Name: Kajol Tanesh Shah
A20496724
Fall 2022

CSP554—Big Data Technologies

Assignment #2

9) (2 points) Execute the following hdfs command to list the files or directories that are listed (also indicating which is a file and which a directory):
hadoop fs –ls /

Ans. $ hadoop fs –ls /

```
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -ls /
Found 4 items
drwxr-xr-x   - hdfs hdfsadmingroup          0 2022-09-15 01:03 /apps
drwxrwxrwt   - hdfs hdfsadmingroup          0 2022-09-15 01:03 /tmp
drwxr-xr-x   - hdfs hdfsadmingroup          0 2022-09-15 01:03 /user
drwxr-xr-x   - hdfs hdfsadmingroup          0 2022-09-15 01:03 /var
[hadoop@ip-172-31-7-153 ~]$
```

10) (2 points) 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 and include it in your assignment submission.

Ans. $ hadoop fs -ls /user

```
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -ls /user
Found 6 items
drwxrwxrwx   - hadoop hdfsadmingroup          0 2022-09-15 01:03 /user/hadoop
drwxr-xr-x   - mapred mapred                  0 2022-09-15 01:03 /user/history
drwxrwxrwx   - hdfs   hdfsadmingroup          0 2022-09-15 01:03 /user/hive
drwxrwxrwx   - hue    hue                     0 2022-09-15 01:03 /user/hue
drwxrwxrwx   - oozie  oozie                   0 2022-09-15 01:05 /user/oozie
drwxrwxrwx   - root   hdfsadmingroup          0 2022-09-15 01:03 /user/root
[hadoop@ip-172-31-7-153 ~]$
```

11) (2 points) Execute a command to create the following HDFS directory:
/user/csp554

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

Ans. $ hadoop fs -mkdir /user/csp554

```
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -mkdir /user/csp554
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -ls /user
Found 7 items
drwxr-xr-x   - hadoop hdfsadmingroup          0 2022-09-15 01:08 /user/csp554
drwxrwxrwx   - hadoop hdfsadmingroup          0 2022-09-15 01:03 /user/hadoop
drwxr-xr-x   - mapred mapred                  0 2022-09-15 01:03 /user/history
drwxrwxrwx   - hdfs   hdfsadmingroup          0 2022-09-15 01:03 /user/hive
drwxrwxrwx   - hue    hue                      0 2022-09-15 01:03 /user/hue
drwxrwxrwx   - oozie  oozie                    0 2022-09-15 01:05 /user/oozie
drwxrwxrwx   - root   hdfsadmingroup          0 2022-09-15 01:03 /user/root
[hadoop@ip-172-31-7-153 ~]$
```

12) (2 points) Execute a command to create the following HDFS directory:

/user/csp554-2

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

Ans. $ hadoop fs -mkdir /user/csp554-2

```
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -mkdir /user/csp554-2
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -ls /user
Found 8 items
drwxr-xr-x   - hadoop hdfsadmingroup          0 2022-09-15 01:08 /user/csp554
drwxr-xr-x   - hadoop hdfsadmingroup          0 2022-09-15 01:12 /user/csp554-2
drwxrwxrwx   - hadoop hdfsadmingroup          0 2022-09-15 01:03 /user/hadoop
drwxr-xr-x   - mapred mapred                  0 2022-09-15 01:03 /user/history
drwxrwxrwx   - hdfs   hdfsadmingroup          0 2022-09-15 01:03 /user/hive
drwxrwxrwx   - hue    hue                      0 2022-09-15 01:03 /user/hue
drwxrwxrwx   - oozie  oozie                    0 2022-09-15 01:05 /user/oozie
drwxrwxrwx   - root   hdfsadmingroup          0 2022-09-15 01:03 /user/root
[hadoop@ip-172-31-7-153 ~]$
```

13) (2 points) Execute a command that copies a given local file to the given hdfs directory :

Source local file: /home/hadoop/myname.txt (where the actual name is your name as described above)

Destination HDFS directory: /user/csp554

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

Ans. $ hadoop fs -put /home/hadoop/kajolshah.txt /user/csp554

```
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -put /home/hadoop/kajolshah.txt /user/csp554
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -ls /user/csp554
Found 1 items
-rw-r--r--   1 hadoop hdfsadmingroup         23 2022-09-15 01:13 /user/csp554/kajolshah.txt
[hadoop@ip-172-31-7-153 ~]$
```

