Assignment -4 Docker and kubernetes

Assignment Date	10 October 2022
Student Name	Roopak S
Student Roll Number	412519104112
Maximum Marks	2 Marks

Question-1:

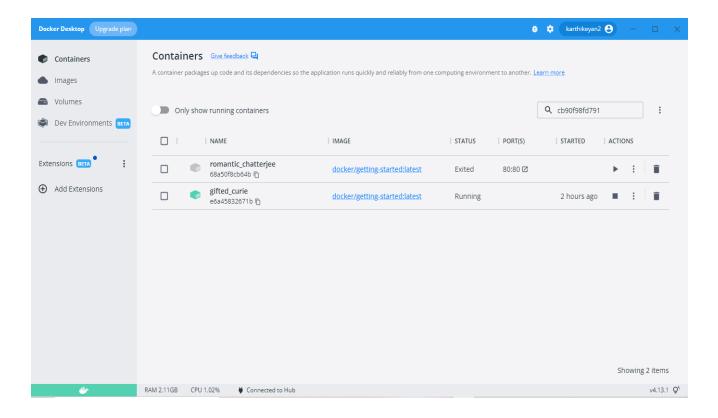
Pull an image from docker hub and run it in docker playground.

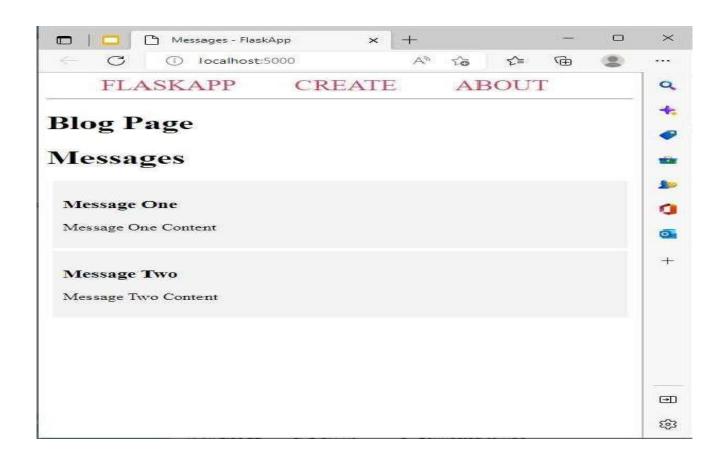
1) Pull an image form docker hub

```
Command Prompt
                                                                                                                                  ×
C:\Users\karth>docker run -d -p 80:80 docker/getting-started
Unable to find image 'docker/getting-started:latest' locally
latest: Pulling from docker/getting-started df9b9388f04a: Pull complete
5867cba5fcbd: Pull complete
4b639e65cb3b: Pull complete
061ed9e2b976: Pull complete
bc19f3e8eeb1: Pull complete
4071be97c256: Pull complete
79b586f1a54b: Pull complete
0c9732f525d6: Pull complete
Digest: sha256:b558be874169471bd4e65bd6eac8c303b271a7ee8553ba47481b73b2bf597aae
Status: Downloaded newer image for docker/getting-started:latest
68a50f8cb64b17ecfbd36b07c61218bee475f1f98694580df3d6a3cde8d04024
C:\Users\karth>docker images
REPOSITORY
                                         IMAGE ID
                                                          CREATED
                                                                            43.6MB
alpine/git
                             latest
                                        42a1cda0ba24
                                                         3 weeks ago
karthikeyan2/alpine/git latest
                                         42a1cda0ba24
                                                         3 weeks ago
                                                                            43.6MB
docker/getting-started
                             latest
                                         cb90f98fd791
                                                          7 months ago
                                                                            28.8MB
 :\Users\ADMIN>docker push shabariganesan/docker_with_flask_form
sing default tag: latest
he push refers to repository [docker.io/shabariganesan/docker_with_flask_form]
n image does not exist locally with the tag: shabariganesan/docker_with_flask_form
```

