

Assignment -4 Docker and kubernetes

Date	12 Nov 2022
Student Name	Gokulaa Krishnaa S
Roll No.	412519104026
Maximum Marks	2 Marks

1. Pull an image from docker hub:

```
centino@Centino:~/Downloads$ 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
centino@Centino:~/Downloads$ docker run hello-world
Unable to find image 'hello-world:latest' locally
docker: Error response from daemon: pull access denied for hello-world, repository does not exist or may require 'docker login': denied: r
cess to the resource is denied.
See 'docker run --help'.
centino@Centino:~/Downloads$ docker run hello-world

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/
```

Run in docker playground

03:58:21

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.18
node1

cdohijm0_cdohjme0qau000cco670

IP
192.168.0.18
OPEN PORT

Memory
1.20% (48.2MB / 3.906GiB)

CPU
0.45%

SSH
ssh ip172-18-0-11-cdohijm0qau000cco66g@direct.labs.play-with-

DELETE EDITOR

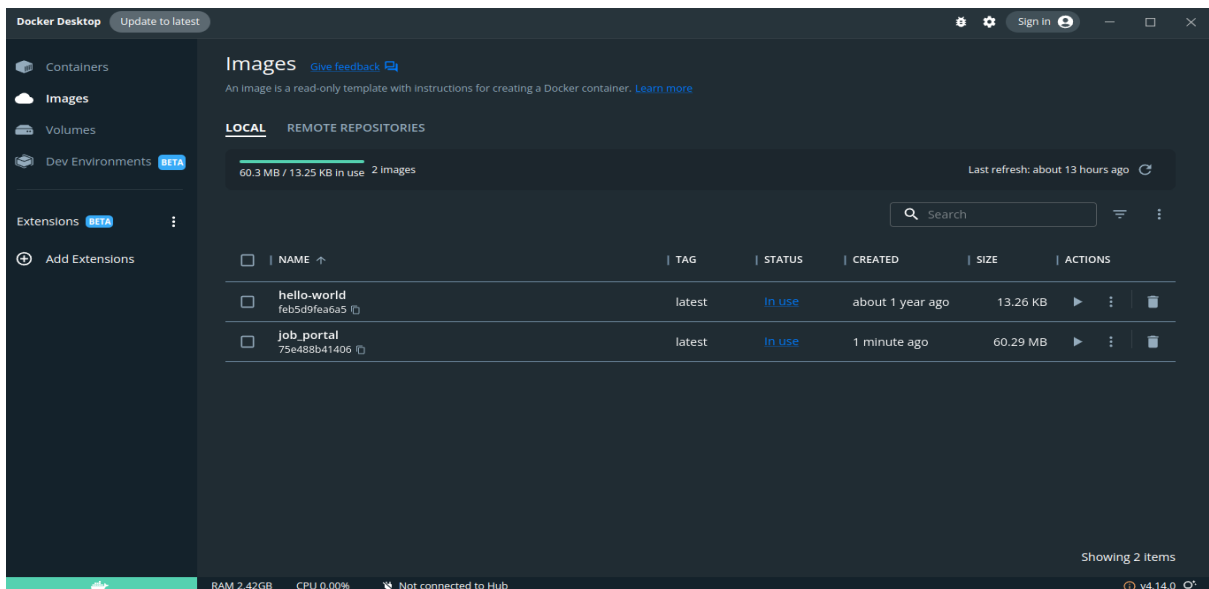
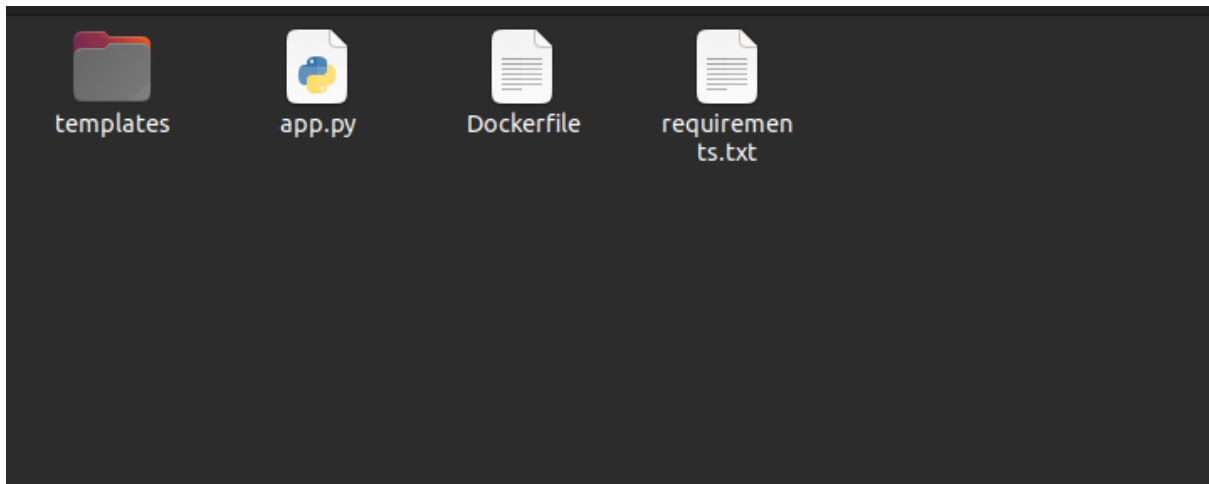
```
***** WARNING! *****
# This is a sandbox environment. Using personal credentials #
# is strongly discouraged. Any consequences of doing so are #
# completely the user's responsibilities. #
# The FWD team. #
*****

(node1) (local) root@192.168.0.18 ~
$ 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
(node1) (local) root@192.168.0.18 ~
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```

2. create job portal application and deploy in desktop application



Home

100.00%

Organization Name: Gokulaa Krishnaa S

Location: Madurai

Job Role: Project Trainee

Eligibility: B.E.

Experience: 1+ year

Compensation 10 lpa

Service Agreement: 2 years

Apply Within: 30 days

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

Namespaces

Location: Global

Resource group: Filter... Search Create +

Name	Resource group	Repository count	Image count	Retention policy
jobportal_app	Default	0	0	

Items per page: 25 1-1 of 1 item 1 1 of 1 page

Images

Location: Global

View by: Tag Search Create +

Repository:tag	Digest	Manifest type	Created	Size	Security status
jobportal_app/job_portal:latest	a330bb48edde...	Docker	5 hours ago	24 MB	No issues

Items per page: 25 1-1 of 1 item 1 1 of 1 page

