

Assignment -4

| | |
|---------------------|------------------|
| Assignment Date | 14 November 2022 |
| Student Name | CHANDHRU R |
| Student Roll Number | 953619104008 |
| Maximum Marks | 2 Marks |

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

The image shows two screenshots of the Docker Playground interface, demonstrating the process of pulling a Docker image from Docker Hub.

Top Screenshot: The interface shows a session titled "cdos7iu3_cdos7ne3tccg00aokb10" with IP 192.168.0.28. The terminal output shows the command `docker pull httpd:latest` being executed, resulting in the image being pulled successfully. The output includes the image ID `fe8735c23ec5` and the size `145MB`.

Bottom Screenshot: The interface shows the same session. The terminal output shows the command `docker images` being executed, displaying the list of images on the local system. The output shows the `httpd` image with tag `latest` and image ID `fe8735c23ec5`, created 2 weeks ago, with a size of 145MB.

03:47:07

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.28
node1

cdos7iu3_cdos7ne3tccg00aokb10

IP
192.168.0.28

OPEN PORT

MemoryCPU

SSH
ssh ip172-18-0-26-cdos7iu3tccg00aokb00@direct.labs.play-

DELETEEDITOR

```
[node1] (local) root@192.168.0.28 ~
$ docker run -d --name chan -p 50:50 httpd
fa46ebbf97d0b395fb443bd68463cf1c4668bbb07c9bb45b8968d0135d29a3f
[node1] (local) root@192.168.0.28 ~
$ docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS
fa46ebbf97d    httpd     "httpd-foreground"      5 seconds ago  Up 5 seconds  0.0.0.0:50->50/tcp, 80/tcp
1a532a1fe475   httpd     "httpd-foreground"      About a minute ago  Up About a minute  0.0.0.0:80->80/tcp
6f0c60cd0ffe   httpd     "httpd-foreground"      4 minutes ago  Up 4 minutes  80/tcp, 0.0.0.0:8080->8080/tcp
[node1] (local) root@192.168.0.28 ~
```

Type here to search

10:10
14-11-2022

Type here to search

2:48 PM
11/13/2022

Docker Playground

ip172-18-0-19-cdos7iu3tccg00aokb00@direct.labs.play-with-docker.com

It works!

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](#)

C:\Windows\System32\cmd.exe

C:\Users\VRIT\Desktop\job-portal-master>docker build -t flaskapp:jp --build-arg requirements="requirements.txt" --build-arg workspace="jobPortal" -f Dockerfile .
[+] Building 397.1s (13/13) FINISHED
-> [internal] load build definition from Dockerfile
-> => transferring dockerfile: 290B
-> [internal] load .dockerignore
-> => transferring context: 2B
-> [internal] load metadata for docker.io/library/ubuntu:latest
-> [auth] library/ubuntu:pull token for registry-1.docker.io
-> [1/7] FROM docker.io/library/ubuntu:latest@sha256:4b1d0c4a2d2aaf63b3711f34eb9fa89fa1bf53dd6e4ca954d47caebca4
-> => resolve docker.io/library/ubuntu:latest@sha256:4b1d0c4a2d2aaf63b3711f34eb9fa89fa1bf53dd6e4ca954d47caebca4
-> => sha256:4b1d0c4a2d2aaf63b3711f34eb9fa89fa1bf53dd6e4ca954d47caebca4005c2 1.42kB / 1.42kB
-> => sha256:817cfe4672204dcfbce88b1a6e994fd097030dd10c-ab329114d98671d8e49ba 520B / 520B
-> => sha256:a8780b506fa4eeb1d0779a3c92c8d5d3e6a656c758135f62826768da458b5235 1.46kB / 1.46kB
-> => sha256:e96e057aae67380a4ddb16c337c5c3669d97fdff69ec537f02aa2cc30d814281 30.43MB / 30.43MB
-> => extracting sha256:e96e057aae67380a4ddb16c337c5c3669d97fdff69ec537f02aa2cc30d814281
-> [internal] load build context
-> => transferring context: 208.60kB
-> [2/7] RUN apt-get update
-> [3/7] RUN apt-get install -y python3 python3:3-pip
-> [4/7] RUN mkdir -p /jobPortal
-> [5/7] COPY . /jobPortal
-> [6/7] RUN pip3 install -r /jobPortal/requirements.txt
-> [7/7] WORKDIR /jobPortal
-> => exporting image
-> => exporting layers
-> => writing image sha256:4aceb240b4e541c0890844618afe302c178f09fcd17cfe584b1fd7926f9e745e
-> => naming to docker.io/library/flaskapp:jp

