

Testing the Hadoop Cluster

```
root@p930026096:~/A5_basic/docker-hadoop-master# docker-compose up -d
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namenode is up-to-date
datanode is up-to-date
historyserver is up-to-date
resourcemanager is up-to-date
nodemanager is up-to-date
```

To deploy an HDFS cluster

```
root@p930026096:~/A5_basic/docker-hadoop-master# docker exec -it namenode bash
```

Enter the namenode container

```
root@7aecf0746ac9:/# ls
KEYS  dev      hadoop      lib   mnt   root   sbin  tmp
bin   entrypoint.sh  hadoop-data lib64 opt   run   srv   usr
boot  etc      home        media proc  run.sh sys   var
root@7aecf0746ac9:/# mkdir input
root@7aecf0746ac9:/# ls
KEYS  dev      hadoop      input  media  proc  run.sh  sys  var
bin   entrypoint.sh  hadoop-data lib   mnt   root   sbin   tmp
boot  etc      home        lib64 opt   run   srv    usr
```

List the file under namenode container. And make a directory called input.

```
root@7aecf0746ac9:/# echo "Hello UIC" > input/f1.txt
```

```
root@7aecf0746ac9:/# echo "Hello Data Science" > input/f2.txt
```

Create two .txt files under input directory.

```
root@7aecf0746ac9:/# hadoop fs -mkdir -p input-royma
```

Create the input-royma directory on HDFS.

```
root@be505748bc34:/# hadoop fs -mkdir -p input-royma
mkdir: Cannot create directory /user/root/input-royma. Name node is in safe mode.
```

Put the all files under input into datanode on HDFS. However, it showed Name node is in safe mode. I first restart the Hadoop, but it didn't work.

```
root@be505748bc34:/# hadoop dfsadmin -safemode leave
WARNING: Use of this script to execute dfsadmin is deprecated.
WARNING: Attempting to execute replacement "hdfs dfsadmin" instead.
Safe mode is OFF
```

To leave safemode.

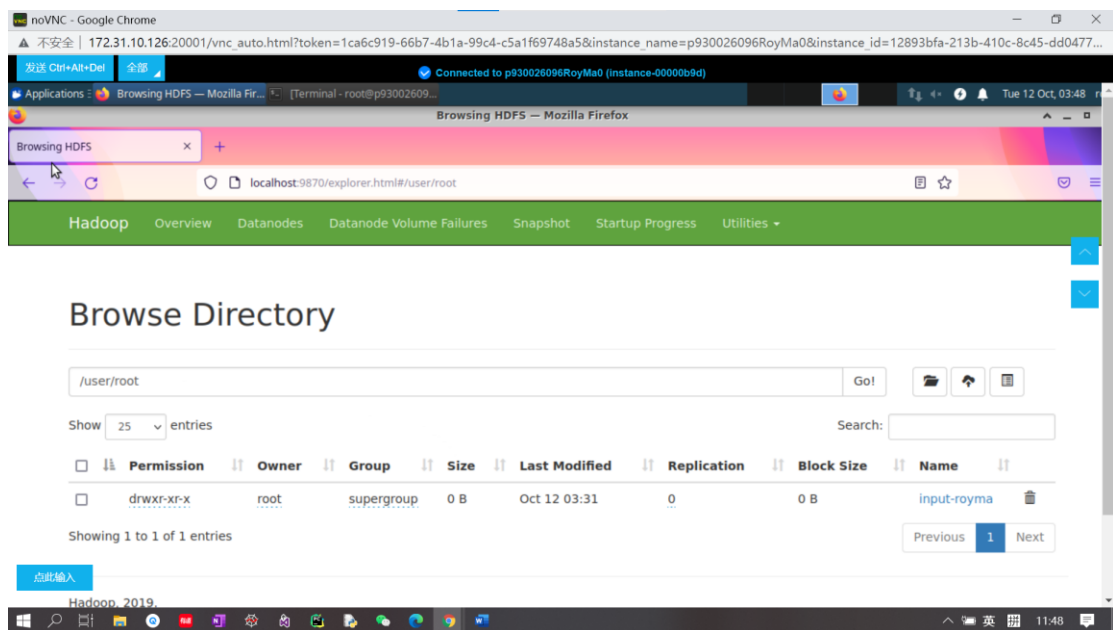
```

root@be505748bc34:/# hadoop dfs -put ./input/* input-royma
WARNING: Use of this script to execute dfs is deprecated.
WARNING: Attempting to execute replacement "hdfs dfs" instead.

2021-10-12 03:31:05,445 INFO sasl.SaslDataTransferClient: SASL encryption trust
check: localhostTrusted = false, remoteHostTrusted = false
2021-10-12 03:31:06,056 INFO sasl.SaslDataTransferClient: SASL encryption trust
check: localhostTrusted = false, remoteHostTrusted = false
root@be505748bc34:/#

```

Try the command again to all files under input to the datanodes on HDFS.



Enter localhost:9870, and successfully move my local files to HDFS datanodes.

```

root@be505748bc34:/# exit
exit
root@p930026096:~/A5_basic/docker-hadoop-master#

```

Exit the container.