```
Assignment-4/job_portal$ docker push icr.io/jobportal_app/job_portal:latest
The push refers to repository [icr.io/jobportal_app/job_portal]
d79e0f87ac77: Pushed
a7d0fb0f4d88: Pushed
239e9b79a6d1: Pushed
ac84985c9810: Pushed
c55472592ad7: Pushed
333f96496727: Pushed
2edf98458dc1: Pushed
f80ab90a8af0: Pushed
e5e13b0c77cb: Pushed
latest: digest: sha256:a330bb48edded3e198865e0c54a81543adcea2deb38baef2dfa55428e78f5e30 size: 2200
```

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

The screenshot shows the Kubernetes dashboard overview. The 'Workload Status' section displays three green circles representing the status of Deployments, Pods, and Replica Sets, each with 'Running: 1' below it. Below this, there are three tables: Deployments, Pods, and Replica Sets.

Name	Images	Labels	Pods	Created
jobportal	Show all	Show all	1 / 1	an hour ago

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created
jobportal-6ccb499b9c-stmbs	Show all	Show all	10.144.188.47	Running	0	3.00m	35.59Mi	an hour ago

Name	Images	Labels	Pods	Created
------	--------	--------	------	---------

The screenshot shows the detailed view of the 'jobportal' deployment. The top section shows 'Updated: 1', 'Total: 1', and 'Available: 1'. Below this is a 'Conditions' table.

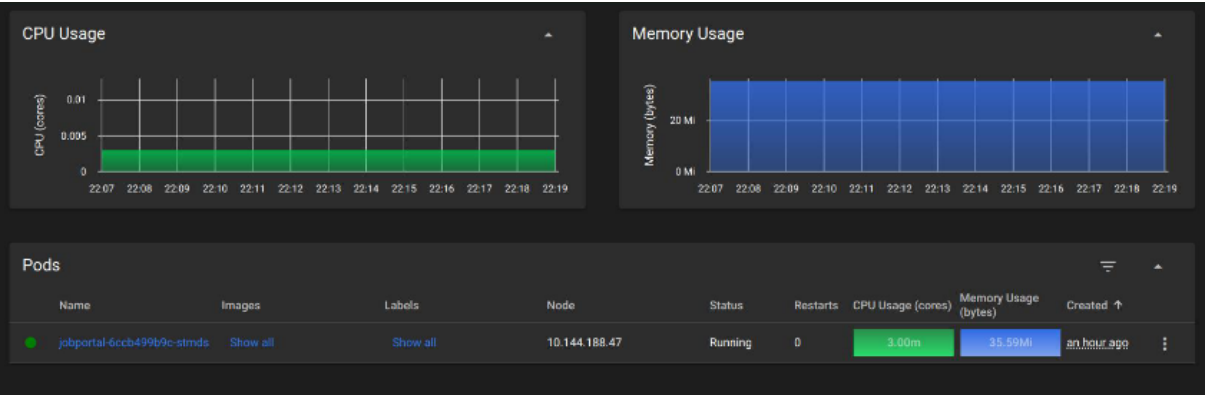
Type	Status	Last probe time	Last transition time	Reason	Message
Available	True	an hour ago	an hour ago	MinimumReplicasAvailable	Deployment has minimum availability.
Progressing	True	an hour ago	an hour ago	NewReplicaSetAvailable	ReplicaSet "jobportal-6ccb499b9c" has successfully progressed.

The 'New Replica Set' section shows:

- Name: jobportal-6ccb499b9c
- Namespace: default
- Age: an hour ago
- Pods: 1 / 1
- Labels: k8s-app: jobportal, pod-template-hash: 6ccb499b9c
- Images: icr.io/jobportal-app/jobportal:1

The 'Old Replica Sets' section shows: 'There is nothing to display here. No resources found.'

The 'Horizontal Pod Autoscalers' section shows: 'Items: 0'.



jobportal

Image
icr.io/jobportal-app/jobportal:1

Status

Ready	Started	Started At
true	true	2022-11-12T15:45:07Z

Mounts

Name	Read Only	Mount Path	Sub Path	Source Type	Source Name
kube-api-access-h8lvz	true	/var/run/secrets/kubernetes.io/ser	viceaccount	Projected	-

Security Context

Privileged
false