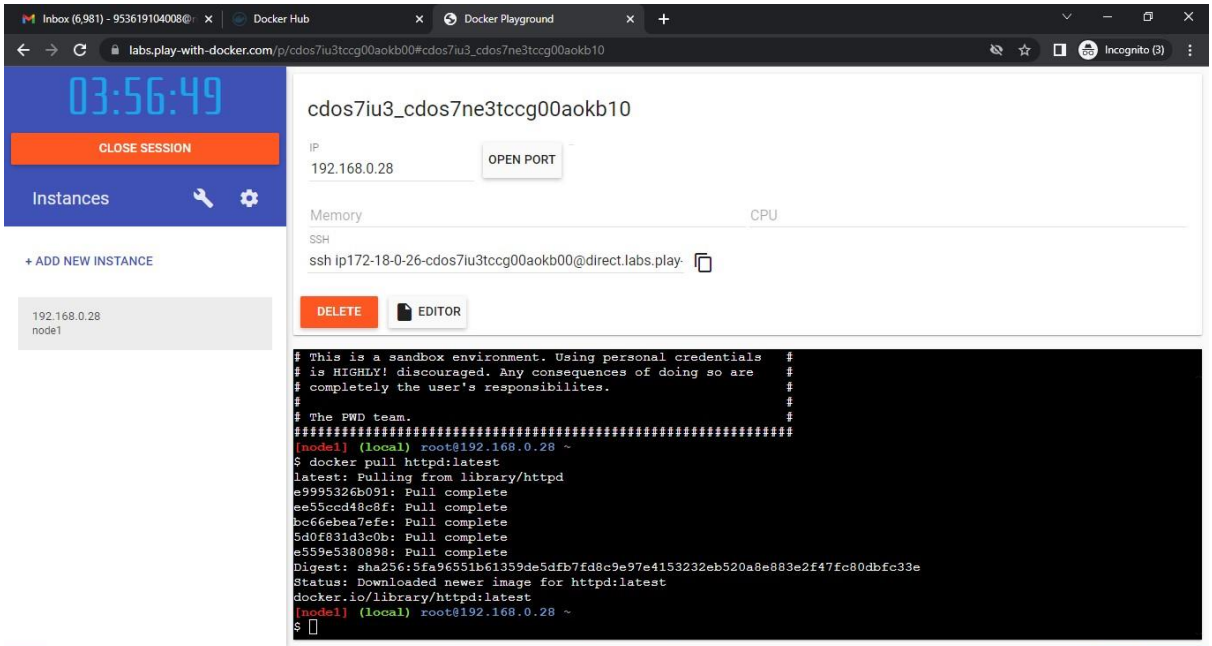
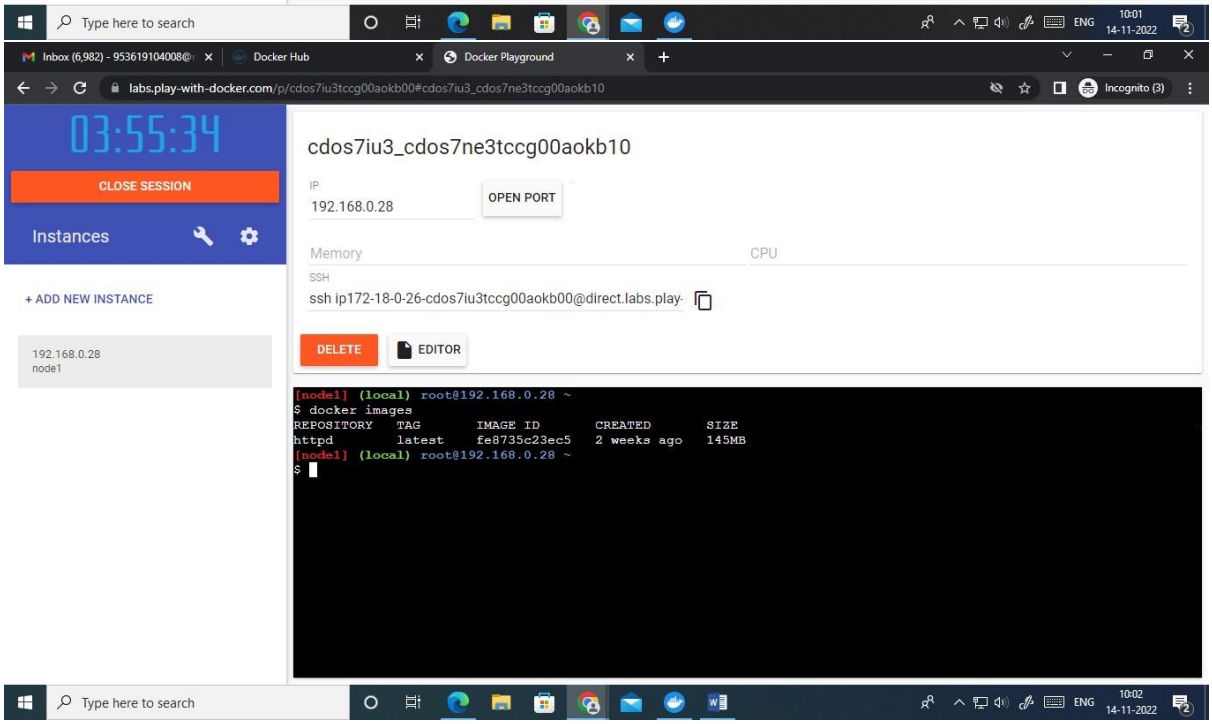