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

Showing 1 items

RAM 3.45GB CPU 0.44% Connected to Hub

Type here to search

Images on disk

Last refresh: Never 2 images Refresh to see disk usage [Clean up](#)

Images

Give feedback

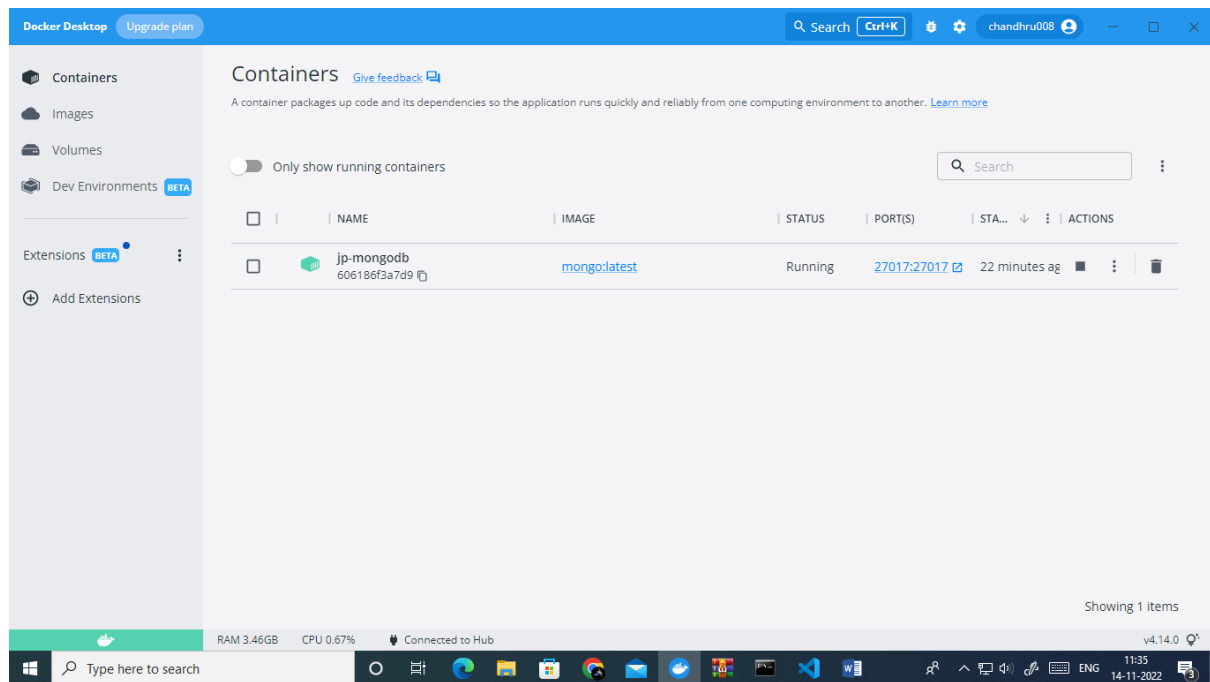
LOCAL REMOTE REPOSITORIES

☐ In use only

| NAME | TAG | IMAGE ID | CREATED | SIZE |
|----------|---------------|--------------|------------------------|-----------|
| flaskapp | jp | 4aceb240b4e5 | less than a minute ago | 500.19 MB |
| mongo | IN USE latest | b70536aeb250 | 20 days ago | 694.54 MB |

RAM 3.46GB CPU 0.00% Connected to Hub

Type here to search



3. Create a IBM container registry and deploy helloworld app or jobportalapp.

```
C:\Users\RIT>ibmcloud login
API endpoint: https://cloud.ibm.com

Email> 953619104008@ritrjpm.ac.in

Password>
Authenticating...
OK

Targeted account CHANDHRU R's Account (c4f5be2d21134c568d12d570853d20e5)

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> 4
Targeted region jp-tok
```

```
C:\Users\RIT>ibmcloud target -g Default
Targeted resource group Default

API endpoint: https://cloud.ibm.com
Region: jp-tok
User: 953619104008@ritrjpm.ac.in
Account: CHANDHRU R's Account (c4f5be2d21134c568d12d570853d20e5)
Resource group: Default
CF API endpoint:
Org:
Space:

C:\Users\RIT>ibmcloud cr login --client docker
```

