

CSP 554 – Big Data Technologies
Adarsh Mathad Vijayakumar – A20424847
avijayakumar@hawk.iit.edu

10) Execute the following hdfs command and take a screen snapshot of the names of the files or directories that are listed (also indicating which is a file and which a directory):

hadoop fs -ls /

Command: hadoop fs -ls /

```
[[maria_dev@sandbox-hdp ~]$ hadoop fs -ls /
Found 13 items
drwxrwxrwx   - yarn      hadoop          0 2018-09-03 02:58 /app-logs
drwxr-xr-x   - hdfs      hdfs           0 2018-02-01 10:32 /apps
drwxr-xr-x   - yarn      hadoop          0 2018-02-01 10:24 /ats
-rw-r--r--   1 maria_dev hdfs          41 2019-01-27 01:11 /csp554doc.txt
drwxr-xr-x   - hdfs      hdfs           0 2018-02-01 10:39 /demo
drwxr-xr-x   - hdfs      hdfs           0 2018-02-01 10:24 /hdp
drwx-----  - livy      hdfs           0 2018-02-01 10:27 /livy2-recovery
drwxr-xr-x   - mapred    hdfs           0 2018-02-01 10:24 /mapred
drwxrwxrwx   - mapred    hadoop          0 2018-02-01 10:25 /mr-history
drwxr-xr-x   - hdfs      hdfs           0 2018-02-01 10:24 /ranger
drwxrwxrwx   - spark     hadoop          0 2019-01-31 03:58 /spark2-history
drwxrwxrwx   - hdfs      hdfs           0 2018-09-28 14:49 /tmp
drwxr-xr-x   - hdfs      hdfs           0 2019-01-23 22:56 /user
[[maria_dev@sandbox-hdp ~]$
```

All the items listed are directories, except csp554doc.txt (4th entry in the list) which is a file.

11) Execute a command (you needed to figure out which one) to list the files and directories under the hdfs directory listed below:

/user

Write down the command you executed and also take a screen snapshot of names of the files or directories that are listed.

Command executed: hadoop fs -ls /user

```
[[maria_dev@sandbox-hdp ~]$ hadoop fs -ls /user
Found 15 items
drwxr-xr-x   - admin      hdfs           0 2018-02-01 10:47 /user/admin
drwxrwx---   - ambari-qa  hdfs           0 2018-02-01 10:24 /user/ambari-qa
drwxr-xr-x   - amy_ds     hdfs           0 2018-02-01 10:41 /user/amy_ds
drwxr-xr-x   - maria_dev  hdfs           0 2019-01-29 05:51 /user/cs595
drwxr-xr-x   - maria_dev  hdfs           0 2019-01-31 02:31 /user/csp554
drwxr-xr-x   - hbase      hdfs           0 2018-02-01 10:24 /user/hbase
drwxr-xr-x   - hcat       hdfs           0 2018-02-01 10:28 /user/hcat
drwxr-xr-x   - hive       hdfs           0 2018-02-01 10:46 /user/hive
drwxr-xr-x   - holger_gov hdfs           0 2018-02-01 10:42 /user/holger_gov
drwxrwxr-x   - livy       hdfs           0 2018-02-01 10:27 /user/livy
drwxr-xr-x   - maria_dev  hdfs           0 2019-01-31 01:45 /user/maria_dev
drwxrwxr-x   - oozie      hdfs           0 2018-02-01 10:29 /user/oozie
drwxr-xr-x   - raj_ops    hdfs           0 2018-02-01 10:43 /user/raj_ops
drwxrwxr-x   - spark     hdfs           0 2018-02-01 10:25 /user/spark
drwxr-xr-x   - zeppelin   hdfs           0 2018-02-01 10:26 /user/zeppelin
[[maria_dev@sandbox-hdp ~]$
```

12) Execute a command to create the following directory:

/user/csp554/<yournamenospaces>

Record the command you executed and include it in your assignment submission.

