

## ASSIGNMENT 4

**NAME:** B.AISHWARYA

**REGISTER NUMBER:** 311519104006

**PROJECT TOPIC:** CUSTOMER CARE REGISTRY

**COLLEGE NAME:** MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE

**TEAM NUMBER:** PNT2022TMID27825

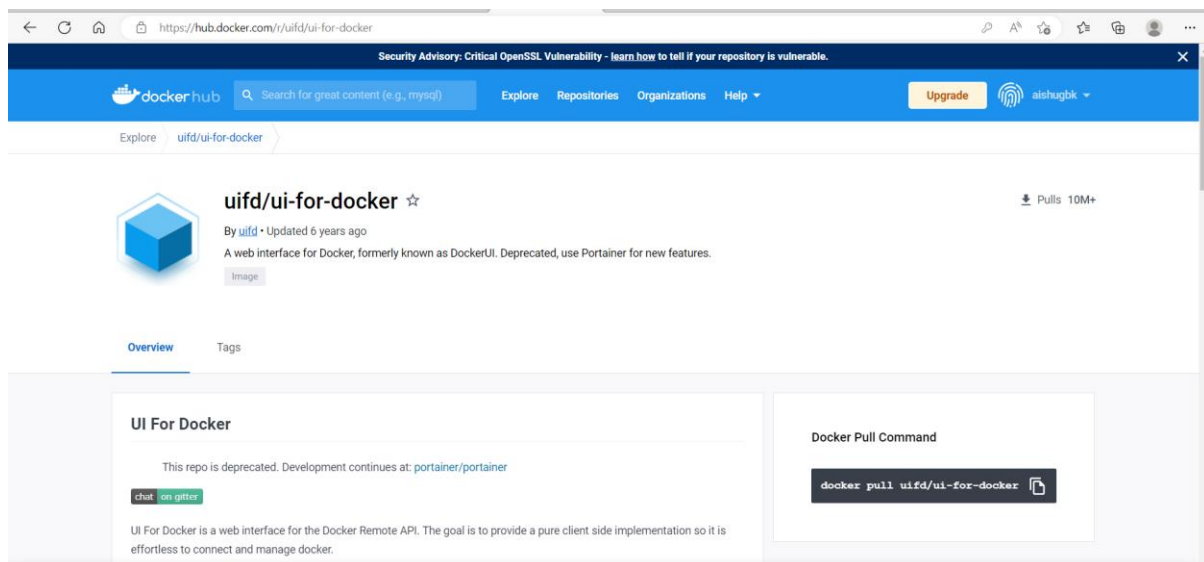
### 1) Pull an image from docker hub and run it in docker playground

#### COMMANDS:

```
docker pull uifd/ui-for-docker
```

```
docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock  
uifd/ui-for-docker
```

#### OUTPUT:



← ↻ 🏠 <https://hub.docker.com/r/uifd/ui-for-docker> 🔍 📌 ⭐ 📄 👤 ⋮

## UI For Docker

This repo is deprecated. Development continues at: [portainer/portainer](#)

[chat](#) [on gitter](#)

UI For Docker is a web interface for the Docker Remote API. The goal is to provide a pure client side implementation so it is effortless to connect and manage docker.

### Goals

- Minimal dependencies - I really want to keep this project a pure html/js app.
- Consistency - The web UI should be consistent with the commands found on the docker CLI.

### Quickstart

- Run `docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker`
- Open your browser to `http://<dockerd host ip>:9000`

Bind mounting the Unix socket into the UI For Docker container is much more secure than exposing your docker daemon over TCP. The `--privileged` flag is required for hosts using SELinux. You should still secure your UI For Docker instance behind some type of auth. Directions for using Nginx auth are [here](#).

### Specify socket to connect to Docker daemon

By default UI For Docker connects to the Docker daemon with `/var/run/docker.sock`. For this to work you need to bind mount the unix socket into the container with `-v /var/run/docker.sock:/var/run/docker.sock`.



### Docker Pull Command

```
docker pull uifd/ui-for-docker
```

← ↻ 🏠 [https://labs.play-with-docker.com/p/cdf9n463tccg00elot40#cdf9n463\\_cdf9n5u3tccg00elot4g](https://labs.play-with-docker.com/p/cdf9n463tccg00elot40#cdf9n463_cdf9n5u3tccg00elot4g) 🔍 📌 ⭐ 📄 👤 ⋮

