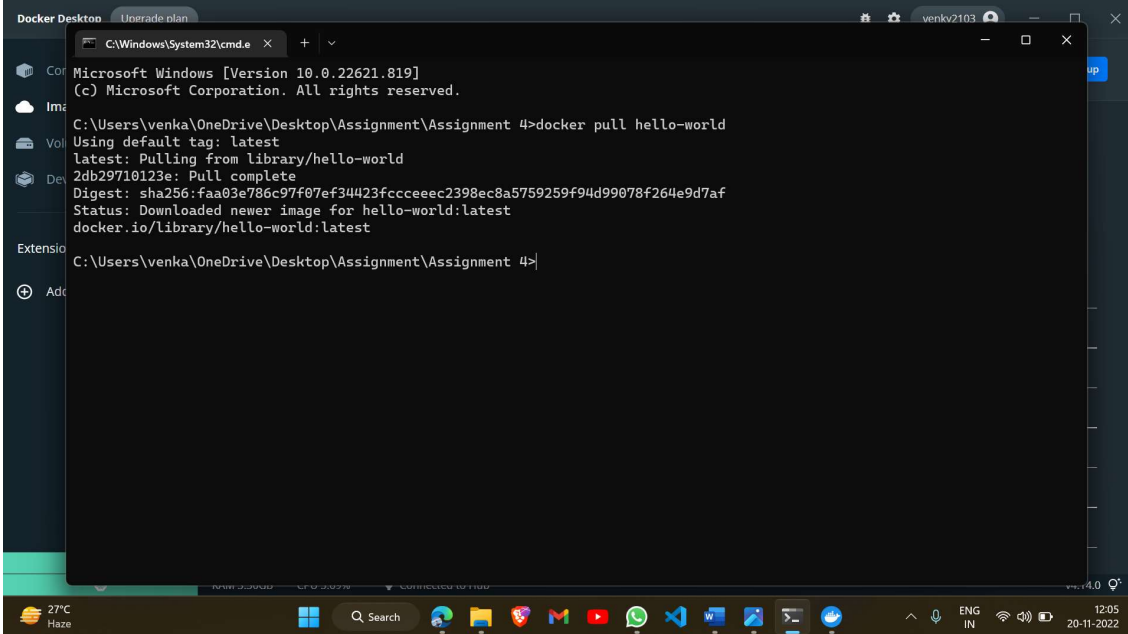


Assignment 4

Kubernetes / Docker

1. Pull an image from docker hub



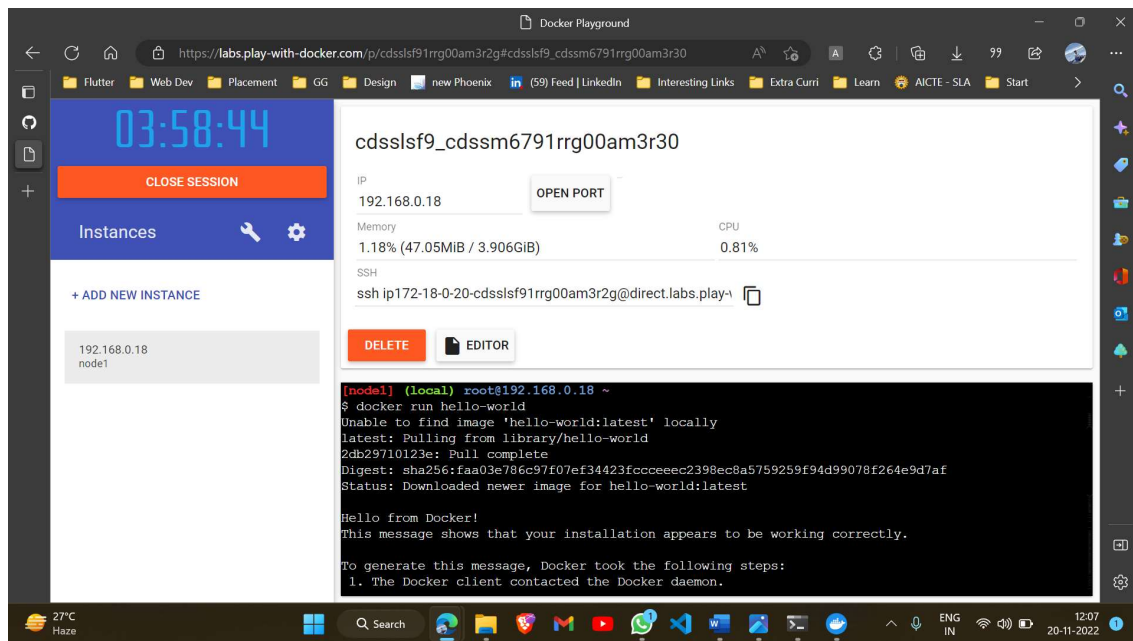
The screenshot shows the Docker Desktop application window. On the left is a sidebar with icons for Containers, Images, Volumes, and Extensions. The main area is a terminal window titled 'C:\Windows\System32\cmd.exe'. The terminal output shows the command 'docker pull hello-world' being executed, which pulls the 'hello-world:latest' image from Docker Hub. The output includes the digest 'sha256:faa03e786c97f07ef34423fccccceec2398ec8a5759259f94d99078f264e9d7af' and the status 'Downloaded newer