

Assignment 1

1. Work *Example 3-3* on Amazon Elastic MapReduce. Type out all the commands in each step of the process and print out a screenshot of the final results in Amazon EMR.
(Example 3-3. Displaying files from a Hadoop filesystem on standard output twice, by using seek public class FileSystemDoubleCat)

Command for compiling Java file:

```
javac -cp src/:hadoop-common-2.6.1.jar:hadoop-mapreduce-client-core-2.6.1.jar:commons-cli-2.0.jar -d . FileSystemDoubleCat.java
```

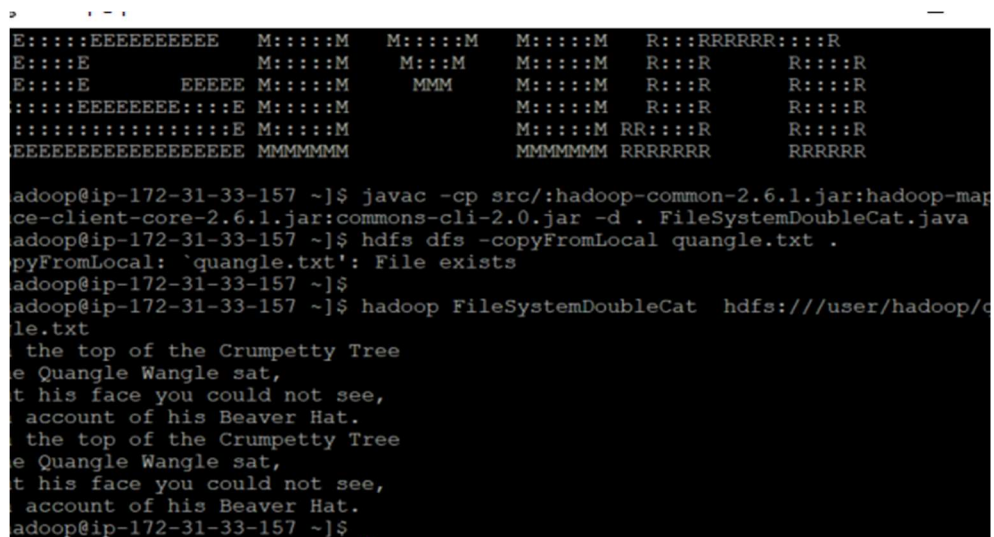
Command for copying a file from local disk to HDFS:

```
hdfs dfs -copyFromLocal quangle.txt .
```

Command for running Java in Hadoop

```
hadoop FileSystemDoubleCat hdfs:///user/hadoop/quangle.txt
```

Screenshot of final results in EMR:



```
E::::EEEEEEEEEE M::::M M::::M M::::M R::RRRRR:::R
E::::E M::::M M::M M::::M R::R R:::R
E::::E EEEEE M::::M MMM M::::M R::R R:::R
::::EEEEEEEE:::E M::::M M::::M R::R R:::R
:::::::::::E M::::M M::::M RR:::R R:::R
EEEEEEEEEEEEEEEE MMMMMM MMMMMM RRRRRR RRRRRR

adoop@ip-172-31-33-157 ~]$ javac -cp src/:hadoop-common-2.6.1.jar:hadoop-map
ce-client-core-2.6.1.jar:commons-cli-2.0.jar -d . FileSystemDoubleCat.java
adoop@ip-172-31-33-157 ~]$ hdfs dfs -copyFromLocal quangle.txt .
pyFromLocal: `quangle.txt': File exists
adoop@ip-172-31-33-157 ~]$
adoop@ip-172-31-33-157 ~]$ hadoop FileSystemDoubleCat hdfs:///user/hadoop/c
le.txt
the top of the Crumpetty Tree
e Quangle Wangle sat,
t his face you could not see,
account of his Beaver Hat.
the top of the Crumpetty Tree
e Quangle Wangle sat,
t his face you could not see,
account of his Beaver Hat.
adoop@ip-172-31-33-157 ~]$
```

2. Work *Example 3-4* on Amazon Elastic MapReduce. Type out all the commands in each step of the process and print out a screenshot of the final results (showing the file directory) in Amazon EMR.(Example 3-4. Copying a local file to a Hadoop filesystem)

Command for compiling Java file:

```
javac -cp src/:hadoop-common-2.6.1.jar:hadoop-mapreduce-client-core-2.6.1.jar:commons-cli-2.0.jar -d . FileCopyWithProgress.java
```