03:57:53

CLOSE SESSION

Instances  

+ ADD NEW INSTANCE

192.168.0.18  
node1

### cdf9n463\_cdf9n5u3tccg00elot4g

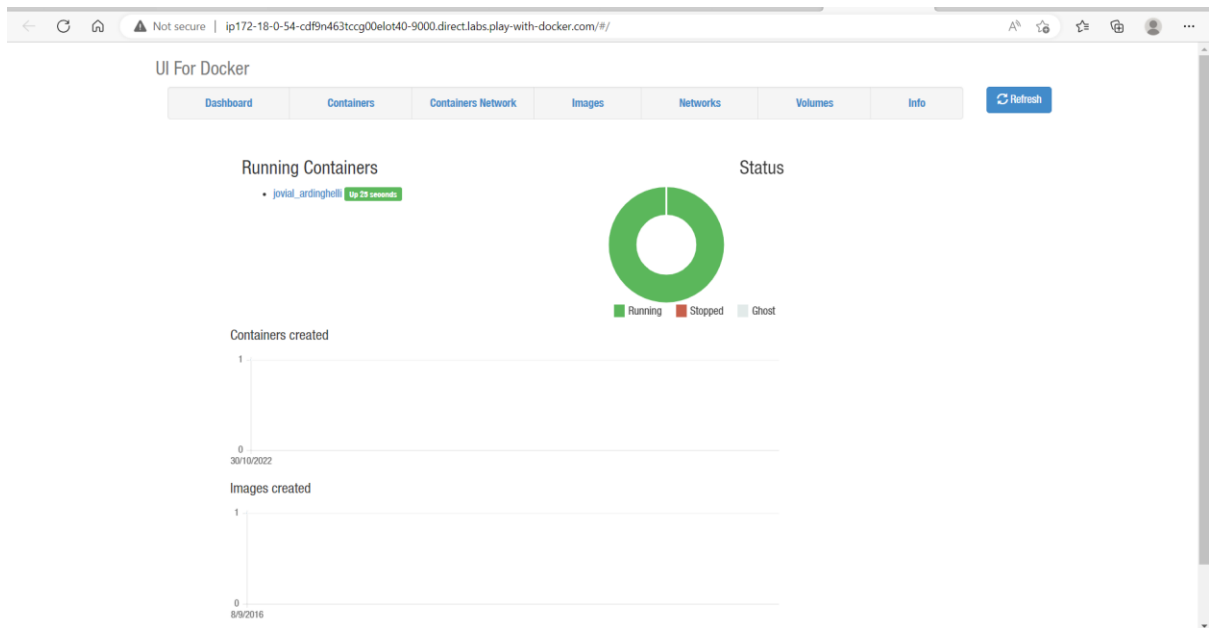
IP: 192.168.0.18 OPEN PORT 9000

Memory: 1.62% (64.86MiB / 3.906GiB) CPU: 0.57%

SSH: ssh ip172-18-0-54-cdf9n463tccg00elot40@direct.labs.play-📄

DELETE EDITOR

```
##### WARNING!!!! #####
# This is a sandbox environment. Using personal credentials
# is HIGHLY discouraged. Any consequences of doing so are
# completely the user's responsibilities.
#
# The FWD team.
#####
(node1) (local) root@192.168.0.18 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
941194d080c8: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
(node1) (local) root@192.168.0.18 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
7394248022b09682f204d4a31bf69638accd0566c0914dea6f29bf05c00f93c2
(node1) (local) root@192.168.0.18 ~
$
```



## 2) Create a docker file for the job portal application and deploy it in Docker desktop application

### COMMANDS:

`docker build -t jp1 .`

`docker run -p 5000:5000 jp1`

### OUTPUT:

```
Select C:\Windows\System32\cmd.exe - docker run -p 5000:5000 jp1
C:\Users\Akshayra\spyder-py3\job-portal>docker build -t jp1 .
[*] Building 301.5s (11/11) FINISHED
-> [internal] load build definition from Dockerfile                                0.7s
-> => transferring dockerfile: 32B                                                0.0s
-> [internal] load .dockerignore                                                  0.3s
-> => transferring context: 2B                                                    0.0s
-> [internal] load metadata for docker.io/library/python:3.10                  3.1s
-> => transferring context: 11.22kB                                               0.5s
-> [1/6] FROM docker.io/library/python:3.10@sha256:a368af37ef8dda4b4d8e379e356f6ec67475d4fab95efca4c1884952b85  0.1s
-> CACHED [2/6] WORKDIR /app                                                    0.0s
-> => ADD . /app                                                                0.0s
-> [4/6] COPY requirements.txt /app                                              1.2s
-> [5/6] RUN python -m pip install -r requirements.txt                         265.4s
-> [6/6] RUN python -m pip install flask_db                                    0.0s
-> => exporting layers                                                            18.5s
-> => writing image sha256:1db7da07c0d67979eada68435e0cd79ada43e2a9519cc8532413654f69f8e473 13.6s
-> => naming to docker.io/library/jp1                                           1.0s
-> => 0.4s
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

C:\Users\Akshayra\spyder-py3\job-portal>docker run -p 5000:5000 jp1
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://172.17.0.1:5000
* Running on http://172.17.0.2:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 917-176-492
172.17.0.1 - - [30/Oct/2022 16:07:26] "GET / HTTP/1.1" 404 -
172.17.0.1 - - [30/Oct/2022 16:07:31] "GET /register HTTP/1.1" 200 -
172.17.0.1 - - [30/Oct/2022 16:10:30] "GET /register HTTP/1.1" 200 -
```

← ↻ 🏠 ⓘ localhost:5000/register

### REGISTRATION FORM

NAME : \* Sameera

EMAIL-ID : \* sameera@gmail.com

MOBILE NUMBER : \* 8770912345

USERNAME : \* sameera@gmail.com

PASSWORD : \* \*\*\*\*\* 🔍

CREATE ACCOUNT

← ↻ 🏠 🔒 https://bpe61bfd0365e9u4psdglite.db2.cloud.ibm.com/cm%3A%1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2F39612149d7c1402cabdcd61efa... ⌵ 🔍 ⚙️ ☆ 📄 👤 ...

