
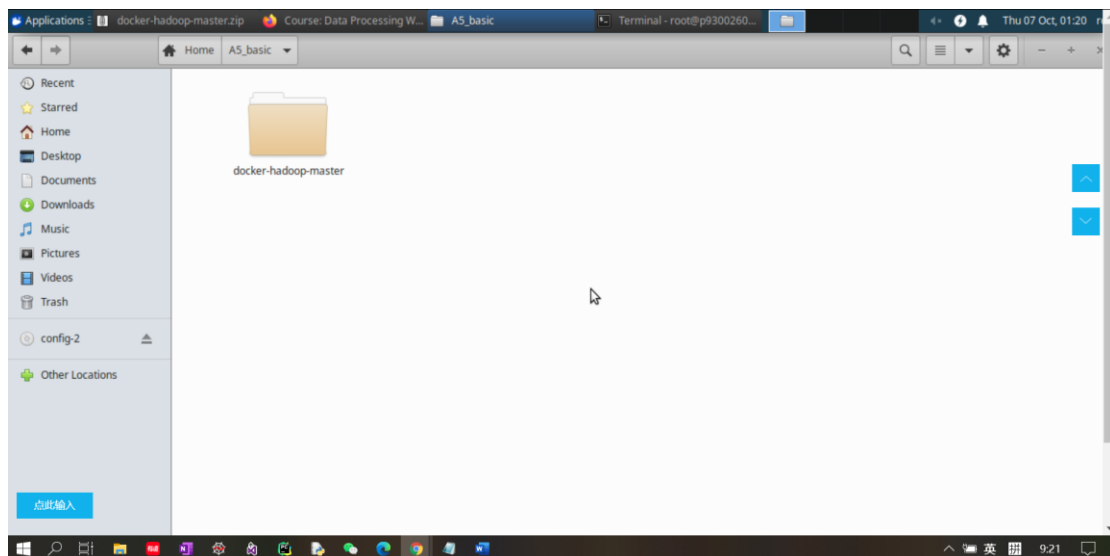


Basic Deploy the docker Hadoop cluster

Lab

-  lab 1 - virtualbox/ubuntu
-  lab 2 - cloud
-  lab 3 - linux command line intermediate
-  lab 3 - linux CLI Bonus
-  lab 5 - 1 - Hadoop docker cluster
-  lab 5 - 1 - Hadoop docker compose file

Download the Hadoop docker compose file.



Extract the file to your computer.

```

root@p930026096:~# ls
A4_Bonus  Documents  Pictures  Videos  java
A5_basic  Downloads  Public    anaconda3  snap
Desktop   Music      Templates dws2_A4   thinclient drives
root@p930026096:~# cd A5_basic
root@p930026096:~/A5_basic# ls
docker-hadoop-master

```

The file had been successfully extracted

```

root@p930026096:~/A5_basic# cd docker-hadoop-master/
root@p930026096:~/A5_basic/docker-hadoop-master# docker-compose up -d
Creating network "docker-hadoop-master_default" with the default driver
Creating volume "docker-hadoop-master_hadoop_namenode" with default driver
Creating volume "docker-hadoop-master_hadoop_datanode" with default driver
Creating volume "docker-hadoop-master_hadoop_historyserver" with default driver
Pulling namenode (bde2020/hadoop-namenode:2.0.0-hadoop3.2.1-java8)...
7127ald8cced: Pull complete
883a89599900: Pull complete
77920a3e82af: Pull complete
92329e81aec4: Pull complete
f373218fec59: Pull complete
aa53513fe997: Pull complete
8b1800105b98: Pull complete
c3a84a3e49c8: Pull complete
a65640a64a76: Pull complete
facffb3a6de3: Pull complete
c71a6df73788: Pull complete
73b8c0ccb707: Pull complete
Digest: sha256:51ad9293ec52083c5003ef0aaab00c3dd7d6335ddf495cc1257f97a272cab4c0
Status: Downloaded newer image for bde2020/hadoop-namenode:2.0.0-hadoop3.2.1-java8
Pulling datanode (bde2020/hadoop-datanode:2.0.0-hadoop3.2.1-java8)...
2.0.0-hadoop3.2.1-java8: Pulling from bde2020/hadoop-datanode
3192219afd04: Already exists
7127ald8cced: Already exists
883a89599900: Already exists
77920a3e82af: Already exists
92329e81aec4: Already exists
f373218fec59: Already exists
aa53513fe997: Already exists
8b1800105b98: Already exists
c3a84a3e49c8: Already exists
a65640a64a76: Already exists
3ca2ec07878c: Pull complete

```

Go to the docker-hadoop-master.

