Assignment -4 Docker and kubernetes

Assignment Date	10 October 2022
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Student Roll Number	190801097
Maximum Marks	2 Marks

Question-1:

pull an image from docker hub and run it in docker playground.

1) pull an image form docker hub

```
Command Prompt
                                                                                                                                                                                                                O
 ticrosoft Windows [Version 10.0.19844.1766]
(c) Microsoft Corporation. All rights reserved.
  :\Users\ADMIN>docker push shabariganesan/docker_with_flask_form
Using default tag: latest
The push refers to repository [docker.io/shabariganesan/docker_with_flask_form]
An image does not exist locally with the tag: shabariganesan/docker_with_flask_form
C:\Users\ADMIN>docker pull shabariganesan/docker_with_flask_form
Using default tag: latest
latest: Pulling from shabariganesan/docker_with_flask_form
1671565cc8df: Pull complete
3e94d13e55e7: Pull complete
fa9e7528c685: Pull complete
  3ad072f9cd1: Pull complete
  16b983117533: Pull complete
d8092d56ded5: Pull complete
c71afc637d59: Pull complete
C7187C637G59: Pull complete

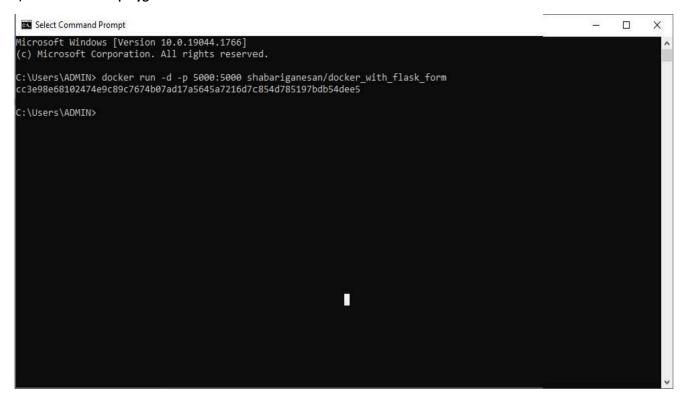
4334b2fe8293: Pull complete

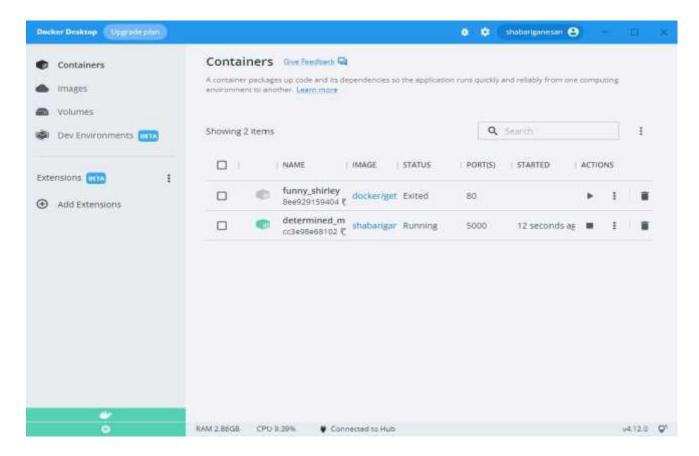
4934b2fe8293: Pull complete

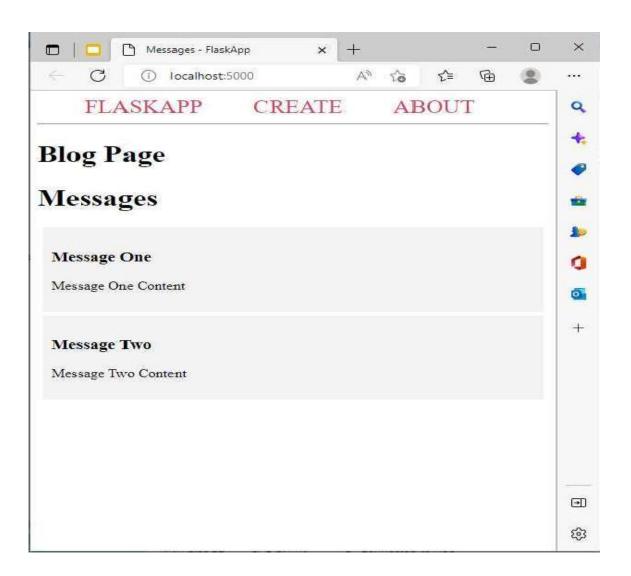
8944570703f4: Pull complete

f885911288d0: Pull complete
  86f369ca59f: Pull complete
 e113bd27b88e: Pull complete
Digest: sha256:c61f28873bf1c909786ce991b8b60cd976765077f344e34d50e6cce8cf8d95c3
Status: Downloaded newer image for shabarlganesan/docker_with_flask_form:latest
  docker.io/shabariganesan/docker_with_flask_form:latest
  :\Users\ADMIN>
```