IBM Db2 on Cloud 🔔 👤

☰ Load Data Load History **Tables** Views Indexes Aliases MQTs Sequences Application objects

🔍

SQL

🔧

🔗

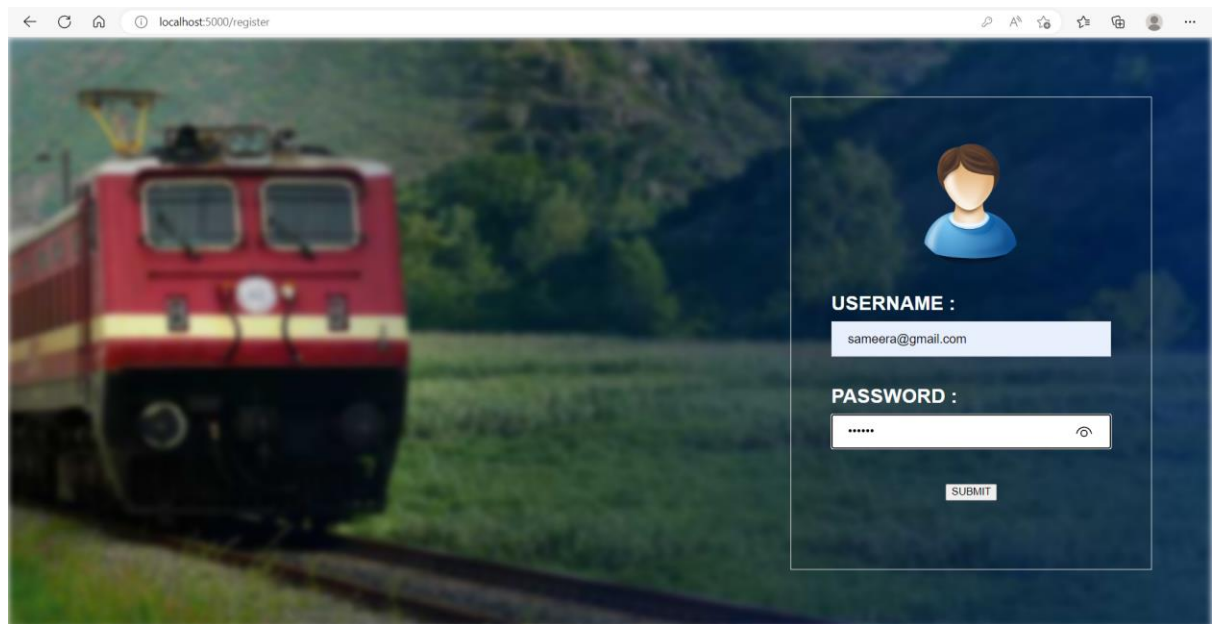
📄

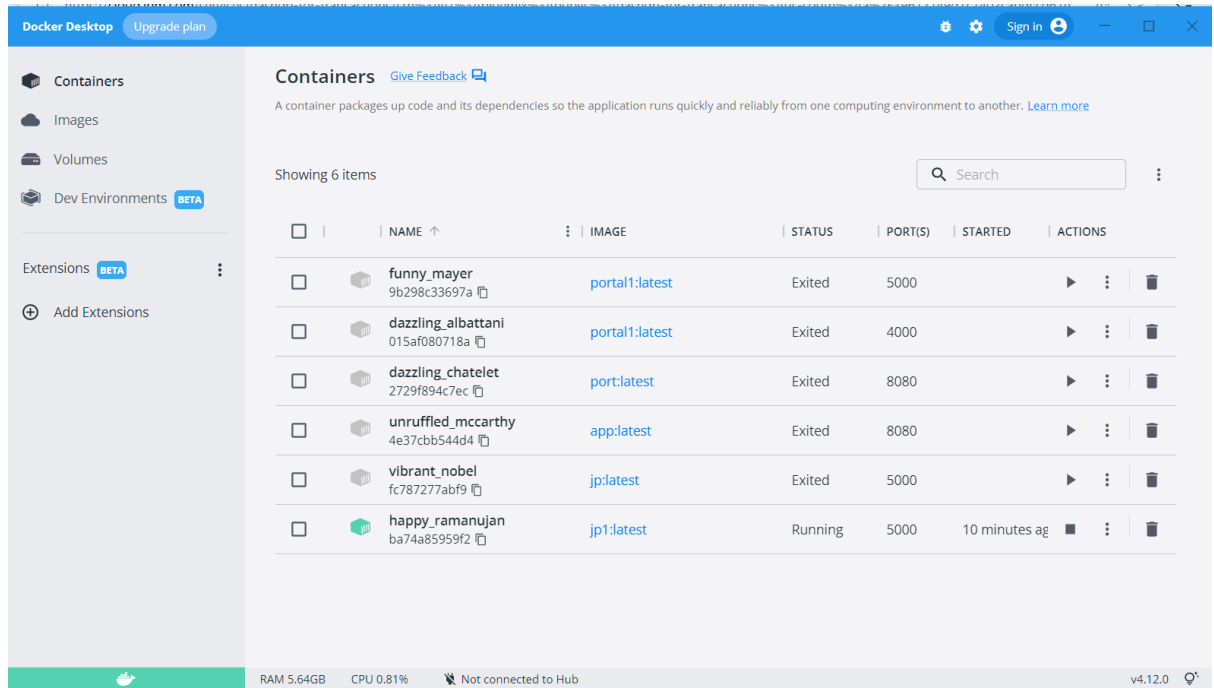
💡

GGT91193.REGISTER Back

🗑️ Export to CSV ⬇️

NAME	EMAIL	MOBNO	UNAME	PASS
Padma	padhu@gmail.com	9765432100	padhu@12	padma@12
Priya	priya@gmail.com	9877564321	priya@12	priya@12
Radha	radhakrish@gmail.com	9841010108	radkrish@gmail.com	Radha@12
Rukmini	ruks@gmail.com	8870912345	ruk@12	Ruk@kris
Sameera	sameera@gmail.com	8770912345	sameera@gmail.com	Sam123
Sheela	sheela@gmail.com	9888888888	iam@sheela	Sheela@1
Shriya	shri@gmail.com	7777777777	shriya@12	shriya@1
abc	abc@123	9339348238	abc@12	abcdefgh
abcd	abcd@gmail.com	9800000000	abcd@gmail.com	Abcd@123





### 3) Create an IBM Container registry and deploy helloworld app or jobportalapp

#### JOB-PORTAL-APP:

```

Command Prompt
Authenticating...
OK
Targeted account Aishwarya B's Account (39612149d7c1402cabdcd61efac4435)

API endpoint: https://cloud.ibm.com
Region: us-south
User: 311519104006@smartintrnz.com
Account: Aishwarya B's Account (39612149d7c1402cabdcd61efac4435)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