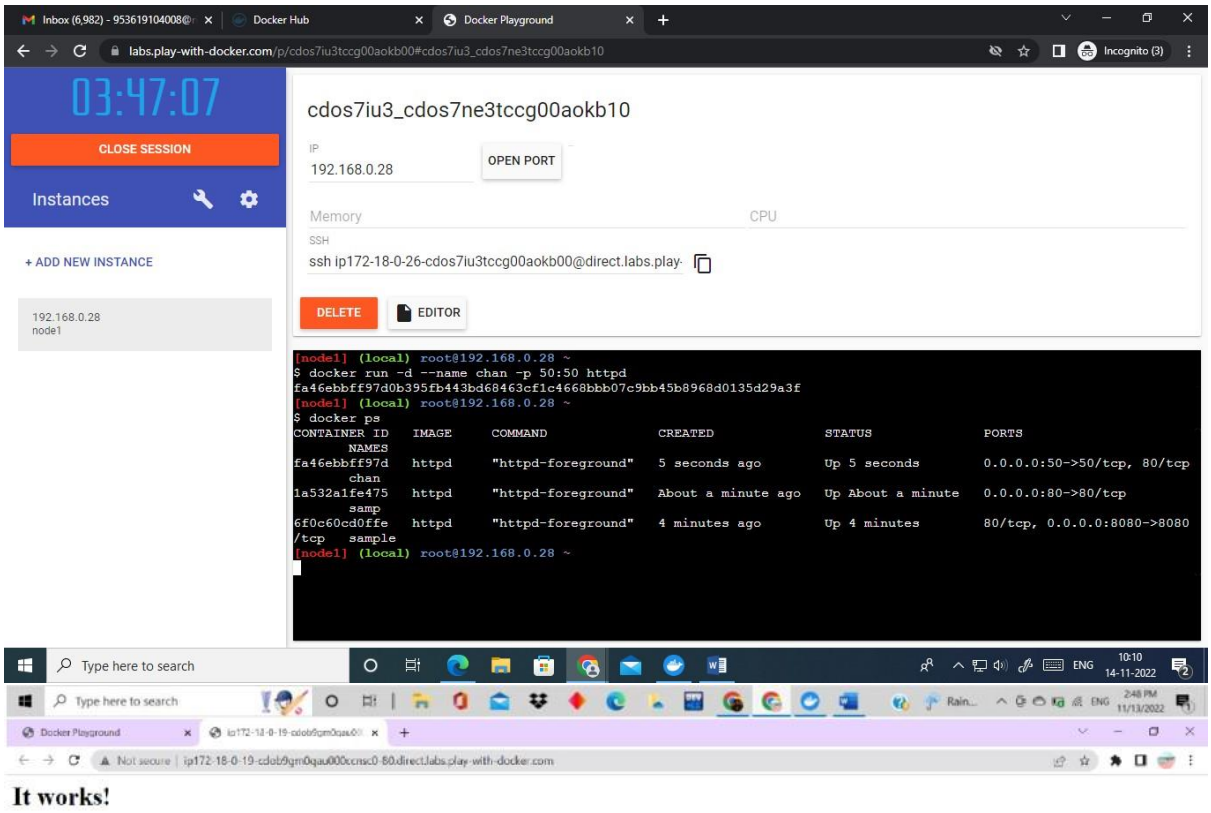
Assignment -4

