

## CSE4003 - Big Data Analytics

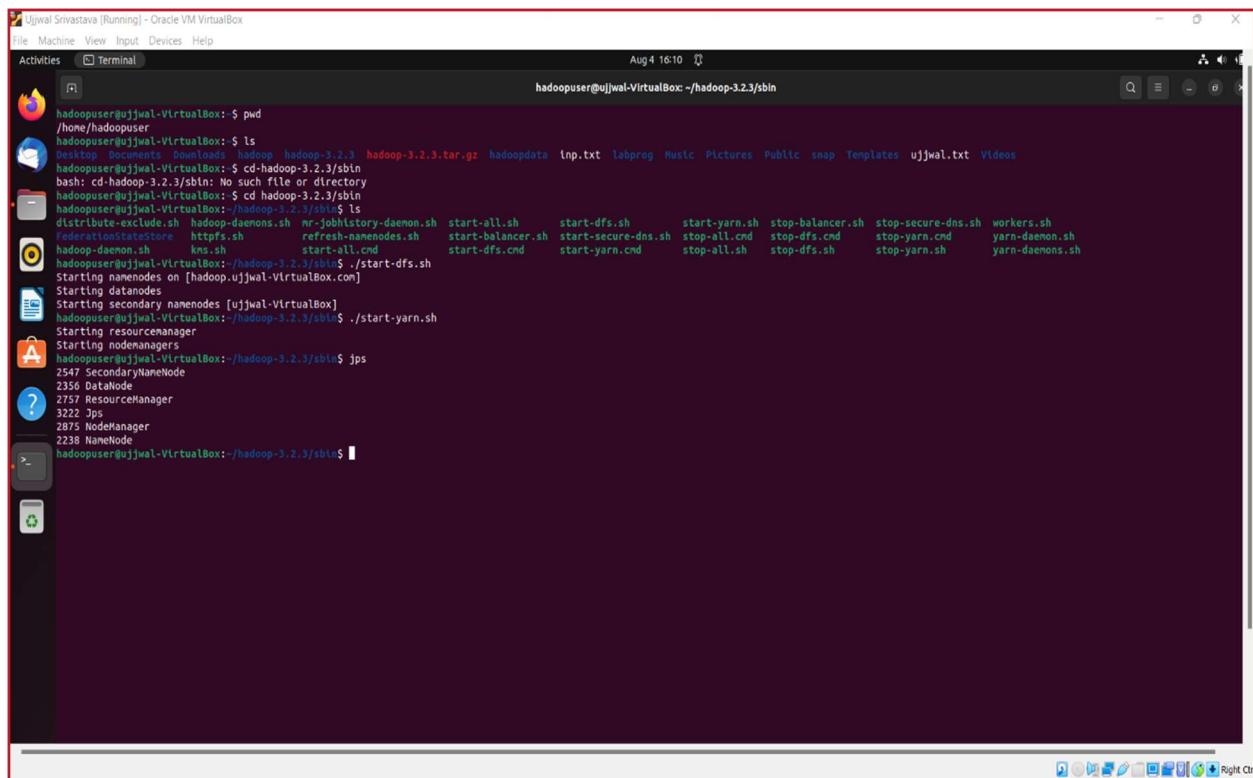
### Lab Experiment – 2

#### Hadoop HDFS Commands

**UJJWAL SRIVASTAVA**

**20MIP10020**

#### ./start-dfs.sh // start distributed file system



The screenshot shows a terminal window titled "Ujjwal Srivastava [Running] - Oracle VM VirtualBox". The terminal session starts with the command `./start-dfs.sh`. The output shows the user navigating to the Hadoop directory (`/home/hadoopuser`), changing to the `sbin` directory, and executing the `start-dfs.sh` script. The terminal then displays the status of various Hadoop daemons: NameNodes, SecondaryNameNodes, DataNodes, ResourceManagers, and NodeManagers. The process ID (PID) for each daemon is listed next to its name.

```
hadoopuser@ujjwal-VirtualBox: ~$ ./start-dfs.sh
hadoopuser@ujjwal-VirtualBox: ~$ cd /home/hadoopuser
hadoopuser@ujjwal-VirtualBox: ~$ cd hadoop-3.2.3/sbin
hadoopuser@ujjwal-VirtualBox: ~$ ./start-dfs.sh
hadoopuser@ujjwal-VirtualBox: ~$ jps
2547 SecondaryNameNode
2356 DataNode
2757 ResourceManager
3222 Jps
2875 NodeManager
2238 NameNode
```

**create your own directory in HDFS. (The directory name should be your Roll Number)**

```

hadoopuser@ujjwal-VirtualBox: ~
/home/hadoopuser
hadoopuser@ujjwal-VirtualBox: ~ ls
desktop Desktop Documents Downloads hadoop hadoop-3.2.3 hadoop-3.2.3.tar.gz hadoopdata inp.txt labprog Music Pictures Public snap Templates ujjwal.txt Videos
hadoopuser@ujjwal-VirtualBox: ~ cd hadoop-3.2.3/sbin
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ ./start-all.sh
distributed-exclude.sh hadoop-daemon.sh start-all.sh start-dfs.sh start-yarn.sh stop-balancer.sh stop-secure-dns.sh workers.sh
httpfs.sh refresh-namenodes.sh start-balancer.sh start-secure-dns.sh stop-all.cmd stop-dfs.cmd stop-yarn.cmd yarn-daemon.sh
kns.sh start-all.cmd start-dfs.cmd start-yarn.cmd stop-all.sh stop-dfs.sh stop-yarn.sh
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ ./start-yarn.sh
Starting resourcemanager
Starting nodemanagers
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ ./start-dfs.sh
Starting namenodes on [hadoop.ujjwal-VirtualBox.com]
Starting datanodes
Starting secondary namenodes [ujjwal-VirtualBox]
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ jps
2240 NodeManager
3191 Jps
2713 NameNode
2093 ResourceManager
3021 SecondaryNameNode
2831 DataNode
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ hdfs dfs -rmr /20MIP10020_ujjwal/*
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ hdfs dfs -rmr /20MIP10020_UJJWAL
rmdir: '/20MIP10020_UJJWAL': No such file or directory
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ hdfs dfs -mkdr /20MIP10020_UJJWAL
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ hdfs dfs -lsr /
lsr: DEPRECATED: Please use 'ls -R' instead.
drwxr-xr-x 1 hadoopuser supergroup 0 2022-07-31 01:06 /20MIP10020
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:58 /20MIP10020_UJJWAL
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-04 17:03 /20MIP10020_ujjwal
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-04 17:03 /20MIP10020_ujjwal/new.txt
drwxr-xr-x 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
drwxr-xr-x 1 hadoopuser supergroup 49 2022-08-03 13:45 /20MIP10020/ujjwal.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:45 /hadoopuser/Pictures
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:57 /hadoopuser/Pictures
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3
drwxr-xr-x 1 hadoopuser supergroup 150571 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/LICENSE.txt
drwxr-xr-x 1 hadoopuser supergroup 21943 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/NOTICE.txt
drwxr-xr-x 1 hadoopuser supergroup 136 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/RUNOME.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin
drwxr-xr-x 1 hadoopuser supergroup 441752 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/container-executor
drwxr-xr-x 1 hadoopuser supergroup 8707 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hadoop
drwxr-xr-x 1 hadoopuser supergroup 11265 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hadoop
drwxr-xr-x 1 hadoopuser supergroup 11274 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hdfs

```

## Transfer and store a data file from local systems to the Hadoop file system (Inside your HDFS directory) using the put command.

The screenshot shows a desktop environment with a terminal window and a file browser window.

In the terminal window, the user runs the following commands:

```

hadoopuser@ujjwal-VirtualBox: ~
hadoopuser@ujjwal-VirtualBox: ~/labprog$ pwd
/home/hadoopuser/labprog
hadoopuser@ujjwal-VirtualBox: ~/labprog$ gedit srivastava.txt
hadoopuser@ujjwal-VirtualBox: ~/labprog$ ls
container init.txt srivastava.txt wc.jar WordCount.java
hadoopuser@ujjwal-VirtualBox: ~/labprog$ 

```

In the file browser window, the user has navigated to the directory `/home/hadoopuser/labprog`. The contents of the directory are:

