

IBM Assignment 4 on Docker and Kubernetes

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

03:54:37

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.18
node1

ce0940e3_ce095bu0qau000bmuc7g

IP
192.168.0.18

OPEN PORT
80

Memory
20.99% (839.5MiB / 3.906GiB)

CPU
0.73%

SSH
ssh ip172-18-0-92-ce0940e3tccg009ih6g@direct.labs.play-with-do

DELETE

EDITOR

```
#####
# WARNING!!!!
# This is a sandbox environment. Using personal credentials
# is HIGHLY! discouraged. Any consequences of doing so are
# completely the user's responsibilities.
#
# The PWD team.
#####
[node1] (local) root@192.168.0.18 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:faa03e786c97f07ef34423fccceec2398ec8a5759259f94d99078f264e9d7af
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
[node1] (local) root@192.168.0.18 ~
$ docker pull yeasy/simple-web
Using default tag: latest
latest: Pulling from yeasy/simple-web
f2b6b4884fc8: Pull complete
4fb899b4df21: Pull complete
74eaa8be7221: Pull complete
2d6e98fe4040: Pull complete
414666f7554d: Pull complete
bb0bcc8d7f6a: Pull complete
ace2d3087f57: Pull complete
da74659b9184: Pull complete
834d72880162: Pull complete
#####
```

DELETE

EDITOR

```
#####
# WARNING!!!!
# This is a sandbox environment. Using personal credentials
# is HIGHLY! discouraged. Any consequences of doing so are
# completely the user's responsibilities.
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# The PWD team.
#####
[node1] (local) root@192.168.0.18 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:faa03e786c97f07ef34423fccceec2398ec8a5759259f94d99078f264e9d7af
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
[node1] (local) root@192.168.0.18 ~
$ docker pull yeasy/simple-web
Using default tag: latest
latest: Pulling from yeasy/simple-web
f2b6b4884fc8: Pull complete
4fb899b4df21: Pull complete
74eaa8be7221: Pull complete
2d6e98fe4040: Pull complete
414666f7554d: Pull complete
bb0bcc8d7f6a: Pull complete
ace2d3087f57: Pull complete
da74659b9184: Pull complete
834d72880162: Pull complete
f05b81527a11: Pull complete
779bb3fb81b2: Pull complete
Digest: sha256:356de309052fe233ba08eb4c9ad85ab89398f31555e8777326d57307ac913727
Status: Downloaded newer image for yeasy/simple-web:latest
docker.io/yeasy/simple-web:latest
[node1] (local) root@192.168.0.18 ~
$ docker run --rm -it -p 80:80 yeasy/simple-web:latest
Serving HTTP on 0.0.0.0 port 80 ...
]
```

Activities

Brave Web Browser (nightly)

Nov 25 15:35

Docker Playground

ip172-18-0-92-ce0940e3

Not secure | ip172-18-0-92-ce0940e3tccg009ih6g-80 direct.labs.play-with-docker.com

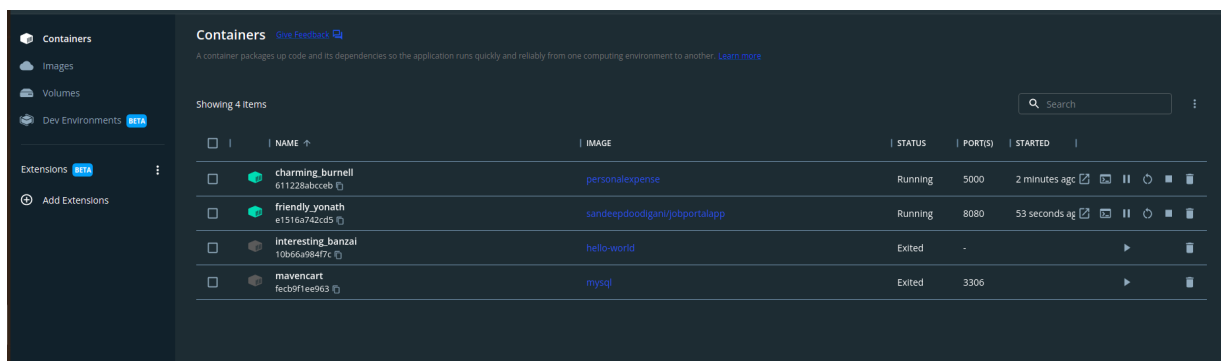
Real Visit Results

#2022-11-25 10:04:58: 7 requests from <LOCAL: 172.18.0.1> to WebServer <172.17.0.2>