Assignment Date	15 November 2022
Student Name	SUTHAN G
Student Roll Number	212219040161
Maximum Marks	2 Marks

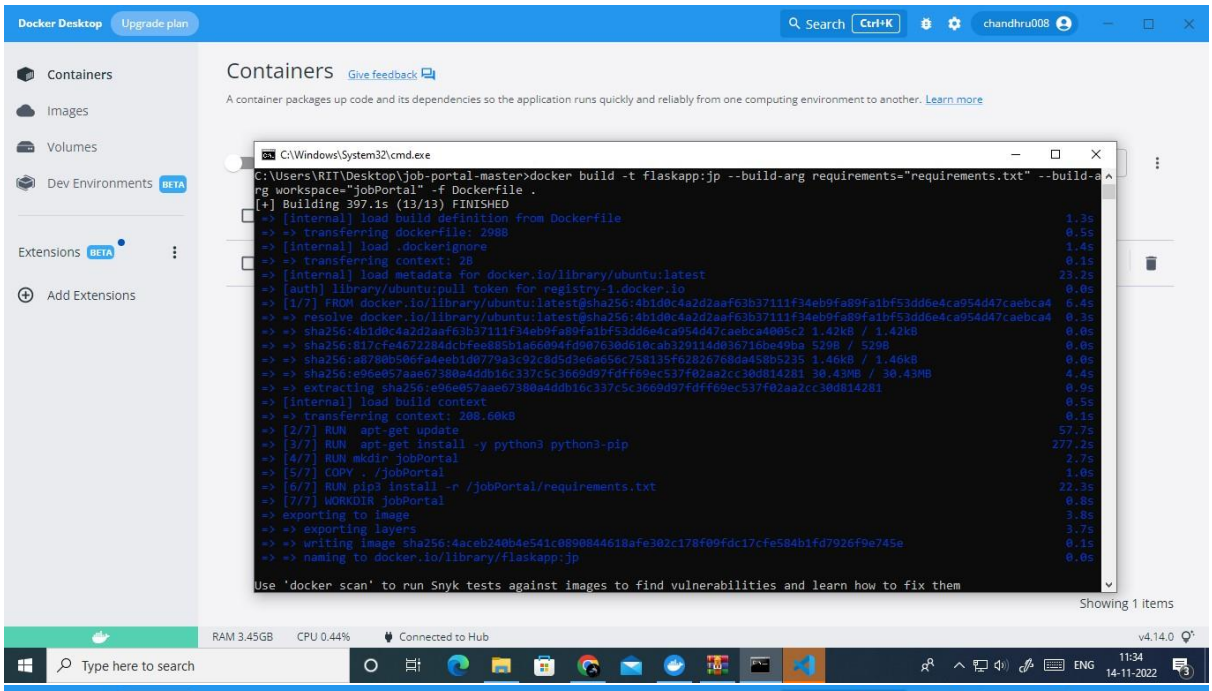
1. **Pull an Image from docker hub and run it in docker playground**

