

Assignment - 4

Docker and Kubernetes

Team ID : PNT2022TMID52244

Project Name : Smart Fashion Recommender Application

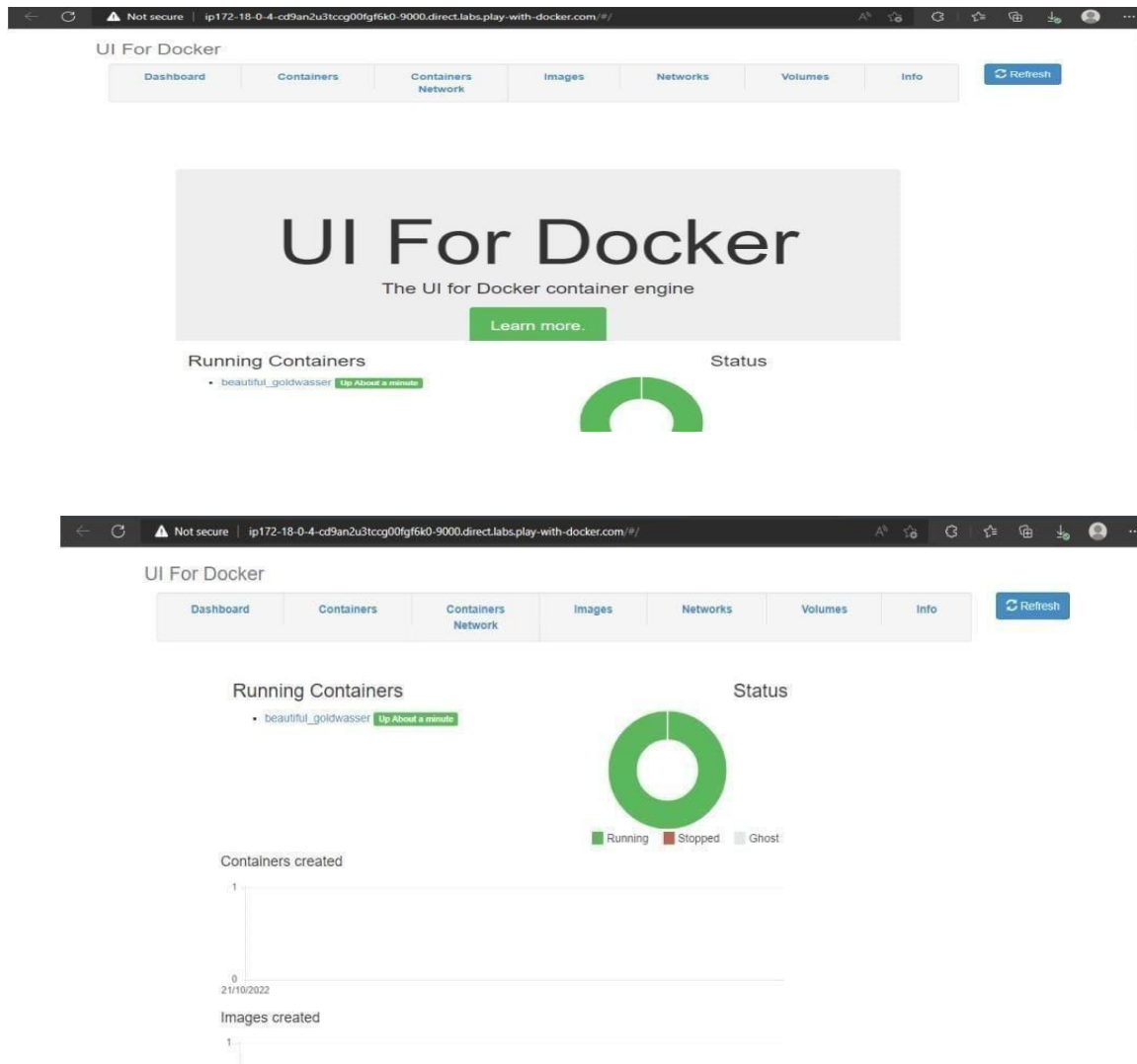
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1. Pull an Image from docker hub and run it in docker playground :

The screenshot displays the Docker Hub page for the `uifd/ui-for-docker` repository, which is marked as deprecated. It shows the repository's overview, tags, and a Docker pull command: `docker pull uifd/ui-for-docker`.

