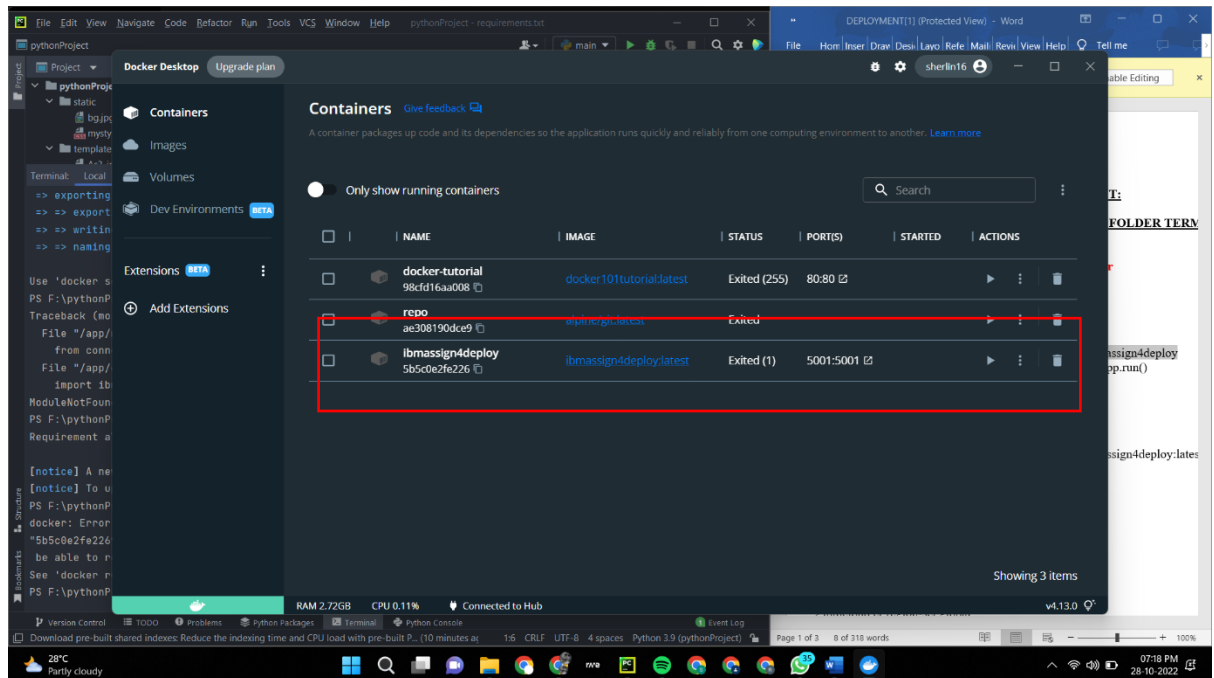


2. Create a docker file for the application and deploy it in the Docker desktop application

Dockerfile:

```
FROM python:3.9
COPY . /app
WORKDIR /app
RUN pip install -r requirements.txt
EXPOSE 5001
ENTRYPOINT [ "python" ]
CMD [ "main.py" ]
```