- container
- init.txt
- srivastava.txt
- wc.jar
- WordCount.java

```

Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
File Machine View Input Devices Help
-rw-r--r-- 1 hadoopuser supergroup 492241961 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3.tar.gz
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 21:48 /home/hadoopuser
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 22:57 /home/hadoopuser/labprog
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 22:52 /home/hadoopuser/labprog/out
-rw-r--r-- 1 hadoopuser supergroup 28 2022-08-03 22:52 /home/hadoopuser/labprog/out/part-r-00000
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 22:52 /home/hadoopuser/labprog/out/part-r-00000
-rw-r--r-- 1 hadoopuser supergroup 0 2022-08-03 22:57 /home/hadoopuser/labprog/out/_SUCCESS
drwxr-xr-x 1 hadoopuser supergroup 18 2022-08-03 22:57 /home/hadoopuser/labprog/out/part-r-00000
-rw-r--r-- 1 hadoopuser supergroup 0 2022-08-03 21:48 /home/hadoopuser/labprog/output/_SUCCESS
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 21:48 /home/hadoopuser/labprog/output/part-r-00000
drwxr-xr-x 1 hadoopuser supergroup 45 2022-08-03 21:48 /home/hadoopuser/labprog/output/part-r-00000
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 21:48 /home/hadoopuser/labprog/output/part-r-00000
drwxr-xr-x 1 hadoopuser supergroup 99 2022-08-03 14:21 /javaproj/lnp.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 17:34 /javaproj
drwxr-xr-x 1 hadoopuser supergroup 45 2022-08-03 17:34 /javaproj/lnp.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 14:27 /tmp
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 14:27 /tmp/hadoop-yarn
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 14:27 /tmp/hadoop-yarn/staging
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 14:27 /tmp/hadoop-yarn/staging/hadoopuser
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/hadoopuser/_staging
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010
drwxr-xr-x 10 hadoopuser supergroup 3098 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.jar
drwxr-xr-x 10 hadoopuser supergroup 121 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.split
drwxr-xr-x 1 hadoopuser supergroup 31 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.splitmetainfo
drwxr-xr-x 1 hadoopuser supergroup 201805 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.xml
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011
drwxr-xr-x 10 hadoopuser supergroup 3098 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.jar
drwxr-xr-x 10 hadoopuser supergroup 121 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.split
drwxr-xr-x 1 hadoopuser supergroup 31 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.splitmetainfo
drwxrwxrwt 1 hadoopuser supergroup 201805 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history
drwxrwx--- 1 hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done
drwxrwx--- 1 hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate
drwxrwx--- 1 hadoopuser supergroup 22788 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003-1659543484966-hadoopuser-word-count-1659543504312-1-1
drwxrwx--- 1 hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.summary
drwxrwx--- 1 hadoopuser supergroup 233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.conf.xml
drwxrwx--- 1 hadoopuser supergroup 22788 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004-1659547331211-hadoopuser-word+count-1659547348504-1-1
-SUCCEEDED-default-165954733151,jhist
drwxrwx--- 1 hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.summary
drwxrwx--- 1 hadoopuser supergroup 233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.conf.xml
drwxrwx--- 1 hadoopuser supergroup 22788 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004-1659547331211-hadoopuser-word+count-1659547348504-1-1
-SUCCEEDED-default-1659547639161,jhist
drwxrwx--- 1 hadoopuser supergroup 444 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.summary
drwxrwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.conf.xml
drwxrwx--- 1 hadoopuser supergroup 22787 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005-1659547633965-hadoopuser-word+mean-1659547650583-1-1
-SUCCEEDED-default-1659547639161,jhist
drwxrwx--- 1 hadoopuser supergroup 444 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.summary
drwxrwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.conf.xml
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ hdfs dfs -put /home/hadoopuser/labprog/srivastava.txt /20MIP0020_ujjwal
put: '/home/hadoopuser/labprog/srivastava.txt': No such file or directory
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ hdfs dfs -put /home/hadoopuser/labprog/srlvastava.txt /20MIP0020_ujjwal

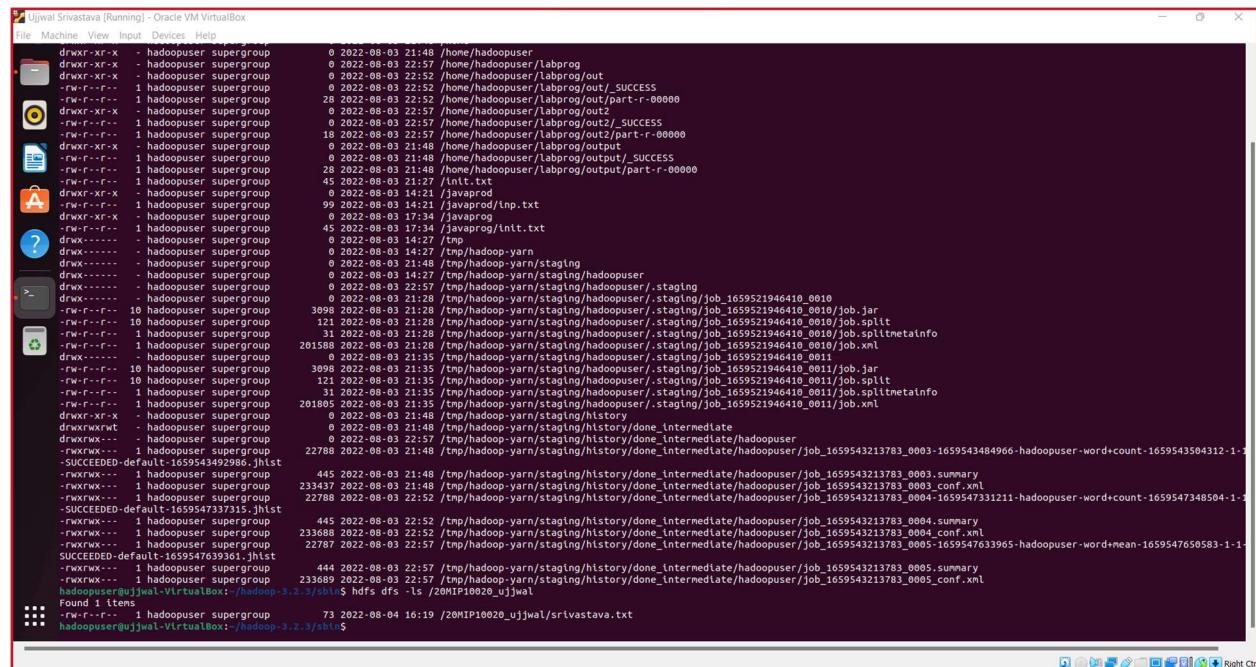
```

```

Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
File Machine View Input Devices Help
Activities Terminal Aug 4 16:23
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -lsr /
lsr: DEPRECATED: Please use 'ls -R' instead.
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 01:48 /20MIP0020_ujjwal
drwxr-xr-x 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP0020_ujjwal/srivastava.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:58 /20MIP0020_ujjwal.txt
drwxr-xr-x 1 hadoopuser supergroup 49 2022-08-03 13:45 /20MIP0020_ujjwal.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:57 /hadoopuser
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:57 /hadoopuser/Pictures
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:58 /hadoopuser/Temporary
drwxr-xr-x 1 hadoopuser supergroup 150571 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/LICENSE.txt
drwxr-xr-x 1 hadoopuser supergroup 21943 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/NOTICE.txt
drwxr-xr-x 1 hadoopuser supergroup 1361 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/README.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin
drwxr-xr-x 1 hadoopuser supergroup 44175 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/container-executor
drwxr-xr-x 1 hadoopuser supergroup 5787 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hadoop
drwxr-xr-x 1 hadoopuser supergroup 11265 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hadoop.cmd
drwxr-xr-x 1 hadoopuser supergroup 11274 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hdfs
drwxr-xr-x 1 hadoopuser supergroup 8081 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hdfs.cmd
drwxr-xr-x 1 hadoopuser supergroup 6237 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/mapred
drwxr-xr-x 1 hadoopuser supergroup 6316 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/mapred.cmd
drwxr-xr-x 1 hadoopuser supergroup 3340 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/testlistener
drwxr-xr-x 1 hadoopuser supergroup 483624 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/test-container-executor
drwxr-xr-x 1 hadoopuser supergroup 12112 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/yarn
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3/etc
drwxr-xr-x 1 hadoopuser supergroup 6 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop
drwxr-xr-x 1 hadoopuser supergroup 9213 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/capacity-scheduler.xml
drwxr-xr-x 1 hadoopuser supergroup 1335 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/configuration.xml
drwxr-xr-x 1 hadoopuser supergroup 1942 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/container-executor.cfg
drwxr-xr-x 1 hadoopuser supergroup 774 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/core-site.xml
drwxr-xr-x 1 hadoopuser supergroup 3999 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-env.cmd
drwxr-xr-x 1 hadoopuser supergroup 16235 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-env.sh
drwxr-xr-x 1 hadoopuser supergroup 3321 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-metrics2.properties
drwxr-xr-x 1 hadoopuser supergroup 11392 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-policy.xml
drwxr-xr-x 1 hadoopuser supergroup 3414 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-user-functions.sh.example
drwxr-xr-x 1 hadoopuser supergroup 775 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hdfs-site.xml
drwxr-xr-x 1 hadoopuser supergroup 148 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-env.sh
drwxr-xr-x 1 hadoopuser supergroup 1657 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-site.xml
drwxr-xr-x 1 hadoopuser supergroup 21 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-signature.secret
drwxr-xr-x 1 hadoopuser supergroup 628 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-site.xml
drwxr-xr-x 1 hadoopuser supergroup 3518 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-acls.xml
drwxr-xr-x 1 hadoopuser supergroup 1351 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-env.sh
drwxr-xr-x 1 hadoopuser supergroup 1868 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-log4j.properties
drwxr-xr-x 1 hadoopuser supergroup 682 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-site.xml
drwxr-xr-x 1 hadoopuser supergroup 14713 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/log4j.properties
drwxr-xr-x 1 hadoopuser supergroup 951 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/namenode.cmd

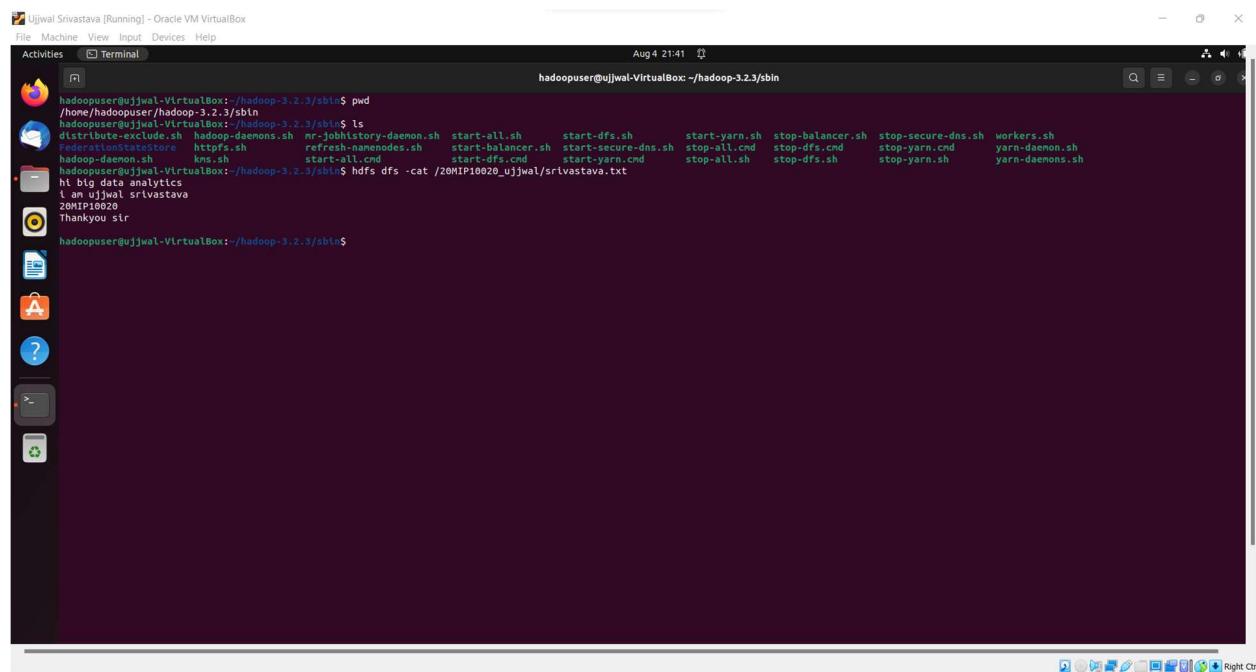
```