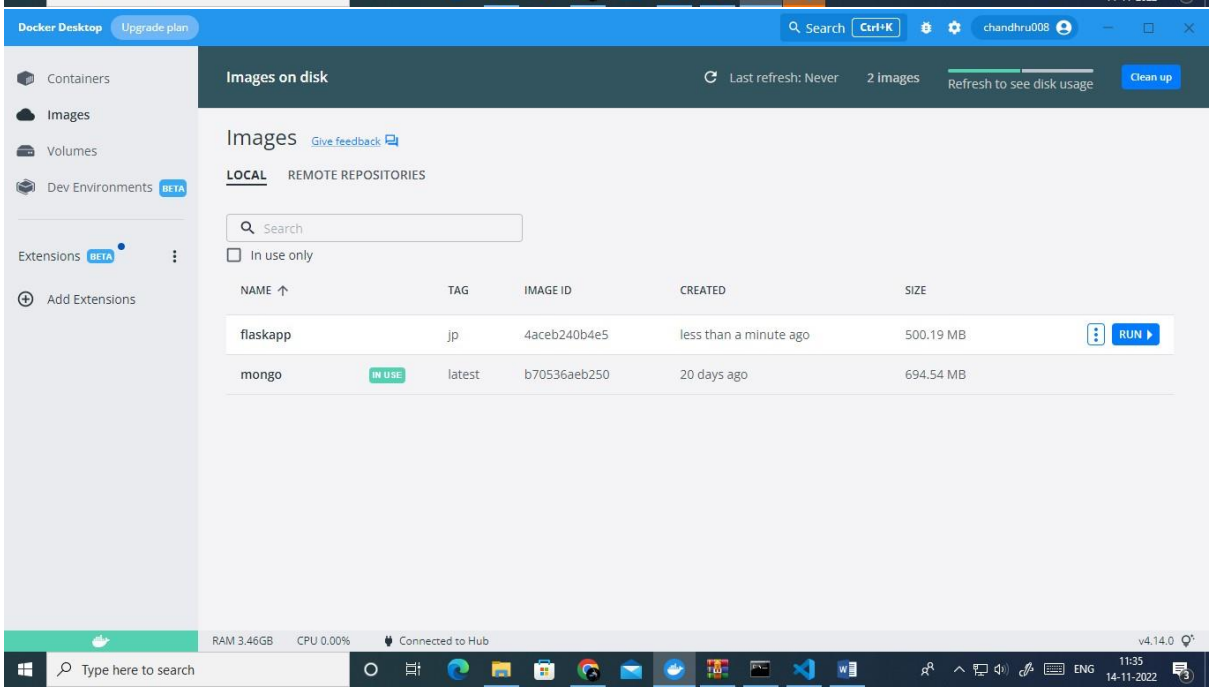


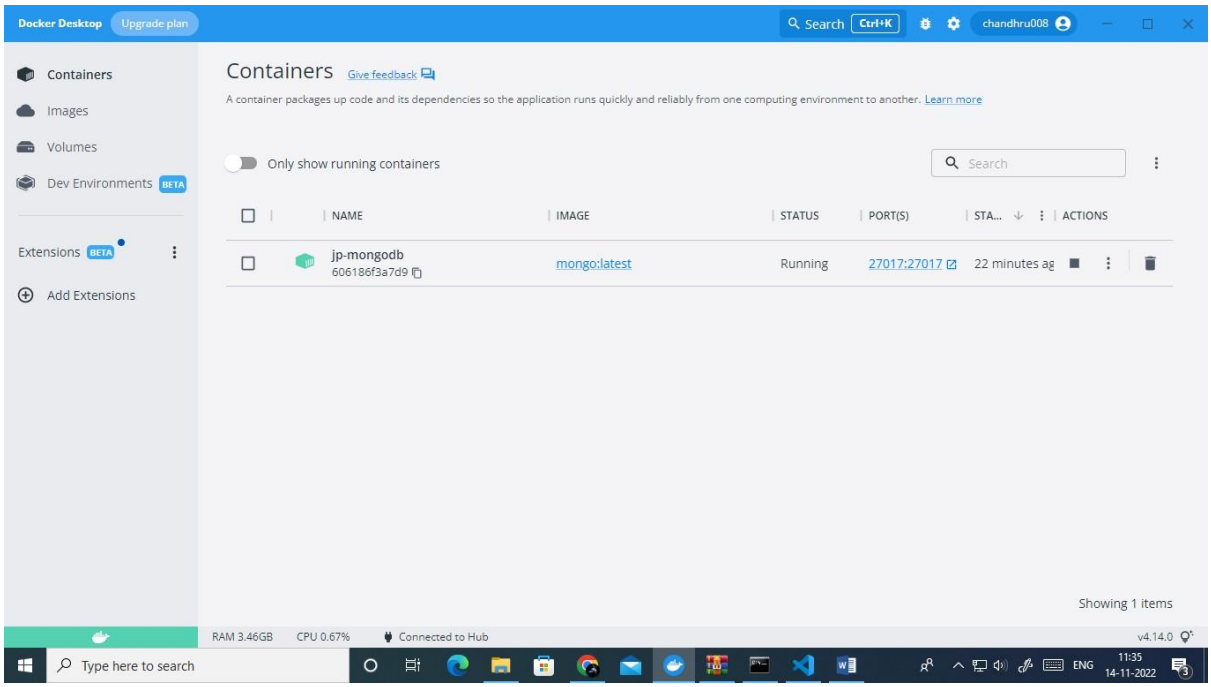



Inbox (6,982) - 953619104008@
Docker Hub
Docker Playground
labs.play-with-docker.com/p/cdos7iu3tccg00aokb00#cdos7iu3_cdos7ne3tccg00aokb10
Incognito (3)
03:47:07
CLOSE SESSION
Instances
+ ADD NEW INSTANCE
192.168.0.28
node1
cdos7iu3_cdos7ne3tccg00aokb10
IP
192.168.0.28
OPEN PORT
Memory
CPU
SSH
ssh ip172-18-0-26-cdos7iu3tccg00aokb00@direct.labs.play-
DELETE
EDITOR
[node1] (local) root@192.168.0.28 ~
$ docker run -d --name chan -p 50:50 httpd
fa46ebbff97d0b395fb443bd68463cf1c4668bbb07c9bb45b8968d0135d29a3f
[node1] (local) root@192.168.0.28 ~
$ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS
NAMES
fa46ebbff97d httpd "httpd-foreground" 5 seconds ago Up 5 seconds 0.0.0.0:50->50/tcp, 80/tcp
chan
1a532a1fe475 httpd "httpd-foreground" About a minute ago Up About a minute 0.0.0.0:80->80/tcp
samp
6f0c60cd0ffe httpd "httpd-foreground" 4 minutes ago Up 4 minutes 80/tcp, 0.0.0.0:8080->8080
/tcp sample
[node1] (local) root@192.168.0.28 ~
Type here to search
ENG
10:10
14-11-2022
Type here to search
Rain...
ENG
2:48 PM
11/13/2022
Docker Playground
Not secure | ip172-18-0-19-cdob9gm0qau000ccnsc0-80.direct.labs.play-with-docker.com

It works!


Docker Desktop
Upgrade plan
Search Ctrl+K
chandhru008
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\RIT\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 1.3s
=> => transferring dockerfile: 298B 0.5s
=> [internal] load .dockerignore 1.4s
=> => transferring context: 2B 0.1s
=> [internal] load metadata for docker.io/library/ubuntu:latest 23.2s
=> [auth] library/ubuntu:pull token for registry-1.docker.io 0.0s
=> [1/7] FROM docker.io/library/ubuntu:latest@sha256:4b1d0c4a2d2aaf63b37111f34eb9fa89fa1bf53dd6e4ca954d47caebca4 6.4s
