



## HDFS Dev & Admin Commands

### Create a new directory

```
hadoop fs -mkdir /user/hduser/testing  
hdfs dfs -mkdir /user/hduser/testing1
```

### Check if directory is created by using ls command.

```
hadoop fs -ls /user/hduser
```

### Remove created Dir.

```
hadoop fs -rmdir /user/hduser/testing
```

### Create file in local and copy it to created directory in hdfs.

```
cd ~  
echo testdata > test.txt  
hadoop fs -mkdir /user/hduser/testing  
hadoop fs -copyFromLocal ~/test.txt /user/hduser/testing/
```

### View the content of copied file.

```
hadoop fs -cat /user/hduser/testing/test.txt
```

### Remove Directory.

```
hadoop fs -rm -r /user/hduser/testing
```

### Move file from local to hdfs

```
hadoop fs -moveFromLocal ~/test.txt /user/hduser/testing/abc.txt
```

### Check free space in human readable format.

```
hadoop fs -df -h
```

### Append file from local to hdfs.

```
cd ~  
echo testdataappended > abc.txt  
hadoop fs -appendToFile abc.txt /user/hduser/testing/abc.txt
```

**Create new file with zero content.**

```
hadoop fs -touchz testing/test.txt
```

**Exercise :**

Open a terminal window to the current working directory. # /home/hduser

1. Print the Hadoop version `hadoop version`

```
hadoop version
```

2. List the contents of the root directory in HDFS

```
hadoop fs -ls /
```

3. Report the amount of space used and # available on currently mounted filesystem

```
hadoop fs -df hdfs:/
```

4. Count the number of directories, files and bytes under # the paths that match the specified file pattern #

```
hadoop fs -count hdfs:/
```

5. Run a DFS filesystem checking utility

```
hdfs fsck /user/hduser
```

6. Run a cluster balancing utility

```
hadoop balancer
```

7. Create a new directory named "hadoop" under the /user/hduser directory in HDFS.

```
hadoop fs -mkdir /user/hduser/hadoop
```

8. Add a sample text file from the local directory named "hadoop" to the new directory you created in HDFS during the previous step.

```
echo "sampledata" > sample.txt
```

```
hadoop fs -put ~/sample.txt /user/hduser/hadoop
```

9. List the contents of this new directory in HDFS.

```
hadoop fs -ls /user/hduser/hadoop
```

10. Add the entire local directory called “training” to the /user/hduser/hadoop directory in HDFS.

```
mkdir /home/hduser/training
echo testdata >> /home/hduser/training/testfile
hadoop fs -put /home/hduser/training /user/hduser/hadoop
```

11. See how much space this directory occupies in HDFS.

```
hadoop fs -du -s -h hadoop
```

12. Delete a file testfile from the “hadoop” directory.

```
hadoop fs -put ~/training/testfile /user/hduser/hadoop/
hadoop fs -rm hadoop/testfile
```

13. Ensure this file is no longer in HDFS.

```
hadoop fs -ls hadoop/testfile
```

14. Delete all files from the “hadoop” directory using a wildcard.

```
hadoop fs -rm hadoop/*.txt
```

15. Finally, remove the entire directory and all of its contents in HDFS.

```
hadoop fs -rm -r hadoop/training
```

16. To view the contents of your text file test.txt which is present in your hadoop directory.

```
hadoop fs -copyFromLocal test.txt hadoop/
hadoop fs -cat hadoop/test.txt
```

17. Add the test.txt file from “hadoop” directory which is present in HDFS directory to the directory “tmp” which is present in your local directory

```
hadoop fs -copyToLocal hadoop/test.txt /tmp
ls -l /tmp/test.txt
```

18. cp is used to copy files between directories present in HDFS

```
hadoop fs -rm hadoop/test.txt
hadoop fs -cp /user/hduser/*.txt /user/hduser/hadoop/
```

19. ‘-get’ command can be used alternatively to ‘-copyToLocal’ command

```
rm ~/test.txt
hadoop fs -get hadoop/test.txt /home/hduser/
```

20. Display last few lines of the file "filename" to stdout.

```
hadoop fs -put filename hadoop/  
hadoop fs -tail hadoop/filename
```

21. Default file permissions are 666 in HDFS use '-chmod' command to change permissions of a file

```
hadoop fs -touchz hadoop/test.txt  
hadoop fs -ls hadoop/test.txt  
hadoop fs -chmod 600 test.txt
```

22. Default names of owner and group are hduser, hadoop Use '-chown' to change owner name and group name simultaneously

```
hadoop fs -ls hadoop/test.txt  
sudo adduser hdfs  
hadoop fs -chown hdfs:hdfs hadoop/test.txt
```

23. Default name of group is hadoop use '-chgrp' command to change group name

```
hadoop fs -ls hadoop/test.txt  
  
hadoop fs -chgrp hadoop hadoop/test.txt
```

24. Move a directory from one location to other

```
hadoop fs -mv hadoop apache_hadoop
```

25. Default replication factor to a file is 3. Use '-setrep' command to change replication factor of a file #

```
hadoop fs -setrep -w 2 apache_hadoop/test.txt
```

26. Check the replication is set to 2

```
hadoop fs -stat %r apache_hadoop/test.txt
```

27. Ask for help!

```
hadoop fs -help
```