## list the files in the directory



```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 21:48 /home/hadoopuser
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 22:52 /home/hadoopuser/labprog
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 22:52 /home/hadoopuser/labprog/out
-rw-r--r-- 1 hadoopuser supergroup 28 2022-08-03 22:52 /home/hadoopuser/labprog/out/part-r-00000/_SUCCESS
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 22:57 /home/hadoopuser/labprog/out2
-rw-r--r-- 1 hadoopuser supergroup 18 2022-08-03 22:57 /home/hadoopuser/labprog/out2/part-r-00000/_SUCCESS
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 22:48 /home/hadoopuser/labprog/output
-rw-r--r-- 1 hadoopuser supergroup 0 2022-08-03 21:48 /home/hadoopuser/labprog/output/_SUCCESS
drwxr-xr-x 1 hadoopuser supergroup 28 2022-08-03 21:48 /home/hadoopuser/labprog/output/part-r-00000
drwxr-xr-x 1 hadoopuser supergroup 45 2022-08-03 21:27 /lnt.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 14:21 /javaprod
drwxr-xr-x 1 hadoopuser supergroup 99 2022-08-03 14:21 /javaprod/lnp.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 17:34 /javaproj
drwxr-xr-x 1 hadoopuser supergroup 45 2022-08-03 17:34 /javaproj/init.txt
drwx----- 1 hadoopuser supergroup 0 2022-08-03 14:27 /tmp/hadoop-yarn
drwx----- 1 hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging
drwx----- 1 hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/hadoopuser
drwx----- 1 hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/hadoopuser/_staging
drwxr-xr-x 10 hadoopuser supergroup 309 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010
drwxr-xr-x 10 hadoopuser supergroup 121 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.split
drwxr-xr-x 1 hadoopuser supergroup 31 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.splitmetainfo
20180905 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.xml
drwx----- 1 hadoopuser supergroup 0 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011
drwxr-xr-x 10 hadoopuser supergroup 3098 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.jar
drwxr-xr-x 10 hadoopuser supergroup 121 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.split
drwx----- 1 hadoopuser supergroup 31 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.splitmetainfo
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser
drwxrwx--- 1 hadoopuser supergroup 22788 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_job_1659543213783_0003-1659543484966-hadoopuser-word-count_1659543504312-1-SUCCEEDED-default-1659543492986.jhist
drwxrwx--- 1 hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_job_1659543213783_0003.summary
drwxrwx--- 1 hadoopuser supergroup 233457 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_job_1659543213783_0003.conf.XML
drwxrwx--- 1 hadoopuser supergroup 22788 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_job_1659543213783_0004-1659547331211-hadoopuser-word-count_1659547348504-1-SUCCEEDED-default-1659547337315.jhist
drwxrwx--- 1 hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_job_1659543213783_0004.summary
drwxrwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_job_1659543213783_0004.conf.XML
drwxrwx--- 1 hadoopuser supergroup 22787 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_job_1659543213783_0005-1659547633965-hadoopuser-word-mean_1659547650583-1-1-SUCCEEDED-default-1659547633965.jhist
drwxrwx--- 1 hadoopuser supergroup 444 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_job_1659543213783_0005.summary
drwxrwx--- 1 hadoopuser supergroup 233689 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_job_1659543213783_0005.conf.XML
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10620_ujjwal/srivastava.txt
Found 1 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10620_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$
```

## Display the contents of the copied file



```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Aug 4 21:41
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ pwd
/home/hadoopuser/hadoop-3.2.3/sbin
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ ls
distribute-exclude.sh hadoop-daemons.sh mr-jobhistory-daemon.sh start-all.sh start-dfs.sh start-yarn.sh stop-balancer.sh stop-secure-dns.sh workers.sh
FederationStateStore httpfs.sh refresh-namenodes.sh start-balancer.sh start-secure-dns.sh stop-all.cmd stop-dfs.cmd stop-yarn.cmd yarn-daemon.sh
hadoop-daemon.sh kns.sh start-all.cmd start-dfs.cmd start-yarn.cmd stop-all.sh stop-dfs.sh stop-yarn.sh
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -cat /20MIP10620_ujjwal/srivastava.txt
I am big data analytics
20MIP10620
Thankyou str
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$
```

## Get the file from HDFS to the local file system using get command.

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
drwxr-xr-x  - hadoopuser supergroup          0 2022-08-03 17:34 /javaprog
-rw-r--r--  1 hadoopuser supergroup          45 2022-08-03 17:34 /javaprog/intl.txt
drwxr-----  - hadoopuser supergroup          0 2022-08-03 14:27 /tmp
drwxr-----  - hadoopuser supergroup          0 2022-08-03 14:27 /tmp/hadoop-yarn
drwxr-----  - hadoopuser supergroup          0 2022-08-03 21:48 /tmp/hadoop-yarn/staging
drwxr-----  - hadoopuser supergroup          0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/hadoopuser
drwxr-----  - hadoopuser supergroup          0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/hadoopuser/_staging
drwxr-----  - hadoopuser supergroup          0 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010
-rw-r--r--  10 hadoopuser supergroup        3098 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.jar
121 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.split
31 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.splitmetainfo
10 hadoopuser supergroup        201588 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.xml
drwxr-----  - hadoopuser supergroup          0 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011
drwxr-----  - hadoopuser supergroup          0 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.jar
121 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.split
31 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.splitmetainfo
1 hadoopuser supergroup        201805 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.xml
drwxr-xr-x  - hadoopuser supergroup          0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history
drwxrwxrwt  - hadoopuser supergroup          0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate
drwxrwx---  - hadoopuser supergroup          0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser
-SUCCEEDED-default-1659543492986.jhist
-SUCCEEDED-default-1659543492986.jhist
445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_staging/job_1659543213783_0001.summary
233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_staging/job_1659543213783_0001.conf.xml
1 hadoopuser supergroup        22788 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_staging/job_1659543213783_0001/job.splitmetainfo
-SUCCEEDED-default-1659547337315.jhist
445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_staging/job_1659543213783_0004.summary
233689 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_staging/job_1659543213783_0004.conf.xml
22787 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/_staging/job_1659543213783_0005.job.splitmetainfo
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ hdfs dfs -ls /20MIP10020_ujjwal$
```

Found 1 items

```
-rw-r--r-  1 hadoopuser supergroup    73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ hdfs dfs -get /20MIP10020_ujjwal/srivastava.txt /home/hadoopuser/Desktop
hadoopuser@ujjwal-VirtualBox:~$ cd desktop
hadoopuser@ujjwal-VirtualBox:~$ cd desktop
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ls
ujjwal ujjwal.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$ cd
hadoopuser@ujjwal-VirtualBox:~/Desktop$ cd
hadoopuser@ujjwal-VirtualBox:~/Desktop$ hdfs dfs -get /20MIP10020_ujjwal/srivastava.txt /home/hadoopuser/Desktop
hadoopuser@ujjwal-VirtualBox:~/Desktop$ cd
hadoopuser@ujjwal-VirtualBox:~/Desktop$ hdfs dfs -get /20MIP10020_ujjwal/srivastava.txt /home/hadoopuser/Desktop
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ls
srivastava.txt ujjwal ujjwal.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$
```

## Implement the copyFromLocal

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Terminal Aug 4 16:35
hadoopuser@ujjwal-VirtualBox:~$ cd desktop
hadoopuser@ujjwal-VirtualBox:~/Desktop$ hdfs dfs -get /20MIP10020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ls
srivastava.txt ujjwal ujjwal.txt us.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$
```

Recent

- Starred
- Home
- Documents
- Downloads
- Music
- Pictures
- Videos
- Trash
- + Other Locations

Cloudy 85°F

8/4/2022 4:35 PM ENG IN Right Ch

```

Ujjwal.Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
drwx----- 1 hadoopuser supergroup 0 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0010
-rw-r--r-- 10 hadoopuser supergroup 3098 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0010/job.jar
-rw-r--r-- 10 hadoopuser supergroup 121 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0010/job.split
-rw-r--r-- 1 hadoopuser supergroup 31 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0010/job.splitmetainfo
-rw-r--r-- 1 hadoopuser supergroup 201580 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.xml
-rw-r--r-- 10 hadoopuser supergroup 3098 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.jar
-rw-r--r-- 10 hadoopuser supergroup 121 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.split
-rw-r--r-- 1 hadoopuser supergroup 31 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.splitmetainfo
-rw-r--r-- 1 hadoopuser supergroup 22788 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003-1659543504312-1-1
-SUCCEEDED-default-1659543492986.jhist
-rw-rwx--- 1 hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.summary
-rw-rwx--- 1 hadoopuser supergroup 233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.conf.xml
-rw-rwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.conf.xml
-SUCCEEDED-default-1659547337315.jhist
-rw-rwx--- 1 hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.summary
-rw-rwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.conf.xml
-SUCCEEDED-default-1659547337315.jhist
-rw-rwx--- 1 hadoopuser supergroup 444 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.summary
-rw-rwx--- 1 hadoopuser supergroup 233689 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.conf.xml
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 1 item
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd Desktop
hadoopuser@ujjwal-VirtualBox: $ cd desktop
bash: cd: desktop: No such file or directory
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ls
Desktop ujjwal
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ~Desktop$ cd
hadoopuser@ujjwal-VirtualBox:~/Desktop$ cd hadoop-3.2.3
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -get /20MIP10020_ujjwal/srivastava.txt /home/hadoopuser/Desktop
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd
hadoopuser@ujjwal-VirtualBox:~/Desktop$ $ cd Desktop
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ls
srivastava.txt ujjwal ujjwal.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$ cd
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -copyFromLocal /home/hadoopuser/Desktop/us.txt /20MIP10020_ujjwal
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:37 /20MIP10020_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ 

```

## Implement the copyToLocal

```

Ujjwal.Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
drwx----- 1 hadoopuser supergroup 0 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011
-rw-r--r-- 10 hadoopuser supergroup 3098 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.jar
-rw-r--r-- 10 hadoopuser supergroup 121 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.split
-rw-r--r-- 1 hadoopuser supergroup 31 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.splitmetainfo
-rw-r--r-- 1 hadoopuser supergroup 201805 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.xml
-rw-r--r-- 10 hadoopuser supergroup 3098 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.jar
-rw-r--r-- 10 hadoopuser supergroup 121 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.split
-rw-r--r-- 1 hadoopuser supergroup 31 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.splitmetainfo
-rw-r--r-- 1 hadoopuser supergroup 22788 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003-1659543504312-1-1
-SUCCEEDED-default-1659543492986.jhist
-rw-rwx--- 1 hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.summary
-rw-rwx--- 1 hadoopuser supergroup 233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.conf.xml
-rw-rwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.conf.xml
-SUCCEEDED-default-1659547337315.jhist
-rw-rwx--- 1 hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.summary
-rw-rwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.conf.xml
-SUCCEEDED-default-1659547337315.jhist
-rw-rwx--- 1 hadoopuser supergroup 444 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.summary
-rw-rwx--- 1 hadoopuser supergroup 233689 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.conf.xml
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 1 item
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd Desktop
hadoopuser@ujjwal-VirtualBox: $ cd desktop
bash: cd: desktop: No such file or directory
hadoopuser@ujjwal-VirtualBox:~/Desktop$ $ cd Desktop
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ~Desktop$ ls
Desktop ujjwal
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ujjwal.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ~Desktop$ cd
hadoopuser@ujjwal-VirtualBox:~/Desktop$ cd hadoop-3.2.3
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -get /20MIP10020_ujjwal/srivastava.txt /home/hadoopuser/Desktop
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd
hadoopuser@ujjwal-VirtualBox:~/Desktop$ $ cd Desktop
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ls
srivastava.txt ujjwal ujjwal.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ~Desktop$ cd
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -copyFromLocal /home/hadoopuser/Desktop/us.txt /20MIP10020_ujjwal
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:37 /20MIP10020_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -copyToLocal /20MIP10020_ujjwal/us.txt /home/hadoopuser/labprog
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd labprog
hadoopuser@ujjwal-VirtualBox:~/labprog$ ls
container_initt.txt srivastava.txt us.txt wc.jar WordCount.java
hadoopuser@ujjwal-VirtualBox:~/labprog$ 