Then type the command "docker-compose up -d" to deploy Hadoop.

```

Digest: sha256:91ca2a1e861b2c4ac91aee8c620711c7c2a551a00935404a0ba980099058910
Status: Downloaded newer image for bde2020/hadoop-resourcemanager:2.0.0-hadoop3.2.1-java8
Pulling nodemanager1 (bde2020/hadoop-nodemanager:2.0.0-hadoop3.2.1-java8)...
2.0.0-hadoop3.2.1-java8: Pulling from bde2020/hadoop-nodemanager
3192219afd04: Already exists
7127a1d8cced: Already exists
883a89599900: Already exists
77920a3e82af: Already exists
92329e81aec4: Already exists
f373218fec59: Already exists
aa53513fe997: Already exists
8b1800105b98: Already exists
c3a84a3e49c8: Already exists
a65640a64a76: Already exists
beaa171f32f6: Pull complete
50dda04de8a9: Pull complete
Digest: sha256:b5515b537a30468a00198610861e0228ef51110315e7df18025a3d0bbe0b0951
Status: Downloaded newer image for bde2020/hadoop-nodemanager:2.0.0-hadoop3.2.1-java8
Pulling historyserver (bde2020/hadoop-historyserver:2.0.0-hadoop3.2.1-java8)...
2.0.0-hadoop3.2.1-java8: Pulling from bde2020/hadoop-historyserver
3192219afd04: Already exists
7127a1d8cced: Already exists
883a89599900: Already exists
77920a3e82af: Already exists
92329e81aec4: Already exists
f373218fec59: Already exists
aa53513fe997: Already exists
8b1800105b98: Already exists
c3a84a3e49c8: Already exists
a65640a64a76: Already exists
b2dc88cebe05: Pull complete
13b908760168: Pull complete
0991d53828a1: Pull complete
Digest: sha256:ab2971d5f8c3384d1b950015985d0371603f09a64e530c1fdda09f0026f06fab
Status: Downloaded newer image for bde2020/hadoop-historyserver:2.0.0-hadoop3.2.1-java8
Creating nodemanager ... done
Creating namenode ... done
Creating resourcemanager ... done
Creating historyserver ... done
Creating datanode ... done
root@0930026096:~/A5 basic/docker-hadoop-master#

```

Wait for pulling, then has been successfully deployed.

```

root@0930026096:~/A5 basic/docker-hadoop-master# docker ps
CONTAINER ID   IMAGE                                     NAMES                                COMMAND                                CREATED        STATUS        PORTS
1c97225458f5   bde2020/hadoop-resourcemanager:2.0.0-hadoop3.2.1-java8   resourcemanager                      "/entrypoint.sh /run..."           3 minutes ago  Up 3 minutes (healthy)   8088/tcp
bab37d881826   bde2020/hadoop-datanode:2.0.0-hadoop3.2.1-java8          datanode                             "/entrypoint.sh /run..."           3 minutes ago  Up 3 minutes (healthy)   9864/tcp
043b52a8f8c2   bde2020/hadoop-historyserver:2.0.0-hadoop3.2.1-java8    historyserver                        "/entrypoint.sh /run..."           3 minutes ago  Up 3 minutes (healthy)   8188/tcp
7aef0746ac9   bde2020/hadoop-namenode:2.0.0-hadoop3.2.1-java8         namenode                             "/entrypoint.sh /run..."           3 minutes ago  Up 3 minutes (healthy)   0.0.0.0:9000->9000/tcp, :::9000->9000/tcp
c3a84a3e49c8   bde2020/hadoop-nodemanager:2.0.0-hadoop3.2.1-java8      nodemanager                          "/entrypoint.sh /run..."           3 minutes ago  Up 3 minutes (healthy)   8042/tcp
root@0930026096:~/A5 basic/docker-hadoop-master#

```

Type command “docker ps”.

It includes resourcemanager, datanode, namenode, historyserver, nodemanager.

noVNC - Google Chrome

172.31.10.126:20001/vnc_auto.html?token=116924e4-8cf4-43ee-ac8c-42c8f6171bb2&instance_name=p930026096RoyMa0&instance_id=12893bfa-213b-410c-8c45-dd0477...

Connected to p930026096RoyMa0 (instance-0000b9d)

Namenode information — Mozilla Firefox

Course: Data Processing Worl... Namenode information

localhost:9870/dfshealth.html#tab-overview

Hadoop Overview Datanodes Datanode Volume Failures Snapshot Startup Progress Utilities

Overview 'namenode:9000' (active)

Started:	Thu Oct 07 01:41:09 +0000 2021
Version:	3.2.1, rb3cbbb467e22ea829b3808f4b7b01d07e0bf3842
Compiled:	Tue Sep 10 15:56:00 +0000 2019 by rohitsharmaks from branch-3.2.1
Cluster ID:	CID-83670a01-fa69-4fad-99e9-0a854f36bcd
Block Pool ID:	BP-661275010-172.19.0.3-1633569884603

Summary

You can go to <https://localhost:9870/> to check namenode state.