=> => resolve docker.io/library/ubuntu:latest@sha256:4b1d0c4a2d2aaf63b37111f34eb9fa89fa1bf53dd6e4ca954d47caebca4 0.3s
=> => sha256:4b1d0c4a2d2aaf63b37111f34eb9fa89fa1bf53dd6e4ca954d47caebca4005c2 1.42kB / 1.42kB 0.0s
=> => sha256:817cfe4672284dcbfee885b1a660944fd907630d610cab329114d036716be49ba 529B / 529B 0.0s
=> => sha256:a8780b506fa4eeb1d0779a3c92c8d5d3e6a656c758135f62826768da458b5235 1.46kB / 1.46kB 0.0s
=> => sha256:e96e057aae67380a4ddb16c337c5c3669d97fdff69ec537f02aa2cc30d814281 30.43MB / 30.43MB 4.4s
=> => extracting sha256:e96e057aae67380a4ddb16c337c5c3669d97fdff69ec537f02aa2cc30d814281 0.9s
=> [internal] load build context 0.5s
=> => transferring context: 208.60kB 0.1s
=> [2/7] RUN apt-get update 57.7s
=> [3/7] RUN apt-get install -y python3 python3-pip 277.2s
=> [4/7] RUN mkdir jobPortal 2.7s
=> [5/7] COPY . /jobPortal 1.0s
=> [6/7] RUN pip3 install -r /jobPortal/requirements.txt 22.3s
=> [7/7] WORKDIR jobPortal 0.8s
=> exporting to image 3.8s
=> => exporting layers 3.7s
=> => writing image sha256:4aceb240b4e541c0890844618afe302c178f09fdc17cfe584b1fd7926f9e745e 0.1s
=> => naming to docker.io/library/flaskapp:jp 0.0s
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
v4.14.0
Type here to search
ENG
11:34
14-11-2022


Docker Desktop
Upgrade plan
Search Ctrl+K
chandhru008
Containers
Images
Volumes
Dev Environments BETA
Extensions BETA
Add Extensions
Images on disk
Last refresh: Never
2 images
Refresh to see disk usage
Clean up
Images
Give feedback
LOCAL
REMOTE REPOSITORIES
Search
In use only
NAME
TAG
IMAGE ID
CREATED
SIZE
flaskapp jp 4aceb240b4e5 less than a minute ago 500.19 MB RUN
mongo IN USE latest b70536aeb250 20 days ago 694.54 MB
RAM 3.46GB
CPU 0.00%
Connected to Hub
v4.14.0
Type here to search
ENG
11:35
14-11-2022