Command executed: `hadoop fs -mkdir /user/csp554/AdarshMathad_Vijayakumar`

```
[[maria_dev@sandbox-hdp ~]$ hadoop fs -ls /user/csp554/
Found 43 items
drwxr-xr-x - maria_dev hdfs      0 2019-01-26 20:35 /user/csp554/AbhishekVandadi
drwxr-xr-x - maria_dev hdfs      0 2019-01-31 05:30 /user/csp554/AdarshMathad_Vijayakumar
drwxr-xr-x - maria_dev hdfs      0 2019-01-26 20:02 /user/csp554/KarthikMahesh
drwxr-xr-x - maria_dev hdfs      0 2019-01-28 00:06 /user/csp554/KhushbuPatel
drwxr-xr-x - maria_dev hdfs      0 2019-01-31 00:10 /user/csp554/MalharPatwari
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 02:01 /user/csp554/Ranganathan
-rw-r--r-- 1 maria_dev hdfs     12 2019-01-27 23:00 /user/csp554/RuchiSharma
drwxr-xr-x - maria_dev hdfs      0 2019-01-27 23:03 /user/csp554/RuchiSharma
-rw-r--r-- 1 maria_dev hdfs     18 2019-01-28 20:04 /user/csp554/Sanchayni
drwxr-xr-x - maria_dev hdfs      0 2019-01-26 20:03 /user/csp554/Sara
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 19:35 /user/csp554/ShengnanLi
drwxr-xr-x - maria_dev hdfs      0 2019-01-26 20:12 /user/csp554/amitdeb
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 08:20 /user/csp554/chinnivenkataraju_koviri
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 19:37 /user/csp554/cristinablanca
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 19:41 /user/csp554/csegarce
-rw-r--r-- 1 maria_dev hdfs    9454 2019-01-21 22:14 /user/csp554/csp554doc2.txt
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 08:13 /user/csp554/dakshayani
drwxr-xr-x - maria_dev hdfs      0 2019-01-25 03:49 /user/csp554/danielwojtowicz
drwxr-xr-x - maria_dev hdfs      0 2019-01-27 03:31 /user/csp554/deepakgovindmukundan
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 04:23 /user/csp554/eshnaSengupta
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 18:55 /user/csp554/hanwang
drwxr-xr-x - maria_dev hdfs      0 2019-01-27 03:37 /user/csp554/harshitha_rangaswamy
drwxr-xr-x - maria_dev hdfs      0 2019-01-30 01:03 /user/csp554/harshthakkar
drwxr-xr-x - maria_dev hdfs      0 2019-01-27 22:13 /user/csp554/hiralvyas
drwxr-xr-x - maria_dev hdfs      0 2019-01-23 23:07 /user/csp554/jayrodge
drwxr-xr-x - maria_dev hdfs      0 2019-01-27 22:48 /user/csp554/krusha
drwxr-xr-x - maria_dev hdfs      0 2019-01-28 05:18 /user/csp554/martadelarreapombo
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 22:53 /user/csp554/nitalmilindbansode
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 01:19 /user/csp554/poojajagannath
drwxr-xr-x - maria_dev hdfs      0 2019-01-28 20:35 /user/csp554/priti_golegaonkar
drwxr-xr-x - maria_dev hdfs      0 2019-01-30 04:14 /user/csp554/rakshit
-rw-r--r-- 1 maria_dev hdfs     41 2019-01-30 03:38 /user/csp554/raksit
drwxr-xr-x - maria_dev hdfs      0 2019-01-27 02:35 /user/csp554/rutvikmargeshbhaipathak
drwxr-xr-x - maria_dev hdfs      0 2019-01-27 01:57 /user/csp554/sabareeshsuresh
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 00:09 /user/csp554/sanchayni
drwxr-xr-x - maria_dev hdfs      0 2019-01-26 19:00 /user/csp554/saurabhpatni
drwxr-xr-x - maria_dev hdfs      0 2019-01-28 21:27 /user/csp554/shikhapravinverma
drwxr-xr-x - maria_dev hdfs      0 2019-01-27 02:48 /user/csp554/snehalprajapati
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 21:13 /user/csp554/ssreedhar
drwxr-xr-x - maria_dev hdfs      0 2019-01-31 02:56 /user/csp554/tejasbhaipatel
drwxr-xr-x - maria_dev hdfs      0 2019-01-29 16:10 /user/csp554/tientran
drwxr-xr-x - maria_dev hdfs      0 2019-01-27 01:06 /user/csp554/yaji
-rw-r--r-- 1 maria_dev hdfs     41 2019-01-29 01:31 /user/csp554/yourname
[[maria_dev@sandbox-hdp ~]$
```

13) Execute a command that copies a given local file(that I already created for you) to the given hdfs directory :

Local file: /home/maria_dev/csp554doc.txt

HDFS directory: /user/csp554/<yournamenospaces>

Record the command you executed and include it in your assignment submission.

