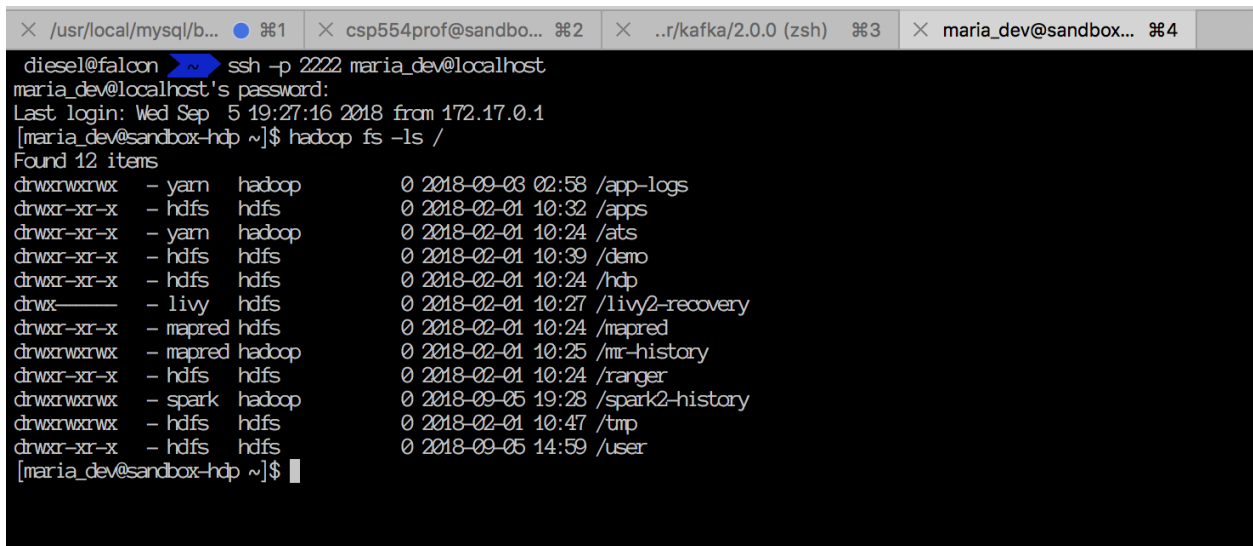# CSP554—Big Data Technologies

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Assignment #2 (Modules 02a & 02b, 10 points)

9. (1 point) 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 /

10. (1 point) Execute a command (you needed to figure out which one) to list the files and directories under the hdfs directory listed below: **/user**

> hadoop fs -ls -h /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 2018-09-02 12:56 /user/cs595
drwxr-xr-x    - maria_dev   hdfs          0 2018-09-05 17:54 /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 2018-09-05 16:16 /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 ~]$ ▮
```

11. (2 points) Execute a command to create the following directory: /user/csp554/<yournamenospaces>

hadoop fs -mkdir /user/csp554/saptarshi (create files)

hadoop fs -ls /user/csp554/saptarshi (list files)

```
drwxr-xr-x    - zeppelin    hdfs          0 2018-02-01 10:25 /user/zeppelin
[maria_dev@sandbox-hdp ~]$ hadoop fs -mkdir /user/csp554/saptarshi
[maria_dev@sandbox-hdp ~]$ hadoop ls -mkdir /user/csp554/saptarshi
Error: Could not find or load main class ls
[maria_dev@sandbox-hdp ~]$ hadoop fs -ls /user/csp554/saptarshi
[maria_dev@sandbox-hdp ~]$ hadoop fs -ls /user/csp554/
Found 25 items
drwxr-xr-x    - maria_dev hdfs          0 2018-09-02 05:54 /user/csp554/MuhammadShareef
drwxr-xr-x    - maria_dev hdfs          0 2018-09-05 10:45 /user/csp554/NirmalChoudhary
drwxr-xr-x    - maria_dev hdfs          0 2018-09-05 04:59 /user/csp554/RitikaKumari
drwxr-xr-x    - maria_dev hdfs          0 2018-09-05 00:05 /user/csp554/SanchuanJiang
drwxr-xr-x    - maria_dev hdfs          0 2018-09-05 02:08 /user/csp554/alagu
drwxr-xr-x    - maria_dev hdfs          0 2018-09-05 16:18 /user/csp554/bhuvaneshwari_subramani
drwxr-xr-x    - maria_dev hdfs          0 2018-09-04 17:07 /user/csp554/chulho
drwxr-xr-x    - maria_dev hdfs          0 2018-09-05 16:24 /user/csp554/fnu_riteshnarayan
drwxr-xr-x    - maria_dev hdfs          0 2018-09-04 01:03 /user/csp554/jingzhao
drwxr-xr-x    - maria_dev hdfs          0 2018-09-03 18:55 /user/csp554/mayurpiyushkumarmehta
drwxr-xr-x    - maria_dev hdfs          0 2018-09-03 05:01 /user/csp554/mehulsingh
drwxr-xr-x    - maria_dev hdfs          0 2018-09-04 05:50 /user/csp554/minak
drwxr-xr-x    - maria_dev hdfs          0 2018-09-03 17:47 /user/csp554/mohanprasad
drwxr-xr-x    - maria_dev hdfs          0 2018-09-02 13:21 /user/csp554/parvaudaykumarbhayani
drwxr-xr-x    - maria_dev hdfs          0 2018-09-05 18:00 /user/csp554/pengguo
drwxr-xr-x    - maria_dev hdfs          0 2018-09-05 00:20 /user/csp554/pooji
drwxr-xr-x    - maria_dev hdfs          0 2018-09-03 05:44 /user/csp554/rajambani
drwxr-xr-x    - maria_dev hdfs          0 2018-09-05 19:35 /user/csp554/saptarshi
drwxr-xr-x    - maria_dev hdfs          0 2018-09-03 22:11 /user/csp554/shalinijain
drwxr-xr-x    - maria_dev hdfs          0 2018-09-03 19:24 /user/csp554/shashank_vishwanath
drwxr-xr-x    - maria_dev hdfs          0 2018-09-04 22:25 /user/csp554/shashank_yammanur
drwxr-xr-x    - maria_dev hdfs          0 2018-09-03 03:12 /user/csp554/srivathsa
drwxr-xr-x    - maria_dev hdfs          0 2018-09-03 22:50 /user/csp554/suchita_patel
drwxr-xr-x    - maria_dev hdfs          0 2018-09-04 04:01 /user/csp554/vinitkamboj
drwxr-xr-x    - maria_dev hdfs          0 2018-09-03 07:33 /user/csp554/zamanmohammed
[maria_dev@sandbox-hdp ~]$ ▮
```

12. (2 points) 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>

hadoop fs -put /home/maria_dev/csp554doc.txt /user/csp554/saptarshi