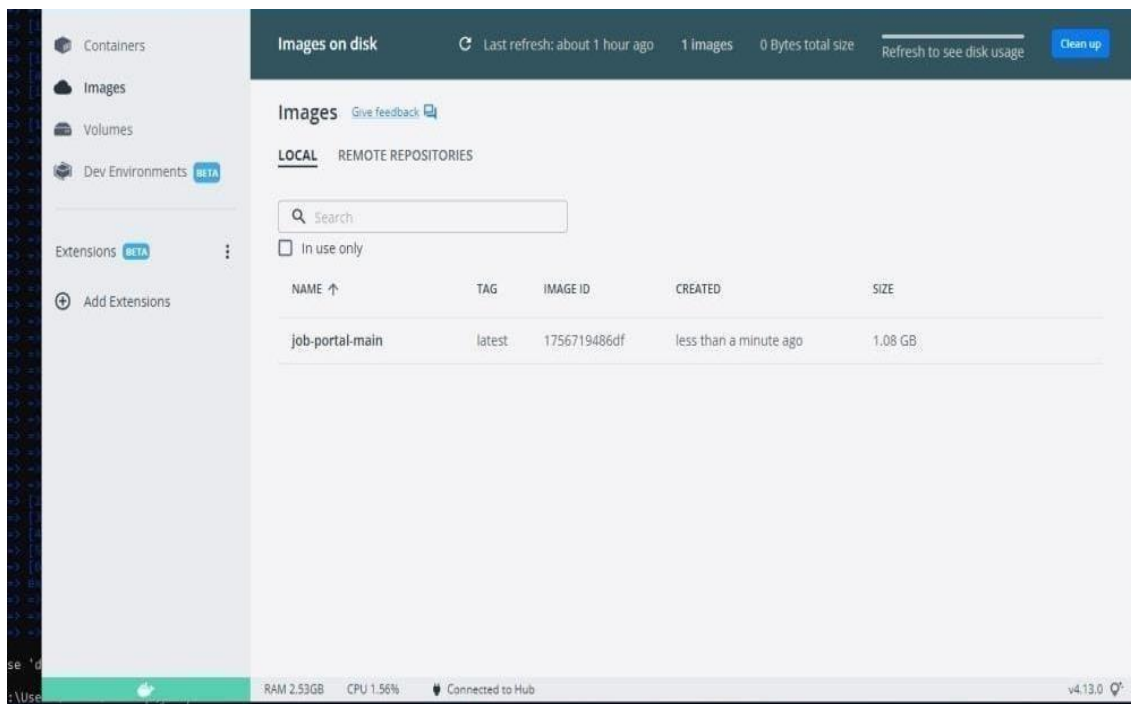
Below the Docker Hub page, the Docker Playground interface is shown. The instance name is `cd9an2u3_cd9av060qau0008hbjs0` with IP `192.168.0.13`. The terminal output shows the following commands and results:

```
# This is a sandbox environment. Using personal credentials #
# is HIGHLY discouraged. Any consequences of doing so are #
# completely the user's responsibilities. #
#
# The FWD team.
#####
root@192.168.0.13 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
441194d90c9: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244dd4e0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
root@192.168.0.13 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
c590dd163101ae735bdcea0eb1ddd98f6fe549cb5f24dacb9ff7c1931923fc0d
root@192.168.0.13 ~
```