Thus, the docker file is created and deployed in the docker desktop

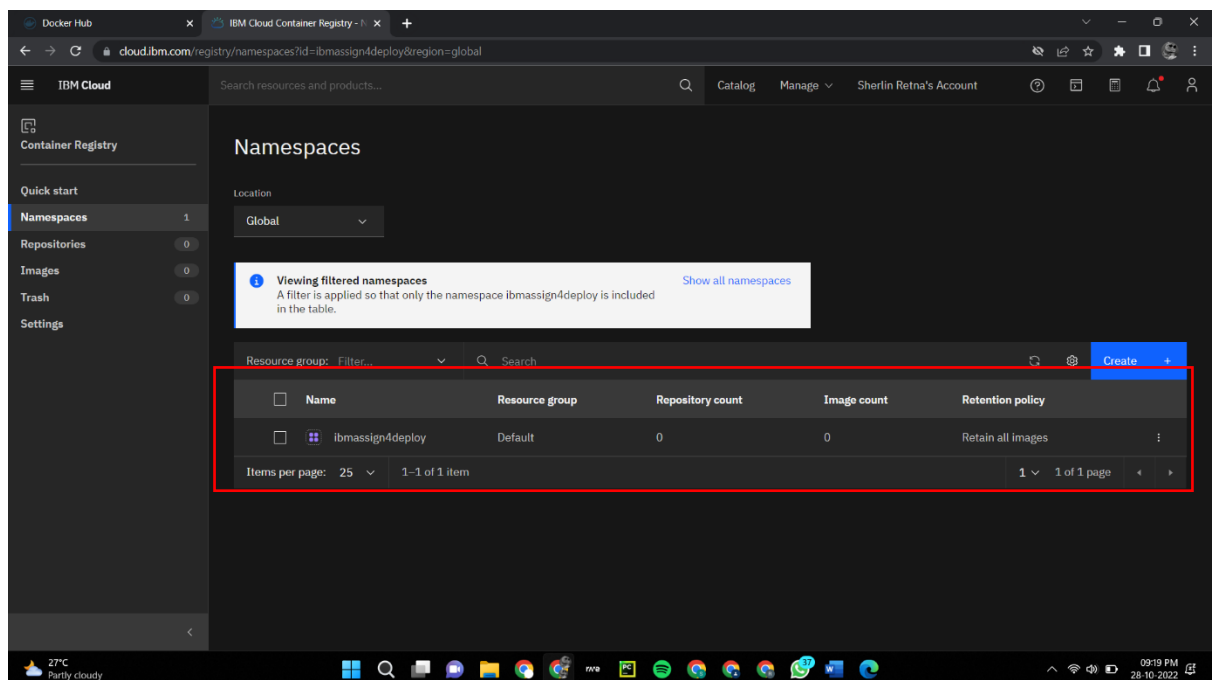


3. Create an IBM container registry and deploy the hello world app. Container registry created using

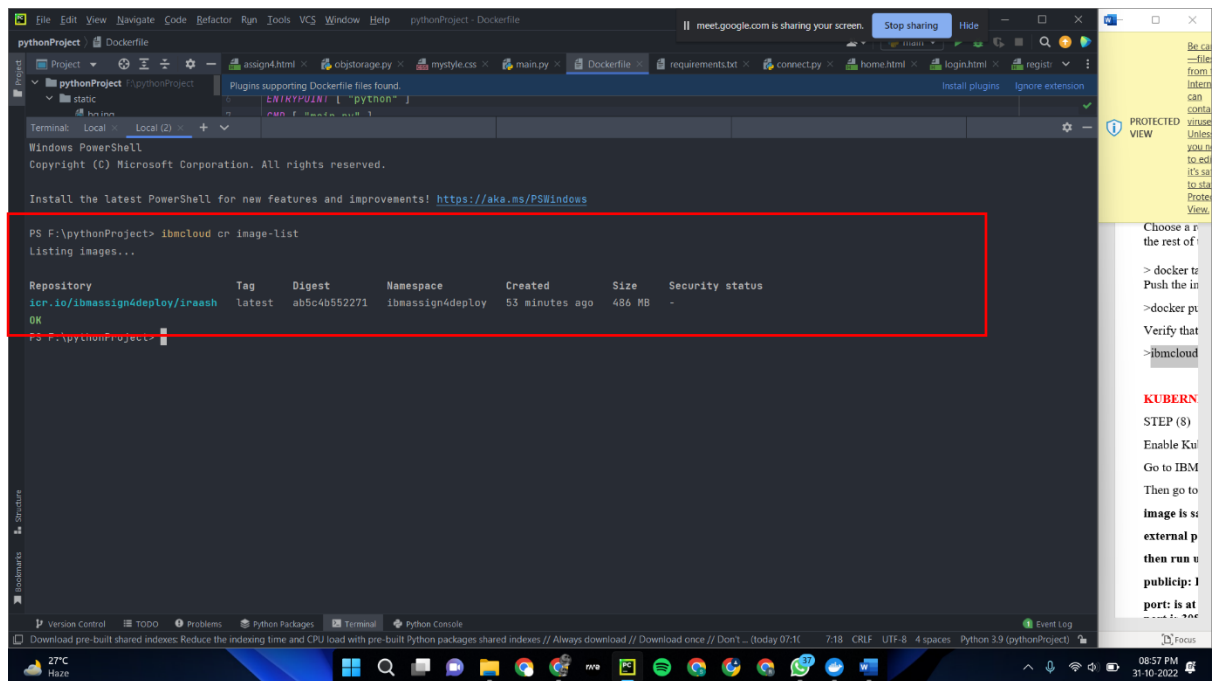
> docker tag sherlin16/ibmassign4deploy:latest