C:\Users\Akshwarya>ibmcloud cr login
Logging 'docker' in to 'au.icr.io'...
Logged in to 'au.icr.io'.

OK

C:\Users\Akshwarya>docker push au.icr.io/jpapp/rep01:jpapplatest
The push refers to repository [au.icr.io/jpapp/rep01]
848973eaa72c: Pushed
875c3fd72253: Pushed
76025884cfd0: Pushed
f2939f19badd: Pushed
aec753ddd83a: Pushed
f5d161bba139: Pushed
1569e0d95ce6: Pushed
d9e08da15d0c: Pushed
6b183c62e3d7: Pushed
882fd36bfd35: Pushed
d1dec9917839: Pushed
d38adf39e1dd: Pushed
4ed121b04368: Pushed
d9d07d703dd5: Pushed
jpapplatest: digest: sha256:6f4eb46cbd82b126771051a7915c8f41324c611a97857a6a82a9f450c25ec7f0 size: 3259

C:\Users\Akshwarya>

```

IBM Cloud

Container Registry

Quick start

Namespaces1

Repositories1

Images1

Trash0

Settings

Search resources and products...

QCatalogManageAishwarya B's Account

## Namespaces

Location

Sydney

Resource group: Filter...SearchCreate

<input type="checkbox"/>	Name	Resource group	Repository count	Image count	Retention policy	
<input checked="" type="checkbox"/>	jpapp	Default	1	1	Retain all images	

Items per page: 251-1 of 1 item11 of 1 page

IBM Cloud

Container Registry

Quick start

Namespaces1

Repositories1

Images1

Trash0

Settings

Search resources and products...

