

Assignment 4

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

Output:

```
[dockeruser@localhost ~]$ docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
7ddbc47eeb70: Pull complete
c1bbdc448b72: Pull complete
8c3b70e39044: Pull complete
45d437916d57: Pull complete
Digest: sha256:6e9f67fa63b0323e9a1e587fd71c561ba48a034504fb804fd26fd8800039835d
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
[dockeruser@localhost ~]$
```

Containers / Apps

Images

Images on disk

17 images

Total size: 4.73 GB

IN USE

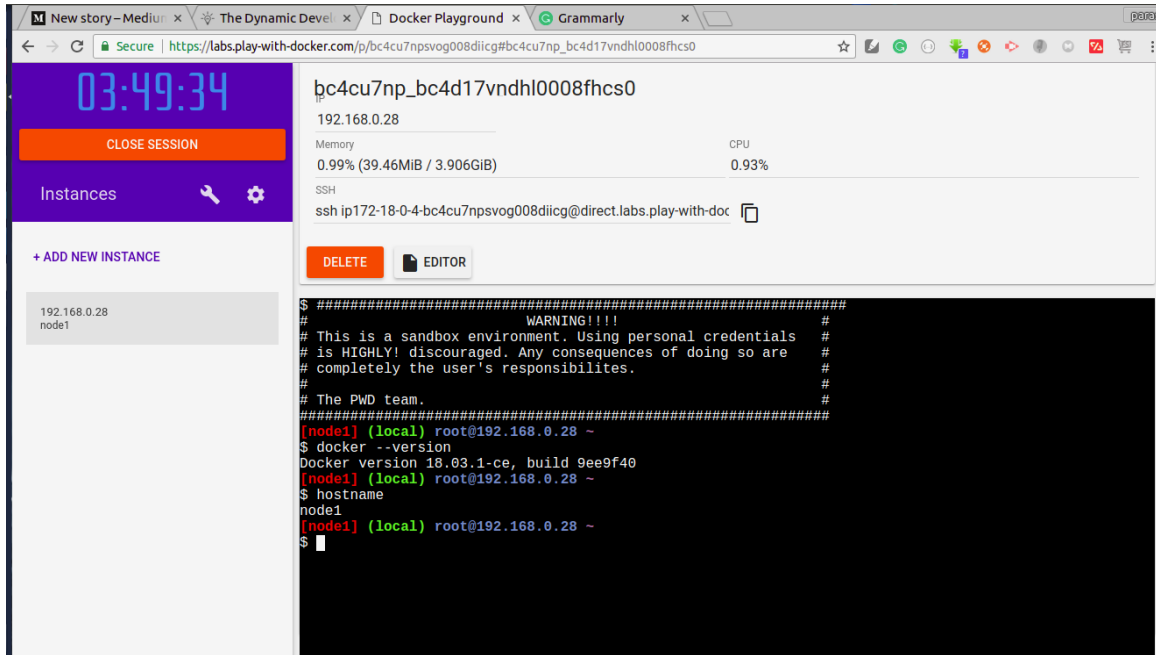
UNUSED

Clean up...