14) (2 points) Copy a file from one hdfs directory to another hdfs directory and write down the command

Source hdfs file: /user/csp554/myname.txt (where the actual name is your name as described above)

Destination HDFS directory: /user/csp554-2

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

Ans. $ hadoop fs -cp /user/csp554/kajolshah.txt /user/csp554-2

```
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -cp /user/csp554/kajolshah.txt /user/csp554-2
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -ls /user/csp554-2
Found 1 items
-rw-r--r--   1 hadoop hdfsadmingroup         23 2022-09-15 01:15 /user/csp554-2/kajolshah.txt
[hadoop@ip-172-31-7-153 ~]$
```

15) 2 points) Copy the object myid.txt you uploaded to an S3 bucket into the Hadoop master node Linux file system. The actual object includes your student id as above.

aws s3 cp s3://mybucket/myid.txt /home/hadoop/myid.txt

After you executed the above command perform an "ls /home/hadoop" and take a screen snapshot of names of the files or directories that are listed and include it in your assignment submission.

Ans. $ aws s3 cp s3://kajolshahbucket/A20496724.txt   /home/hadoop/A20496724.txt

```
[hadoop@ip-172-31-7-153 ~]$ aws s3 cp s3://kajolshahbucket/A20496724.txt   /home/hadoop/A20496724.txt
download: s3://kajolshahbucket/A20496724.txt to ./A20496724.txt
[hadoop@ip-172-31-7-153 ~]$ ls /home/hadoop
A20496724.txt  kajolshah.txt
[hadoop@ip-172-31-7-153 ~]$
```

16)(2 points) Copy the same object myid.txt you created in an S3 bucket into HDFS into the directory /users/csp554
hadoop fs -cp s3://mybucket/myid.txt hdfs:///user/csp554-2

Note, the three slashes after the "hdfs:"
After you executed the above command, execute another command to list directories listed below

/user/csp554-2

Write down the command you executed and also take a screen snapshot of names of the files or directories that are listed and include it in your assignment submission.

Ans. $ hadoop fs -cp s3://kajolshahbucket/A20496724.txt hdfs:///user/csp554-2

```
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -cp s3://kajolshahbucket/A20496724.txt hdfs:///user/csp554-2
22/09/15 01:21:51 INFO s3n.S3NativeFileSystem: Opening 's3://kajolshahbucket/A20496724.txt' for reading
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -ls /user/csp554-2
Found 2 items
-rw-r--r--   1 hadoop hdfsadmingroup         21 2022-09-15 01:21 /user/csp554-2/A20496724.txt
-rw-r--r--   1 hadoop hdfsadmingroup         23 2022-09-15 01:15 /user/csp554-2/kajolshah.txt
[hadoop@ip-172-31-7-153 ~]$
```

17) (2 points) Execute a command to show the contents of the myid.txt file in the hdfs directory /user/csp554-2

Clue: look up about how to use the "cat" command in the file system shell document.

Write down the command you executed and also take a screen snapshot of the listed content of the file and include it in your assignment submission.

Ans.$ hadoop fs -cat /user/csp554-2/A20496724.txt

```
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -cat /user/csp554-2/A20496724.txt
this is the id file

[hadoop@ip-172-31-7-153 ~]$
```

18) (2 points) Execute a command to remove the myid.txt file in the hdfs directory /user/csp554-2

Clue: look up about how to use the "rm" command in the file system shell document.

Write down the command you executed, then list the content of the /user/csp554-2 HDFS directory and take a screen snapshot of the listed content of the directory and include it in your assignment submission.

Ans. $ hadoop fs -rm /user/csp554-2/A20496724.txt

```
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -rm /user/csp554-2/A20496724.txt
Deleted /user/csp554-2/A20496724.txt
[hadoop@ip-172-31-7-153 ~]$ hadoop fs -ls /user/csp554-2
Found 1 items
-rw-r--r--   1 hadoop hdfsadmingroup         23 2022-09-15 01:15 /user/csp554-2/kajolshah.txt
[hadoop@ip-172-31-7-153 ~]$
```