image for hello-world:latest'. The terminal window is open at the path 'C:\Users\venka\OneDrive\Desktop\Assignment\Assignment 4>'. The Windows taskbar at the bottom shows the date and time as 12:05 on 20-11-2022.

```
Microsoft Windows [Version 10.0.22621.819]
(c) Microsoft Corporation. All rights reserved.

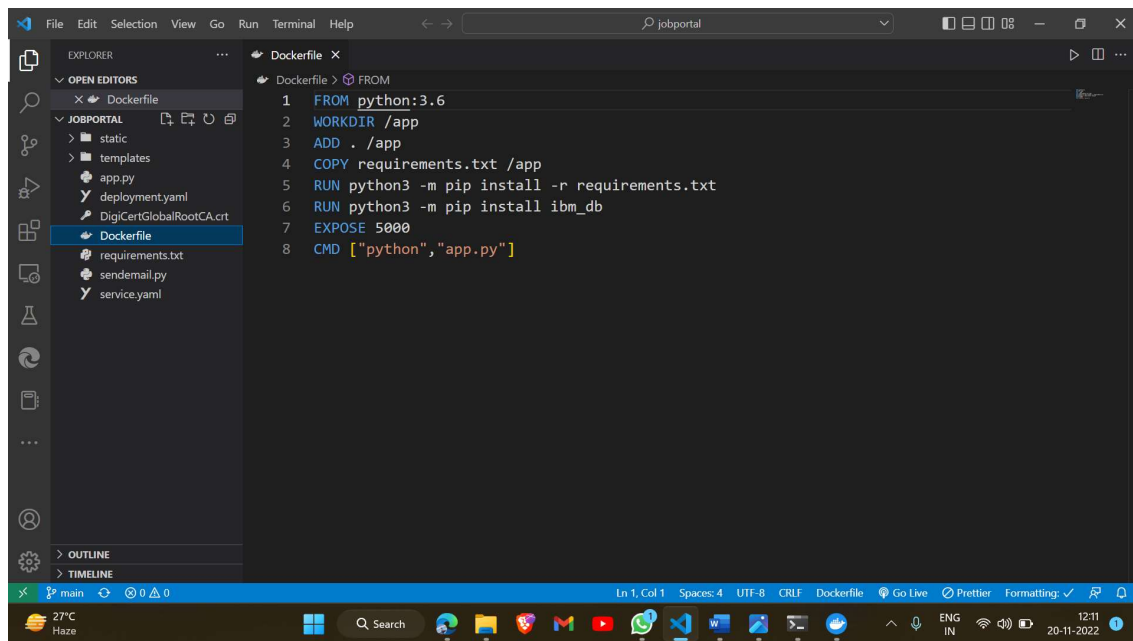
C:\Users\venka\OneDrive\Desktop\Assignment\Assignment 4>docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:faa03e786c97f07ef34423fccccceec2398ec8a5759259f94d99078f264e9d7af
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest

C:\Users\venka\OneDrive\Desktop\Assignment\Assignment 4>
```