2) runt it in docker playground



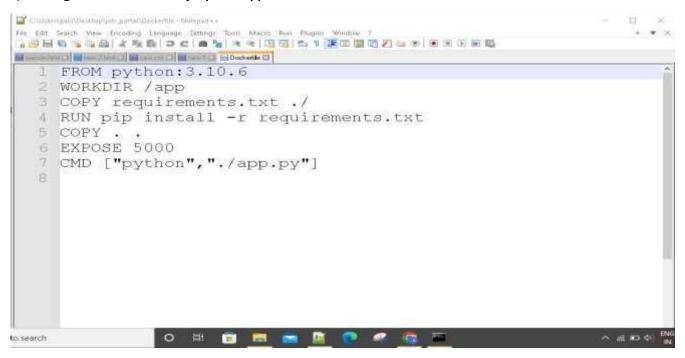




Question-2:

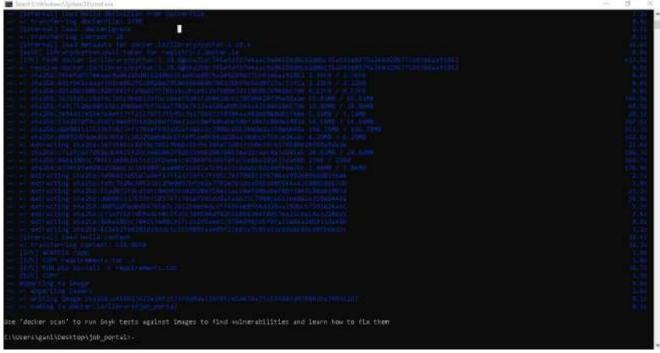
Create a docker file for the jobportal application and deploy it in docker application.

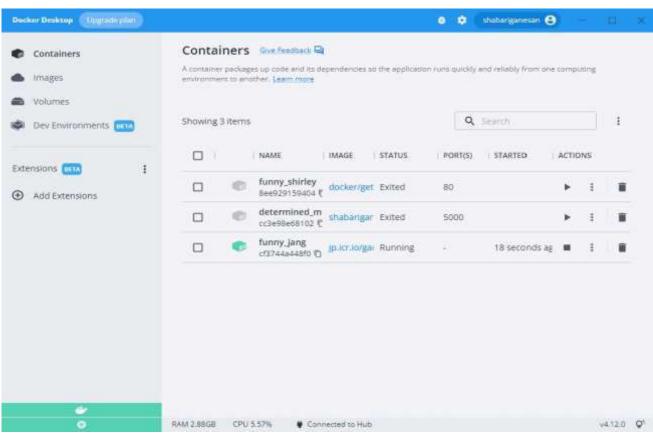
1) Creating a docker file for the jobportal application