```
[maria_dev@sandbox-hdp ~]$ hadoop fs -put /home/maria_dev/csp554doc.txt /user/csp554/saptarshi
[maria_dev@sandbox-hdp ~]$ hadoop fs -ls /user/csp554/saptarshi
Found 1 items
-rw-r--r--   1 maria_dev hdfs         46 2018-09-05 19:39 /user/csp554/saptarshi/csp554doc.txt
[maria_dev@sandbox-hdp ~]$
```

13. (2 points) Copy the given file from one hdfs directory to another hdfs directory and write down the command Source hdfs file: /user/csp554/csp554doc2.txt , Destination HDFS directory: /user/csp554/<yournamenospaces>

hadoop fs -cp /user/csp554/csp554doc2.txt   /user/csp554/saptarshi/

```
[maria_dev@sandbox-hdp ~]$ hadoop fs -cp /user/csp554/csp554doc2.txt /user/csp554/saptarshi/
[maria_dev@sandbox-hdp ~]$
```

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

14. (2 points) 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.

- 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

```
✗ diesel@falcon  /usr/local/Cellar/kafka/2.0.0  scp -P 2222 ~/Desktop/saptarshi_chatterjee.txt maria_dev@localhost:/home/maria_dev
maria_dev@localhost's password:
saptarshi_chatterjee.txt                                                                    100% 2298    54.5KB/s   00:00
  diesel@falcon  /usr/local/Cellar/kafka/2.0.0  []
```

  - 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>

hadoop fs -put /home/maria_dev/saptarshi_chatterjee.txt /user/csp554/saptarshi/

```
[maria_dev@sandbox-hdp ~]$ hadoop fs -put /home/maria_dev/saptarshi_chatterjee.txt /user/csp554/saptarshi
[maria_dev@sandbox-hdp ~]$ hadoop fs -ls /user/csp554/saptarshi
Found 2 items
-rw-r--r--   1 maria_dev hdfs         46 2018-09-05 19:39 /user/csp554/saptarshi/csp554doc.txt
-rw-r--r--   1 maria_dev hdfs       2298 2018-09-05 19:53 /user/csp554/saptarshi/saptarshi_chatterjee.txt
[maria_dev@sandbox-hdp ~]$ hadoop fs -ls -h /user/csp554/saptarshi
Found 2 items
-rw-r--r--   1 maria_dev hdfs         46 2018-09-05 19:39 /user/csp554/saptarshi/csp554doc.txt
-rw-r--r--   1 maria_dev hdfs      2.2 K 2018-09-05 19:53 /user/csp554/saptarshi/saptarshi_chatterjee.txt
[maria_dev@sandbox-hdp ~]$
```

Record the command you executed and take a screenshot of all files in the directory
"/user/csp554/<yournamenospaces>"

hadoop fs -ls -h /user/csp554/saptarshi/

```
[maria_dev@sandbox-hdp ~]$ hadoop fs -ls -h /user/csp554/saptarshi/
Found 3 items
-rw-r--r--   1 maria_dev hdfs         46 2018-09-05 19:39 /user/csp554/saptarshi/csp554doc.txt
-rw-r--r--   1 maria_dev hdfs      9.2 K 2018-09-05 20:23 /user/csp554/saptarshi/csp554doc2.txt
-rw-r--r--   1 maria_dev hdfs      2.2 K 2018-09-05 19:53 /user/csp554/saptarshi/saptarshi_chatterjee.txt
[maria_dev@sandbox-hdp ~]$
```