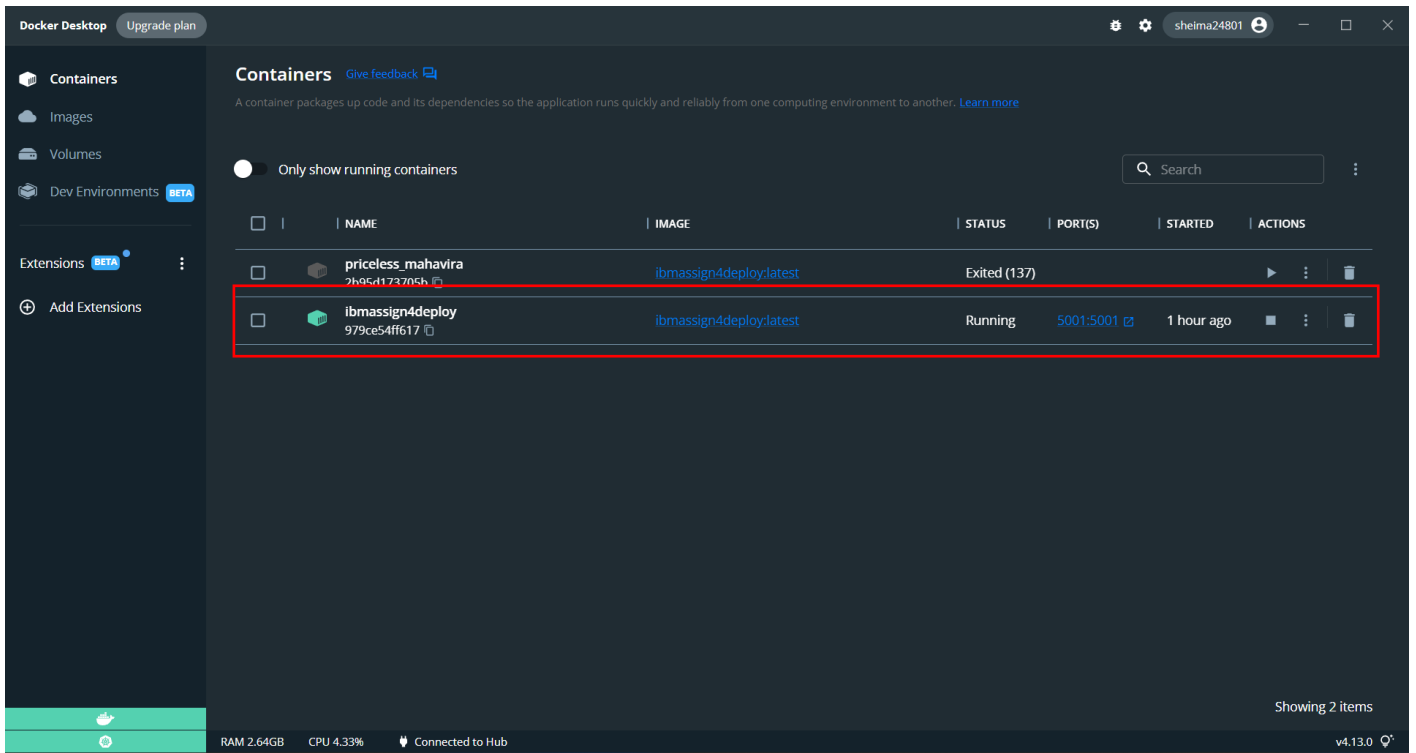


## ASSIGNMENT 4

### CLOUD APPLICATION DEVELOPMENT

Student Name	Sheima Latha. J
Student Roll Number	813819104090
Maximum Marks	2 Marks