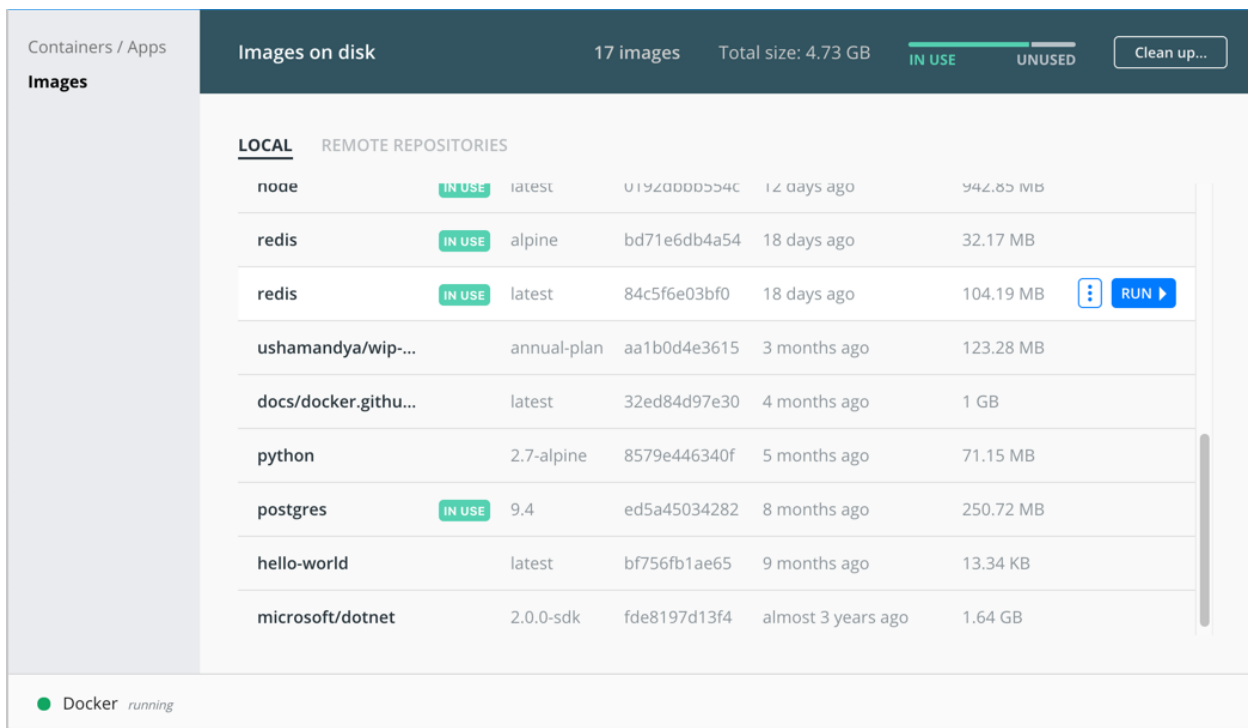
LOCAL	REMOTE REPOSITORIES				
node	IN USE	latest	01920000554C	12 days ago	942.85 MB
redis	IN USE	alpine	bd71e6db4a54	18 days ago	32.17 MB
redis	IN USE	latest	84c5f6e03bf0	18 days ago	104.19 MB
ushamandya/wip...		annual-plan	aa1b0d4e3615	3 months ago	123.28 MB
docs/docker.githu...		latest	32ed84d97e30	4 months ago	1 GB
python		2.7-alpine	8579e446340f	5 months ago	71.15 MB
postgres	IN USE	9.4	ed5a45034282	8 months ago	250.72 MB
hello-world		latest	bf756fb1ae65	9 months ago	13.34 KB
microsoft/dotnet		2.0.0-sdk	fde8197d13f4	almost 3 years ago	1.64 GB