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Krishnan R

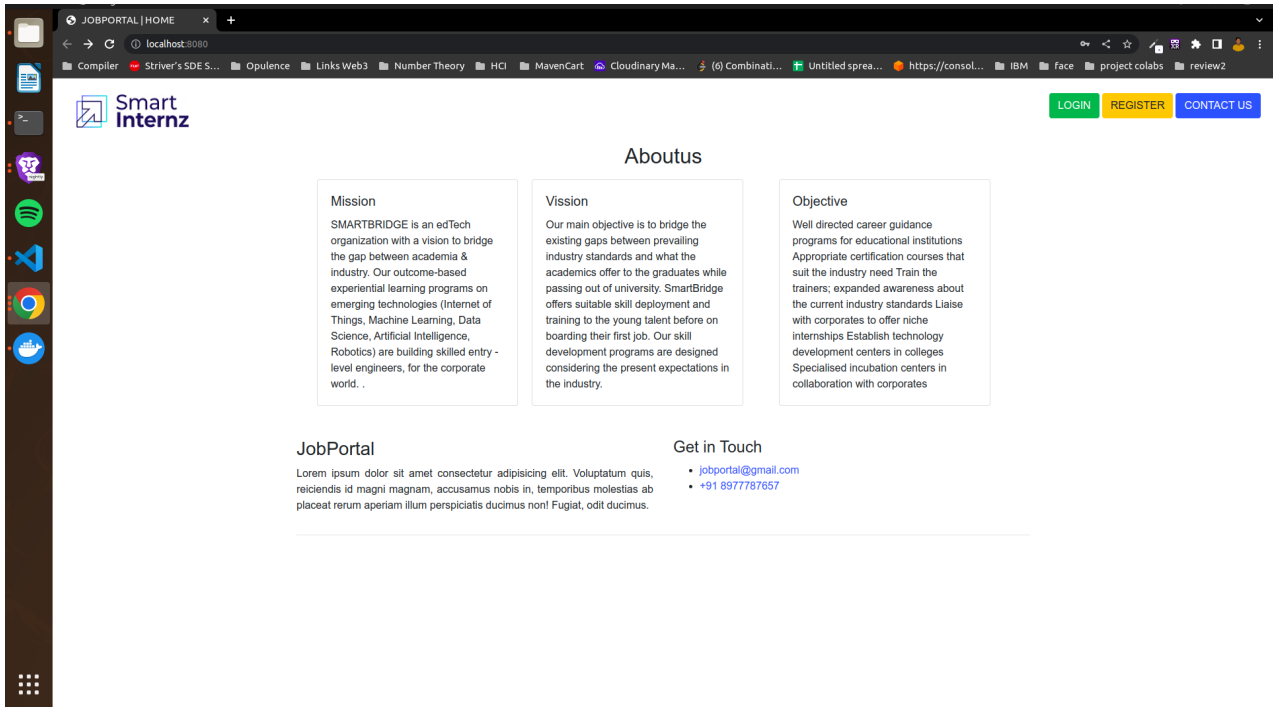
2.Create a docker file for the jobportal application and deploy it in the Docker desktop application.

```
krishnan@krish: ~/Downloads/GlobalProtect_UI_tar-5.2.4.0-14
krishnan@krish:~/Downloads/GlobalProtect_UI_tar-5.2.4.0-14$ docker pull sandeepdoodigani/jobportalapp
Using default tag: latest
latest: Pulling from sandeepdoodigani/jobportalapp
0e29546d541c: Pull complete
9b829c73b52b: Pull complete
cb5b7ae36172: Pull complete
6494e4811622: Pull complete
6f9f74896dfa: Pull complete
5e3b1213efc5: Pull complete
9fddfdc56334: Pull complete
404f02044bac: Pull complete
c4f42be2be53: Pull complete
296c00cdb64e: Pull complete
86df5f9cfbe4: Pull complete
b0a57da07333: Pull complete
96d74d4156fd: Pull complete
778a951e5719: Pull complete
Digest: sha256:e8590bc86f5d2ef2f85536f570fe49a5fec2893ebfd146f5aa63dcde9f9bdd24
Status: Downloaded newer image for sandeepdoodigani/jobportalapp:latest
docker.io/sandeepdoodigani/jobportalapp:latest
krishnan@krish:~/Downloads/GlobalProtect_UI_tar-5.2.4.0-14$
```