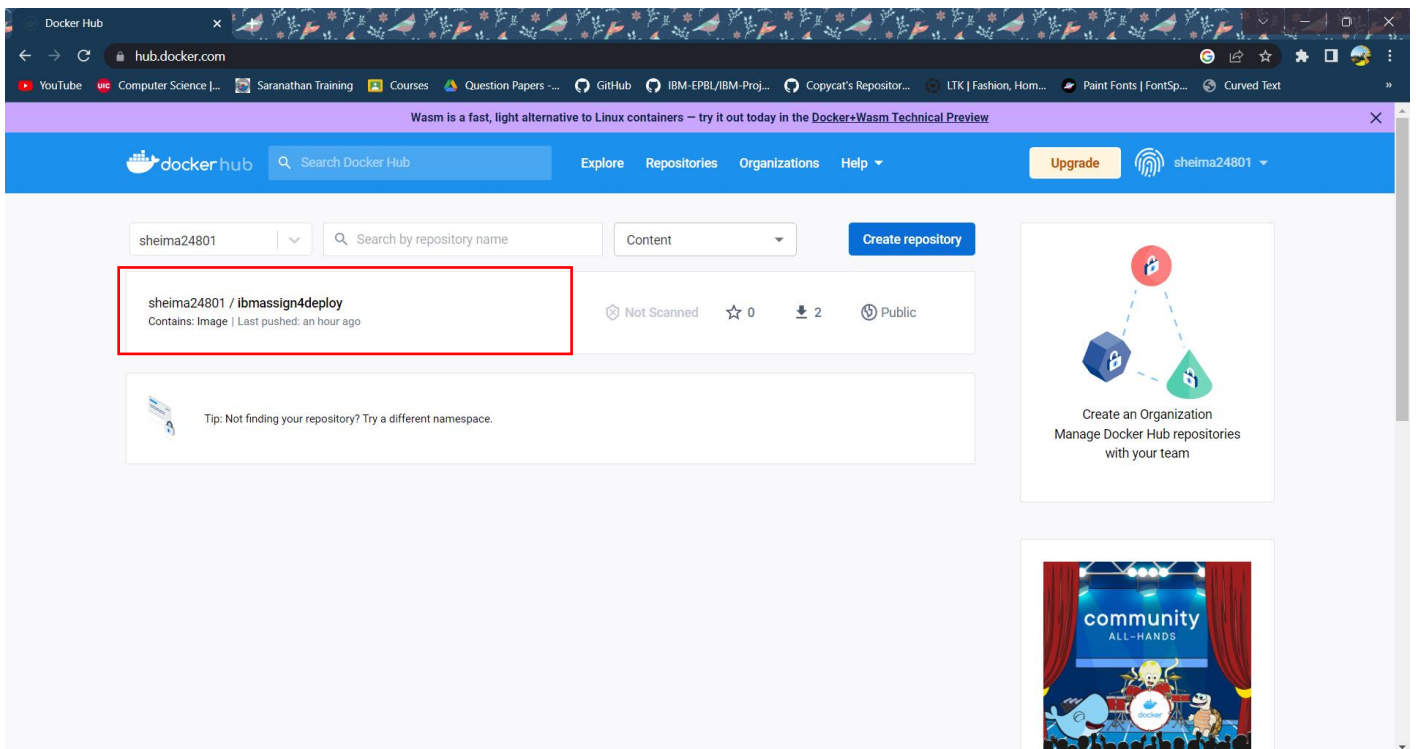
#### 1. Pull an Image from docker hub and run it in docker playground.

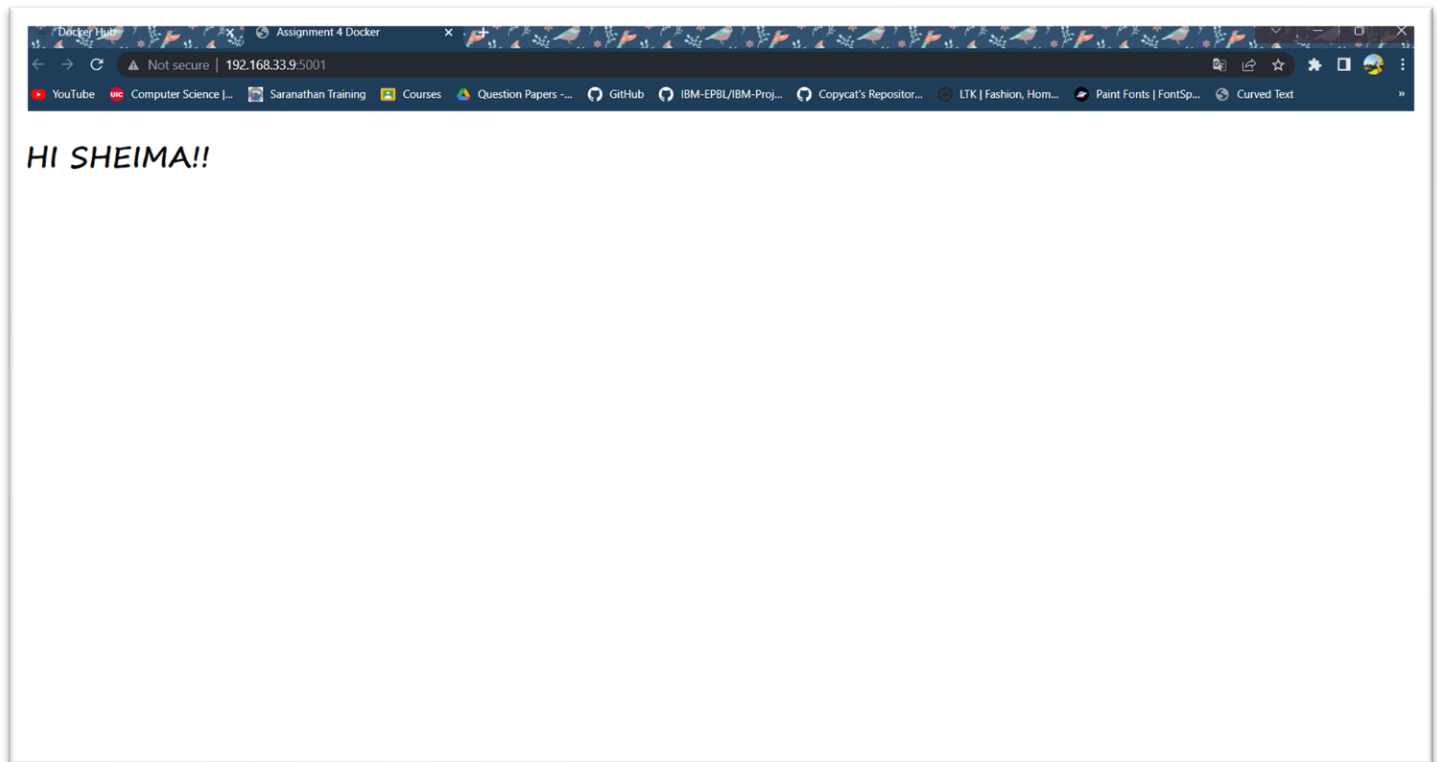


The same image is pushed to docker hub using the command:  
`docker push sheima24801/ibmassign4deploy:latest`

```
flaskass4 - Dockerfile
flaskass4
Project
  flaskass4
    templates
    home.html
    venv
      library root
      Dockerfile
      main.py
      requirements.txt
    External Libraries
main.py
home.html
Dockerfile
requirements.txt
1 FROM python:3.9
2 COPY . /app
3 WORKDIR /app
4 RUN pip install -r requirements.txt
5 EXPOSE 5001
6 ENTRYPOINT [ "python" ]
7 CMD [ "main.py" ]
Terminal
Local
Local (2)
(venv) PS C:\Users\HP\PycharmProjects\flaskass4> docker run --name ibmassign4deploy -p 5001:5001 ibmassign4deploy
docker: Error response from daemon: Conflict. The container name "/ibmassign4deploy" is already in use by container "979ce54ff617ce9c4a6467f3e52ec77b70b840ba0f74a58a79f5966694e7592b".
You have to remove (or rename) that container to be able to reuse that name.
See 'docker run --help'.
(venv) PS C:\Users\HP\PycharmProjects\flaskass4> docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: sheima24801
Password:
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/access-tokens/
(venv) PS C:\Users\HP\PycharmProjects\flaskass4> docker tag ibmassign4deploy:latest sheima24801/ibmassign4deploy:latest
(venv) PS C:\Users\HP\PycharmProjects\flaskass4> docker push sheima24801/ibmassign4deploy:latest
The push refers to repository [docker.io/sheima24801/ibmassign4deploy]
3efa6580bbe0: Layer already exists
5f70bf18a086: Layer already exists
263c6e8917c: Layer already exists
98c01aa6c3e4: Layer already exists
782cce4c7b7f: Layer already exists
dde9ab8bf12a: Layer already exists
6b183c62e3d7: Layer already exists
Version Control Python Packages TODO Python Console Problems Terminal Services
Download pre-built shared indexes: Reduce the indexing time and CPU load with pre-built Python packages shared indexes // Always download // Download once // Don't show again // Configure... (54 minutes ago) 7-18 CRLF UTF-8 4 spaces Python 3.6 (flaskass4)
```