```

## Remove / delete the file from HDFS

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
-SUCCEEDED-default-1659543492986.jhist
-rwxrwx--- 1 hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0003.summary
233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0003.conf.xml
-rwxrwx--- 1 hadoopuser supergroup 22788 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0004-1659547331211-hadoopuser-word+count-1-1
-SUCCEEDED-default-1659547337315.jhist
-rwxrwx--- 1 hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0004.summary
233688 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0004.conf.xml
-SUCCEEDED-default-1659547337316.jhist
-rwxrwx--- 1 hadoopuser supergroup 444 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0005.summary
233689 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0005.conf.xml
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 1 item
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -get /20MIP10020_ujjwal/srivastava.txt /home/hadoopuser/Desktop
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd
bash: cd: desktop: No such file or directory
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd Desktop
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ ls
srivastava.txt ujjwal.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hadoop fs -rm /20MIP10020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -copyFromLocal /home/hadoopuser/Desktop/us.txt /20MIP10020_ujjwal
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:37 /20MIP10020_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -copyToLocal /20MIP10020_ujjwal/us.txt /home/hadoopuser/labprog
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd labprog
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ ls
containing_intt.txt srivastava.txt us.txt wc.jar WordCount.java
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hadoop fs -rm /20MIP10020_ujjwal/us.txt
Deleted /20MIP10020_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 1 item
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ █
```

## View the list of files in the directory

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
-SUCCEEDED-default-1659543492986.jhist
-rwxrwx--- 1 hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0003.summary
233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0003.conf.xml
-rwxrwx--- 1 hadoopuser supergroup 22788 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0004-1659547331211-hadoopuser-word+count-1-1
-SUCCEEDED-default-1659547337315.jhist
-rwxrwx--- 1 hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0004.summary
233688 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0004.conf.xml
-SUCCEEDED-default-1659547337316.jhist
-rwxrwx--- 1 hadoopuser supergroup 444 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0005.summary
233689 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0005.conf.xml
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 1 item
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -get /20MIP10020_ujjwal/srivastava.txt /home/hadoopuser/Desktop
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd
bash: cd: desktop: No such file or directory
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd Desktop
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ ls
srivastava.txt ujjwal.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hadoop fs -rm /20MIP10020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -copyFromLocal /home/hadoopuser/Desktop/us.txt /20MIP10020_ujjwal
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:37 /20MIP10020_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -copyToLocal /20MIP10020_ujjwal/us.txt /home/hadoopuser/labprog
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd labprog
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ ls
containing_intt.txt srivastava.txt us.txt wc.jar WordCount.java
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hadoop fs -rm /20MIP10020_ujjwal/us.txt
Deleted /20MIP10020_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 1 item
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ █
```

## copy files from one directory to another directory within the HDFS file system using CP command

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Found 1 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MPI0020_ujjwal/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/shm$ hdfs dfs -mkdir /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/shm$ hdfs dfs -lsr /
lsr: DEPRECATED: Please use 'ls -R' instead.
drwxr-xr-x - hadoopuser supergroup 0 2022-07-31 01:06 /20MPI0020
drwxr-xr-x - hadoopuser supergroup 0 2022-08-04 16:41 /20MPI0020_ujjwal
drwxr-xr-x - hadoopuser supergroup 1 2022-08-04 16:41 /20MPI0020_ujjwal/srivastava.txt
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 13:45 /20MPI0020_ujjwal.txt
drwxr-xr-x - hadoopuser supergroup 49 2022-08-03 13:45 /20MPI0020_ujjwal.txt
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 13:57 /hadoopuser
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 13:57 /hadoopuser/Pictures
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3
drwxr-xr-x - hadoopuser supergroup 190571 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/LICENSE.txt
drwxr-xr-x - hadoopuser supergroup 21943 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/MOTICE.txt
drwxr-xr-x - hadoopuser supergroup 1361 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/README.txt
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin
drwxr-xr-x - hadoopuser supergroup 441752 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/container-executor
drwxr-xr-x - hadoopuser supergroup 8797 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hadoop
drwxr-xr-x - hadoopuser supergroup 11026 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hadoop/capacity-scheduler.cmd
drwxr-xr-x - hadoopuser supergroup 11274 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hdfs
drwxr-xr-x - hadoopuser supergroup 8881 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/hdfs.cmd
drwxr-xr-x - hadoopuser supergroup 6237 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/mapred
drwxr-xr-x - hadoopuser supergroup 6311 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/mapred.cmd
drwxr-xr-x - hadoopuser supergroup 33404 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/yarn
drwxr-xr-x - hadoopuser supergroup 40204 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/yarn/cluster-container-executor
drwxr-xr-x - hadoopuser supergroup 12112 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/yarn
drwxr-xr-x - hadoopuser supergroup 12848 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/yarn.cmd
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc
drwxr-xr-x - hadoopuser supergroup 9215 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/capacity-scheduler.xml
drwxr-xr-x - hadoopuser supergroup 1335 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/configuration.xml
drwxr-xr-x - hadoopuser supergroup 1948 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/container-executor.cfg
drwxr-xr-x - hadoopuser supergroup 774 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/core-site.xml
drwxr-xr-x - hadoopuser supergroup 3999 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-env.cmd
drwxr-xr-x - hadoopuser supergroup 16235 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-env.sh
drwxr-xr-x - hadoopuser supergroup 3321 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-metrics2.properties
drwxr-xr-x - hadoopuser supergroup 1139 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-yarn.xml
drwxr-xr-x - hadoopuser supergroup 3414 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-user-functions.sh.example
drwxr-xr-x - hadoopuser supergroup 775 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hdfs-site.xml
drwxr-xr-x - hadoopuser supergroup 1484 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-env.sh
drwxr-xr-x - hadoopuser supergroup 1657 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-log4j.properties
drwxr-xr-x - hadoopuser supergroup 2021 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-signature.secret
drwxr-xr-x - hadoopuser supergroup 650 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-acl.xml
drwxr-xr-x - hadoopuser supergroup 3518 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-env.sh
drwxr-xr-x - hadoopuser supergroup 1351 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-env.sh
drwxr-xr-x - hadoopuser supergroup 1864 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-log4j.properties
drwxr-xr-x - hadoopuser supergroup 682 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-site.xml
drwxr-xr-x - hadoopuser supergroup 14713 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/log4j.properties
drwxr-xr-x - hadoopuser supergroup 951 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/mapred-env.cmd
drwxr-xr-x - hadoopuser supergroup 1744 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3/etc/hadoop/mapred-env.sh

```

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Found 1 items
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 22:52 /home/hadoopuser/labprog/out
-rw-r--r-- 1 hadoopuser supergroup 0 2022-08-03 22:52 /home/hadoopuser/labprog/out/_SUCCESS
drwxr-xr-x - hadoopuser supergroup 28 2022-08-03 22:52 /home/hadoopuser/labprog/out/part-r-00000
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 22:57 /home/hadoopuser/labprog/out/_SUCCESS
drwxr-xr-x - hadoopuser supergroup 10390 2022-08-03 22:57 /home/hadoopuser/labprog/out/part-r-00000
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 21:48 /home/hadoopuser/labprog/output
drwxr-xr-x - hadoopuser supergroup 28 2022-08-03 21:48 /home/hadoopuser/labprog/output/_SUCCESS
drwxr-xr-x - hadoopuser supergroup 45 2022-08-03 21:27 /tmp/ntt.txt
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 14:21 /javaprod
drwxr-xr-x - hadoopuser supergroup 99 2022-08-03 14:21 /javaprod/lnp.txt
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 17:34 /javaprod
drwxr-xr-x - hadoopuser supergroup 45 2022-08-03 17:34 /javaprod/init.txt
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 14:27 /tmp/hadoop-yarn
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 14:27 /tmp/hadoop-yarn/staging/hadoopuser
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/hadoopuser/_staging
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010
drwxr-xr-x - hadoopuser supergroup 3098 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.jar
drwxr-xr-x - hadoopuser supergroup 121 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.split
drwxr-xr-x - hadoopuser supergroup 31 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0010/job.splitmetainfo
drwxr-xr-x - hadoopuser supergroup 201805 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.xml
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history
drwxrwxrwt - hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser
drwxrwxr--- - hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0003-1659543484966-hadoopuser-word+count-1659543504312-1-1
drwxrwxr--- - hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0003.summary
drwxrwxr--- - hadoopuser supergroup 233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0003.conf.xml
drwxrwxr--- - hadoopuser supergroup 121 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.split
drwxrwxr--- - hadoopuser supergroup 31 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.splitmetainfo
drwxr-xr-x - hadoopuser supergroup 201805 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/_staging/job_1659521946410_0011/job.xml
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history
drwxrwxrwt - hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_Intermediate
drwxrwxr--- - hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0004.summary
drwxrwxr--- - hadoopuser supergroup 233686 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0004.conf.xml
drwxrwxr--- - hadoopuser supergroup 233689 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_Intermediate/hadoopuser/job_1659543213783_0004-165954731211-hadoopuser-word+count-1659547348504-1-1
drwxr-xr-x - hadoopuser supergroup 0 2022-08-04 10:43 /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/shm$ hdfs dfs -cp /20MPI0020_ujjwal/srivastava.txt /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/shm$ hdfs dfs -ls /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/shm$ Right Ctrl