QCatalogManageAishwarya B's Account

## Repositories

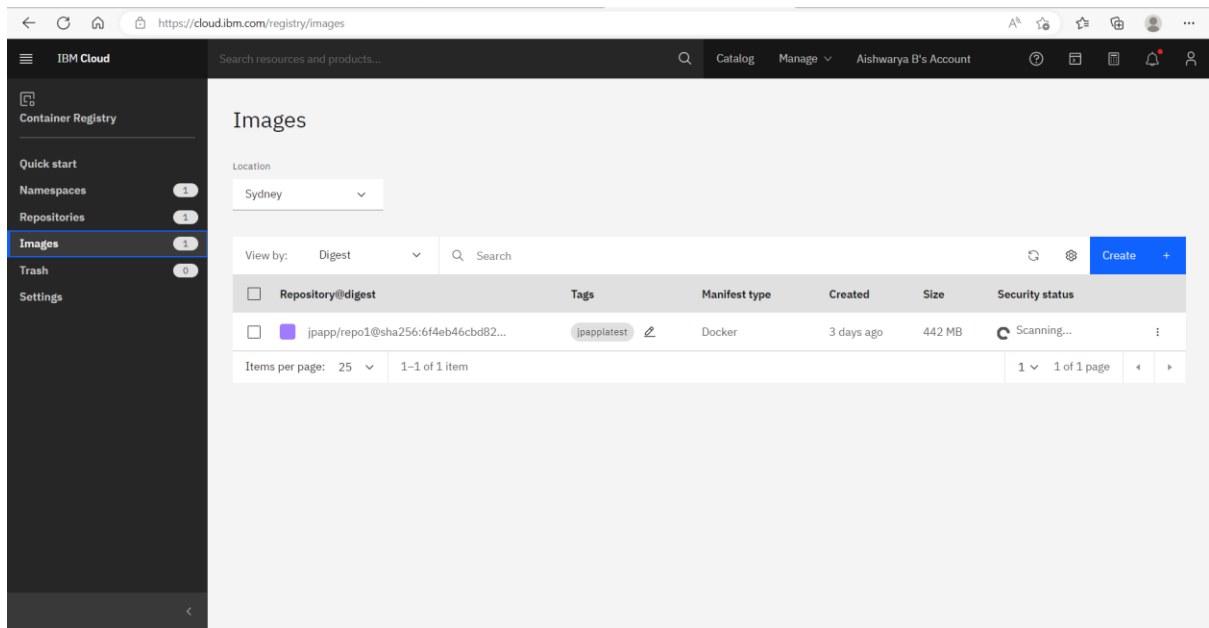
Location

Sydney

SearchCreate

<input type="checkbox"/>	Name	Image count	Namespace	Last updated	
<input checked="" type="checkbox"/>	repo1 bu.lcc.io/jpapp/repo1	1	jpapp	3 days ago	

Items per page: 251-1 of 1 item11 of 1 page



```
Command Prompt

User: 311519104006@smartinternz.com
Account: Aishwarya B's Account (39612149d7c1402cabdccc61efac4435)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

C:\Users\Akshwarya>ibmcloud cr login
Logging 'docker' in to 'au.icr.io'...
Logged in to 'au.icr.io'.

OK

C:\Users\Akshwarya>docker push au.icr.io/jpapp/rep01:jpapplatest
The push refers to repository [au.icr.io/jpapp/rep01]
848973eaa72c: Pushed
875c3fdf2253: Pushed
76025884cfd0: Pushed
f2939f19badd: Pushed
aec753ddd83a: Pushed
f5d161bba139: Pushed
1569e0d95ce6: Pushed
49e08da15d0c: Pushed
6b183c62e3d7: Pushed
882fd36bfd35: Pushed
d1dec9917839: Pushed
438adf39e1dd: Pushed
4ed121b04368: Pushed
49d07d703dd5: Pushed
jpapplatest: digest: sha256:6f4eb46cbd82b126771051a7915c8f41324c611a97857a6a82a9f450c25ec7f0 size: 3259

C:\Users\Akshwarya>ibmcloud cr image-list
Listing images...

Repository      Tag      Digest      Namespace   Created    Size    Security status
au.icr.io/jpapp/rep01  jpapplatest  6f4eb46cbd82  jpapp       2 days ago  442 MB  -

OK

C:\Users\Akshwarya>
```



```
Command Prompt
C:\Users\Akshwarya>docker pull au.icr.io/jpapp/rep01
Using default tag: latest
Error response from daemon: manifest for au.icr.io/jpapp/rep01:latest not found: manifest unknown: manifest unknown

C:\Users\Akshwarya>docker pull au.icr.io/jpapp/rep01
Using default tag: latest
Error response from daemon: manifest for au.icr.io/jpapp/rep01:latest not found: manifest unknown: manifest unknown

C:\Users\Akshwarya>docker push au.cr.io/jpapp/rep01
Using default tag: latest
The push refers to repository [au.cr.io/jpapp/rep01]
An image does not exist locally with the tag: au.cr.io/jpapp/rep01

C:\Users\Akshwarya>docker push au.icr.io/jpapp/rep01
Using default tag: latest
The push refers to repository [au.icr.io/jpapp/rep01]
848973eaa72c: Layer already exists
875c3fd2253: Layer already exists
76025884cfd0: Layer already exists
f2939f19badd: Layer already exists
aec753ddd83a: Layer already exists
f5d161bba139: Layer already exists
1569e0d95ce6: Layer already exists
49e08da15d0c: Layer already exists
6b183c62e3d7: Layer already exists
882fd36bfd35: Layer already exists
d1dec9917839: Layer already exists
d38adf39e1dd: Layer already exists
4ed121b04368: Layer already exists
49d07d703dd5: Layer already exists
latest: digest: sha256:6f4eb46cbd82b126771051a7915c8f41324c611a97857a6a82a9f450c25ec7f0 size: 3259

C:\Users\Akshwarya>docker pull au.icr.io/jpapp/rep01
Using default tag: latest
latest: Pulling from jpapp/rep01
Digest: sha256:6f4eb46cbd82b126771051a7915c8f41324c611a97857a6a82a9f450c25ec7f0
Status: Image is up to date for au.icr.io/jpapp/rep01:latest
au.icr.io/jpapp/rep01:latest

C:\Users\Akshwarya>
```

Containers

Images

Volumes

Dev Environments BETA

Extensions BETA

Add Extensions

Containers Give Feedback

A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)