Command for copying a file from local disk to HDFS:

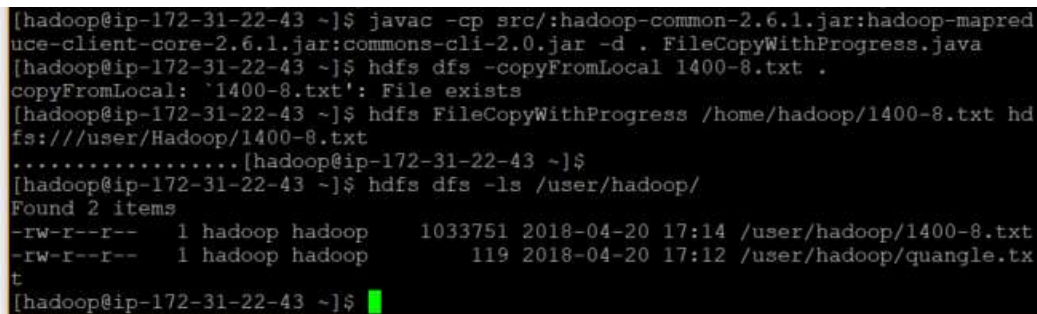
```
hdfs dfs -copyFromLocal 1400-8.txt .
```

Command for running Java in Hadoop

```
hdfs FileCopyWithProgress /home/hadoop/1400-8.txt hdfs:///user/Hadoop/1400-8.txt
```

Screenshot of final results in EMR:

```
hdfs dfs -ls /user/hadoop/
```



```
[hadoop@ip-172-31-22-43 ~]$ javac -cp src/:hadoop-common-2.6.1.jar:hadoop-mapreduce-client-core-2.6.1.jar:commons-cli-2.0.jar -d . FileCopyWithProgress.java
[hadoop@ip-172-31-22-43 ~]$ hdfs dfs -copyFromLocal 1400-8.txt .
copyFromLocal: '1400-8.txt': File exists
[hadoop@ip-172-31-22-43 ~]$ hdfs FileCopyWithProgress /home/hadoop/1400-8.txt hdfs:///user/Hadoop/1400-8.txt
.....[hadoop@ip-172-31-22-43 ~]$
[hadoop@ip-172-31-22-43 ~]$ hdfs dfs -ls /user/hadoop/
Found 2 items
-rw-r--r--  1 hadoop hadoop    1033751 2018-04-20 17:14 /user/hadoop/1400-8.txt
-rw-r--r--  1 hadoop hadoop      119 2018-04-20 17:12 /user/hadoop/quangle.txt
[hadoop@ip-172-31-22-43 ~]$
```

*work Example3-4 on CSUEB Hadoop

Make a new folder in HDFS:

```
hdfs dfs -mkdir /home/student7/student7_lu/
```

Command for compiling Java file:

```
javac -classpath /home/student7/hadoop-common-2.6.1.jar:/home/student1/hadoop-mapreduce-client-core-2.6.1.jar:/home/student7/commons-cli-2.0.jar -d . FileCopyWithProgress.java
```

Command for copying a file from local disk to CSUEB HDFS: (CSUEB uses Java_Home as the default class path)

```
export HADOOP_CLASSPATH=/home/student7
```

Command for running Java in Hadoop

```
hadoop FileCopyWithProgress /home/student7/1400-8.txt hdfs:///home/student7/student7_lu/1400-8.txt
```

Screenshot of final result

hdfs dfs -ls /home/student7

hdfs dfs -ls /home/student7/student7_lu

```
[student7@msba-hadoop-name ~]$ export HADOOP_CLASSPATH=/home/student7
[student7@msba-hadoop-name ~]$ hadoop FileCopyWithProgress /home/student7/1400-8
.txt hdfs:///home/student7/student7_lu/1400-8.txt
.....[student7@msba-hadoop-name ~]$ hdfs dfs -ls /home/student7
Found 2 items
-rw-r--r--    5 student7 supergroup      4788 2018-04-19 21:49 /home/student7/nu
mbers.seq
drwxr-xr-x    - student7 supergroup        0 2018-04-20 20:39 /home/student7/st
udent7_lu
[student7@msba-hadoop-name ~]$ hdfs dfs -ls /home/student7/student7_lu
Found 1 items
-rw-r--r--    5 student7 supergroup    1033751 2018-04-20 20:39 /home/student7/student7_lu/1400
-8.txt
[student7@msba-hadoop-name ~]$ █
```