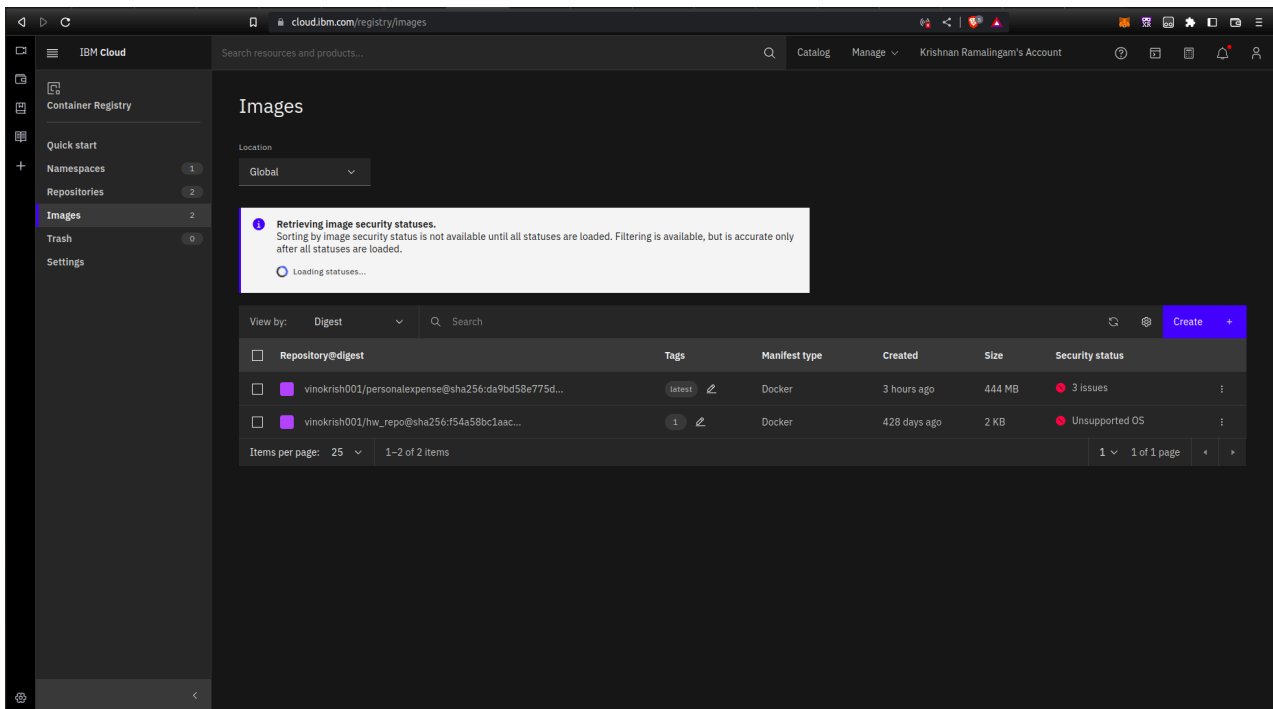


```
krishnan@krish: ~/Downloads/GlobalProtect_UI_tar-5.2.4.0-14
krishnan@krish:~/Downloads/GlobalProtect_UI_tar-5.2.4.0-14$ docker run --rm -it -p 8080:8080 sandeepdoodigani/jobportalapp
$ command not found
krishnan@krish:~/Downloads/GlobalProtect_UI_tar-5.2.4.0-14$ docker run --rm -it -p 8080:8080 sandeepdoodigani/jobportalapp
* 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://172.17.0.3:8080/ (Press CTRL+C to quit)
172.17.0.1 - - [26/Nov/2022 04:05:55] "GET / HTTP/1.1" 200 -
172.17.0.1 - - [26/Nov/2022 04:05:55] "GET /css/style.css HTTP/1.1" 404 -
172.17.0.1 - - [26/Nov/2022 04:05:55] "GET /static/img/smartinternz.png HTTP/1.1" 200 -
172.17.0.1 - - [26/Nov/2022 04:05:55] "GET /assets/img/favicon-32x32.png HTTP/1.1" 404 -
172.17.0.1 - - [26/Nov/2022 04:05:56] "GET /assets/img/favicon-32x32.png HTTP/1.1" 404 -
172.17.0.1 - - [26/Nov/2022 04:06:07] "GET /login HTTP/1.1" 200 -
172.17.0.1 - - [26/Nov/2022 04:06:07] "GET /css/style.css HTTP/1.1" 404 -
172.17.0.1 - - [26/Nov/2022 04:06:08] "GET /static/img/smartinternz.png HTTP/1.1" 304 -
172.17.0.1 - - [26/Nov/2022 04:06:08] "GET /assets/img/favicon-32x32.png HTTP/1.1" 404 -
False
```