Run in docker playground



2. Create a docker file for the jobportal application



Deploy it in docker application

```
C:\Users\venka\OneDrive\Desktop\Assignment 4\jobportal>docker build -t jobportal .
[*] Building 1246.0s (13/13) FINISHED
=> [internal] load build definition from Dockerfile                                0.1s
=> => transferring dockerfile: 229B                                              0.0s
=> [internal] load .dockerignore                                                  0.1s
=> => transferring context: 2B                                                  0.0s
=> [internal] load metadata for docker.io/library/python:3.6                    6.3s
=> [auth] library/python:pull token for registry-1.docker.io                   0.0s
=> [1/6] FROM docker.io/library/python:3.6@sha256:f8652afaf88c25f0d22354d547d892591067aa4026a7fa9a6819df9f300af6 668.8s
=> resolve docker.io/library/python:3.6@sha256:f8652afaf88c25f0d22354d547d892591067aa4026a7fa9a6819df9f300af6 0.2s
=> sha256:d097a4907a8ec079df5ac31872359c2de510f82214c0448e926393b376d3b60d 2.22kB / 2.22kB 0.0s
=> sha256:f8652afaf88c25f0d22354d547d892591067aa4026a7fa9a6819df9f300af6fc 1.86kB / 1.86kB 0.0s
=> sha256:54260638d07c5e3ad24c6e21fc889abbc8486a27634c0892086ff71f3f44b104 9.27kB / 9.27kB 0.0s
=> sha256:0e29546d541cddb309281d21a73a9d1db78665c1b95b74f32b009e0b77a6e1e3 54.92MB / 54.92MB 318.4s
=> sha256:cb5b7ae361722f070eca53f35823ed21baa85d61d5d95cd5a95ab53d740cdd56 10.87MB / 10.87MB 53.3s
=> sha256:9b829c73b52b92b97d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd 5.15MB / 5.15MB 28.7s
=> sha256:6094e4811622b31c027ccac322ca463937fd805f569a93e6f15c01aade718793 54.57MB / 54.57MB 355.5s
=> sha256:6f9f74896d4fa93fe0172f594faba85e0b4e8a0481a0fef9112efc7e4d3c78f7 196.51MB / 196.51MB 642.9s
=> sha256:5e3b1213efc56598e78bd602983945c164de2a37205e06a62dada823124dc743 6.29MB / 6.29MB 360.7s
=> extracting sha256:0e29546d541cddb309281d21a73a9d1db78665c1b95b74f32b009e0b77a6e1e3 6.3s
=> extracting sha256:9b829c73b52b92b97d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd 0.6s
=> extracting sha256:cb5b7ae361722f070eca53f35823ed21baa85d61d5d95cd5a95ab53d740cdd56 0.5s
=> sha256:9fddfdc56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd96752 14.21MB / 14.21MB 419.3s
=> extracting sha256:6494e4811622b31c027ccac322ca463937fd805f569a93e6f15c01aade718793 5.5s
=> sha256:404f02044bac0432ca522cbb9f254b1c91fcea6806bfeef0be8b243b2f31bab7 235B / 235B 361.4s
=> sha256:c4f42be2be53b900ebffc040c1df13de538434ccc5f5d954a56848a6169a3a3f 2.21MB / 2.21MB 374.6s
=> extracting sha256:6f9f74896d4fa93fe0172f594faba85e0b4e8a0481a0fef9112efc7e4d3c78f7 21.4s
=> extracting sha256:5e3b1213efc56598e78bd602983945c164de2a37205e06a62dada823124dc743 1.0s
=> extracting sha256:9fddfdc56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd96752 0.9s
```