```

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 14:21 /javaprod
-rw-r--r-- 1 hadoopuser supergroup 99 2022-08-03 14:21 /javaprod/hnp.txt
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 17:34 /javaprog
-rw-r--r-- 1 hadoopuser supergroup 45 2022-08-03 17:34 /javaprog/init.txt
drwxr----- 1 hadoopuser supergroup 0 2022-08-03 14:27 /tmp
drwxr----- 1 hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging
drwxr----- 1 hadoopuser supergroup 0 2022-08-03 14:27 /tmp/hadoop-yarn/staging/hadoopuser
drwxr----- 1 hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/hadoopuser/.staging
drwxr----- 10 hadoopuser supergroup 0 2022-08-03 22:18 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0010
3098 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.jar
121 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.job.split
31 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.job.splitmetainfo
1 hadoopuser supergroup 201858 2022-08-03 21:28 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.xml
drwxr----- 1 hadoopuser supergroup 0 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011
-rw-r--r-- 10 hadoopuser supergroup 3098 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.jar
121 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.job.split
1 hadoopuser supergroup 31 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.job.splitmetainfo
1 hadoopuser supergroup 201860 2022-08-03 21:35 /tmp/hadoop-yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.xml
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history
drwxrwxrwt 1 hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate
drwxrwxrwt 1 hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser
-rw-r--r-- 1 hadoopuser supergroup 27288 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003-1659543484966-hadoopuser-word+count-1659543504312-1-SUCCEEDED-default-1659543492986.jhist
drwxrwx--- 1 hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.summary
233457 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.conf.xml
drwxrwx--- 1 hadoopuser supergroup 27288 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004-165954733121-hadoopuser-word+count-1659547348504-1-SUCCEEDED-default-1659547337315.jhist
drwxrwx--- 1 hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.summary
drwxrwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.conf.xml
drwxrwx--- 1 hadoopuser supergroup 22787 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005-1659547633965-hadoopuser-word+mean-1659547650583-1-SUCCEEDED-default-1659547650583.jhist
drwxrwx--- 1 hadoopuser supergroup 444 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.summary
drwxrwx--- 1 hadoopuser supergroup 233689 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.conf.xml
drwxr-xr-x - hadoopuser supergroup 0 2022-08-04 16:43 /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -cp /20IP10020_ujjwal/srlvastava.txt /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls -uzl
Found 1 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:47 /uzl/srlvastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -put /home/hadoopuser/Desktop/us.txt /20IP10020_ujjwal
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls -uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls -uzl
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /uzl/srlvastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:52 /20IP10020_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -mv /20IP10020_ujjwal/us.txt /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls -uzl
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:47 /uzl/srlvastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:52 /uzl/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$
```

**move a file from one directory to another directory within the HDFS file system using mv command.**

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 14:21 /hadoop
-rw-r--r-- 1 hadoopuser supergroup 99 2022-08-03 14:21 /hadoop/tmp.txt
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 17:34 /javaprog
-rw-r--r-- 1 hadoopuser supergroup 45 2022-08-03 17:34 /javaprog/init.txt
drwxr----- 1 hadoopuser supergroup 0 2022-08-03 14:27 /tmp
drwxr----- 1 hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop_yarn
drwxr----- 1 hadoopuser supergroup 0 2022-08-03 14:27 /tmp/hadoop_yarn/staging/hadoopuser
drwxr----- 1 hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop_yarn/staging/hadoopuser/.staging
drwxr----- 10 hadoopuser supergroup 3098 2022-08-03 21:28 /tmp/hadoop_yarn/staging/hadoopuser/.staging/job_1659521946410_0010
drwxr----- 10 hadoopuser supergroup 121 2022-08-03 21:28 /tmp/hadoop_yarn/staging/hadoopuser/.staging/job_1659521946410_0010/job.split
drwxr----- 10 hadoopuser supergroup 0 2022-08-03 21:28 /tmp/hadoop_yarn/staging/hadoopuser/.staging/job_1659521946410_0010/job.splitmetainfo
drwxr----- 10 hadoopuser supergroup 201588 2022-08-03 21:28 /tmp/hadoop_yarn/staging/hadoopuser/.staging/job_1659521946410_0010/job.xml
drwxr----- 10 hadoopuser supergroup 0 2022-08-03 21:35 /tmp/hadoop_yarn/staging/hadoopuser/.staging/job_1659521946410_0011
drwxr----- 10 hadoopuser supergroup 3098 2022-08-03 21:35 /tmp/hadoop_yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.jar
drwxr----- 10 hadoopuser supergroup 121 2022-08-03 21:35 /tmp/hadoop_yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.split
drwxr----- 10 hadoopuser supergroup 31 2022-08-03 21:35 /tmp/hadoop_yarn/staging/hadoopuser/.staging/job_1659521946410_0011/job.splitmetainfo
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop_yarn/staging/history
drwxrwxrwt 1 hadoopuser supergroup 0 2022-08-03 21:48 /tmp/hadoop_yarn/staging/history/done_intermediate
drwxrwxr-x 1 hadoopuser supergroup 0 2022-08-03 22:57 /tmp/hadoop_yarn/staging/history/done_intermediate/hadoopuser
drwxrwxr-x 1 hadoopuser supergroup 27288 2022-08-03 21:48 /tmp/hadoop_yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003-1659543484966-hadoopuser-word+count=1-1-SUCCEEDED-default-1659543492986.jhist
drwxrwxr-x 1 hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop_yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.summary
drwxrwxr-x 1 hadoopuser supergroup 23340 2022-08-03 21:48 /tmp/hadoop_yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.conf.xml
drwxrwxr-x 1 hadoopuser supergroup 27288 2022-08-03 22:57 /tmp/hadoop_yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004-165954733121-hadoopuser-word+count=1-1-SUCCEEDED-default-1659547337315.jhist
drwxrwxr-x 1 hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop_yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.summary
drwxrwxr-x 1 hadoopuser supergroup 233088 2022-08-03 22:52 /tmp/hadoop_yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.conf.xml
drwxrwxr-x 1 hadoopuser supergroup 22787 2022-08-03 22:57 /tmp/hadoop_yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005-1659547650583-1-1-SUCCEEDED-default-1659547650583.jhist
drwxrwxr-x 1 hadoopuser supergroup 444 2022-08-03 22:57 /tmp/hadoop_yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.summary
drwxrwxr-x 1 hadoopuser supergroup 233089 2022-08-03 22:57 /tmp/hadoop_yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.conf.xml
drwxr-xr-x - hadoopuser supergroup 0 2022-08-04 16:43 /uzl
drwxr-xr-x - hadoopuser supergroup 0 2022-08-04 16:43 /uzl
hadoopuser@ujjwal-VirtualBox:~$hadoop-3.2.3/sbin$ hdfs dfs -cp /20MIP10028_ujjwal/srivastava.txt /uzl
hadoopuser@ujjwal-VirtualBox:~$hadoop-3.2.3/sbin$ hdfs dfs -ls /uzl
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:47 /uzl/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~$hadoop-3.2.3/sbin$ hdfs dfs -put /home/hadoopuser/Desktop/us.txt /20MIP10028_ujjwal
hadoopuser@ujjwal-VirtualBox:~$hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10028_ujjwal
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10028_ujjwal/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:52 /20MIP10028_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~$hadoop-3.2.3/sbin$ hdfs dfs -mv /20MIP10028_ujjwal/us.txt /uzl
hadoopuser@ujjwal-VirtualBox:~$hadoop-3.2.3/sbin$ hdfs dfs -ls /uzl
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:47 /uzl/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:52 /uzl/us.txt
hadoopuser@ujjwal-VirtualBox:~$hadoop-3.2.3/sbin$
```

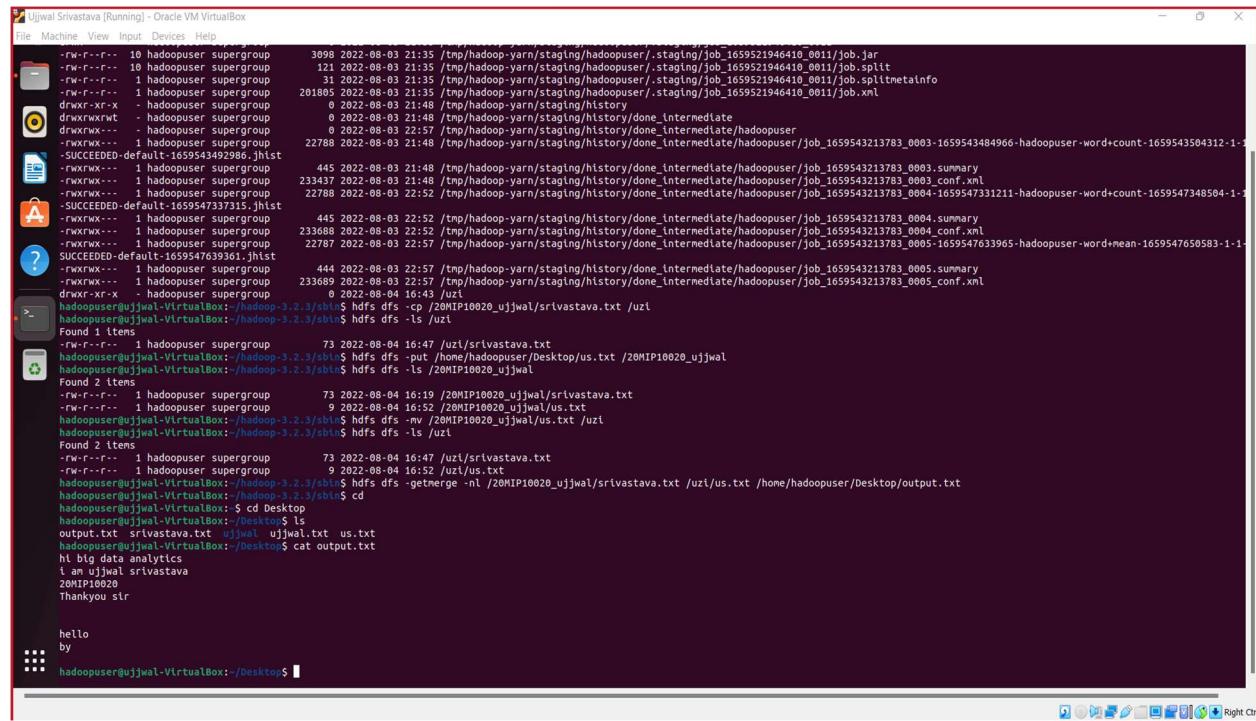
**Write short notes about the following commands and execute the same. (If you get any error message, paste the screen shot of that error message)**

### Short notes : Word format

### Execution Part : Screen Shot

### getmerge

The getmerge command in Hadoop is for merging files existing in the HDFS file system into a single file in the local file system. The command is useful to download the output of MapReduce job. It has multiple part-\* files into a single local file.



The screenshot shows a Windows Command Prompt window titled "Ujjwal Srivastava [Running] - Oracle VM VirtualBox". The command entered is:

```
hadoop fs -getmerge /user/hadoopuser/srivistava/part-r-00000 /user/hadoopuser/Desktop/output.txt
```

