

Assignment - 4

Docker and Kubernetes

Team ID : PNT2022TMID52257

Project Name : Smart Fashion Recommender Application

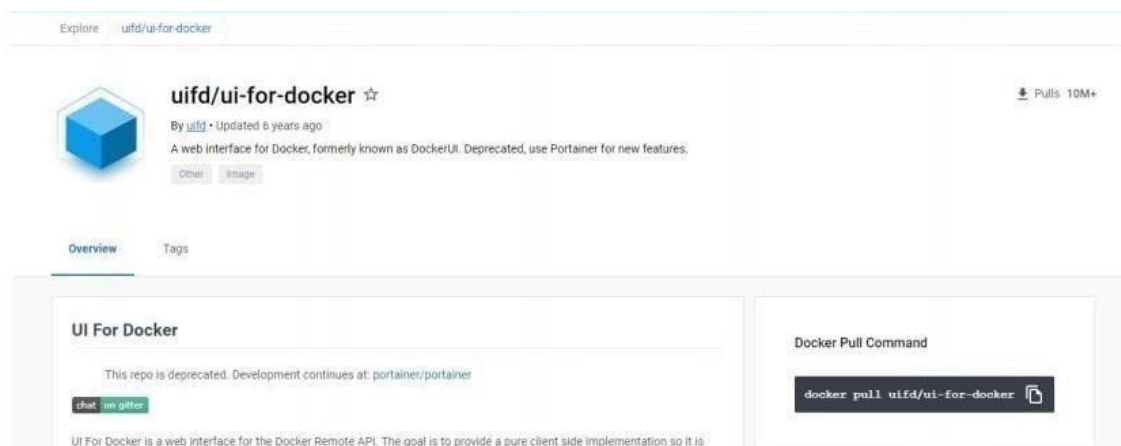
SUBMITTED BY : AMISHYA RENJAI.R.J(963519104006)

1. PULL AN IMAGE FROM DOCKER HUB AND RUN IT IN DOCKER PLAYGROUND:

```
docker run --rm -p 8787:8787 rocker/verse docker
pull rocker/verse
docker login --username=amishyaj --email=amirenjai@gmail.com
WARNING: login credentials saved in
/home/amishyaj/.docker/config.json Login Succeeded
```

```
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
verse_gapminder_gsl latest    023ab91c6291  3 minutes ago 1.975 GB
verse_gapminder  latest   bb38976d03cf  13 minutes ago 1.955 GB
rocker/verse latest  0168d115f220 3 days ago 1.954 GB
docker tag bb38976d03cf amishyaj
/verse_gapminder:firsttry docker
push amishyaj /verse_gapminder
```

```
Saving and loading images docker save
verse_gapminder docker save verse_gapminder >
verse_gapminder.tar docker load --input
verse_gapminder.tar docker load --input
verse_gapminder.tar
```



Explore uifd/ui-for-docker

uifd/ui-for-docker ☆ Pulls 10M+

By uifd • Updated 6 years ago

A web interface for Docker, formerly known as DockerUI. Deprecated, use Portainer for new features.

Other Image

Overview Tags

UI For Docker

This repo is deprecated. Development continues at: portainer/portainer

chat on github

UI For Docker is a web interface for the Docker Remote API. The goal is to provide a pure client side implementation so it is

Docker Pull Command

```
docker pull uifd/ui-for-docker
```

03:42:30

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.13
node1

cd9an2u3_cd9av060qau0008hbjs0

IP: 192.168.0.13

OPEN PORT

Memory CPU

SSH: ssh ip172-18-0-4-cd9an2u3tccg00fgf6k0@direct.labs.play-w

DELETE EDITOR

```
# 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.
#####
[macel] (local) root@192.168.0.13 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
441194d080c9: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244dd4e0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
[macel] (local) 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
[macel] (local) root@192.168.0.13 ~
```

Not secure | ip172-18-0-4-cd9an2u3tccg00fgf6k0-9000.direct.labs.play-with-docker.com/

