

## Assignment-4

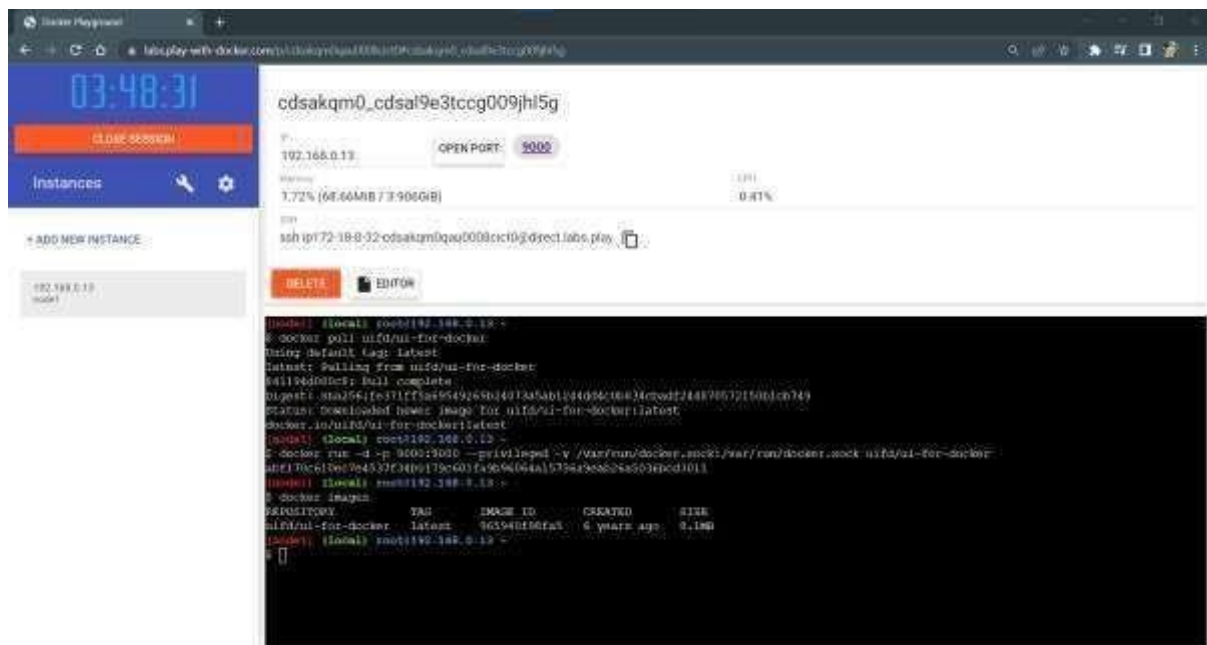
### Kubernetes / Docker

Assignment Date	26 November 2022
Student Name	ANTANIN GINISTA D
Student Roll Number	962219104018
Maximum Marks	2 Marks

#### Question-1:

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

#### Solution:

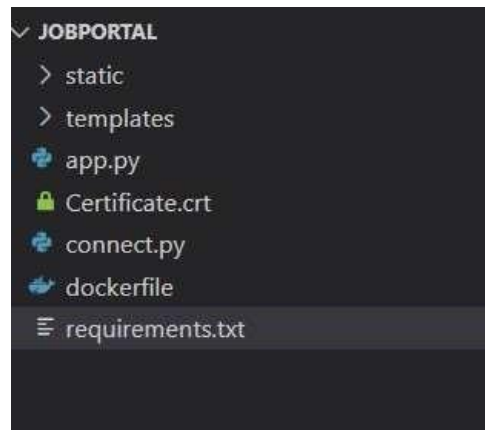


#### Question-2:

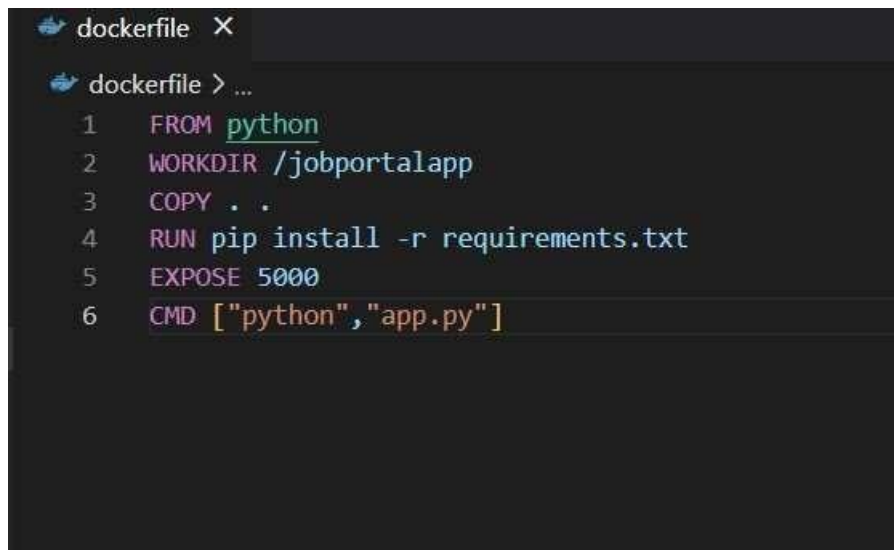
Create a docker file for the jobportal application and deploy it in Docker desktop application