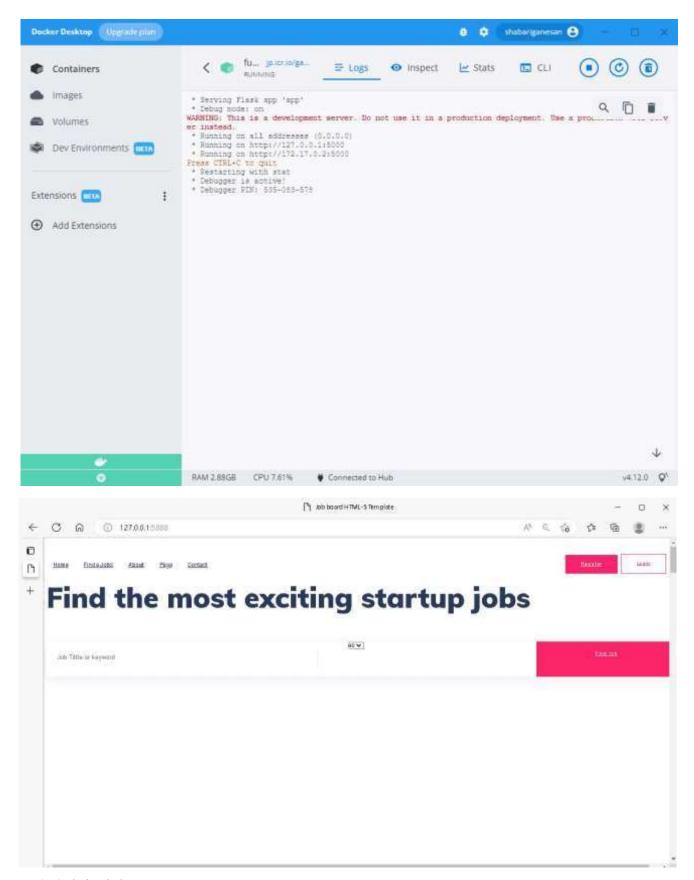


2) deploy in in dokcer application

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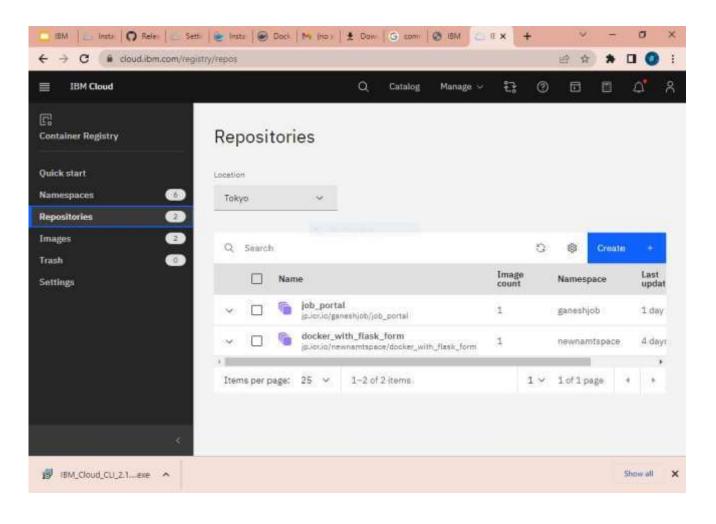
Question-3:Create albm container registry and deploy helloworld app or jobportalapp