2) Run it in docker playground



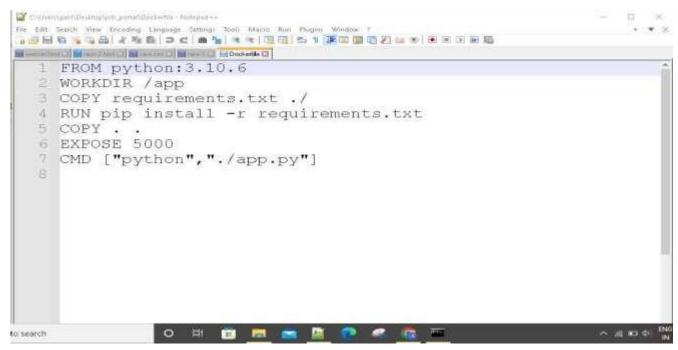




Question-2:

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 docker application

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Nolume Serial Number is Sed3-1086

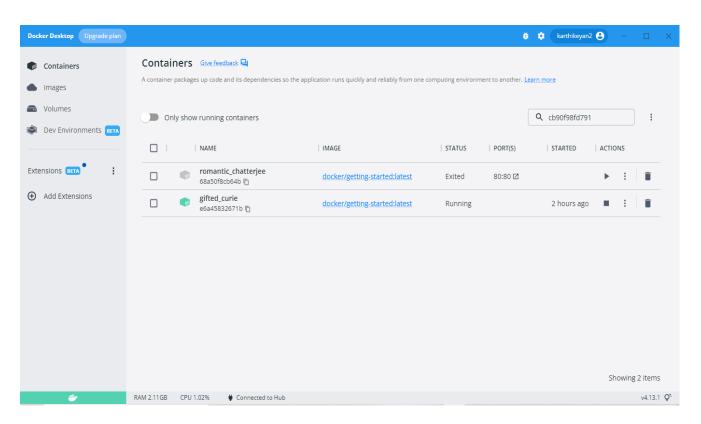
Obmatory of Cillians Ngani Newtopylob portal

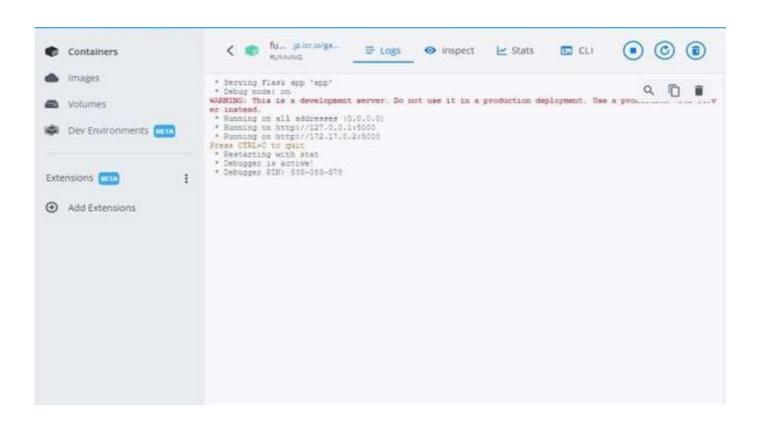
18755/2022 Milian Pr. (COR)

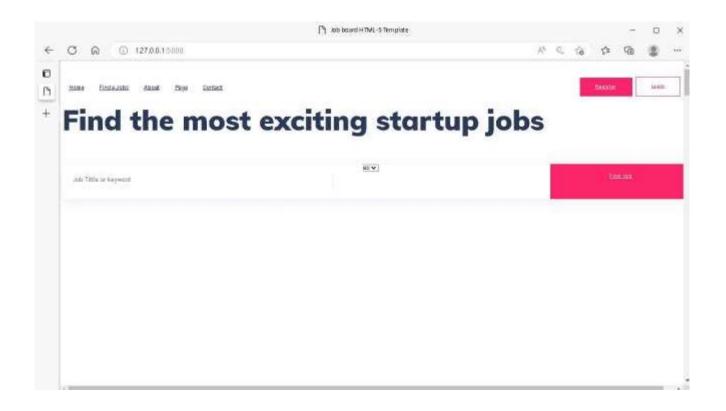
18757/2022 Milian Pr. (COR)