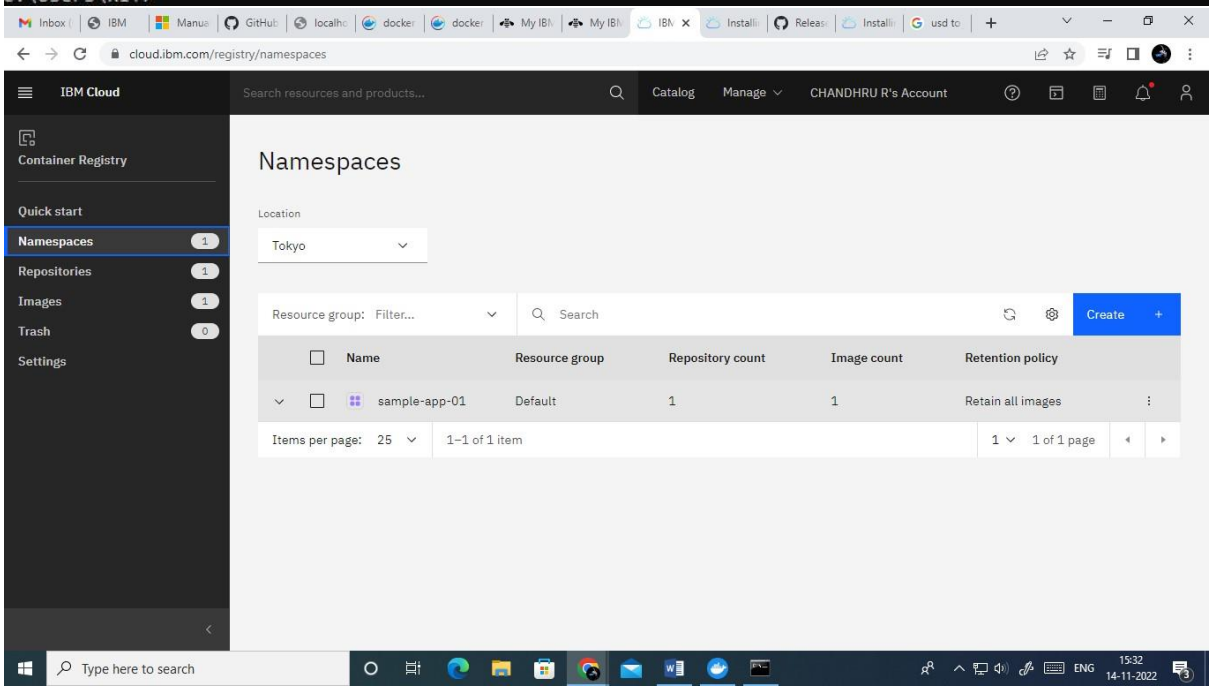


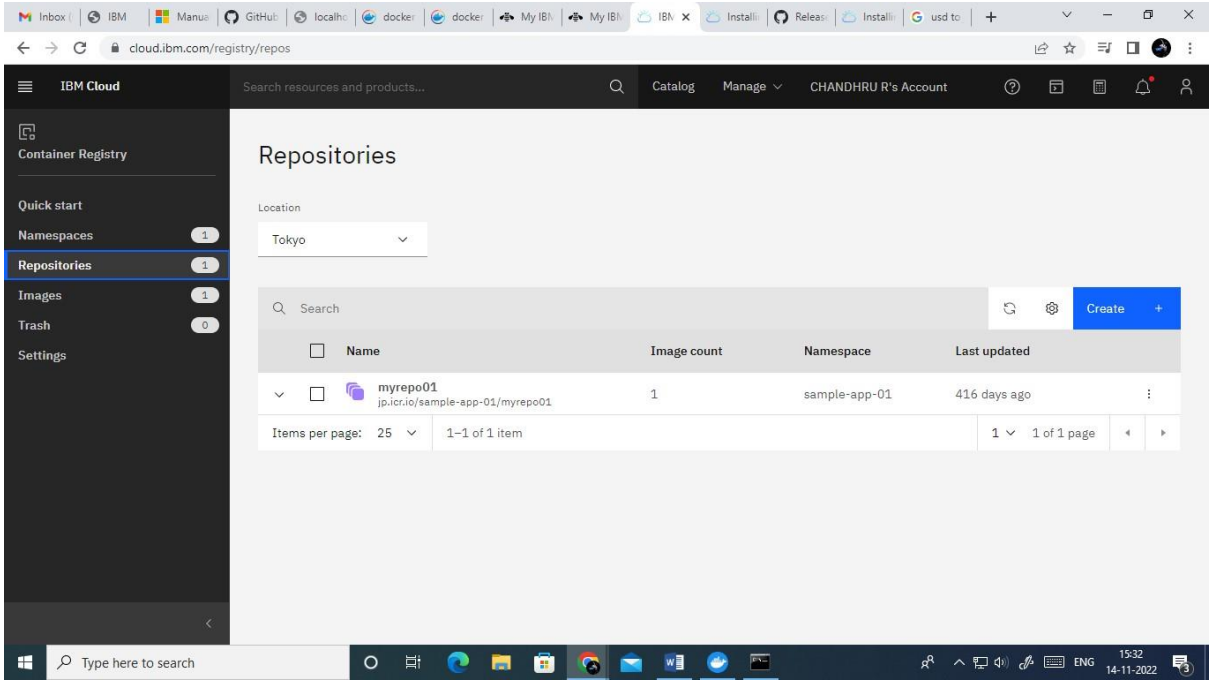
3. Create a IBM container registry and deploy helloworld app or jobportalapp.