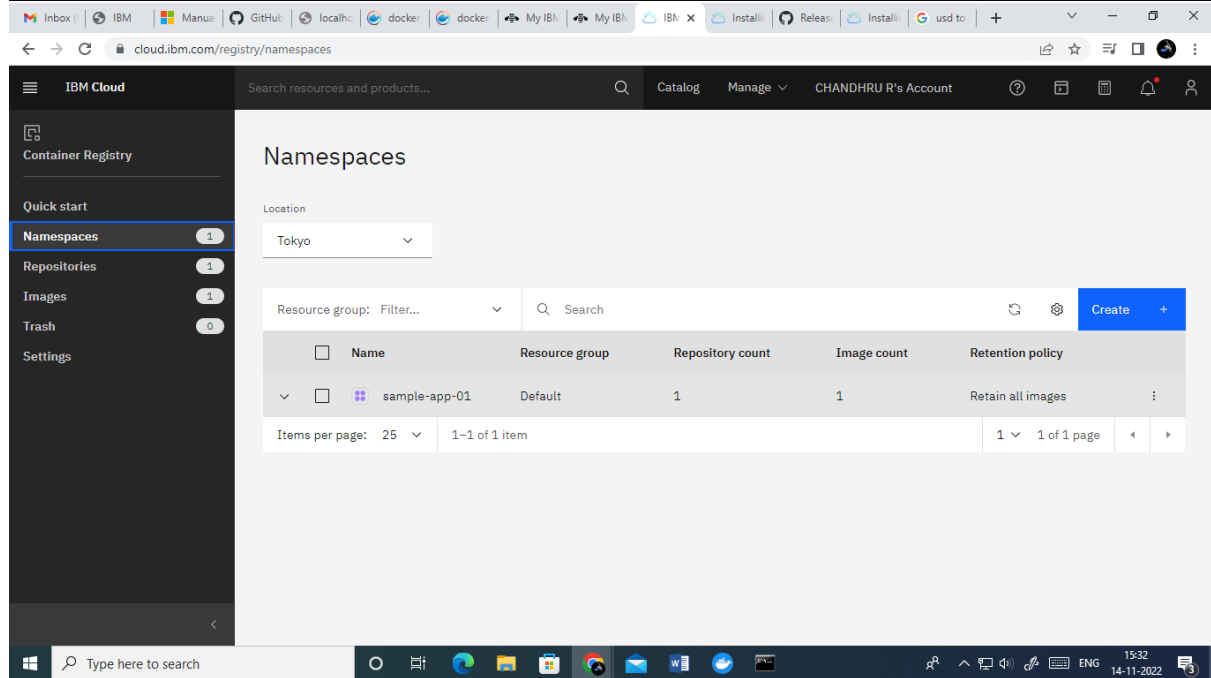
```
C:\Users\RIT>docker tag hello-world jp.icr.io/sample-app-01/myrepo01

C:\Users\RIT>ibmcloud cr login --client docker
Logging 'docker' in to 'jp.icr.io'...
Logged in to 'jp.icr.io'.

OK

C:\Users\RIT>docker push jp.icr.io/sample-app-01/myrepo01
Using default tag: latest
The push refers to repository [jp.icr.io/sample-app-01/myrepo01]
e07ee1baac5f: Pushed
latest: digest: sha256:f54a58bc1aac5ea1a25d796ae155dc228b3f0e11d046ae276b39c4bf2f13d8c4 size: 525

C:\Users\RIT>
```