UI For Docker

Dashboard

Containers

Containers Network

Images

Networks

Volumes

Info

Refresh

UI For Docker

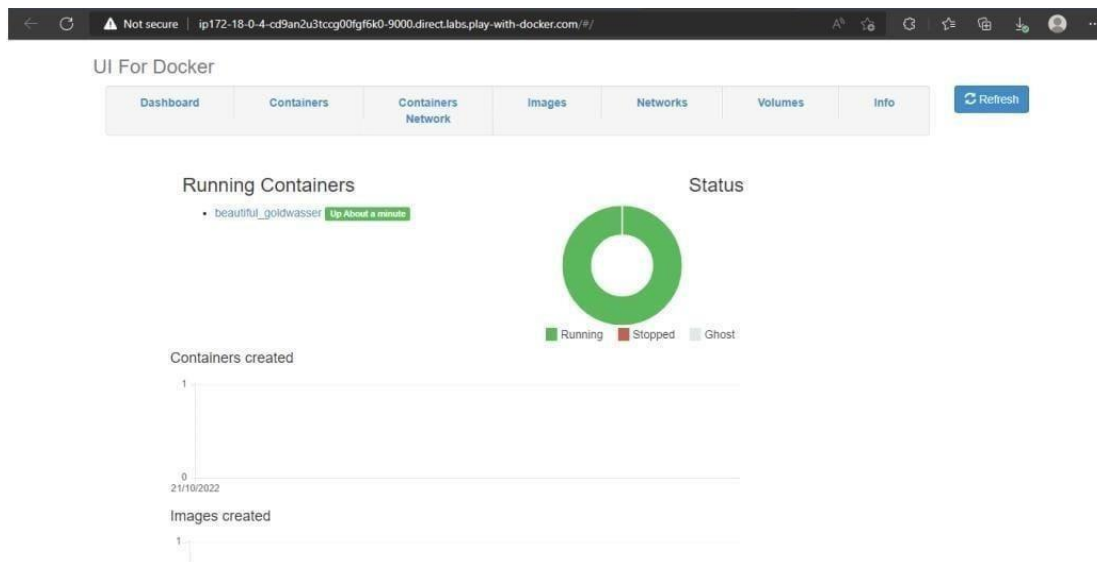
The UI for Docker container engine

Learn more.

Running Containers

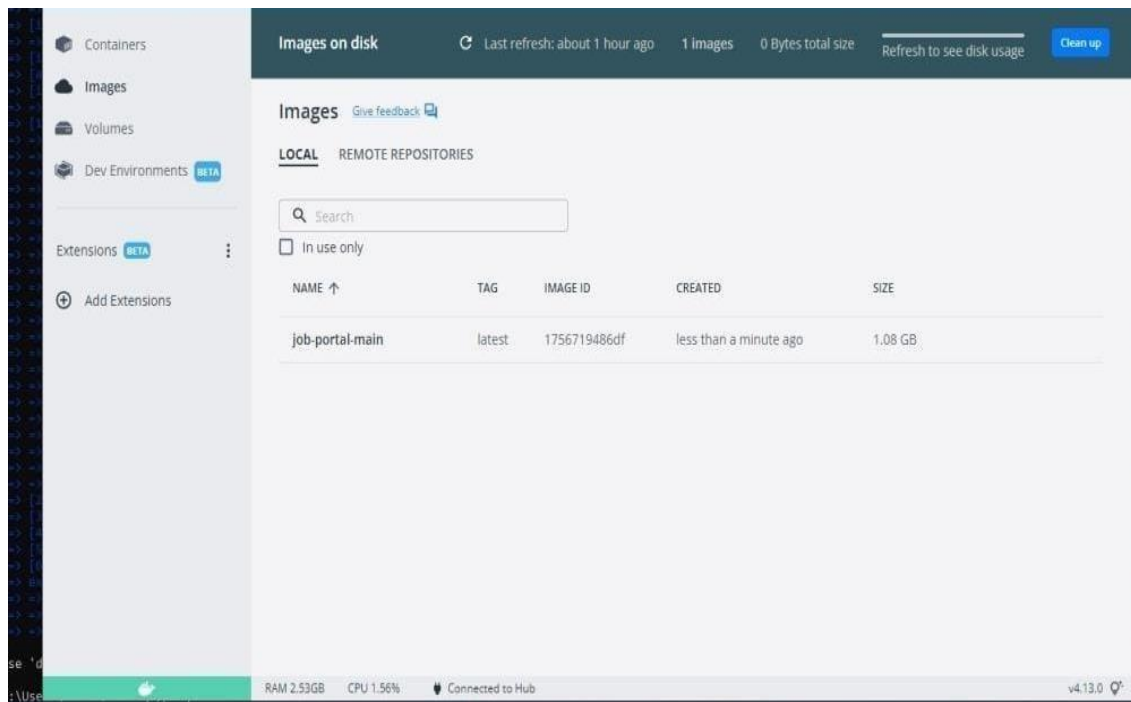
• beautiful_goldwasser [Tap About a minute](#)