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



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```
krishnan@krish:~/IBM-Project-1956-1658421467-1/PROJECT DEVELOPMENT PHASE/Sprint 4$ docker push icr.io/vinokrish001/hw repo:1
The push refers to repository [icr.io/vinokrish001/hw repo]
e07eelbaac5f: Pushed
1: digest: sha256:f54a58bclaac5eala25d796ae155dc228b3f0e1ld046ae276b39c4bf2f13d8c4 size: 525
krishnan@krish:~/IBM-Project-1956-1658421467-1/PROJECT DEVELOPMENT PHASE/Sprint 4$ docker build --tag personal-expense .
[+] Building 244.2s (10/10) FINISHED

=> [internal] load build definition from Dockerfile
0.0s
=> => transferring dockerfile: 388
0.0s
=> [internal] load .dockerignore
0.0s
=> => transferring context: 2B
0.0s
=> [internal] load metadata for docker.io/library/python:3.10
2.8s
=> [1/5] FROM docker.io/library/python:3.10@sha256:daed8d46dfc07976178e2f2beb96f03f91240bcb553e0fffd8186b73929db9c
0.0s
=> [internal] load build context
0.0s
=> => transferring context: 5.75kB
0.0s
=> CACHED [2/5] COPY ./requirements.txt /app/requirements.txt
0.0s
=> CACHED [3/5] WORKDIR /app
0.0s
=> [4/5] COPY . /app
0.1s
=> [5/5] RUN pip install -r requirements.txt
240.3s
=> exporting to image
0.9s
=> => exporting layers
0.9s
=> => writing image sha256:6f00bc3b9248e47c1268a499c53cf532662ece4b8fbc5e7da0facc7b9d087398
0.0s
=> => naming to docker.io/library/personal-expense
0.0s

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

krishnan@krish:~/IBM-Project-1956-1658421467-1/PROJECT DEVELOPMENT PHASE/Sprint 4$ docker tag personal-expense icr.io/vinokrish001/personalexperience
krishnan@krish:~/IBM-Project-1956-1658421467-1/PROJECT DEVELOPMENT PHASE/Sprint 4$ docker push icr.io/vinokrish001/personalexperience
Using default tag: latest
The push refers to repository [icr.io/vinokrish001/personalexperience]
fd40d1c86918: Pushed
f08af40a09de: Pushed
5f70bf18a086: Pushed
0dd5db1ccd74: Pushed
5183217745a1: Pushed
905ede8abeca: Pushed
63ab2579942e: Pushed
e6e984ca999: Pushed
397a239a053b: Pushed
89c3244a87b2: Pushed
80231db1194c: Pushed
```

4.Create a Kubernetes cluster in IBM cloud and deploy helloworld image or sample image and also expose the same app to run in nodeport.