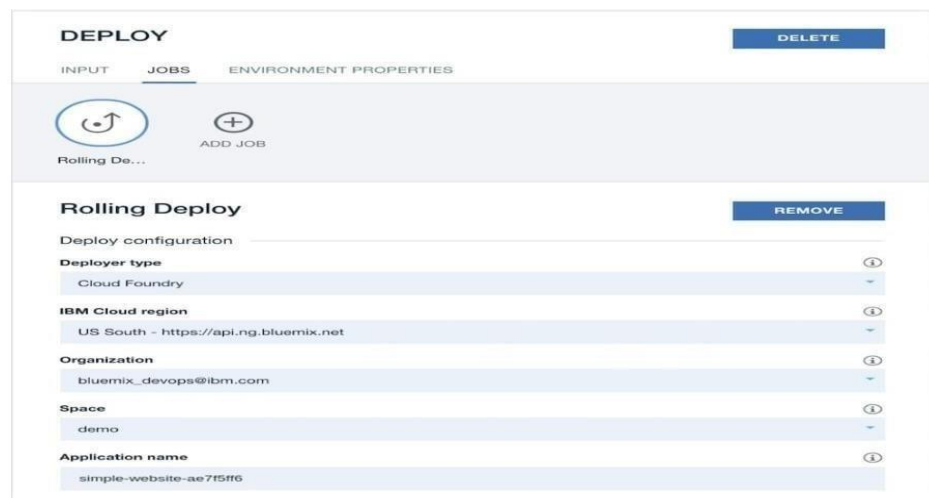


2. Create a docker file for the jobportal application and deploy it in Docker desktop application:

```
[internal] load build definition from Dockerfile
--> transferring Dockerfile: 328
--> transferring context: 28
[internal] load metadata for docker.io/library/python:3.6
[auth] library/python:pull token for registry-1.docker.io
[internal] load build context
--> transferring context: 8878
[1/6] FROM docker.io/library/python:3.6@sha256:f8052aef88c25f0d22354d547d892591067aa4826a7fa9a6010df9f306af6fc
--> resolve docker.io/library/python:3.6@sha256:f8052aef88c25f0d22354d547d892591067aa4826a7fa9a6010df9f306af6fc
--> sha256:f8052aef88c25f0d22354d547d892591067aa4826a7fa9a6010df9f306af6fc 1.80kB / 1.80kB
--> sha256:0807a4087a8c079df5ac31872359c2d6510f92214c0480a926303b376d3b0a0 2.22kB / 2.22kB
--> sha256:54299638087c5e3ad24c6e21fc809abbc8486a27634c880208eff71f3f44b104 9.27kB / 9.27kB
--> sha256:0e2994ed541cdd309281d21a73a0d1db78665c1b95b74f32b009e0677ade1e3 54.92MB / 54.92MB
--> sha256:9b820c73b52b02b97d5c07a54fb0f3e521995a296c714b53a32ae07d19231fcd 5.15MB / 5.15MB
--> sha256:cb5b7ae361722f078eca53f35823ed21baa85d61d5d99cd5a95ab53d748cd56 10.87MB / 10.87MB
--> sha256:6404e4011822031c027ccac322ca463937f0805f568a9306f15c01aad0718793 54.57MB / 54.57MB
--> sha256:6f9f7489a0fa93fe0172f594fab05e08a0a081a8fe09112efc7e4d5c78f2 196.51MB / 196.51MB
--> sha256:5e3b1213efc56598e78b0602903945c164de2a37285e06a63ada823124dc743 4.29MB / 4.29MB
--> extracting sha256:0e2994ed541cdd309281d21a73a0d1db78665c1b95b74f32b009e0677ade1e3
--> sha256:9fddfd56334f2eeefad7e241bf5e7459c40ed105c5470676f41c1244bd96752 14.21MB / 14.21MB
--> extracting sha256:9b820c73b52b02b97d5c07a54fb0f3e521995a296c714b53a32ae07d19231fcd
--> extracting sha256:cb5b7ae361722f078eca53f35823ed21baa85d61d5d99cd5a95ab53d748cd56
--> sha256:4045f044bac0432ca522cb0f354b1c91fcea0806bfeef0be08243b2f31bab7 235B / 235B
--> sha256:c4f42be2be53b0ee0ff080c1df13de538434ccc5f5d054a50840a0109a3af 2.21MB / 2.21MB
--> extracting sha256:6404e4011822031c027ccac322ca463937f0805f568a9306f15c01aad0718793
--> extracting sha256:6f9f7489a0fa93fe0172f594fab05e08a0a081a8fe09112efc7e4d5c78f2
--> extracting sha256:5e3b1213efc56598e78b0602903945c164de2a37285e06a63ada823124dc743
--> extracting sha256:9fddfd56334f2eeefad7e241bf5e7459c40ed105c5470676f41c1244bd96752
--> extracting sha256:404f02044bac0432ca522cb0f354b1c91fcea0806bfeef0be08243b2f31bab7
--> extracting sha256:c4f42be2be53b0ee0ff080c1df13de538434ccc5f5d054a50840a0109a3af
[2/6] WORKDIR /app
[3/6] ADD . /app
[4/6] COPY requirements.txt /app
[5/6] RUN python3 -m pip install -r requirements.txt
[6/6] RUN python3 -m pip install lm_db
--> exporting to image
--> exporting layers
--> writing image sha256:175671948bd002fad5dae305c5221513f2f2d1049a0dd42b22a2ef0379f19
--> naming to docker.io/library/job-portal-main
'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 :



```

1  {
2    "ServiceId": "com.ibm.cloudoe.orion.client.deploy",
3    "Params": {
4      "Target": {
5        "Url": "https://api.ng.bluemix.net",
6        "Org": "bluemix_devops@ibm.com",
7        "Space": "demo"
8      },
9      "Name": "simple-website-ae7f5ff6",
10     "Instrumentation": {}
11   },
12   "Path": "manifest.yml",
13   "Type": "Cloud Foundry"
14 }

```

Hello, IBM Cloud World!

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:

