

Assignment 4

Name	Gowtham Sriram
Team ID	PNT2022TMID12996
Project Name	Plasma Donor Application

QUESTIONS:

1. Pull an Image from docker hub and run it in docker playground.
2. Create a docker file for the job portal application and deploy it in Docker desktop application.
3. Create a IBM container registry and deploy helloworld app or jobportalapp.
4. Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport

Solutions:

```
[Darshan@Darshans-MacBook-Pro ~ % ibmcloud plugin install container-registry -r 'IBM Cloud']
Looking up 'container-registry' from repository 'IBM Cloud'...
Plug-in 'container-registry[cr] 1.0.2' found in repository 'IBM Cloud'
Plug-in 'container-registry 1.0.1' was already installed. Do you want to update it with 'container-
registry[cr] 1.0.2' or not? [y/N] > y
Attempting to download the binary file...
 12.52 MiB / 12.52 MiB [=====] 100.00% 3s
13126768 bytes downloaded
Installing binary...
OK
Plug-in 'container-registry 1.0.2' was successfully installed into /Users/DarshanSasikumar/.bluemix
[/plugins/container-registry. Use 'ibmcloud plugin show container-registry' to show its details.
Darshan@Darshans-MacBook-Pro ~ % ibmcloud login -a https://cloud.ibm.com
API endpoint: https://cloud.ibm.com

Email> 718019I221@smartinternz.com
[
Password>
Authenticating...
OK

Targeted account Gowtham Sriram's Account (9e79ce05bc644abaa881e768d2d0bcc0)

Select a region (or press enter to skip):
1. au-syd
2. in-che
3. jp-osa
4. jp-tok
5. kr-seo
6. eu-de
7. eu-gb
8. ca-tor
9. us-south
10. us-east
11. br-sao
Enter a number> 2
Targeted region in-che

API endpoint: https://cloud.ibm.com
Region: in-che
User: 718019I221@smartinternz.com
Account: Gowtham Sriram's Account (9e79ce05bc644abaa881e768d2d0bcc0)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

New version 2.12.1 is available.
Change logs: https://github.com/IBM-Cloud/ibm-cloud-cli-release/releases/tag/v2.12.1
TIP: use 'ibmcloud config --check-version=false' to disable update check.

Do you want to update? [y/N] > y

Installing version '2.12.1'...
Downloading...
```

```

Darshan@Darshans-MacBook-Pro ~ % ibmcloud cr region-set global
The region is set to 'global', the registry is 'icr.io'.

OK
Darshan@Darshans-MacBook-Pro ~ % ibmcloud cr namespace-add assignment412996
No resource group is targeted. Therefore, the default resource group for the account ('Default') is
targeted.

Adding namespace 'assignment412996' in resource group 'Default' for account Gowtham Sriram's Account
in registry icr.io...

The requested namespace is already owned by your account.

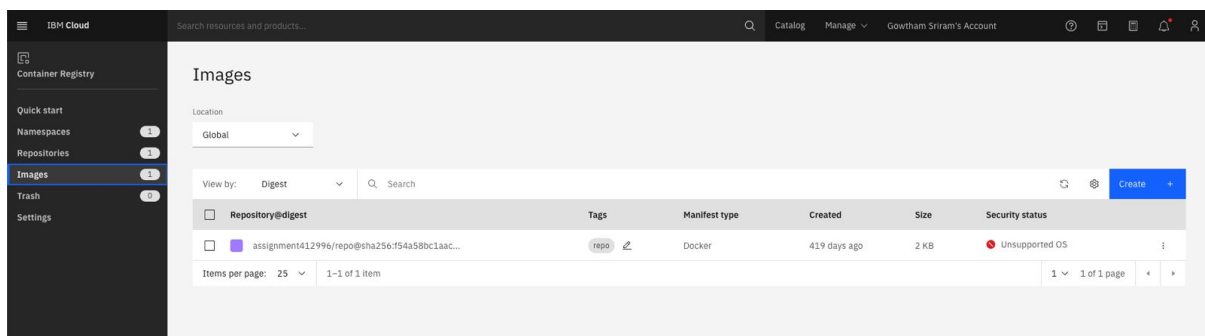
OK
Darshan@Darshans-MacBook-Pro ~ % ibmcloud cr login
Logging 'docker' in to 'icr.io'...
Logged in to 'icr.io'.

OK
Darshan@Darshans-MacBook-Pro ~ % docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:faa03e786c97f07ef34423fccceec2398ec8a5759259f94d99078f264e9d7af
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
Darshan@Darshans-MacBook-Pro ~ % docker tag hello-world icr.io/assignment412996/repo:repo
Darshan@Darshans-MacBook-Pro ~ % docker push icr.io/assignment412996/repo:repo
The push refers to repository [icr.io/assignment412996/repo]
e07ee1baac5f: Pushed
repo: digest: sha256:f54a58bc1aac5ea1a25d796ae155dc228b3f0e11d046ae276b39c4bf2f13d8c4 size: 525
Darshan@Darshans-MacBook-Pro ~ % ibmcloud cr image-list
Listing images...

Repository                                Tag    Digest                                Namespace                                Created    Size    Secur
ity status
icr.io/assignment412996/repo              repo   f54a58bc1aac                        assignment412996                        1 year ago  2.5 kB  -

OK
Darshan@Darshans-MacBook-Pro ~ % █

```



```
Darshan@Darshans-MacBook-Pro Assignment4 % docker run -p 80:5000 app:latest
* Serving Flask app 'app'
* Debug mode: off
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://127.0.0.1:5000
* Running on http://172.17.0.2:5000
Press CTRL+C to quit
```

02:24:35

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.13
node1

cdr4jkm0_cdr4jnm0qau0009ee480

IP
192.168.0.13

OPEN PORT

Memory

CPU

SSH
ssh ip172-18-0-11-cdr4jkm0qau0009ee470@direct.labs.p

DELETE

EDITOR

```
[node1] (local) root@192.168.0.13 -
$ docker pull 191209docker/app
Using default tag: latest
latest: Pulling from 191209docker/app
a8ce11554fce: Pull complete
e4e46064ab2: Pull complete
c85a0bc79bfb: Pull complete
195ee6a59ca8: Pull complete
157f16ed9a0c: Pull complete
884b144bec28: Pull complete
1c469643b609: Pull complete
4c0ac92aa89: Pull complete
049db2c7ebb8a: Pull complete
e830438f8c9d: Pull complete
b1ec2ac5476e: Pull complete
693d52da8d44: Pull complete
Digest: sha256:2acae541561b3d4c96d646912a08458732fdfec8990cb37e1cb062dd9657a7368
Status: Downloaded newer image for 191209docker/app:latest
docker.io/191209docker/app:latest
```

```
[Darshan@Darshans-MacBook-Pro Assignment4 % docker pull 19i209docker/app]
Using default tag: latest
latest: Pulling from 19i209docker/app
Digest: sha256:2ace541561b3d4c96d646912a08458732fdfec8990cb37e1cb062dd9657a7368
Status: Image is up to date for 19i209docker/app:latest
docker.io/19i209docker/app:latest
[Darshan@Darshans-MacBook-Pro Assignment4 % docker tag 19i209docker/app icr.io/as]
signment412996/repo:latest
[Darshan@Darshans-MacBook-Pro Assignment4 % docker push icr.io/assignment412996/r]
epo:latest
The push refers to repository [icr.io/assignment412996/repo]
896f17685b3c: Pushed
7eea1410fc7c: Pushed
684fb8ea3d80: Pushed
345c9e42b8e4: Pushed
24bf8dd8c4a6: Pushed
18bbb218c890: Pushed
e6e9854ca999: Pushed
397a239a053b: Pushed
89c3244a87b2: Pushed
80231db1194c: Pushed
f1c1f2298584: Pushed
ccba29d69370: Pushed
latest: digest: sha256:2ace541561b3d4c96d646912a08458732fdfec8990cb37e1cb062dd96
57a7368 size: 2843
Darshan@Darshans-MacBook-Pro Assignment4 %
```

```
Assignment4 — -zsh — 80x41
Last login: Thu Nov 17 20:14:09 on ttys004
[3] 17666
Darshan@Darshans-MacBook-Pro Assignment4 % docker push 19i209docker/ibm12996:app
The push refers to repository [docker.io/19i209docker/ibm12996]
An image does not exist locally with the tag: 19i209docker/ibm12996
Darshan@Darshans-MacBook-Pro Assignment4 % docker tag app 19i209docker/app
Darshan@Darshans-MacBook-Pro Assignment4 % docker push 19i209docker/app
Using default tag: latest
The push refers to repository [docker.io/19i209docker/app]
896f17685b3c: Pushed
7eea1410fc7c: Pushed
684fb8ea3d80: Pushed
345c9e42b8e4: Pushed
24bf8dd8c4a6: Pushed
18bbb218c890: Pushed
e6e9854ca999: Pushed
397a239a053b: Pushed
89c3244a87b2: Pushed
80231db1194c: Pushed
f1c1f2298584: Pushed
ccba29d69370: Pushed
latest: digest: sha256:2ace541561b3d4c96d646912a08458732fdfec8990cb37e1cb062dd96
57a7368 size: 2843
Darshan@Darshans-MacBook-Pro Assignment4 %
```

← → ↺ ⓘ 127.0.0.1:5000

Hello!

```

Darshan@Darshans-MacBook-Pro Assignment4 % ibmcloud cr image-list
Listing images...

Repository                                     Tag      Digest      Namespace      Create
d      Size      Security status
icr.io/assignment412996/repo      latest   2ace541561b3  assignment412996  2 hour
s ago      363 MB      -
icr.io/assignment412996/repo      repo     f54a58bc1aac  assignment412996  1 year
ago      2.5 kB      -

OK

```

[Explore](#)
[Repositories](#)
[Organizations](#)
[Help](#)

[Upgrade](#)
 19i209docker

19i209docker

Repositories

app

Using 1 of 1 private repositories. [Get more](#)

General

Tags

Builds

Collaborators

Webhooks

Settings

Add a short description for this repository
 The short description is used to index your content on Docker Hub and in search engines. It's visible to users in search results.
 [Update](#)

19i209docker / app

Description

This repository does not have a description

Last pushed: 19 minutes ago

Docker commands

To push a new tag to this repository,

docker push 19i209docker/app:tagname

Public View

Tags and scans

VULNERABILITY SCANNING - DISABLED
 [Enable](#)

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
latest		Image	16 minutes ago	19 minutes ago

[See all](#)
[Go to Advanced Image Management](#)

Automated Builds

Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.

Available with Pro, Team and Business subscriptions.

[Upgrade](#)
[Learn more](#)

README

Repository description is empty. [Click here](#) to edit.