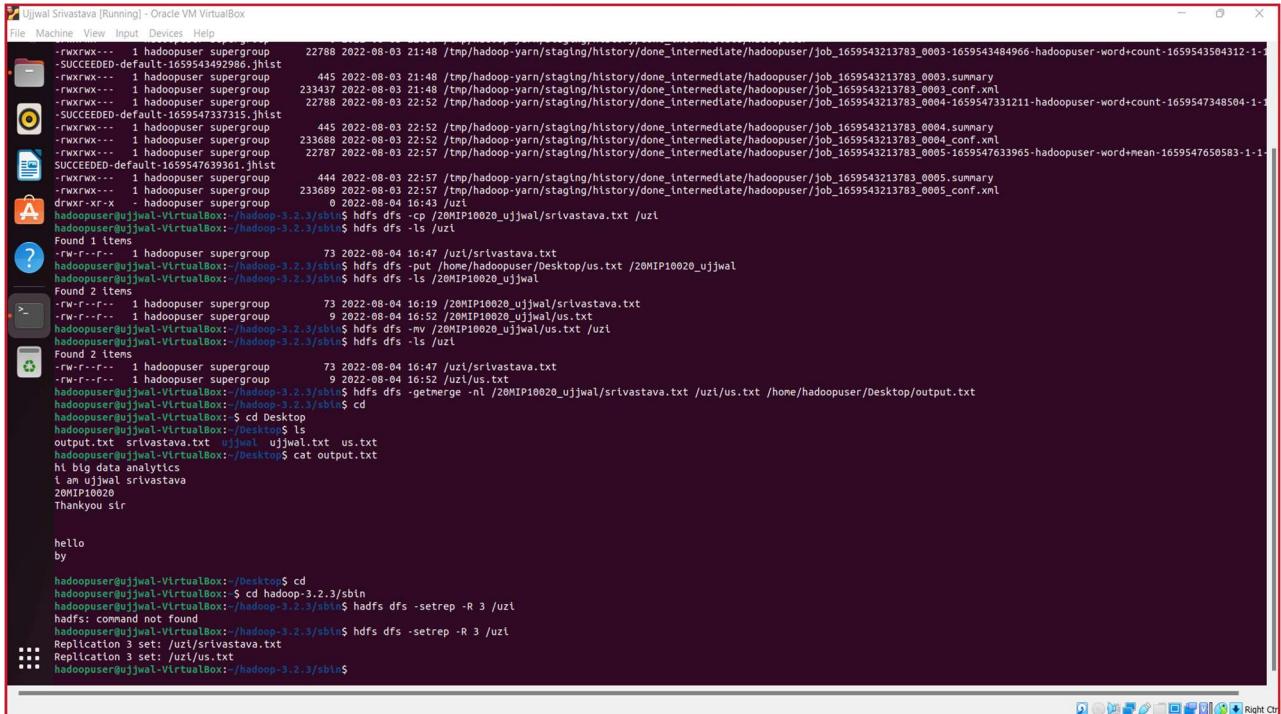
The output shows the progress of merging multiple HDFS files into a single local file:

```
Found 1 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:47 /user/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ hdfs dfs -put /home/hadoopuser/Desktop/us.txt /20MIP10020_ujjwal
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ hdfs dfs -ls /20MIP10020_ujjwal
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:52 /20MIP10020_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ hdfs dfs -mv /20MIP10020_ujjwal/us.txt /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ hdfs dfs -ls /uzl
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:47 /uzl/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:52 /uzl/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ cd Desktop
hadoopuser@ujjwal-VirtualBox:~/Desktop$ ls
output.txt  srivistava.txt  ujjwal  ujjwal.txt  us.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$ cat output.txt
hi big data analytics
i am ujjwal srivastava
20MIP10020
Thankyou str

Hello
by
```

## setrep

HDFS setrep Command Description: setrep command changes the replication factor to a specific count instead of the default replication factor for the file specified in the path. If used for a directory, then it will recursively change the replication factor for all the files residing in the directory.



The screenshot shows a terminal window titled "Ujjwal Srivastava [Running] - Oracle VM VirtualBox". The terminal output is as follows:

```
-rwxrwx--- 1 hadoopuser supergroup 22788 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003-1659543484966-hadoopuser-word+count-1659543504312-1-jhst
-rw-rwx--- 1 hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003_summary
-rw-rwx--- 1 hadoopuser supergroup 233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003_conf.xml
-rw-rwx--- 1 hadoopuser supergroup 22788 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004-1659547331211-hadoopuser-word+count-1659547348504-1-jhst
-SUCCEEDED-default:165954737315.jhst
-rw-rwx--- 1 hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004_summary
-rw-rwx--- 1 hadoopuser supergroup 233689 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004_conf.xml
drwxr-xr-x - hadoopuser supergroup 0 2022-08-03 22:57 /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -cp /20MIP10020_ujjwal/srivastava.txt /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /uzl
Found 1 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:47 /uzl/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -put /home/hadoopuser/Desktop/us.txt /20MIP10020_ujjwal
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:52 /20MIP10020_ujjwal/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:52 /20MIP10020_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -mv /20MIP10020_ujjwal/us.txt /uzl
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /uzl
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:47 /uzl/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:52 /uzl/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd Desktop
hadoopuser@ujjwal-VirtualBox:~/Desktop$ less output.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$ less sri.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$ cat output.txt
hi big data analytics
i am ujjwal srivastava
20MIP10020
Thankyou str

hello
by

hadoopuser@ujjwal-VirtualBox:~/Desktop$ cd
hadoopuser@ujjwal-VirtualBox: $ cd hadoop-3.2.3/sbin
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hadfs dfs -setrep -R 3 /uzl
hdfs: command not found
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -setrep -R 3 /uzl
Replication 3 set: /uzl/srivastava.txt
Replication 3 set: /uzl/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$
```

## Touchz

Hadoop Touchz hadoop fs -touchz /directory/filename This command allows the user to create a new file in the HDFS cluster. The “directory” in the command refers to the directory name where the user wishes to create the new file, and the “filename” signifies the name of the new file which will be created upon the completion of the command

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
-rw-rwx--- 1 hadoopuser supergroup 233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.conf.xml
-rw-rwx--- 1 hadoopuser supergroup 22788 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004-1659547331211-hadoopuser-word+count-1659547348504-1.conf.xml
-SUCEEDED- default 233437 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.summary
-rw-rwx--- 1 hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.conf.xml
-rw-rwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.conf.xml
-rw-rwx--- 1 hadoopuser supergroup 22787 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005-1659547633965-hadoopuser-word+mean-1659547650853-1.conf.xml
SUCCEEDED- default 1659547639361.jhist
-rw-rwx--- 1 hadoopuser supergroup 444 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.summary
-rw-rwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.conf.xml
-rw-rwx--- 1 hadoopuser supergroup 22787 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005-1659547633965-hadoopuser-word+mean-1659547650853-1.conf.xml
Found 1 items
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:47 /uzi/srivastava.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -cp /20MIP10020_ujjwal/srivastava.txt /uzi
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /uzi
Found 2 items
-A ? ! > _ >
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:52 /20MIP10020_ujjwal/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -mv /20MIP10020_ujjwal/us.txt /uzi
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /uzi
Found 2 items
-> _ >
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:47 /uzi/srivastava.txt
-rw-r--r-- 1 hadoopuser supergroup 9 2022-08-04 16:52 /uzi/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -getmerge -nl /20MIP10020_ujjwal/srivastava.txt /uzi/us.txt /home/hadoopuser/Desktop/output.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ cd Desktop
hadoopuser@ujjwal-VirtualBox:~/Desktop$ less output.txt
hadoopuser@ujjwal-VirtualBox:~/Desktop$ cat output.txt
hi big data analytics
l am ujjwal srivastava
20MIP10020
Thankyou sir

hello
by

hadoopuser@ujjwal-VirtualBox:~/Desktop$ cd
hadoopuser@ujjwal-VirtualBox:~/sbin$ hadoop-3.2.3/sbin
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -setrep -R 3 /uzi
hdfs: command not found
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -setrep -R 3 /uzi
Replication 3 set for /uzi/srivastava.txt
Replication 3 set for /uzi/us.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -touchz /20MIP10020_ujjwal/new.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -ls /20MIP10020_ujjwal
Found 2 items
-rw-r--r-- 1 hadoopuser supergroup 0 2022-08-04 17:03 /20MIP10020_ujjwal/new.txt
-rw-r--r-- 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
```

## TEST

Hadoop Test Command `hadoop fs -test - [defsz]` This particular command fulfills the purpose of testing the existence of a file in the HDFS cluster.

Ujjwal Srivastava [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Activities Terminal Aug 4 22:52

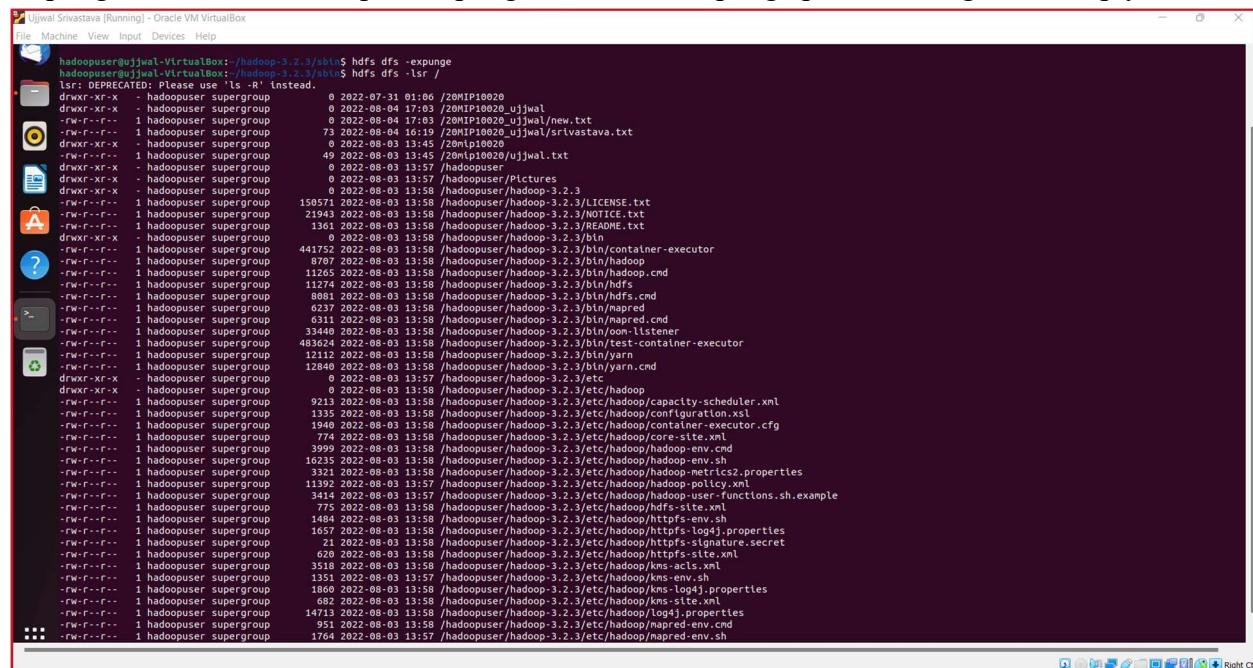
```
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ pwd
/hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ ls
distribute-exclude.sh  hadoop-daemons.sh  mr-jobhistory-daemon.sh  start-all.sh    start-dfs.sh   start-yarn.sh  stop-balancer.sh  stop-secure-dns.sh  workers.sh
FederationStateStore   httpfs.sh        refresh-namenodes.sh  start-balancer.sh  start-secure-dns.sh  stop-all.cmd  stop-dfs.cmd   stop-yarn.cmd   yarn-daemon.sh
hadoop-daemon.sh       kms.sh          start-all.cmd      start-dfs.cmd   start-yarn.cmd  stop-all.sh   stop-dfs.sh   stop-yarn.sh   yarn-daemons.sh
hadoop-daemon.sh
2288 JobManager
2713 NameNode
3765 Jps
2093 ResourceManager
3021 SecondaryNameNode
2831 DataNode
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ hdfs dfs -test -d /20MIP10020_ujjwal
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$ hdfs dfs -test -d /20MIP
hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin$
```

As 20MIP10020 ujjwal is present in hdfs , so test command will give 0(TRUE)

As 20MIP is not present in hdfs ,so test command will give 1(FALSE)

## Expunge

Expunge Command: hadoop fs -expunge Note: This expunge performs fragments empty.