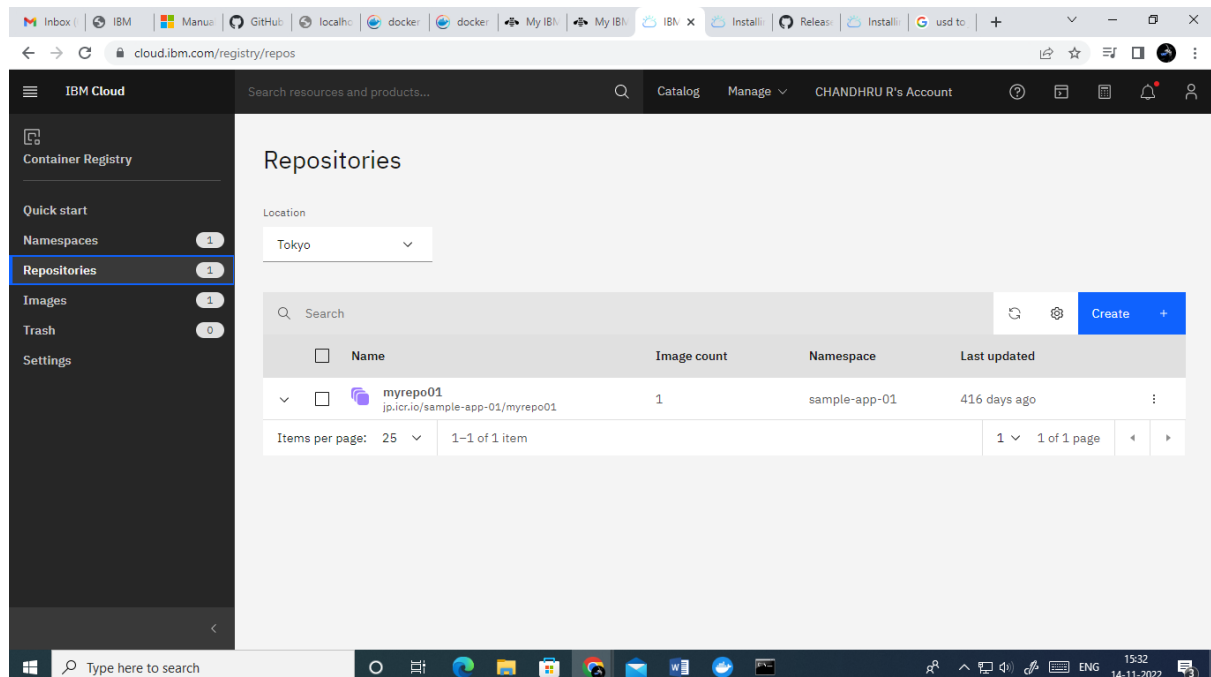
Namespaces

Location: Tokyo

Resource group: Filter... Search

| Name | Resource group | Repository count | Image count | Retention policy |
|---------------|----------------|------------------|-------------|-------------------|
| sample-app-01 | Default | 1 | 1 | Retain all images |

