

ASSIGNMENT -4

Date	21 October 2022
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1.Pull an Image from docker hub and run it in docker playground.

Pulled raajesh/plasmadonation and running in docker:

```
Select Command Prompt

C:\Users\acer>docker pull raajesh/plasmadonation:first-image
first-image: Pulling from raajesh/plasmadonation
Digest: sha256:c9f885b3416945f2e612971e4410c75d22b4f68ef5b22c86a9c6aa4e83874aae
Status: Image is up to date for raajesh/plasmadonation:first-image
docker.io/raajesh/plasmadonation:first-image

C:\Users\acer>
```

```
Select Command Prompt - docker run -p 8080:8080 raajesh/plasmadonation:first-image

C:\Users\acer>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
plasmadonation       latest             8ffd4a2c3b3a       19 hours ago       1.24GB
raajesh/plasmadonation first-image         8ffd4a2c3b3a       19 hours ago       1.24GB
docker/getting-started latest             cb90f98fd791       7 months ago       28.8MB

C:\Users\acer>docker run -p 8080:8080 raajesh/plasmadonation:first-image
* Serving Flask app 'app' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on all addresses.
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://172.17.0.2:8080/ (Press CTRL+C to quit)
```

Plasma Donor App Home

test

tester@gmail.com

9876543210

Madurai

Infected

O Positive

Register

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

Dockerfile:

FROM python:3.6

WORKDIR /app

ADD . /app

COPY requirements.txt /app

RUN python3 -m pip install -r requirements.txt

RUN python3 -m pip install ibm_db

EXPOSE 5000

CMD ["python", "app.py"]

```
F:\ibm final project\4 assignment\Assignment 4\job-portal>docker build -t jobportal .
[+] Building 998.7s (12/12) FINISHED
=> [internal] load build definition from Dockerfile                                0.5s
=> => transferring dockerfile: 229B                                              0.4s
=> [internal] load .dockerignore                                                 0.4s
=> => transferring context: 2B                                                  0.4s
=> [internal] load metadata for docker.io/library/python:3.6                  9.8s
=> [auth] library/python:pull token for registry-1.docker.io                  0.0s
=> [1/6] FROM docker.io/library/python:3.6@sha256:f8652afaf88c25f0d22354d547d892591067aa4026a7fa9a6819df9f300af6 0.0s
=> [internal] load build context                                              5.8s
=> => transferring context: 19.27MB                                           5.6s
=> CACHED [2/6] WORKDIR /app                                                  0.0s
=> [3/6] ADD . /app                                                            2.0s
=> [4/6] COPY requirements.txt /app                                           0.1s
=> [5/6] RUN python3 -m pip install -r requirements.txt                      976.5s
=> [6/6] RUN python3 -m pip install ibm_db                                    2.6s
=> exporting to image                                                         1.2s
=> => exporting layers                                                         1.1s
=> => writing image sha256:207e0bd0dda8b2cd2650896ed1999287d943302b2fdd490358dc942731da8f41 0.0s
=> => naming to docker.io/library/jobportal                                   0.0s

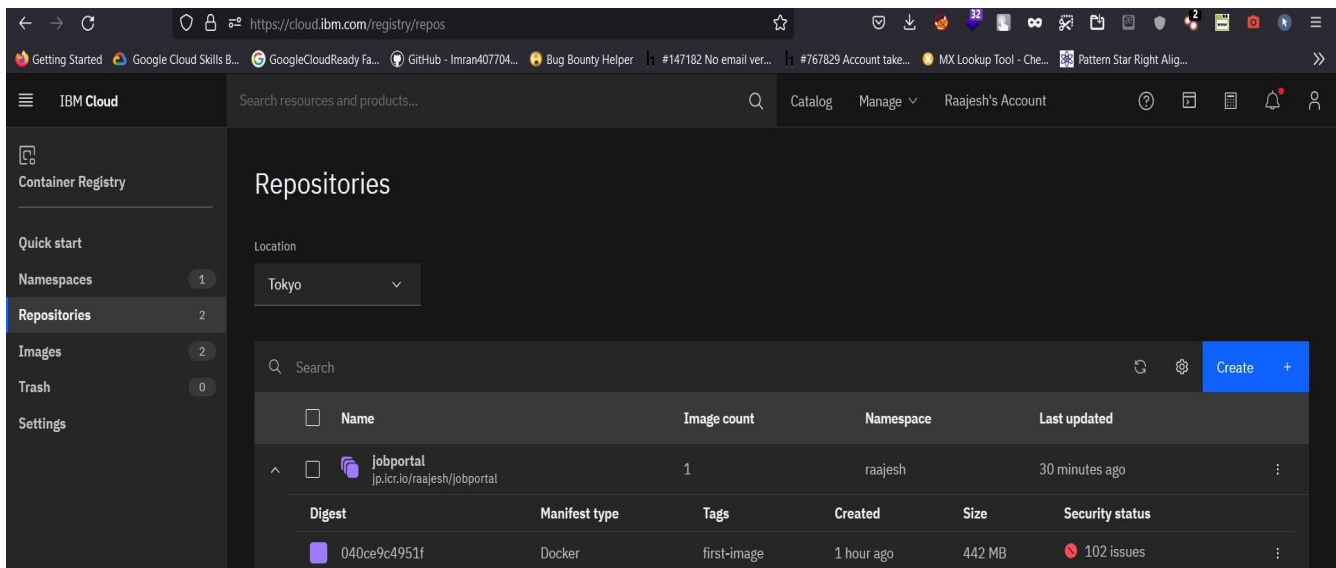
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
```

3. Create a IBM container registry and deploy helloworld app or jobportalapp.

```
Select C:\Windows\System32\cmd.exe - docker push jp.icr.io/raajesh/jobportal:first-image

F:\ibm final project\4 assignment\Assignment 4\job-portal>docker tag jobportal jp.icr.io/raajesh/jobportal:first-image

F:\ibm final project\4 assignment\Assignment 4\job-portal>docker push jp.icr.io/raajesh/jobportal:first-image
The push refers to repository [jp.icr.io/raajesh/jobportal]
da7228922456: Pushed
ee25a24fef62: Pushing [=====>] 39.44MB/178.4MB
b77cdf4d199b: Pushed
9fd66c6a19bb: Pushed
d42e96e84c4c: Pushed
aa4c808c19f6: Pushed
8ba9f690e8ba: Pushed
3e607d59ef9f: Pushed
1e18e7e1fcc2: Pushed
c3a0d593ed24: Pushing [=====>] 89.35MB/528.4MB
26a504e63be4: Pushing [=====>] 81MB/151.9MB
8bf42db0de72: Pushed
31892cc314cb: Pushed
11936051f93b: Pushing [=====>] 54.3MB/123.9MB
```



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.

```
F:\ibm final project\4 assignment\Assignment 4\job-portal>kubectl expose deployment jobportal --type=NodePort --name=jobportal
service/jobportal exposed
```