#### Solution:

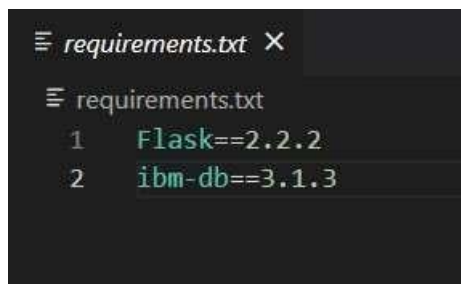
File structure



## Docker File



## Requirements file



has 'black box' to his Web tools against images to find vulnerabilities and learn how to fix them

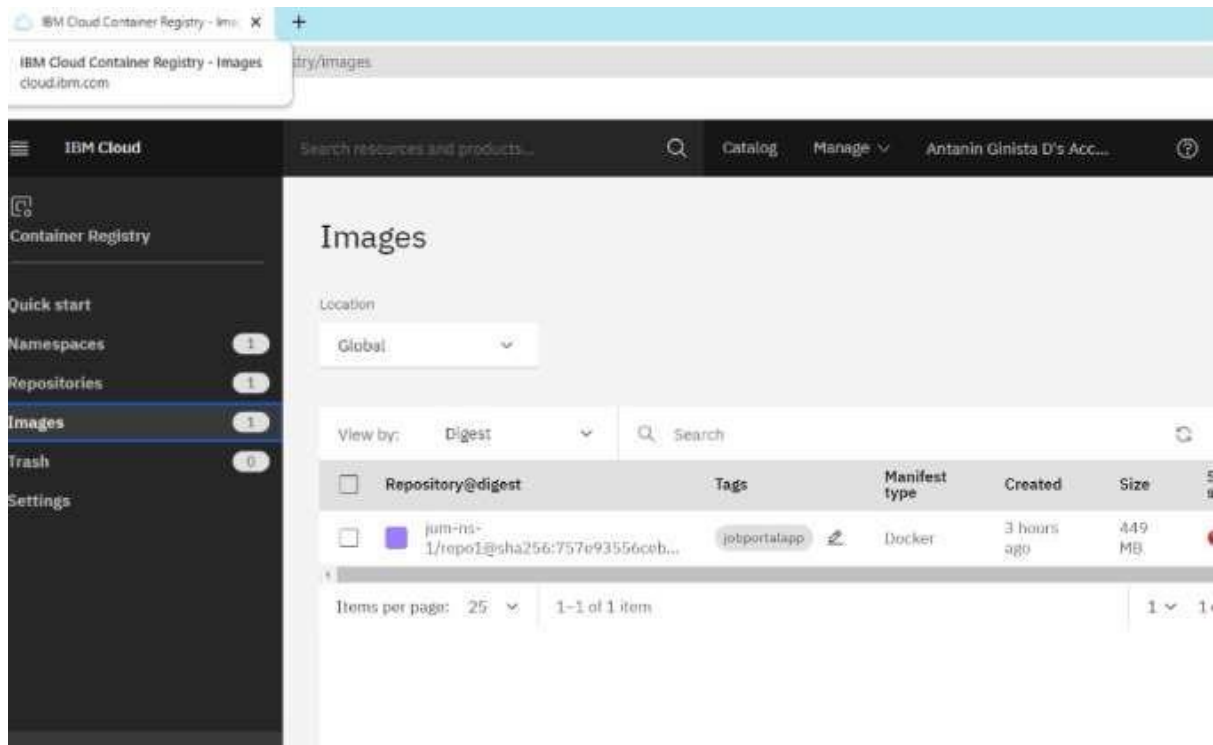


### Question-3:

## Create a IBM container registry and deploy helloworld app or jobportalapp

**Solution:**





#### Question-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.

#### Solution:

mycluster-free - IBM Cloud

cloud.ibm.com/kubernetes/clusters/c0b037f0n6ndkc24p6g/overview

IBM Cloud Search resources and products... Catalog Manage Antonin Grista D's Acc...

Clusters / 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 Details

Add-on status: 0 of 0 Normal Details

Master status: Unknown Docs

Ingress status: Pending Docs

Details

Cluster ID: c0b037f0n6ndkc24p6g

Version: 1.24.8\_1544

Infrastructure: Classic

Zones: Milan 01

mycluster-free - IBM Cloud

cloud.ibm.com/kubernetes/clusters/c0b037f0n6ndkc24p6g/nodes

IBM Cloud Search resources and products... Catalog Manage Antonin Grista D's Acc...

Clusters / mycluster-free Normal Expires in 30 days Add tags

Overview

Worker nodes


Worker pools

DevOps New


Pool: Filter... Search Add




Name	Status	Worker pool	Zone	Private IP	Public IP	Version
00000034	Normal	default	Milan 01	10.144.185.112	169.51.204.106	1.24.8_1545

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

kubernetes

default

 Search



Overview

Workloads

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service

Ingresses


Ingress Classes

Services

Config and Storage


Workloads

Workload Status




Pending 1

Deployments



Pending 1

Pods



Pending 1

Replica Sets

Deployments

Overview

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Ingress Classes

Services


Deployments

Name	Images	Labels	Pods	Created
 <a href="#">jupyterlabapp</a>	<a href="#">Show all</a>	<a href="#">Show all</a>	1 / 1	54 seconds ago

Pods

Name	Integrity	Labels	Node	Status	Restarts	CPU Usage (core)	Memory Usage (bytes)	Created
 <a href="#">jupyterlabapp-kubectl5725mg8</a>	<a href="#">Show all</a>	<a href="#">Show all</a>	10.144.185.58	Running	0	-	-	54 seconds ago

Replica Sets

Name	Images	Labels	Pods	Created
 <a href="#">jupyterlabapp-kubectl5725mg8</a>	<a href="#">Show all</a>	<a href="#">Show all</a>	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