Items per page: 25 1-1 of 1 item



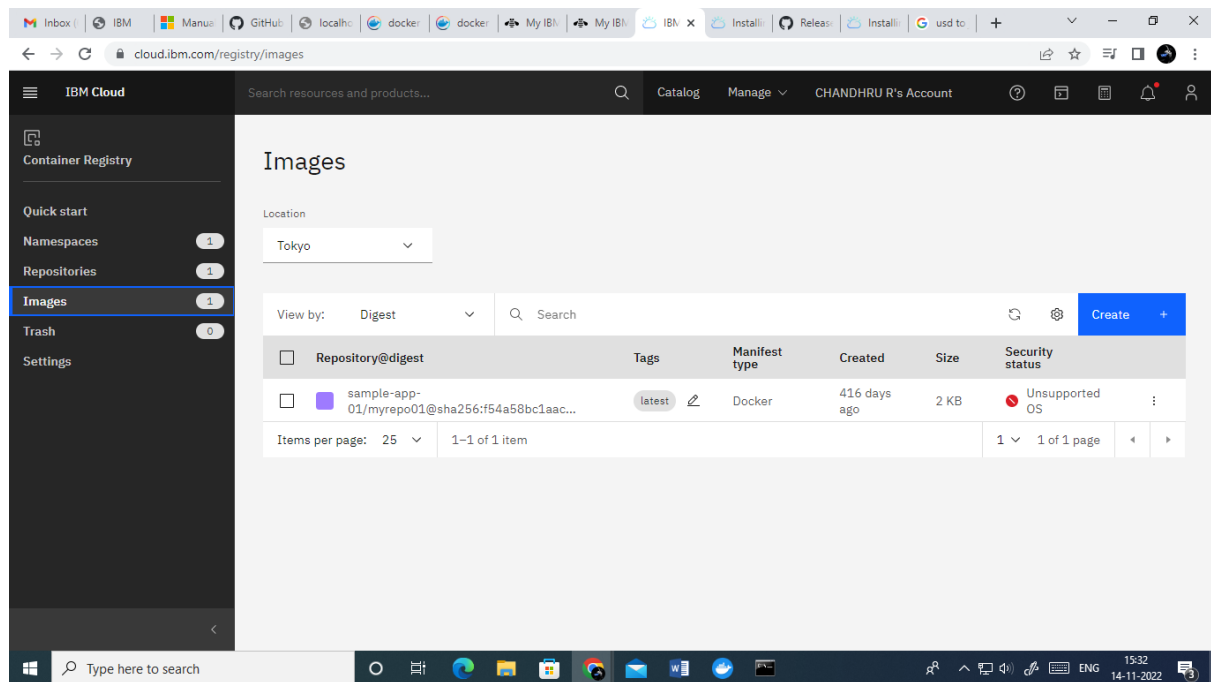
Repositories

Location: Tokyo

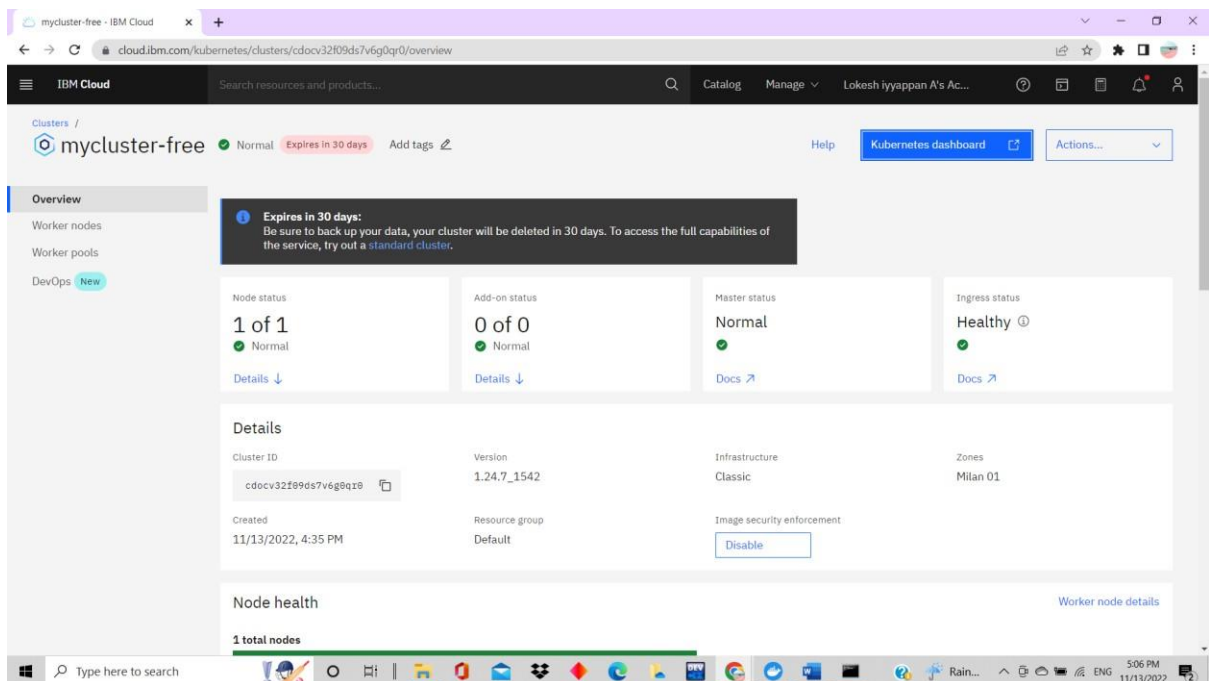
Search

| Name | Image count | Namespace | Last updated |
|--|-------------|---------------|--------------|
| myrepo01 jp.icr.io/sample-app-01/myrepo01 | 1 | sample-app-01 | 416 days ago |

Items per page: 25 1-1 of 1 item



4. Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodepor



t.

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service

Ingresses

Ingress Classes

Services

Config and Storage

Config Maps

Persistent Volume Claims

Secrets

Annotations

deployment.kubernetes.io/revision: 1

kubectrl.kubernetes.io/last-applied-configuration

Resource information

Strategy

RollingUpdate

Min ready seconds

0

Revision history limit

10

Selector

app: sample-app

Rolling update strategy

Max surge

25%

Max unavailable

25%

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service

Ingresses

Labels

app: sample-app

pod-template-hash: d9bfd84d9

Resource information

Node

docker-desktop

Status

ImagePullBackOff

IP

10.1.0.48

QoS Class

BestEffort

Restarts

0

Service Account

default