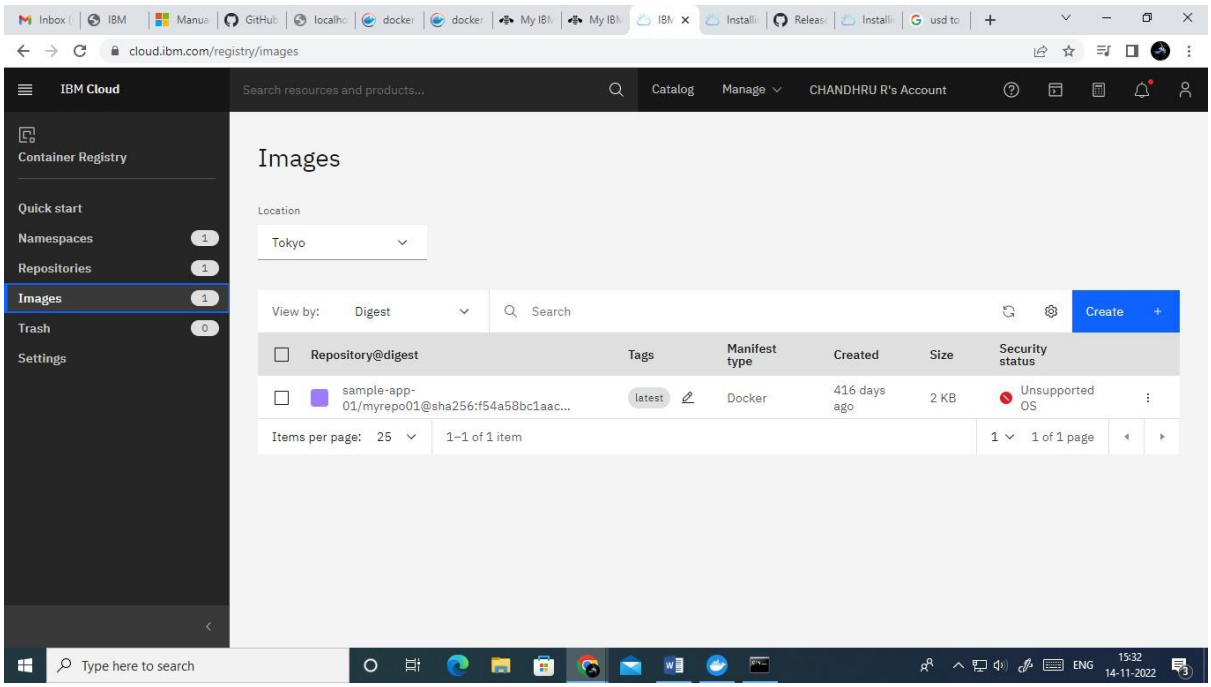
```
C:\Users\RIT>ibmcloud login
API endpoint: https://cloud.ibm.com

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
```