## In Docker Hubs:

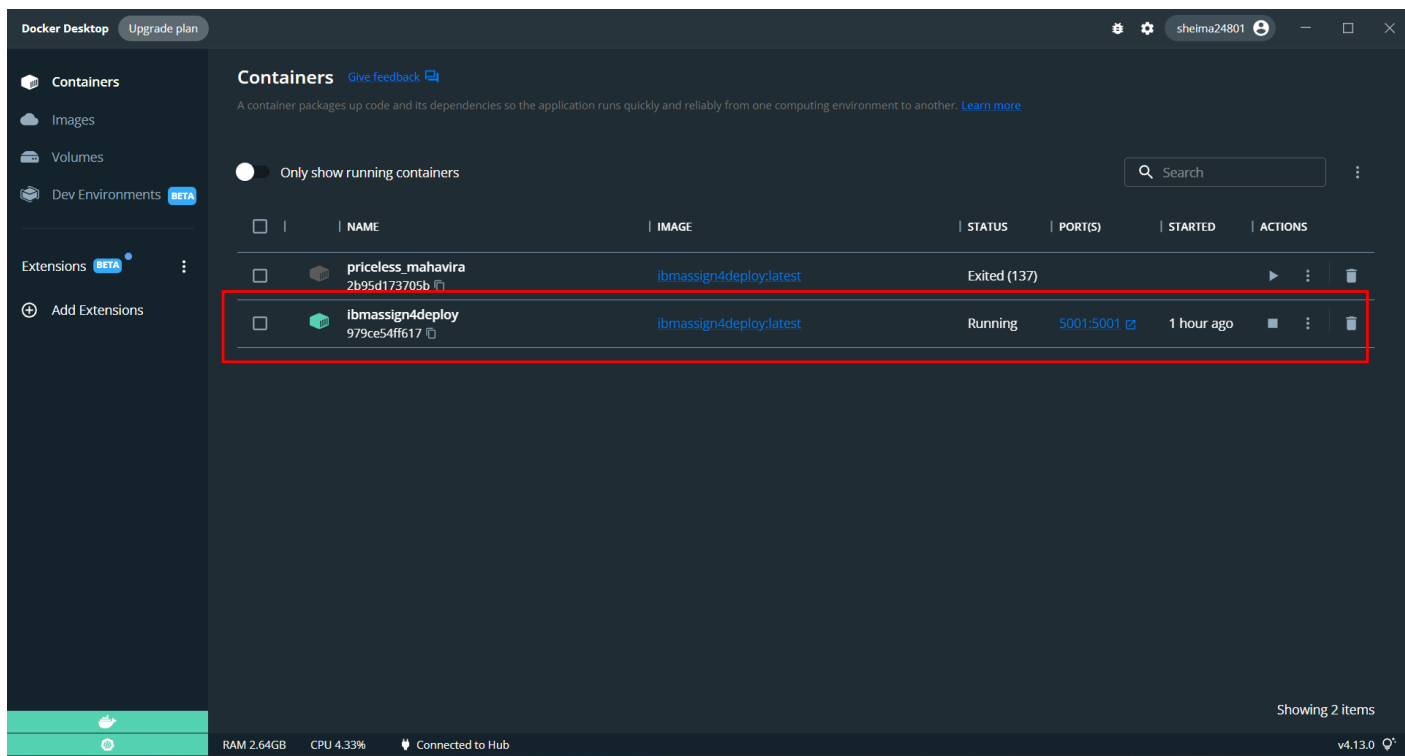




**2. Create a docker file for the hello world application and deploy it in Docker desktop application.**

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

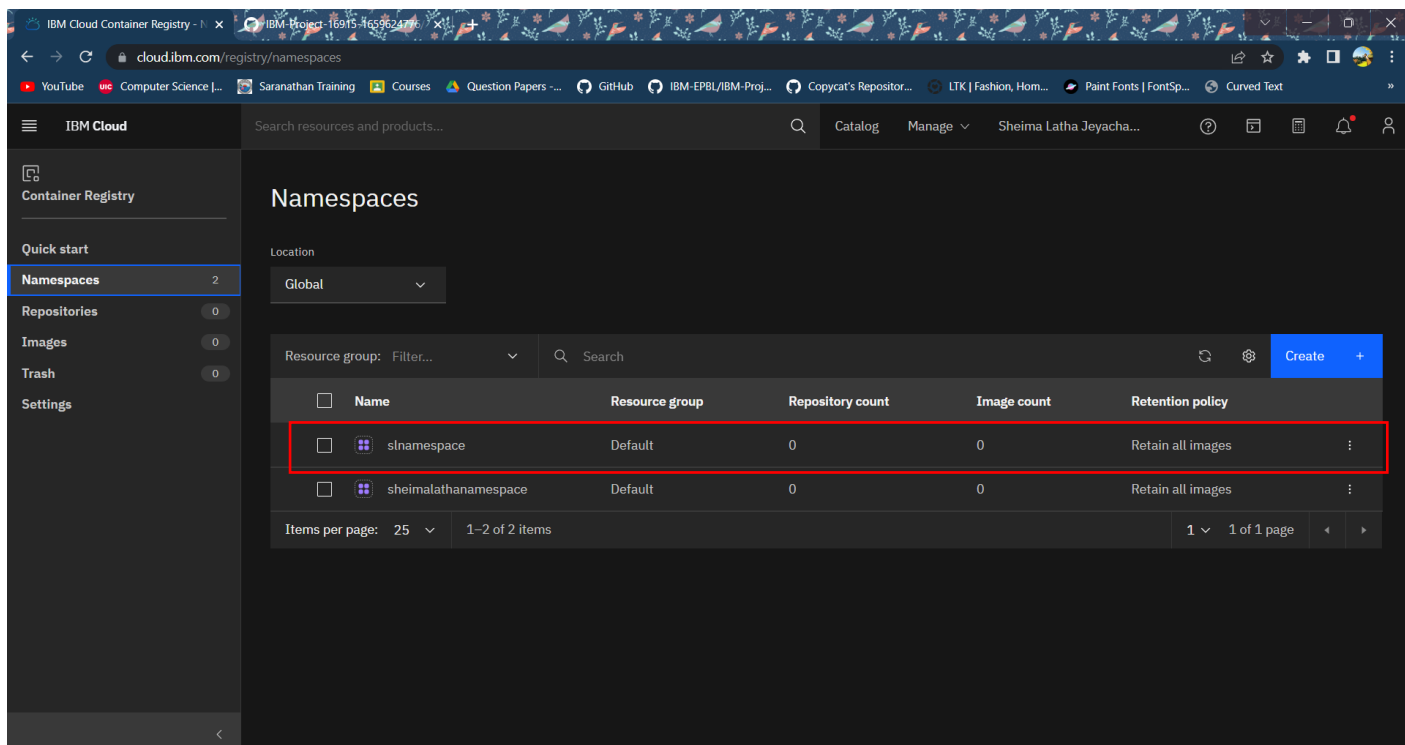
Thus, docker file created and deployed in docker desktop.



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

Commands:

- `docker tag ibmassign4deploy:latest sheima24801/ibmassign4deploy:latest`
- `docker push sheima24801/ibmassign4deploy:latest`



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.