Showing 13 items

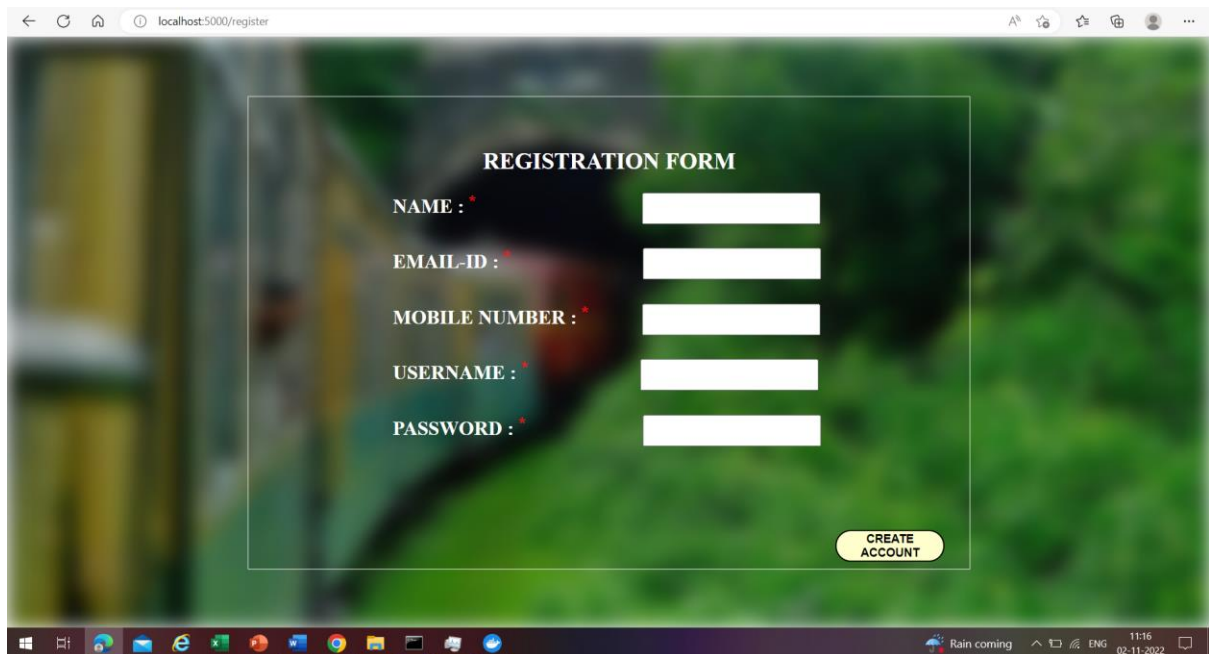
	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	<div>funny_mayer</div> <div>9b298c33697a</div>	portal1:latest	Exited	5000		<div><div></div><div></div><div></div></div>
<input type="checkbox"/>	<div>sharp_spence</div> <div>ff454e314255</div>	au.icr.io/jpapp/rep01:jpapplate	Exited	5000		<div><div></div><div></div><div></div></div>
<input type="checkbox"/>	<div>pedantic_solomon</div> <div>6e9c9c70c717</div>	au.icr.io/jpapp/rep01:jpapplate	Exited	5000		<div><div></div><div></div><div></div></div>
<input type="checkbox"/>	<div>great_lumiere</div> <div>0d6544118333</div>	au.icr.io/jpapp/rep01:jpapplate	Exited	5000		<div><div></div><div></div><div></div></div>
<input type="checkbox"/>	<div>cranky_moser</div> <div>dc27f7b7385b</div>	au.icr.io/jpapp/rep01:jpapplate	Exited	5000		<div><div></div><div></div><div></div></div>
<input type="checkbox"/>	<div>interesting_swartz</div> <div>d87861853aa3</div>	au.icr.io/jpapp/rep01:jpapplate	Created (128)	5000		<div><div></div><div></div><div></div></div>
<input type="checkbox"/>	<div>focused_blackburn</div> <div>42fbc104432a</div>	au.icr.io/jpapp/rep01:jpapplate	Exited	5000		<div><div></div><div></div><div></div></div>
<input type="checkbox"/>	<div>confident_tharp</div> <div>f918bc0d3aa9</div>	au.icr.io/jpapp/rep01:jpapplate	Running	5000	9 seconds ago	<div><div></div><div></div><div></div></div>