Containers

Images

Volumes

Dev Environments BETA

Extensions BETA

Add Extensions

Images on disk

Last refresh: Never 15 images Refresh to see disk usage Clean up

Images

LOCAL

REMOTE REPOSITORIES

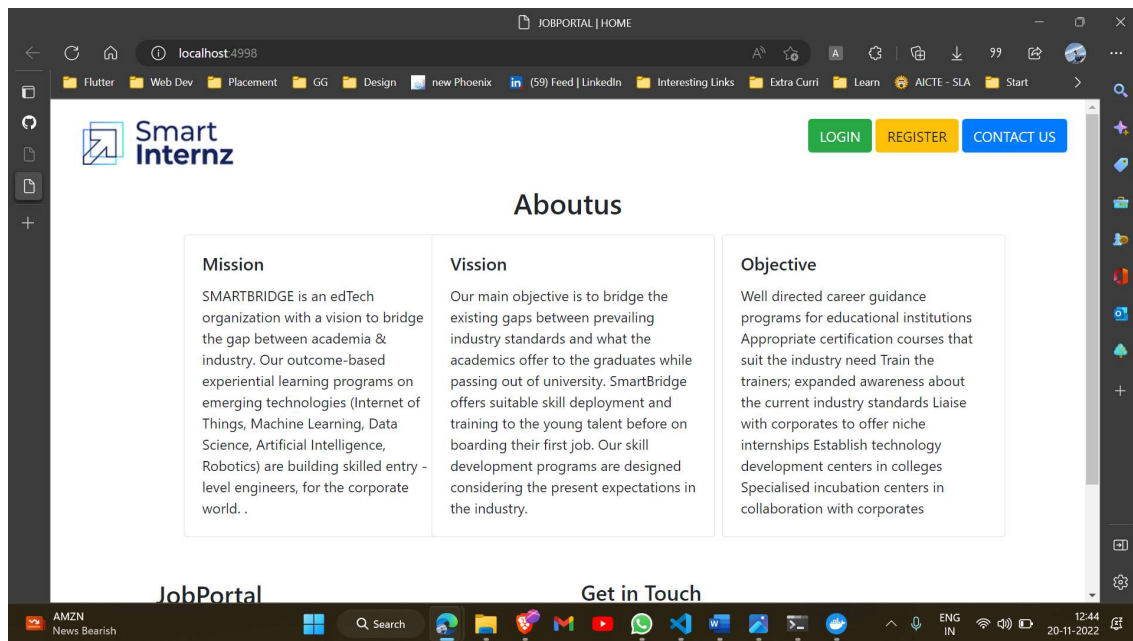
docker/desktop-vpnkit...	v2.0	8c2c38aa676e	over 1 year ago	21.03 MB
hello-world	latest	feb5d9fea6a5	about 1 year ago	13.26 KB
hubproxy.docker.inter...	kubernetes-v1.25...	09d7e1dbc2c4	about 2 months ago	363.32 MB
jobportal	latest	834e9e5976b1	less than a minute ago	1.08 GB ⋮ RUN ▶
k8s.gcr.io/coredns	v1.9.3	5185b96f0bec	6 months ago	48.8 MB
k8s.gcr.io/etcd	3.5.4-0	a8a176a5d5d6	6 months ago	299.52 MB
k8s.gcr.io/kube-apiser...	v1.25.2	97801f839490	about 2 months ago	127.73 MB
k8s.gcr.io/kube-contro...	v1.25.2	dbfceb93c69b	about 2 months ago	117.1 MB
k8s.gcr.io/kube-proxy	v1.25.2	1c7d8c51823b	about 2 months ago	61.69 MB