18757/2022
```









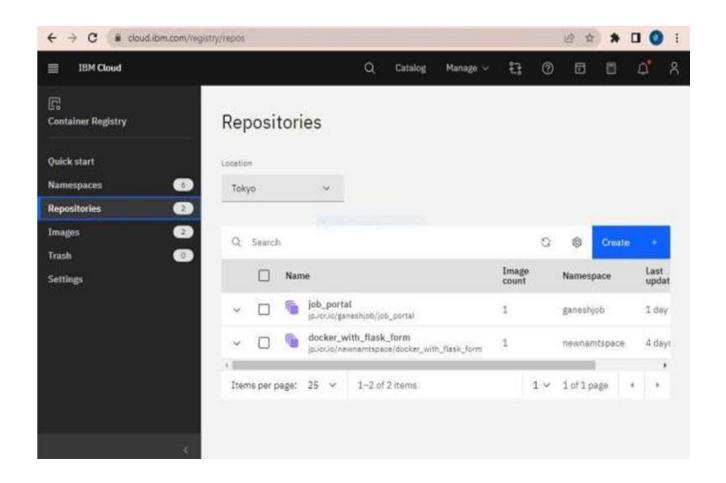
Question-3: Create a Ibm container registry and deploy helloworld app or jobportal app

1) Create a ibm container registry

```
Command Prompt
                                                                                                                                                            X
 Account:
                          Ganesan S'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 [===
                                                            _______] 100.00% 25
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% 15
12476416 bytes downloaded
Installing binary...
Plug-in 'container-registry 1.0.2' was successfully installed into C:\Users\ADMIN\.bluemix\plugins\container-registry. U se 'ibmcloud plugin show container-registry' to show its details.
C:\Users\ADMIN>
```

2) Deploy helloworld or jobportal

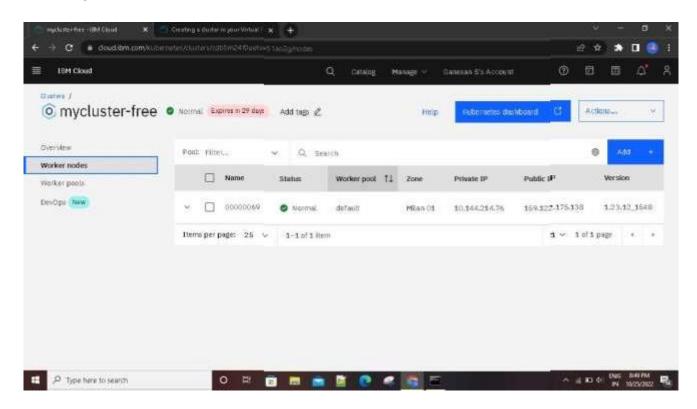
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Question-4:

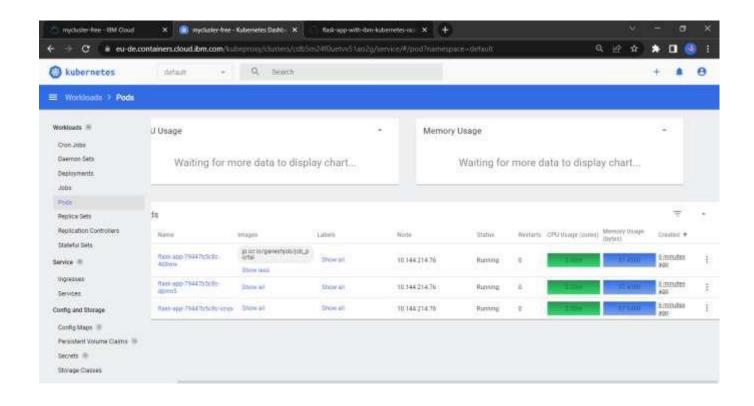
Create a kubernetes cluster in ibm cloud and deploy helloworld image or jobportal image and also expose the same app to run in noteport

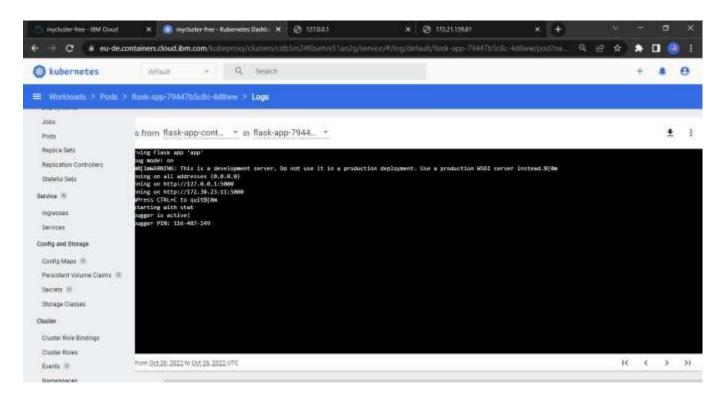
1) Creating a kubernetes cluster in ibm cloud



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