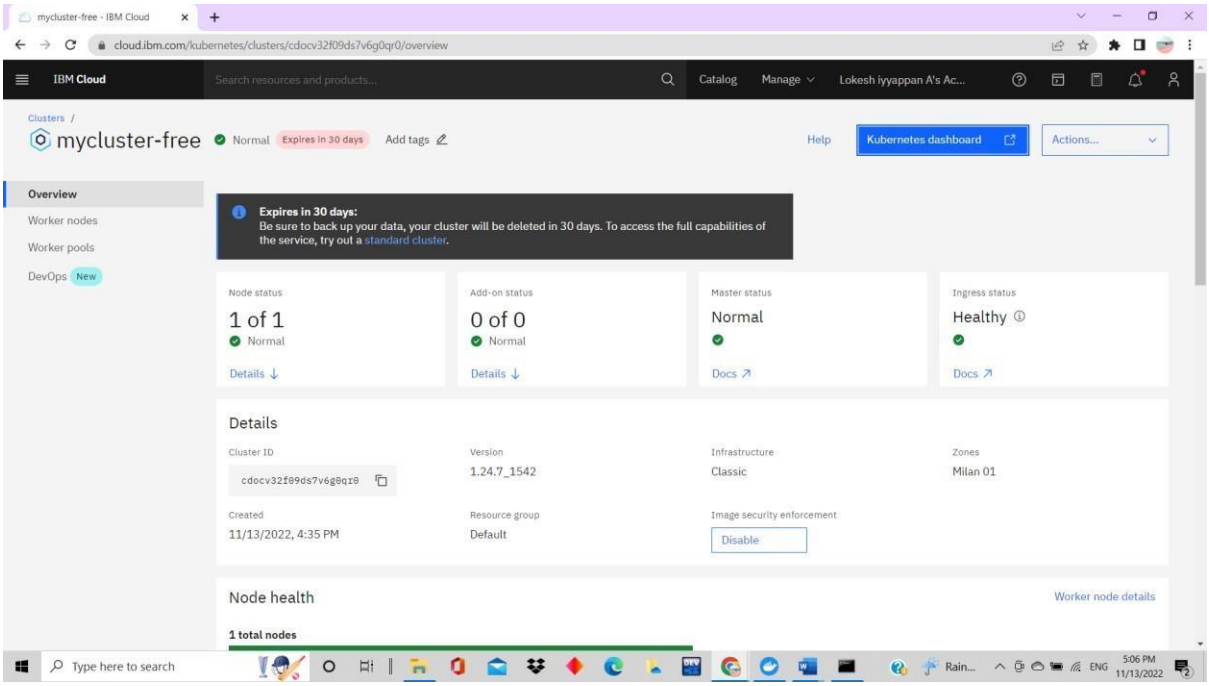
```
C:\Users\RIT>docker tag hello-world jp.icr.io/sample-app-01/myrepo01

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>
```



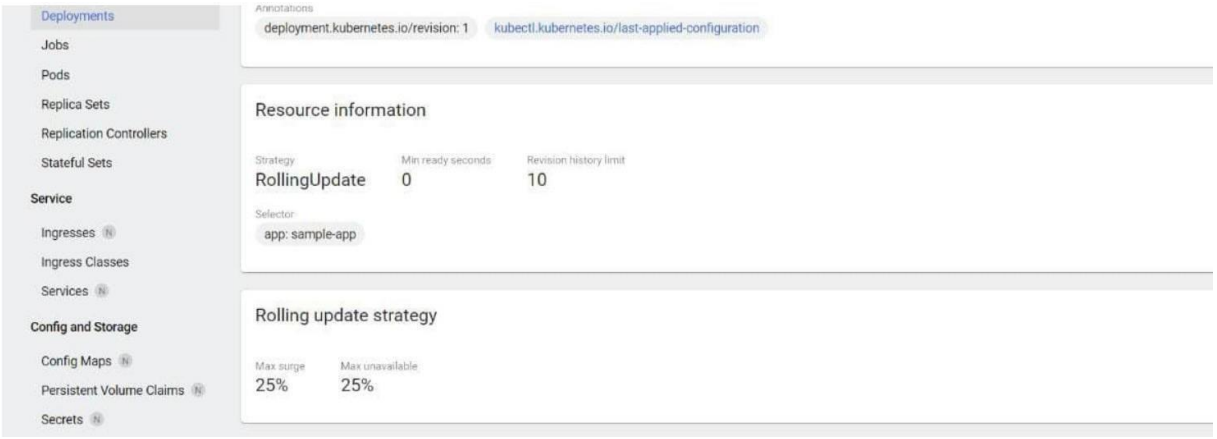


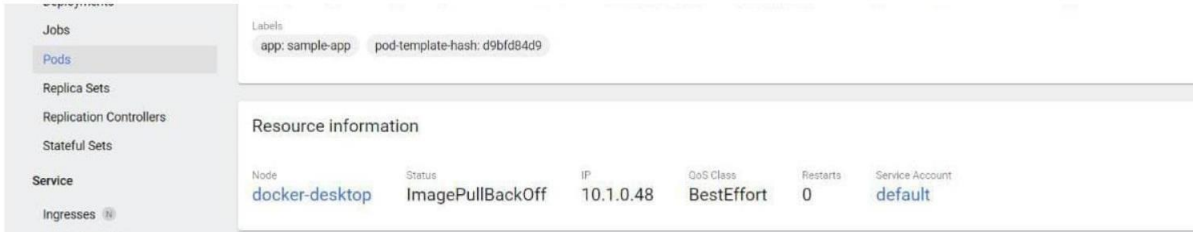


4.Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodepor



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
kubectl.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%


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