icr.io/ibmassign4deploy/iraash:latest

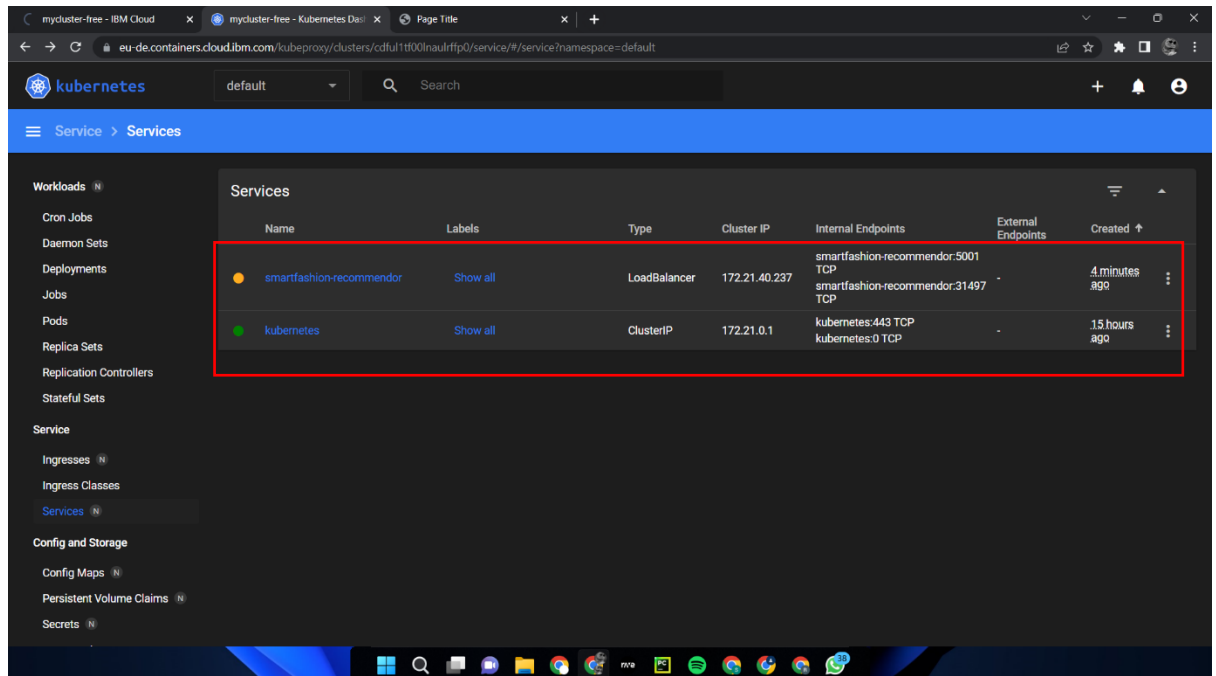
> docker push icr.io/ibmassign4deploy/iraash:latest



Thus, images in container registry are listed



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



APP IS LIVE AT: <http://159.122.175.218:31497/assigndocker>

