# Assignment -4 Docker and kubernetes

Assignment Date	10 October 2022
Student Name	Mr. S. Ganesan
Student Roll Number	612419104010
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

```
Administrator. Command Prompt
Login Succeeded

Logging in with your password grants your terminal complete access to your account.
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/access-tokens/

C:\Windows\System32>docker run -d -p 80:80 docker/getting-started

Jnable to find image 'docker/getting-started:latest' locally

latest: Pulling from docker/getting-started

1f9b9388f04a: Pull complete

5867cba5fcbd: Pull complete

46639e65cb3b: Pull complete

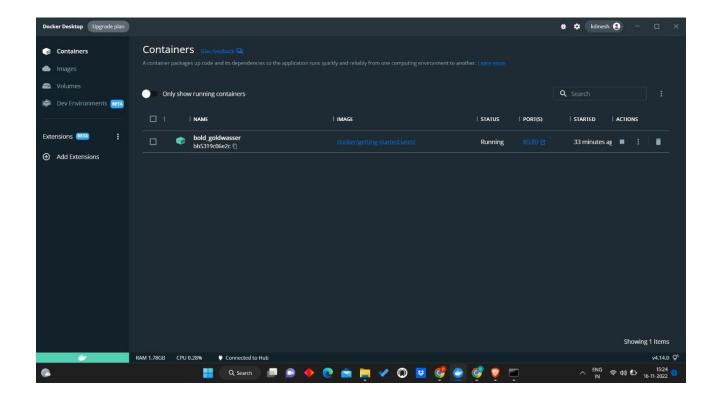
261ed9e2b976: Pull complete

261ed9e2b976: Pull complete

267j326seebi: Pull complete

267j32f525d6: Pull complete
```

## 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

```
Free Eint Sench Virw Encoding Linguistics Stating) Tool Madro River Program Window

1 FROM python: 3.10.6

2 WORKDIR /app

3 COPY requirements.txt ./

4 RUN pip install -r requirements.txt

5 COPY .

6 EXPOSE 5000

7 CMD ["python","./app.py"]
```

## 2) deploy in in dokcer application

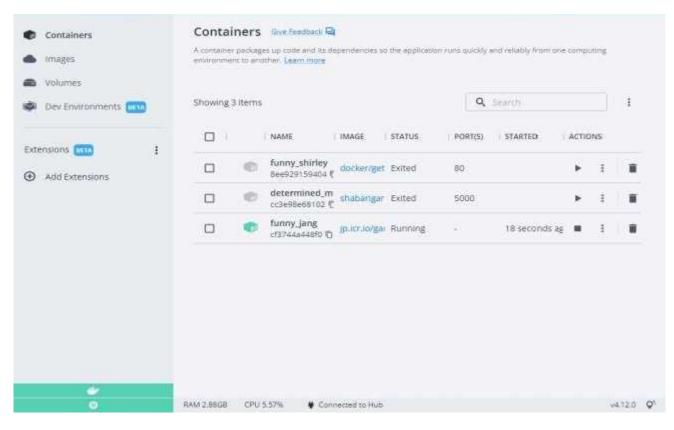
```
Titionary ignatives topology of portal co...

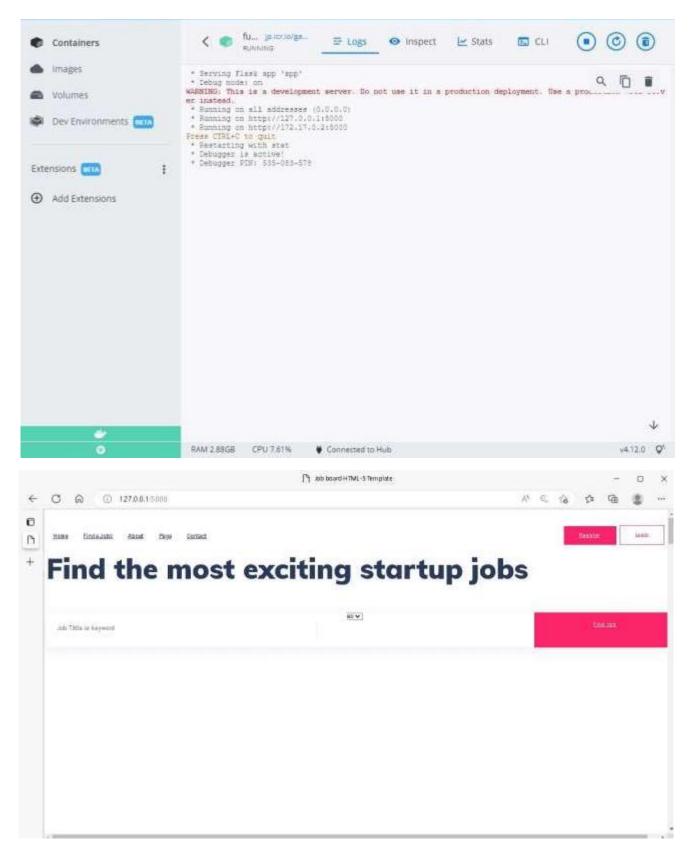
Citionary ignatives topology of portal co...

Citionary ignatives topology of portal co...

Citionary ignatives topology of portal content build of job guntal content build or ignated content build c
```







### 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
Charles I to the container registry in the container registry in the cloud in the container registry in the cloud in the container registry container registry in the containe
                                                                                                                                                                                             -----] 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) deployhelloworld or jobportal

```
As Associated by Astronomic of a second of Francis Astronomic of a second of Francisco and a sec
```





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
                                                                                                                                           ×
                                         3,721 windows shortcut.txt
                 3,721 windows sho
2,897 YouTube.lnk
24 File(s) 804,677,196 bytes
9 Dir(s) 79,221,886,976 bytes free
              08:40 PM
08/25/2022
                 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
be Service "flask sorvice" is invalid: metadata.name: 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 (Alreadytxists): services "flask-service" already exists \Mindows\system32> \Mindows\system32>kubecti -n kubernetes-deshboard 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-NudeFort --name-flask-service rror from server (Alreadytmists): services "Flask-service" already exists :\Mindows\Aystem32>kubectl get ing
MMI CLASS HOSTS ADDRESS PORTS AGE
Eask-app-ingress cnone> \* 80 27m :\Mindows\system32>kubect1 get avc AME TYPE CLUSTER-IP