RAM 2.72GB

CPU 0.76%

Connected to Hub

v4.12.0



REGISTRATION FORM

NAME : \*

EMAIL-ID : \*

MOBILE NUMBER : \*

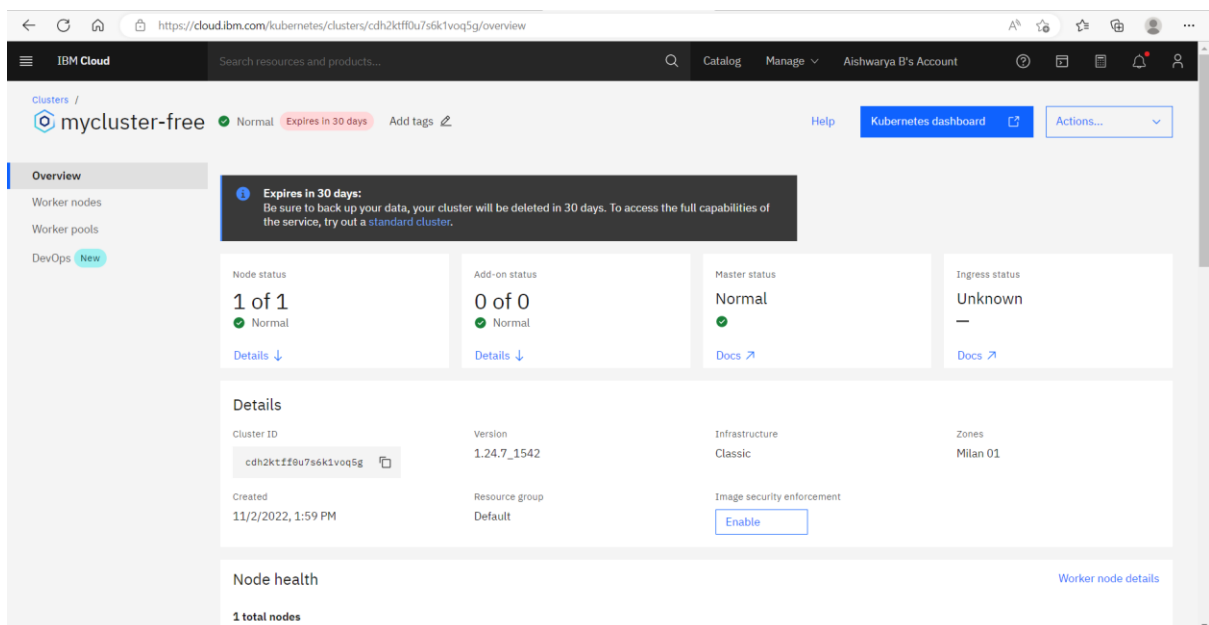
USERNAME : \*

PASSWORD : \*

CREATE ACCOUNT

- 4) Create a Kubernetes cluster in IBM Cloud and deploy helloworld image or jobportal image and also expose the same app to run in a nodeport

## KUBERNETES CLUSTER CREATION:



IBM Cloud

Search resources and products...

Clusters / mycluster-free

Normal Expires in 30 days Add tags

Help Kubernetes dashboard Actions...

Overview

Worker nodes

Worker pools

DevOps New

Expires in 30 days: Be sure to back up your data, your cluster will be deleted in 30 days. To access the full capabilities of the service, try out a standard cluster.