```
П
                                                                                                                                                               ×
 C:\Windows\System32\cmd.exe
10/16/2022
                12:28 PM
                                             3,721 windows shortcut.txt
                   2,897 YouTube.lnk
24 File(s) 804,677,196 bytes
9 Dir(s) 79,221,886,976 bytes free
08/25/2022 08:40 PM
                  24 File(s)
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.acc "Mindows/ystem32.whocil expose deployment flask-app - type-modePort - name-flask service
he Service "flask sorvice" is invalid: metadata.mame: Invalid value: "flask service": a DNS:3835 label must consist of lower case alphanumenic characters or 'with an alphabetic character, and end with an alphanumenic character (e.g. "my name", or "abc-123", regex used for validation is "[a-2]([-a-26-9]*[a-26-9])?") '(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-1035 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])?") (Windows\system32>kuhectl expose deployment flask-app - type-NodePort - name-Flask service
he Service "flask_service" is invalid: metadata.name: Invalid value: "flask_service": a DNS-1035 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-z0-9]*[a-z0-9])?") 'Nindows\system12>kubectl expose deployment flask-app --type-NodePort --name-flask-service rrow from server (AlreadyExists): services "flask-service" already exists \Mindows\system32> \Mindows\system32>kubect1 -n kubernetes-dashboard get depploy \Mindows\system12:kubert1 -n kubernetes-dashboard get deploy resources found in kubernetes-dashboard namespace. \Windows\system32\kubert1 -n kubernetus-dashboard gut deploy o resources found in Kubernetes-dashboard namespace. :\Windows\system32>kubect1 proxy tarting to serve on 127.0.0.1:0001 \Mindows\system32*kubectl -n kubernetes-dashboard get deplou \Mindows\system32>kubectl -n kubernetes-deshboard get deploy o resources found in kubernetes-dashboard namespace. \Mindows\system32>kubectl -n kubernetes-dashboard get pods presources found in kubernetes-dashboard namespace. -Nulmdows\systemIZ>kubectl expose deployment flask-app --type-NodeFort --name-flask-service rror from server (Alreadytmists): services "Flask-service" already exists :\Mindows\Aystem32>kubectl get ing
WM CLASS HOSTS ADDRESS PORTS AGE
Eask-upp-ingress cnone> * 80 27m :\Windows\system32>kubect1 get avc WHE TYPE CLUSTER-IP