Status



2. CREATE A DOCKER FILE FOR THE JOBPOTAL APPLICATION AND DEPLOY IT IN DOCKER DESKTOP APPLICATION:

```
[internal] load build definition from Dockerfile
=> transferring dockerfile: 32B
[internal] load .dockerignore
=> transferring context: 2B
[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: 687B
[1/6] FROM docker.io/library/python:3.6@sha256:f8652afef88c35f8d22354d547d892591967aa4026a7fa9a0819df9f300af6fc
=> resolve docker.io/library/python:3.6@sha256:f8652afef88c35f8d22354d547d892591967aa4026a7fa9a0819df9f300af6fc
=> sha256:f8652afef88c35f8d22354d547d892591967aa4026a7fa9a0819df9f300af6fc 1.86kB / 1.86kB
=> sha256:d897a49b7a8ec870df5ac31872359c2de510f82214c0446e926393b37cd3b6bd0 2.22kB / 2.22kB
=> sha256:54260638d07c5e3ad24c6e21fc889abbcd486a27634c893208b6ff71f3f44b184 9.27kB / 9.27kB
=> sha256:0e29546d541c0bd309281d21a73a9d1db78665c1b95b74f32b899e0b77aee1e3 54.92MB / 54.92MB
=> sha256:0820c77a52b02027d5c07a54f8073e921995a220c714b53a22e67d19231fcd 5.18MB / 5.18MB
=> sha256:cb5b7ae361722f078ec0a3f35823aed1ba085d614509c0d95ab53d746c0d5e 18.87MB / 18.87MB
=> sha256:6404e4811622b31c027ccac322ca63037fd885f580a930e6f35c81aade718793 54.57MB / 54.57MB
=> sha256:6f9f74896df93fe0172f594fab0a5e0b4e8a0481a0fef09112efc7e4d3c78f7 196.51MB / 196.51MB
=> sha256:5e3b1213efc56598e78bd002983045c164de2a37285e06a62dada023124dc743 6.29MB / 6.29MB
=> extracting sha256:0e29546d541c0bd309281d21a73a9d1db78665c1b95b74f32b899e0b77aee1e3
=> sha256:9fd0dc56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd06752 14.21MB / 14.21MB
=> extracting sha256:0820c77a52b02027d5c07a54f8073e921995a220c714b53a22e67d19231fcd
=> extracting sha256:cb5b7ae361722f078ec0a3f35823aed1ba085d614509c0d95ab53d746c0d5e
=> sha256:404f02044bac0432ca522cb09f254b1c91fcea6880bfeef0be0b343b2f31bab7 239B / 239B
=> sha256:c4f42be2be53b900ebffcc040c1df13de538434ccc5f5d954a56848a610ba3a3f 2.21MB / 2.21MB
=> extracting sha256:6404e4811622b31c027ccac322ca63037fd885f580a930e6f35c81aade718793
=> extracting sha256:6f9f74896df93fe0172f594fab0a5e0b4e8a0481a0fef09112efc7e4d3c78f7
=> extracting sha256:5e3b1213efc56598e78bd002983045c164de2a37285e06a62dada023124dc743
=> extracting sha256:9fd0dc56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd06752
=> extracting sha256:404f02044bac0432ca522cb09f254b1c91fcea6880bfeef0be0b343b2f31bab7
=> extracting sha256:c4f42be2be53b900ebffcc040c1df13de538434ccc5f5d954a56848a610ba3a3f
[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 ibm_db
=> exporting image
=> exporting layers
=> writing image sha256:1756719488df002fad5dae305c5221513f2f22db49a8d242b22a28af0379f19
=> naming to docker.io/library/jobportal-main
se '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:

```
<html>
<body>
  Hello, IBM Cloud World!
</body> </html>---
```

applications:

- buildpack: <https://github.com/cloudfoundry/staticfile-buildpack.git>
- host: simple-website- $\{random\}$ name: simple-website- $\{random\}$
- memory: 64M
- stack: cflinuxfs2

DEPLOY

DELETE

INPUT

JOBS

ENVIRONMENT PROPERTIES

Rolling De...

ADD JOB

Rolling Deploy

REMOVE

Deploy configuration

Deployer type

Cloud Foundry

IBM Cloud region

US South - https://api.ng.bluemix.net

Organization

bluemix_devops@ibm.com

Space

demo

Application name

simple-website-ae7f5ff6

```

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:

ibmcloud target -g <resource_group_name>ibmcloud cr nishanthc-add
 <your_ amishyaj >ibmcloud resource service-instance-create example-postgresql databases-
 forpostgresql standard us- southibmcloud ks cluster-service-bind mycluster default
 examplepostgresqlgit clone -b node git@github.com:IBM-Cloud/clouddatabases-helloworld-
 kubernetesexamples.gitspec:

replicas: 3name: cloudpostgres-nodejs-app image:

"registry.<region>.bluemix.net/<namespace>/icdpg" # Edit me

imagePullPolicy: Alwaysibmcloud cr regionYou are targeting region 'us-south', the registry is
 'registry.ng.bluemix.net'.ibmcloud cr build -t registry.ng.bluemix.net/<namespace>/icdpg .ibmcloud
 cr images

env:

- name: BINDING valueFrom:

secretKeyRef: name: <postgres-secret-

name> # Edit me key: binding

apiVersion: v1 kind:

Service

metadata: name:

cloudpostgres-service labels:

run: clouddb-demo spec:

type: NodePort

selector: run:

clouddb-demo

ports:

- protocol: TCP

port: 8080

nodePort: 30081

kubectl apply -f

clouddb-

deployment.yml

deployment.app

s/icdpostgres-

app created

service/cloudpo

stgres-service

created

kubectl get pods -o wideibmcloud ks workers <your_cluster_name>

Hello World!

Thanks for creating an [IBM Cloud Databases for PostgreSQL](#) database.

Add a word to the database

The word is defined as

Database output

```
The word bye is defined as a goodbye
The word bye is defined as a farewell
The word helle is defined as a greeting
The word helle is defined as a greeting
The word helle bob is defined as a greeting
The word helle bob is defined as a greeting
```