

Assignment -4

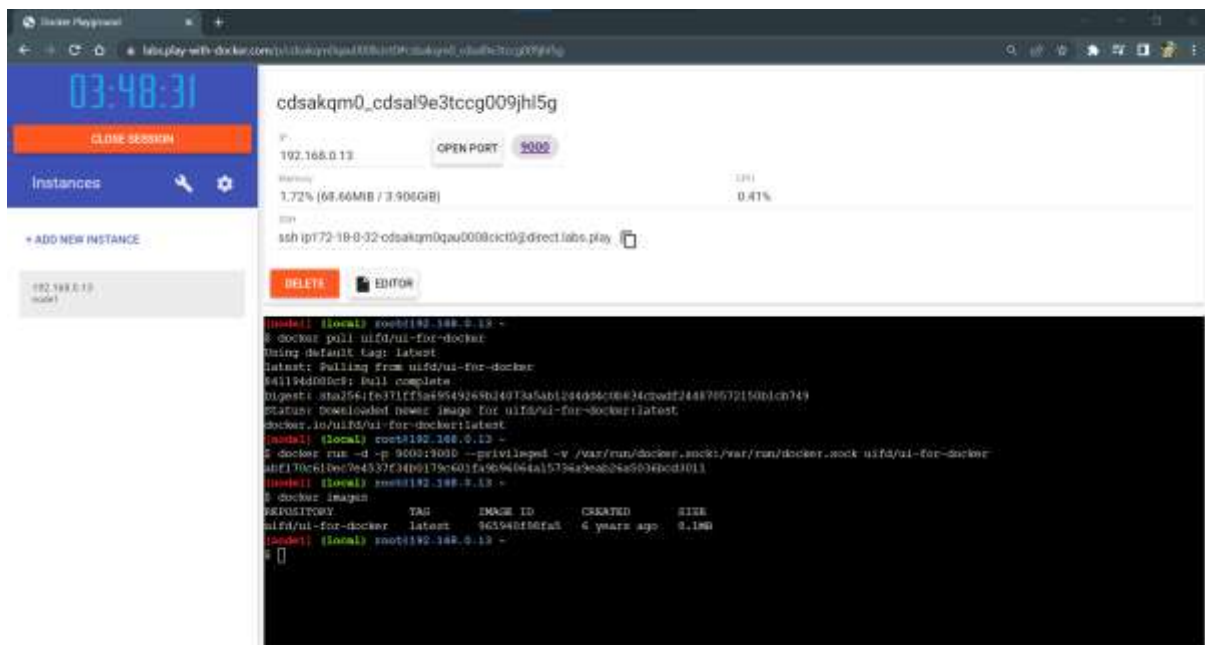
Kubernetes / Docker

Assignment Date	21 November 2022
Student Name	Benitta R K
Student Roll Number	962219104036
Maximum Marks	2 Marks

Question-1:

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

Solution:

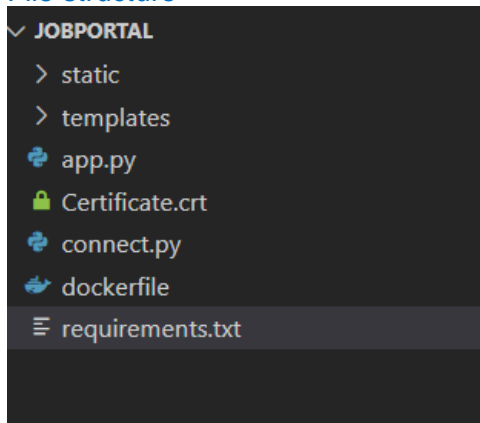


Question-2:

Create a docker file for the jobportal application and deploy it in Docker desktop application

Solution:

File structure



Docker File

```
dockerfile X
dockerfile > ...
1 FROM python
2 WORKDIR /jobportalapp
3 COPY . .
4 RUN pip install -r requirements.txt
5 EXPOSE 5000
6 CMD ["python", "app.py"]
```