Node status 1 of 1 Normal Details

Add-on status 0 of 0 Normal Details

Master status Normal Docs

Ingress status Unknown Docs

Details

Cluster ID cdh2kttf0u7s6k1voq5g

Version 1.24.7\_1542

Infrastructure Classic

Zones Milan 01

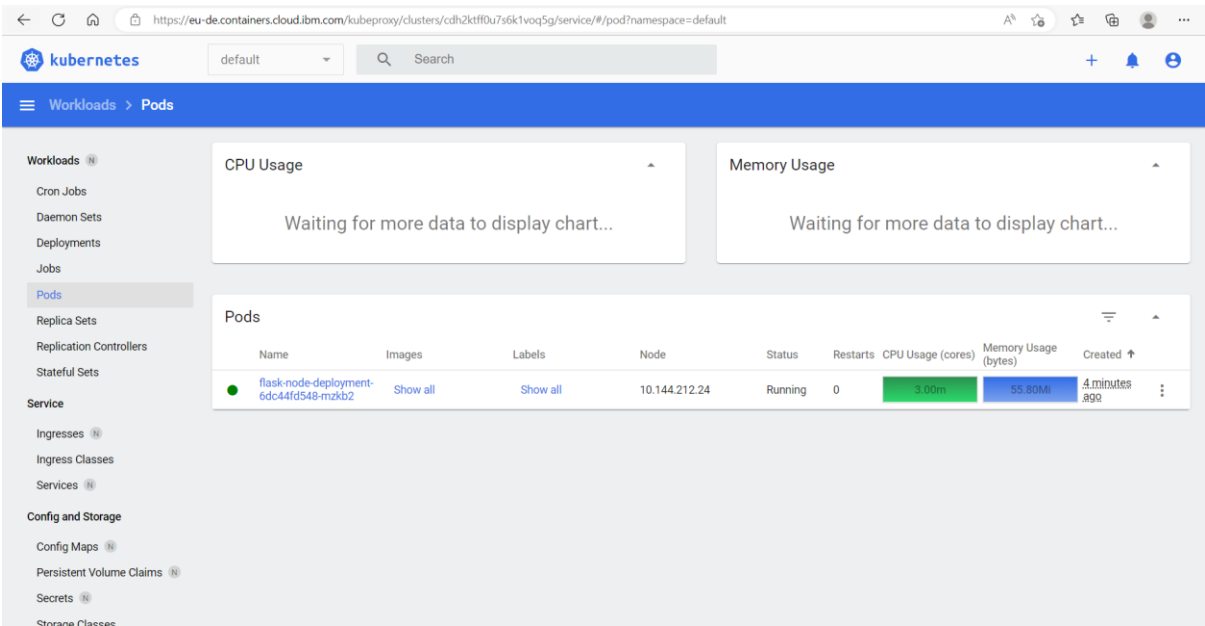
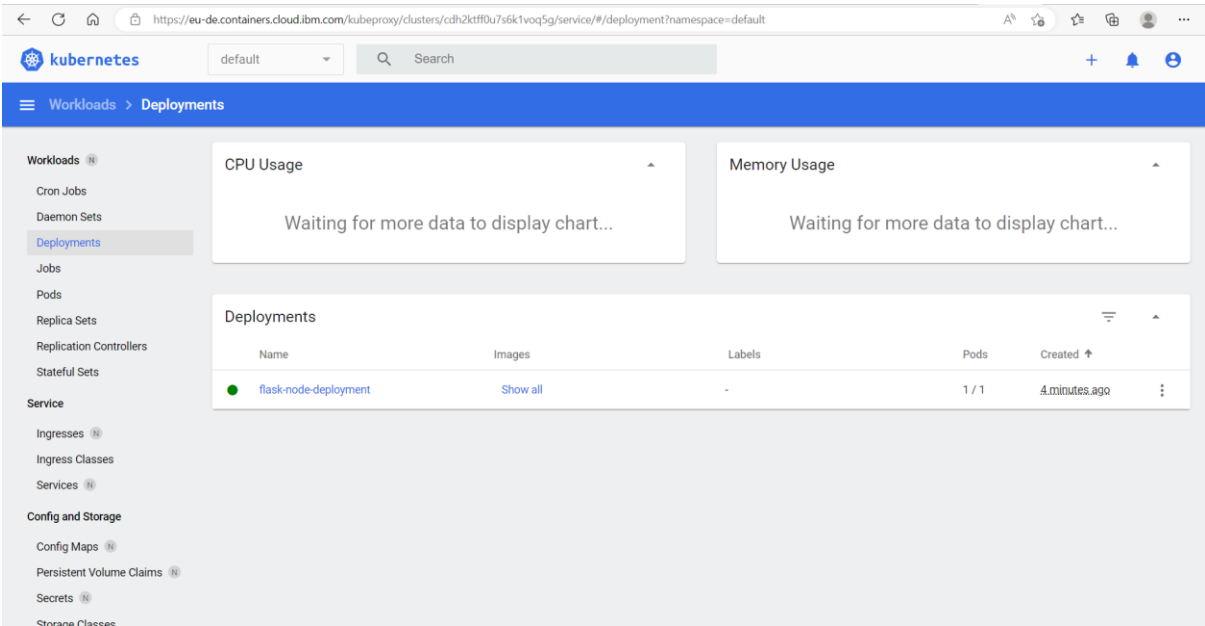
Created 11/2/2022, 1:59 PM

Resource group Default

Image security enforcement Enable

Node health 1 total nodes Worker node details

# DEPLOYMENT OF JOB PORTAL APP IN CLUSTER:



←↻🏠

https://eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdh2kttf0u7s6k1voq5g/service/#/pod?namespace=default


🔍

+

🔔

👤

...

kubernetes

default

🔍 Search

Workloads > Pods

Workloads ⓘ

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 ⓘ

Storage Classes


CPU Usage

Waiting for more data to display chart...

Memory Usage

Waiting for more data to display chart...

Pods

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created ↑
 flask-node-deployment-6dc44fd548-m2kb2	au.icr.io/jpapp/repo1 <a href="#">Show less</a>	app: jobapp pod-template-hash: 6dc44fd548 <a href="#">Show less</a>	10.144.212.24	Running	0	3.00m	55.80M	6 minutes ago

←↻🏠

https://eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdh2kttf0u7s6k1voq5g/service/#/replicaset?namespace=default


🔍

+

🔔

👤

...

kubernetes

default

🔍 Search

Workloads > Replica Sets

Workloads ⓘ

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 ⓘ

Storage Classes


CPU Usage

Waiting for more data to display chart...

Memory Usage

Waiting for more data to display chart...

Replica Sets

Name	Images	Labels	Pods	Created ↑
 flask-node-deployment-6dc44fd548	<a href="#">Show all</a>	<a href="#">Show all</a>	1 / 1	5 minutes ago



EXPOSE APP TO NODEPORT:

```
C:\Users\Akshwarya\.spyder-py3\job-portal>kubectl expose deployment flask-node-deployment --port=80 --target-port=8008 --name=flask --type=NodePort
service/flask exposed

C:\Users\Akshwarya\.spyder-py3\job-portal>kubectl describe service flask
Name: flask
Namespace: default
Labels: <none>
Annotations: <none>
Selector: app=jobapp
Type: NodePort
IP Family Policy: SingleStack
IP Families: IPv4
IP: 172.21.15.156
IPs: 172.21.15.156
Port: <unset> 80/TCP
TargetPort: 8008/TCP
NodePort: <unset> 32153/TCP
Endpoints: 172.30.204.11:8008
Session Affinity: None
External Traffic Policy: Cluster
Events: <none>

C:\Users\Akshwarya\.spyder-py3\job-portal>
```