```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ hdfs dfs -expunge
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3$ hdfs dfs -lsr /
Total 0 (0 directories, 0 files)
drwxr-xr-x 1 hadoopuser supergroup 0 2022-07-31 01:06 /20MIP10020
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-04 17:03 /20MIP10020_ujjwal
drwxr-xr-x 1 hadoopuser supergroup 73 2022-08-04 16:19 /20MIP10020_ujjwal/srivastava.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-04 13:45 /20MIP10020_ujjwal.txt
drwxr-xr-x 1 hadoopuser supergroup 49 2022-08-03 13:45 /20MIP10020_ujjwal.wrt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:57 /hadoopuser
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:57 /hadoopuser/Pictures
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3
drwxr-xr-x 1 hadoopuser supergroup 150571 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/LICENSE.txt
drwxr-xr-x 1 hadoopuser supergroup 2194 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/LICENSE-ice.txt
drwxr-xr-x 1 hadoopuser supergroup 1361 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/README.txt
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/README.txt
drwxr-xr-x 1 hadoopuser supergroup 441752 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bln/container-executor
drwxr-xr-x 1 hadoopuser supergroup 8707 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bln/hadoop
drwxr-xr-x 1 hadoopuser supergroup 11265 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bln/hadoop.cmd
drwxr-xr-x 1 hadoopuser supergroup 11270 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bln/hadoop.cmd
drwxr-xr-x 1 hadoopuser supergroup 6081 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bln/hdfs.cmd
drwxr-xr-x 1 hadoopuser supergroup 6237 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/mapred
drwxr-xr-x 1 hadoopuser supergroup 6311 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/mapred.cmd
drwxr-xr-x 1 hadoopuser supergroup 33449 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bln/oom-listener
drwxr-xr-x 1 hadoopuser supergroup 483624 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bln/test-container-executor
drwxr-xr-x 1 hadoopuser supergroup 12116 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/yarn
drwxr-xr-x 1 hadoopuser supergroup 12840 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/bin/yarn.cmd
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3/etc
drwxr-xr-x 1 hadoopuser supergroup 0 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop
drwxr-xr-x 1 hadoopuser supergroup 9213 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/capacity-scheduler.xml
drwxr-xr-x 1 hadoopuser supergroup 1335 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/configuration.xsl
drwxr-xr-x 1 hadoopuser supergroup 1940 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/container-executor.cfg
drwxr-xr-x 1 hadoopuser supergroup 774 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/core-site.xml
drwxr-xr-x 1 hadoopuser supergroup 3999 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-env.cmd
drwxr-xr-x 1 hadoopuser supergroup 16235 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-env.sh
drwxr-xr-x 1 hadoopuser supergroup 3321 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-metrics2.properties
drwxr-xr-x 1 hadoopuser supergroup 11392 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-policy.xml
drwxr-xr-x 1 hadoopuser supergroup 3415 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/hadoop-user-functions.sh.example
drwxr-xr-x 1 hadoopuser supergroup 775 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-env.sh
drwxr-xr-x 1 hadoopuser supergroup 1484 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-env.sh
drwxr-xr-x 1 hadoopuser supergroup 1657 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-log4j.properties
drwxr-xr-x 1 hadoopuser supergroup 21 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-signature.secret
drwxr-xr-x 1 hadoopuser supergroup 626 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/httpfs-site.xml
drwxr-xr-x 1 hadoopuser supergroup 3531 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-env.sh
drwxr-xr-x 1 hadoopuser supergroup 1351 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-env.sh
drwxr-xr-x 1 hadoopuser supergroup 1866 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-log4j.properties
drwxr-xr-x 1 hadoopuser supergroup 682 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/kms-site.xml
drwxr-xr-x 1 hadoopuser supergroup 14713 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/log4j.properties
drwxr-xr-x 1 hadoopuser supergroup 951 2022-08-03 13:58 /hadoopuser/hadoop-3.2.3/etc/hadoop/nmapred-env.cmd
drwxr-xr-x 1 hadoopuser supergroup 1764 2022-08-03 13:57 /hadoopuser/hadoop-3.2.3/etc/hadoop/nmapred-env.sh
```

## Tail

The Hadoop fs shell tail command shows the last 1KB of a file on console or stdout. The -f shows the append data as the file grows. If you missed Top 10 Hadoop Hdfs Commands in Part-II then practice them as well.

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
? Machine View Input Devices Help
-rwxrwx--- 1 hadoopuser supergroup 22788 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003-1659543484966-hadoopuser-word+count-1659543504312-1
-rw-rw-r-- 1 hadoopuser supergroup 445 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.summary
-rwxrwx--- 1 hadoopuser supergroup 233437 2022-08-03 21:48 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0003.conf.xml
-rwxrwx--- 1 hadoopuser supergroup 22788 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004-1659547331211-hadoopuser-word+count-1659547348504-1
-SUCCEEDED-default-1659547337315.jhist
-rwxrwx--- 1 hadoopuser supergroup 445 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.summary
-rwxrwx--- 1 hadoopuser supergroup 233688 2022-08-03 22:52 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0004.conf.xml
-SUCCEEDED-default-16595476193961.jhist
-rwxrwx--- 1 hadoopuser supergroup 444 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.summary
-rwxrwx--- 1 hadoopuser supergroup 233689 2022-08-03 22:57 /tmp/hadoop-yarn/staging/history/done_intermediate/hadoopuser/job_1659543213783_0005.conf.xml
drwxr-xr-x  - hadoopuser supergroup 0 2022-08-04 16:53 /uzl
-rw-r--r--  3 hadoopuser supergroup 73 2022-08-04 16:47 /uzl/srvvastava.txt
-rw-r--r--  3 hadoopuser supergroup 9 2022-08-04 16:51 /uzl/us.txt
hadoopuser@ujjwal-VirtualBox:/hadoop-3.2.3/sbin$ hdfs dfs -ls -all /uzl/us.txt
hello
by
hadoopuser@ujjwal-VirtualBox:/hadoop-3.2.3/sbin$ hadfs dfs -put /home/hadoopuser/labprog/bigdata.txt /uzl
Command 'hadff' not found, did you mean:
  command 'hadd' from snap root-framework (V6-26-0-6)
  command 'safec' from snap root-framework (V6-26-0-6)
See 'snap info <snapname>' for additional versions.
hadoopuser@ujjwal-VirtualBox:/hadoop-3.2.3/sbin$ hdfs dfs -put /home/hadoopuser/labprog/bigdata.txt /uzl
hadoopuser@ujjwal-VirtualBox:/hadoop-3.2.3/sbin$ hdfs dfs -ls /uzl
Found 3 items
-rw-r--r-- 1 hadoopuser supergroup 801 2022-08-04 17:24 /uzl/bigdata.txt
-rw-r--r-- 1 hadoopuser supergroup 7 2022-08-04 16:47 /uzl/srvvastava.txt
-rw-r--r-- 3 hadoopuser supergroup 9 2022-08-04 16:52 /uzl/us.txt
hadoopuser@ujjwal-VirtualBox:/hadoop-3.2.3/sbin$ hdfs dfs -tail /uzl/bigdata.txt

big data analytics

By

  Wesley Chat
  Mark Labbe
  Craig Stedman, Industry Editor

What is big data analytics?

Big data analytics is the often complex process of examining big data to uncover information -- such as hidden patterns, correlations, market trends and customer preferences -- that can help organizations make informed business decisions.

On a broad scale, data analytics technologies and techniques give organizations a way to analyze data sets and gather new information. Business intelligence (BI) queries answer basic questions about business operations and performance.

Big data analytics is a form of advanced analytics, which involve complex applications with elements such as predictive models, statistical algorithms and what-if analysis powered by analytics systems.

hadoopuser@ujjwal-VirtualBox:/hadoop-3.2.3/sbin$
```

Stat

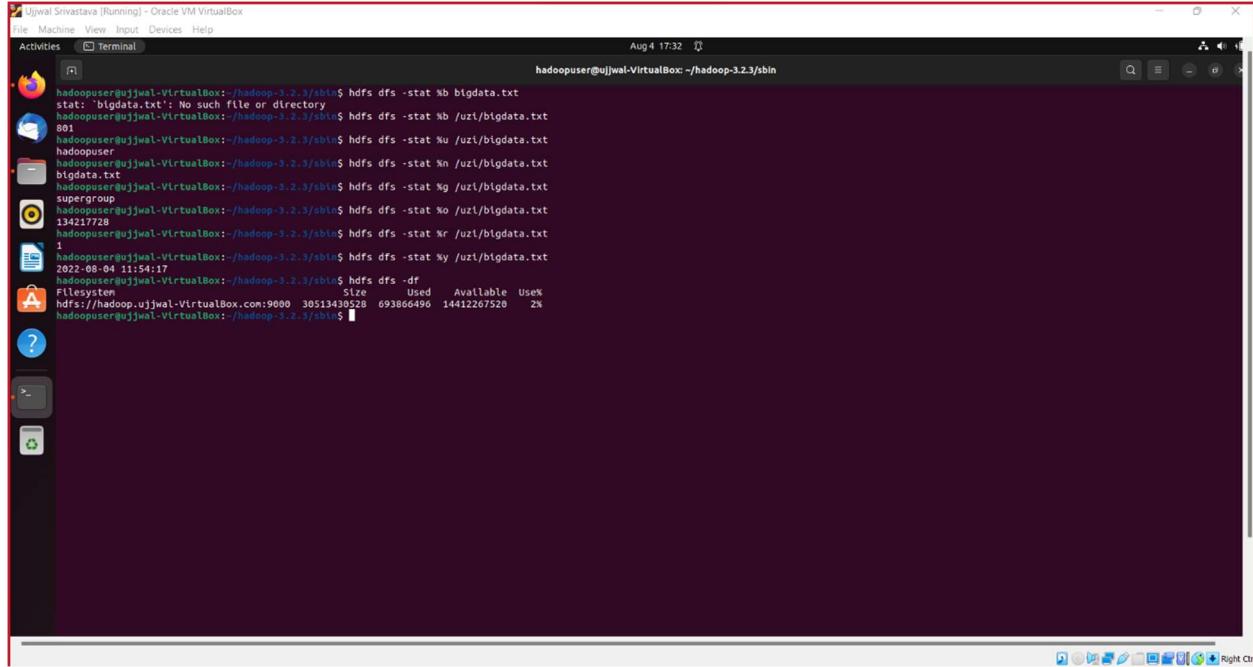
Stat Command: `hadoop fs -stat [format]` Note: This stat command is used to print the information about the ‘test’ file present in the directory.

The screenshot shows a Linux desktop environment with a terminal window open. The terminal window title is "hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin". The command entered is "hdfs dfs -stat Nb bigdata.txt". The output shows that the file "bigdata.txt" does not exist. The terminal also displays other HDFS status commands and their outputs.

```
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nb bigdata.txt
stat: 'bigdata.txt': No such file or directory
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nb /uzi/bigdata.txt
801
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Xu /uzi/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Xn /uzi/bigdata.txt
bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Kg /uzi/bigdata.txt
supergroup
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Ko /uzi/bigdata.txt
134217728
3
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Xr /uzi/bigdata.txt
2022-08-04 11:54:17
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$
```

Df

**HDFS df Command Description:** The Hadoop fs shell command df shows the capacity, size, and free space available on the HDFS file system. The -h option formats the file size in the human-readable format.