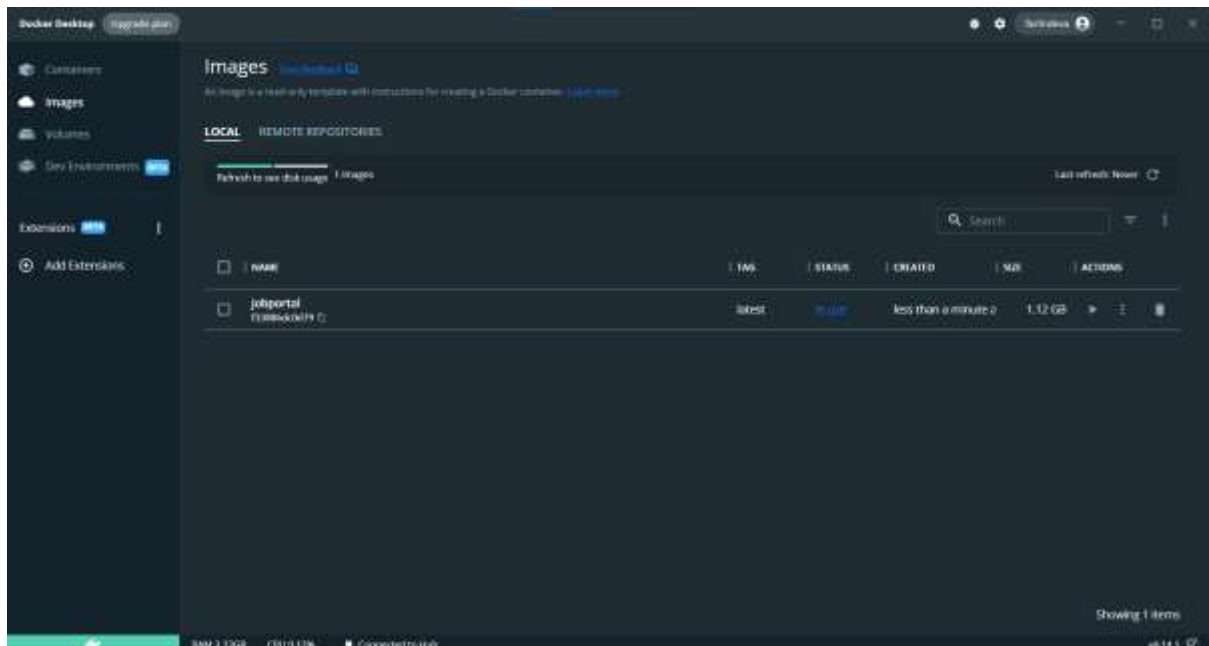
Requirements file

```

≡ requirements.txt X
≡ requirements.txt
1  Flask==2.2.2
2  ibm-db==3.1.3

```

[illegible]



Question-3:

Create a IBM container registry and deploy helloworld app or jobportalapp

Solution:

```

C:\Users\Bhav> docker run --rm --name registry registry:2
Plugging in 'registry:2' failed in repeating 'IBMCloud'
Attempting to download the binary file...
11:56 PM / 11:56 PM [=====] 100.0%
11:56 PM [=====] 100.0%
Installing binary...
Plugging in 'registry:2' was successfully installed into C:\Users\Bhav\AppData\Local\registry. Use the 'docker plugin registry' to view its details.
C:\Users\Bhav> docker login --username=Bhav --password=Bhav IBMCloud
WARNING! Using --password via the CLI is insecure. Use --password-stdin.
Email: bharat.bhav@ibm.com
Password:
Re-authenticating...
Targeted account: bharat.bhav@ibm.com (bharat.bhav@ibm.com)

Select a region (or press enter to skip):
1. us-east
2. us-west
3. eu-west
4. eu-central
5. us-central
6. us-east
7. us-west
8. eu-central
9. eu-west
10. us-east
11. us-west
Enter a number > 2
Targeted region: us-west

API endpoint: https://cloud.ibm.com
Region: us-west
Email: bharat.bhav@ibm.com
Account: bharat.bhav@ibm.com (bharat.bhav@ibm.com)
Resource group: No resource group targeted, use "IBMCloudTarget" as resource group
API endpoint: https://cloud.ibm.com
Org:
Space:
  
```


mycluster-free - IBM Cloud

cloud.ibm.com/kubernetes/clusters/ctq0nldq5q2f1qu00/overview

IBM Cloud

mycluster-free Preparing master, workers... Expires in 30 days Add tags

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 Pending

Add-on status: 0 of 0 Normal

Master status: Unknown

Ingress status: Pending

Details

Cluster ID: ctq0nldq5q2f1qu00

Version: 1.24.7_1542

Infrastructure: Classic

Zones: Milan 01

mycluster-free - IBM Cloud

cloud.ibm.com/kubernetes/clusters/ctq0nldq5q2f1qu00/nodes

IBM Cloud

mycluster-free Preparing master, workers... Expires in 30 days Add tags

Overview

Worker nodes

Worker pools

DevOps New

Pool: Filter... Search

Worker nodes

Name	Status	Worker pool	Zone	Private IP	Public IP	Version
00000032	Normal	default	Milan 01	10.144.185.58	169.51.203.185	1.24.7_1543

Items per page: 25 1-1 of 1 item

kubernetes

default Search

Overview

Workloads

Workload Status

Deployments Pending

Pods Pending

Replica Sets Pending

Deployments

Overview					
Workloads	Deployments				
	Name	Images	Labels	Pods	Created ↑
	jobportalapp	Show all	Show all	1 / 1	54 seconds ago
	Pods				
Service	Name	Images	Labels	Node	Status
	jobportalapp-9d269sE77Q5mg6	Show all	Show all	10.144.185.58	Running
	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created ↑	
	0	-	-	54 seconds ago	
	Replica Sets				
Config and Storage	Name	Images	Labels	Pods	Created ↑
	jobportalapp-9d269sE77Q5mg6	Show all	Show all	1 / 1	55 seconds ago

Edit a resource

YAML

JSON

50 spec:

51 ports:

52 - name: tcp-5000-488-ct4tf

53 protocol: TCP

54 port: 5000

55 targetPort: 5000

56 nodePort: 32576

57 selector:

58 k8s-app: jobportalapp

59 clusterIP: 172.21.63.60

60 clusterIPs:

61 - 172.21.63.60

62 type: NodePort

63 sessionAffinity: None

64 externalTrafficPolicy: Cluster

65 ipFamilies:

66 - IPv4

67 ipFamilyPolicy: SingleStack

68 allocateLoadBalancerNodePorts: true

69 internalTrafficPolicy: Cluster

70 status:

71 loadBalancer: {}

72

Update

Cancel