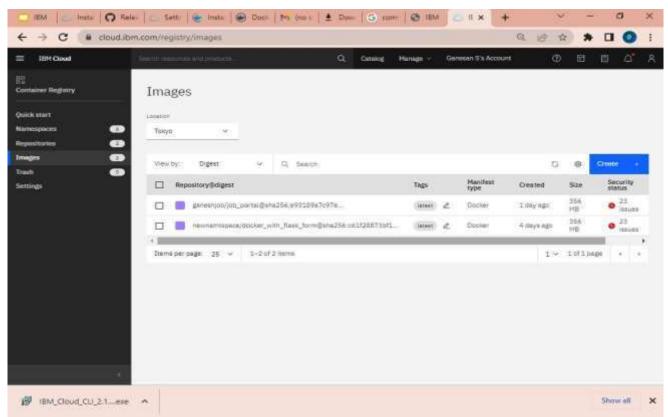
1) create a ibm container registry

```
Command Prompt
                                                                                                                                   X
 Account:
                      Ganesan 5's Account (2a239674b9ba463891acc3c4fcbe0a99)
                      No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
Resource group:
CF API endpoint:
Org:
Space:
Change logs: https://github.com/IBM-Cloud/ibm-cloud-cli-release/releases/tag/v2.11.1
TIP: use 'ibmcloud config --check-version=false' to disable update check.
Do you want to update? [y/N] > y
Installing version '2.11.1'...
 Downloading..
 14.88 MiB / 14.88 MiB [==
                                  15604696 bytes downloaded
Saved in C:\Users\ADMIN\.bluemix\tmp\bx 2625690972\IBM Cloud CLI 2.11.1 amd64.exe
C:\Users\ADMIN>ibmcloud plugin install container-registry
Looking up 'container-registry' from repository 'IBM Cloud'...
Plug-in 'container-registry[cr] 1.0.2' found in repository 'IBM Cloud'
Attempting to download the binary file...
11.90 MiB / 11.90 MiB [=========] 100.00% 1s
12476416 bytes downloaded
Installing binary...
Plug-in 'container-registry 1.0.2' was successfully installed into C:\Users\ADMIN\.bluemix\plugins\container-registry. U
    'ibmcloud plugin show container-registry' to show its details.
C:\Users\ADMIN>
```

2) deployhelloworld or jobportal

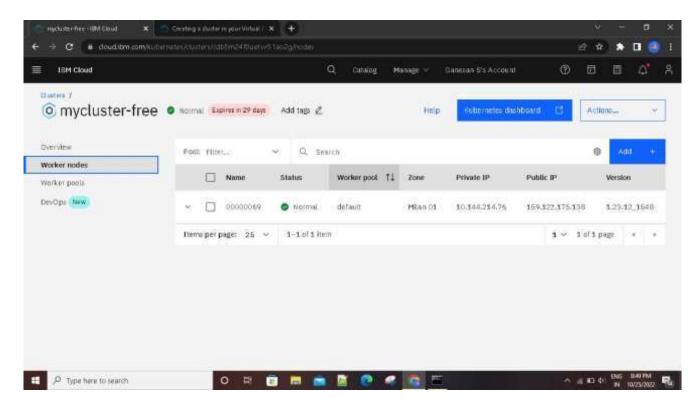
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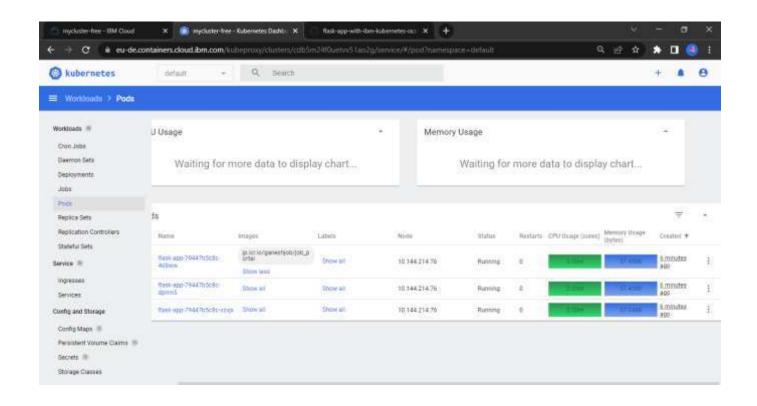
Question-4: Create a kubernetes cluster in ibm cloud and deploy helloworld image or jobportal image and also expose the same app to run in noteport

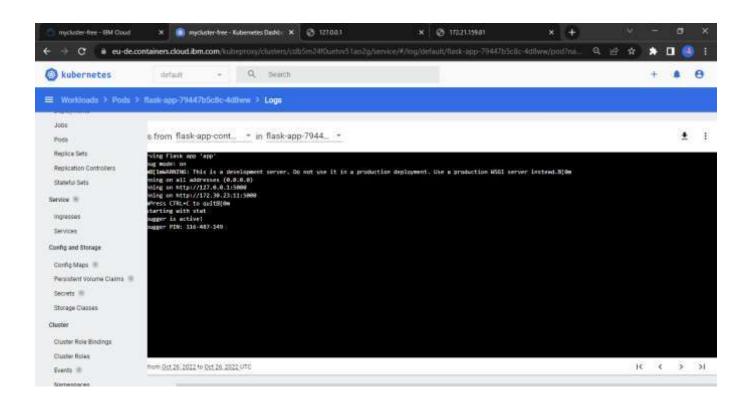
1)Creating a kubernetes cluster in ibm cloud