Command executed:

`hadoop fs -copyFromLocal /home/maria_dev/csp554doc.txt /user/csp554/AdarshMathad_Vijayakumar`

```
[[maria_dev@sandbox-hdp ~]$ hadoop fs -ls /user/csp554/AdarshMathad_Vijayakumar
Found 1 items
-rw-r--r-- 1 maria_dev hdfs      41 2019-01-31 05:54 /user/csp554/AdarshMathad_Vijayakumar/csp554doc.txt
[[maria_dev@sandbox-hdp ~]$
```


14) Copy the given file from one hdfs directory to another hdfs directory and write down the command

Source hdfs file: /user/csp554/csp554doc2.txt

Note, I created this file for you already

Destination HDFS directory: /user/csp554/<yournamenospaces>

Record the command you executed and include it in your assignment submission.

Command executed:

`hadoop fs -cp /user/csp554/csp554doc2.txt /user/csp554/AdarshMathad_Vijayakumar`

```
[maria_dev@sandbox-hdp csp554]$ hadoop fs -cp /user/csp554/csp554doc2.txt /user/csp554/AdarshMathad_Vijayakumar
[maria_dev@sandbox-hdp csp554]$ hadoop fs -ls /user/csp554/AdarshMathad_Vijayakumar
Found 2 items
-rw-r--r-- 1 maria_dev hdfs      41 2019-01-31 05:54 /user/csp554/AdarshMathad_Vijayakumar/csp554doc.txt
-rw-r--r-- 1 maria_dev hdfs    9454 2019-01-31 06:53 /user/csp554/AdarshMathad_Vijayakumar/csp554doc2.txt
[maria_dev@sandbox-hdp csp554]$
```

15) This is to get you familiar with the approach to copy files from your MAC or PC to a local account on the Linux machine running the Hadoop Sandbox.

- Create a plain text file on your local machine (PC or MAC). Name it `firstname_lastname.txt`. The file should hold just one line and that line should hold your first and last name.
- Open a new terminal or bash window
- Copy the local file `firstname_lastname.txt` to the `maria_dev` account as follows:
 - `scp -P 2222 ./firstname_lastname.txt maria_dev@localhost:/home/maria_dev`
 - When prompted for a password, enter
 - `maria_dev`
 - Note that the “ssh” command used a small p (-p) to specify the port, the scp command uses a capital P (-P) to do so.
- Now, from your hadoop `maria_dev` account, execute a command that copies the `firstname_lastname.txt` file to the given hdfs directory :

Local file: /home/maria_dev/firstname_lastname.txt

HDFS directory: /user/csp554/<yournamenospaces>

Record the command you executed and take a screenshot of all files in the directory

“/user/csp554/<yournamenospaces>”

Commands executed:

a) `scp -P 2222 ./AdarshMathad_Vijayakumar.txt maria_dev@localhost:/home/maria_dev`

b) `hadoop fs -copyFromLocal /home/maria_dev/AdarshMathad_Vijayakumar.txt /user/csp554/AdarshMathad_Vijayakumar`

```
[maria_dev@sandbox-hdp ~]$ hadoop fs -ls /user/csp554/AdarshMathad_Vijayakumar
Found 3 items
-rw-r--r-- 1 maria_dev hdfs      25 2019-01-31 07:30 /user/csp554/AdarshMathad_Vijayakumar/AdarshMathad_Vijayakumar.txt
-rw-r--r-- 1 maria_dev hdfs      41 2019-01-31 05:54 /user/csp554/AdarshMathad_Vijayakumar/csp554doc.txt
-rw-r--r-- 1 maria_dev hdfs    9454 2019-01-31 06:53 /user/csp554/AdarshMathad_Vijayakumar/csp554doc2.txt
[maria_dev@sandbox-hdp ~]$
```