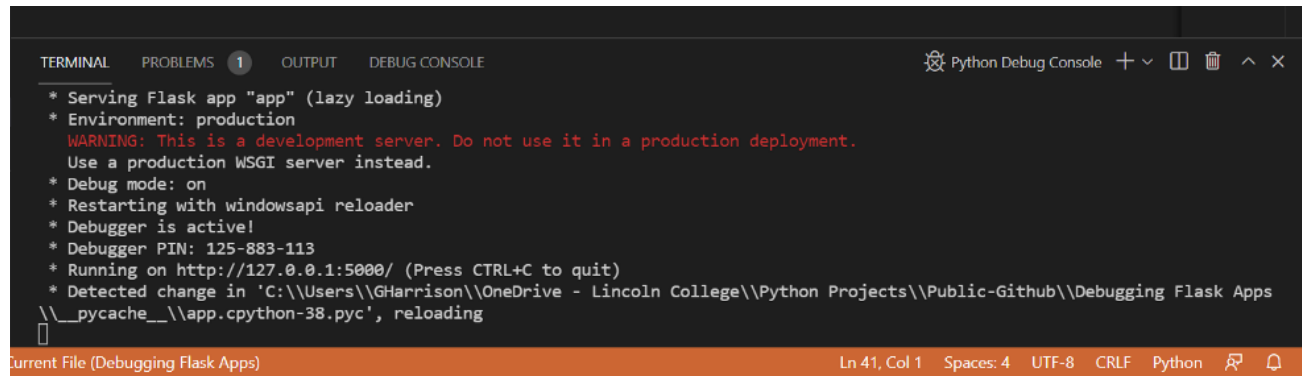
● Docker

running



2) Create a docker file for the job portal application or helloworld app and deploy it in Docker desktop application





The screenshot shows a Python Debug Console window with a dark background. The title bar includes 'Python Debug Console' and standard window controls. The terminal output displays the following messages:

```
* 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: on
* Restarting with windowsapi reloader
* Debugger is active!
* Debugger PIN: 125-883-113
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
* Detected change in 'C:\\Users\\GHarrison\\OneDrive - Lincoln College\\Python Projects\\Public-Github\\Debugging Flask Apps
  \\__pycache__\\app.cpython-38.pyc', reloading
```

The status bar at the bottom indicates 'Current File (Debugging Flask Apps)', 'Ln 41, Col 1', 'Spaces: 4', 'UTF-8', 'CRLF', 'Python', and icons for search and notifications.

File | http://127.0.0.1:5000/ | C:\Users\harrison\Documents\Python Projects\Public-Github\Debugging Flask Apps

Hello World!

4) Create a Kubernetes cluster in IBM cloud and deploy helloworld image or job portal image and also expose the same app to run in node port.

IBM Cloud

Search resources and products...

Catalog

Manage

Nehasri 11321903109...

Clusters /

mycluster-free

Preparing master, workers...

Expires in 30 days

Add tags

Help

Kubernetes dashboard

Actions...

Overview

Worker nodes

Worker pools

DevOps

Pool: Filter...

Search

Add

Name	Status	Worker pool	Zone	Private IP	Public IP	Version
00000044	Provision pending - Preparing to provision worker	default	Milan 01			--> 1.24.7_1543

Items per page: 25

1-1 of 1 item

1

1 of 1 page

Kubernetes

Workloads > Pods

+ UPDATE

Admin

Fluentd pods

Pods

Persistent volumes

Namespaces

default

Workloads

Deployments

Replica Sets

Replication Controllers

Custom SAs

Stateful Sets

Jobs

Pods

Services and discovery

Services

Ingresses

CPU usage

Memory usage

Pods

Name	Status	Restarts	Age	CPU (cores)	Memory (Mi)
hello-world-4...	Running	0	11 minutes	0	18.913 Mi
hello-world-4...	Running	0	2 minutes	-	18.913 Mi
hello-world-4...	Running	0	2 minutes	-	18.911 Mi
hello-world-4...	Running	0	2 minutes	-	5.5 Mi

kubernetes

default

Search

Workloads > Pods > flask-app-79447b5c8c-488hw > Logs

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service

Ingresses

Services

Config and Storage

Config Maps

Persistent Volume Claims

Secrets

Storage Classes

Cluster

Cluster Role Bindings

Cluster Roles

Events

Resource Requests

Logs from flask-app-cont... in flask-app-7944...

```
Running flask app 'app'
Running mode on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
Running on all addresses (0.0.0.0)
Running on http://172.17.0.1:5000
Running on http://172.17.11.1000
Press CTRL+C to quit
Starting with stat
Logger is active!
Logger PID: 116-487-149
```

from Oct 25, 2022 to Oct 26, 2022 UTC