RAM 3.40GB

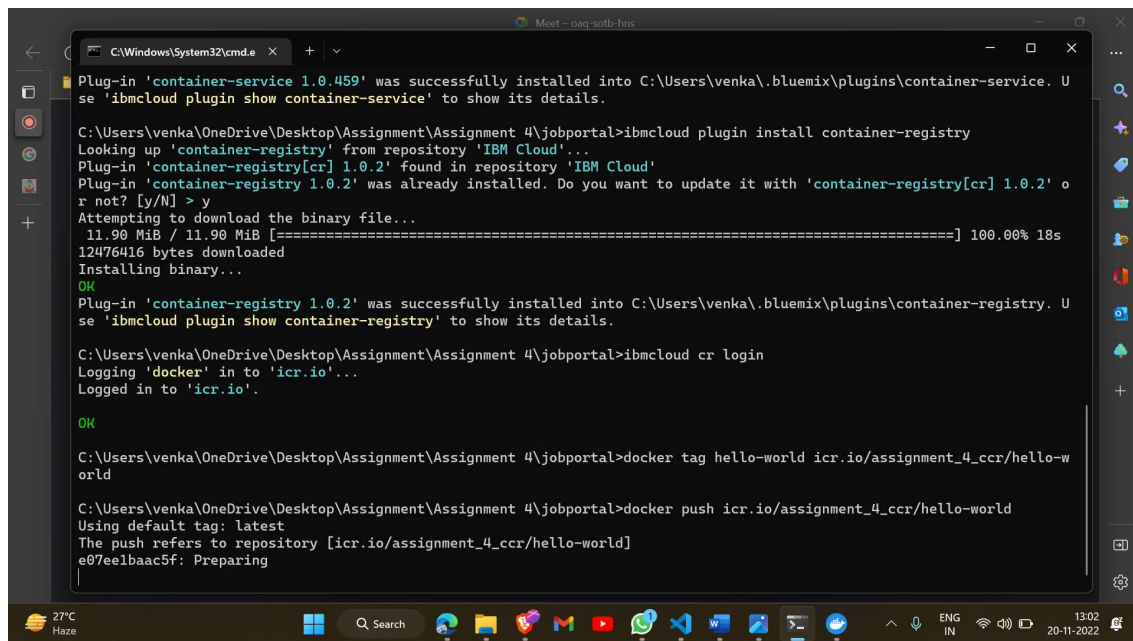
CPU 3.36%

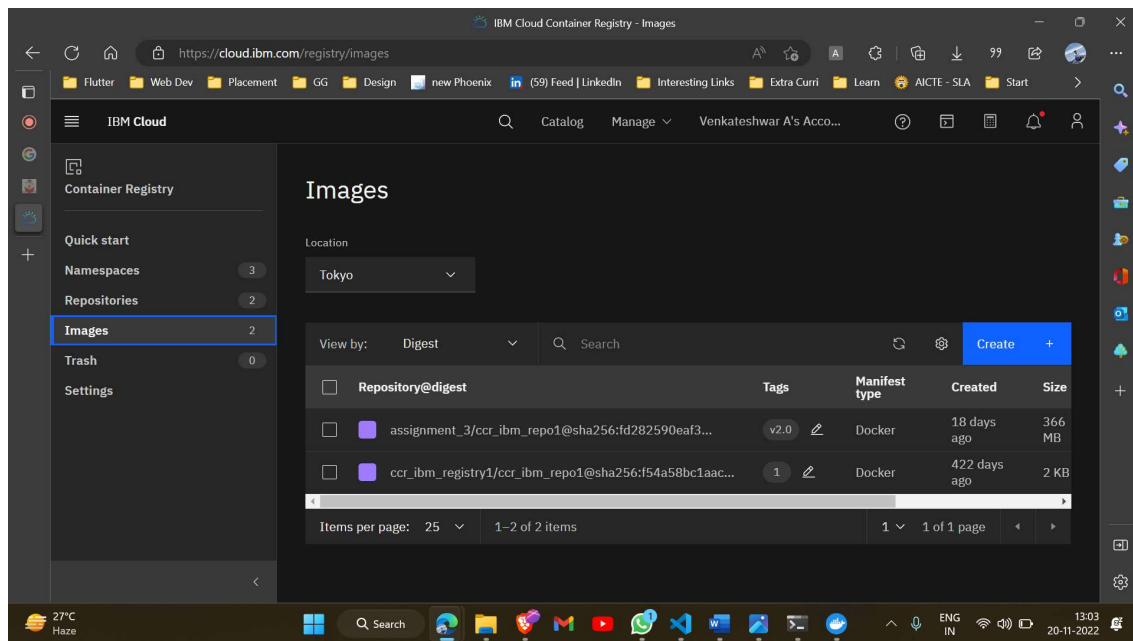
Connected to Hub

v4.14.0



3. Create a IBM container registry and deploy helloworld app





4. Create a Kubernetes cluster in IBM Cloud and deploy helloworld images and also expose the same app to run in nodeport