2) deploy helloworld image or jobportal image and also expose the same app to run in noteport

```
C:\Windows\System32\cmd.exe
                                                                                                                                                      X
10/16/2022
               12:28 PM
                                            3,721 windows shortcut.txt
                                     2,897 YouTube.lnk
804,677,196 bytes
08/25/2022
               08:40 PM
                  24 File(s)
                   9 Dir(s) 79,221,886,976 bytes free
C:\Users\gani\Desktop>cd deploy
The system cannot find the path specified.
C:\Users\gani\Desktop>kubectl apply -f kubernetes/depoly.yaml error: the path "kubernetes/depoly.yaml" does not exist
C:\Users\gani\Desktop>kubectl apply -f depoly.yaml
error: the path "depoly.yaml" does not exist
C:\Users\gani\Desktop>kubectl apply -f C:\Users\gani\Desktop\deploy.yaml
deployment.apps/flask-app created
C:\Users\gani\Desktop>
```





O C//Windows/System32/cmd.exs 'Mindows'system32*kubect| expose deployment flask-app .-typd=NodePort --name=flask service he Service "flask service" is invalid: metadata.name: Invalid value: "flask service": a DRS 1835 label must consist of lower case alphanumenic characters or '-with an alphabetic character, and end with an alphanumenic character (e.g. 'my-name', no 'abc-123', regex used for validation is '[a-2]([-a-26-9]*[a-26-9])2') :\Nindows\system32>kubectl expose deployment flask-app .-type=NodePort - name=flask service
he Service "flask service" is invalid: metadata.name: Invalid value: "flask service": a DNS-1825 label must consist of lower case alphanumeric characters or 'with an alphabetic character, and end with an alphanumeric character (e.g. 'my-name', or 'abc-123', regex used for validation is '[a-z]([-a-zH-9]*[a-zH-9])3') :\Windows\system32>kubectl expose deployment flask-app --type-NodePort --name-flask service
he Service "flask_service" is invalid: metadata.name: Invalid value: "flask_service": a DMS-1835 label must consist of lower case alphanumeric characters or "-"
with an alphabetic character, and end with an alphanumeric character (e.g. "my-name", or "abc-123", regex used for validation is "[a-z]([-a-z8-9]*[a-z8-9])?") adous\systemIZ>kubect1 expose deployment flask-app --type-NodePort --name-flask-service from server (AlreadyExists): services "flask-service" already exists \Mindows\system32> \Windows\system32>kubecti -n kubernetws-dashboard get depploy \Mindows\system32\kubert1 -n kubernetes-dashboard get deploy resources found in kubernetes-dashboard namespace. \Mindows\system32>kubert1 -n kubernetus-dashboard get deploy o resources found in kubernetes-dashboard namespace. :\Mindows\system32>kubect1 proxy tarting to serve on 127,0,0,1:8801 \Mindows\system32>kubectl -n kubernetes-dashboard get deplou \Mindows\system32/kubectl -n kubernetes-dashboard get deploy resources found in kubernetes-dashboard namespace. \Mindows\system32\kubectl -n kubernetes-dashboard get pods presources found in kubernetes-dashboard namespace. Naindows\system32>kubectl expose deployment flask-app --type=ModePort --r rror from server (AlreadyExists): services "Flask-service" already exists -name-flask-service :\Mindows\system32>kubectl get ing
AMI CLASS HOSTS ADDRESS PORTS AGE
Task-app-ingress cnone> * 80 278 :\Mindows\system32>kubect1 get svc WHE TYPE CLUSTER-IP EXTERNAL-IP PORT(5)