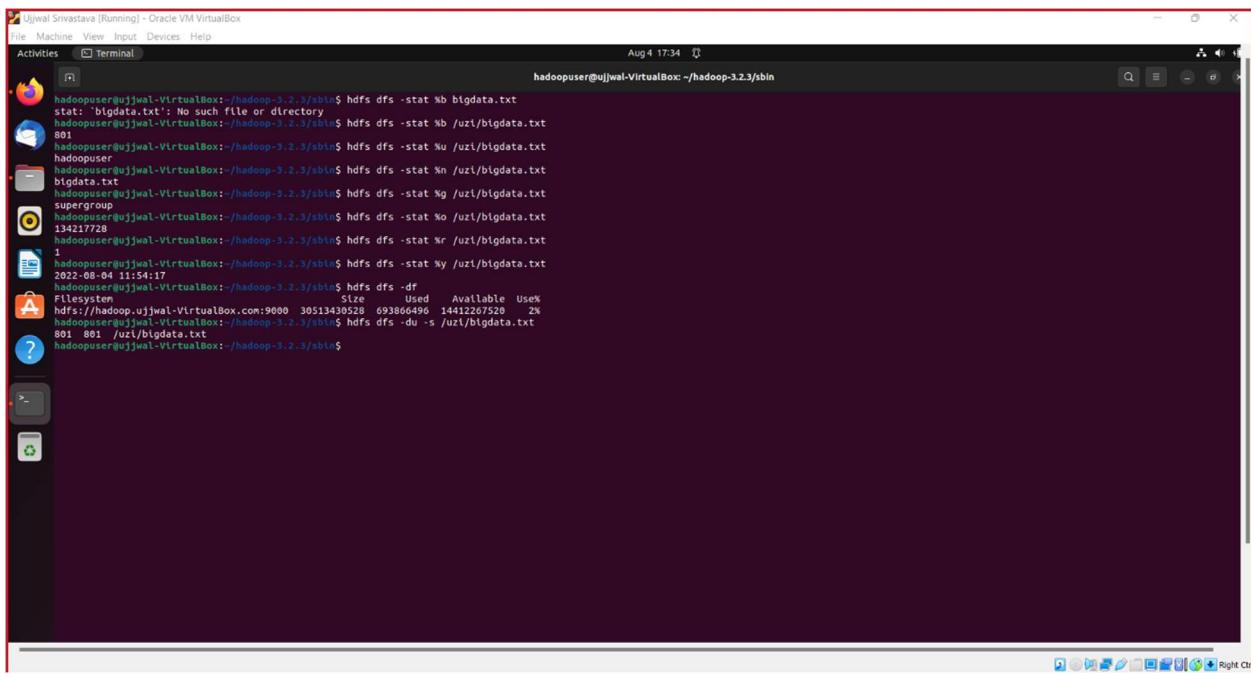


A screenshot of a Linux desktop environment titled "Ujjwal Srivastava [Running] - Oracle VM VirtualBox". The terminal window is open at the path "/hadoop-3.2.3/sbin" and displays the following command output:

```
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nb bigdata.txt
stat: 'bigdata.txt': No such file or directory
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nb /uzt/bigdata.txt
801
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Ku /uzt/bigdata.txt
hadoopuser
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Kn /uzt/bigdata.txt
bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Ng /uzt/bigdata.txt
superuser
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat No /uzt/bigdata.txt
134217728
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nr /uzt/bigdata.txt
1
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Ny /uzt/bigdata.txt
2022-08-04 11:54:17
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -df
Filesystem           Size   Used  Available  Use%
hdfs://hadoop.ujjwal-VirtualBox.com:9000 30513430528 693866496 14412267520  2%
```

## **du**

Hadoop -du command is used to get the hdfs file and directory size. The size is the base size of the file or directory before replication. This shows the amount of space in bytes that have been used by the files that match the specified file pattern.Hadoop fs -du Command

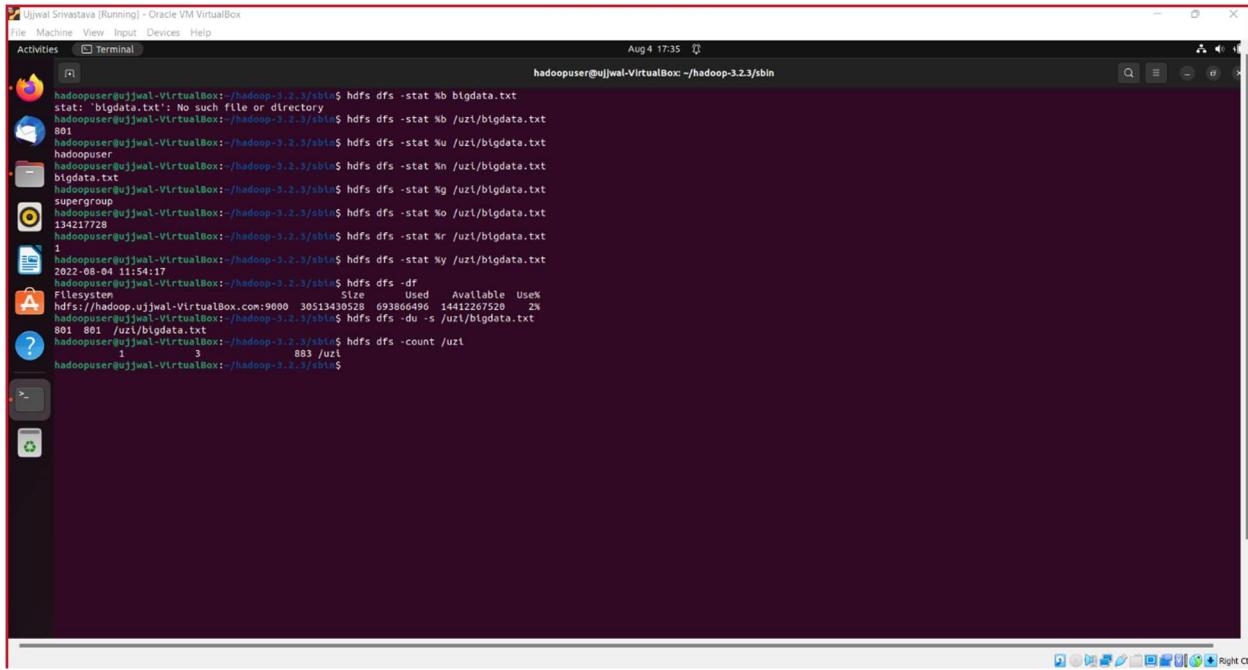


A screenshot of a Linux desktop environment, likely Ubuntu, running in Oracle VM VirtualBox. The terminal window shows a user named 'hadoopuser' executing Hadoop commands. The commands include:

```
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nb bigdata.txt
stat: 'bigdata.txt': No such file or directory
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nb /uzl/bigdata.txt
801
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nu /uzl/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Xn /uzl/bigdata.txt
bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Ng /uzl/bigdata.txt
supergroup
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat No /uzl/bigdata.txt
134217728
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nr /uzl/bigdata.txt
1
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Ny /uzl/bigdata.txt
2022-08-04 11:54:17
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -df
Filesystem           Size   Used  Available  Use%
hadoop://hadoop.ujjwal-VirtualBox.com:9000  30513430528  693866496  14412267520  2%
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -du -s /uzl/bigdata.txt
801 801 /uzl/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$
```

## Count

Hadoop Count Command `hadoop fs -count [options]` As obvious as its name, the Hadoop count command counts the number of files and bytes in a given directory.



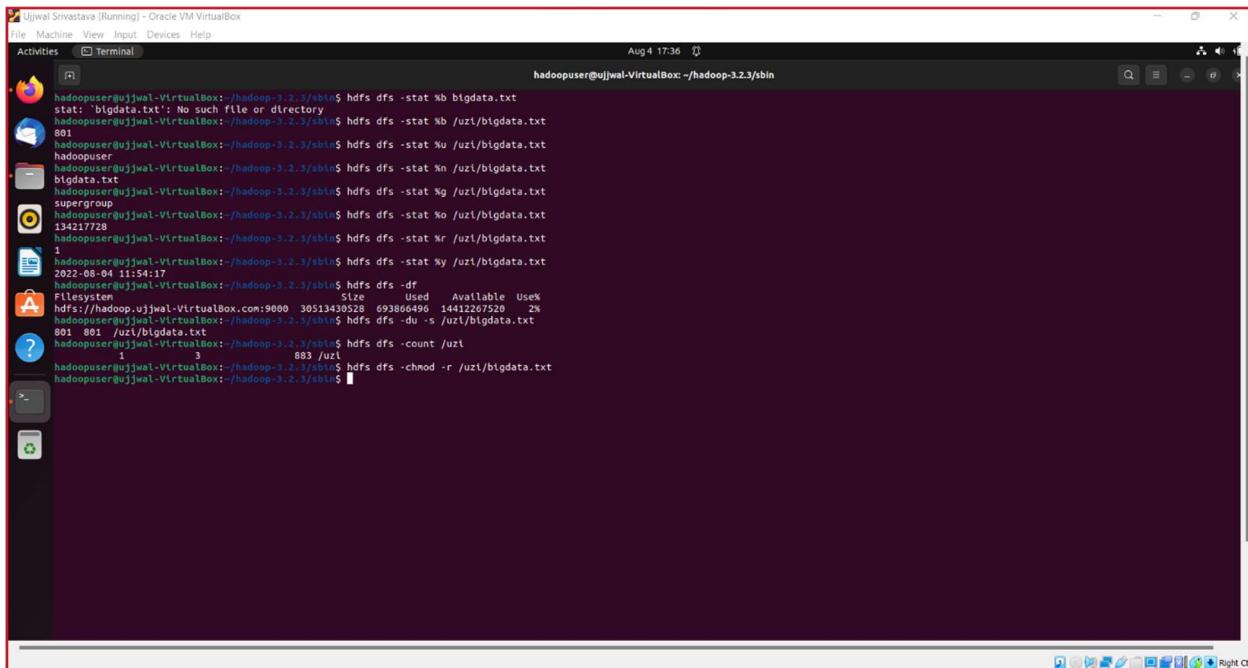
A screenshot of a Linux desktop environment (Ubuntu) showing a terminal window titled "Terminal". The terminal window has a red border and displays the following command-line session:

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Terminal Aug 4 17:35 hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin

hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nb bigdata.txt
stat: 'bigdata.txt': No such file or directory
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nb /uzi/bigdata.txt
801
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nu /uzi/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nn /uzi/bigdata.txt
bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Ng /uzi/bigdata.txt
supergroup
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat No /uzi/bigdata.txt
134217728
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nr /uzi/bigdata.txt
1
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Ny /uzi/bigdata.txt
2022-08-04 11:54:17
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -df
Filesystem           Size   Used  Available  Use%
hdfs://hadoop.ujjwal-VirtualBox.com:9000  30513430528  693866496  14412267520  2%
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -du -s /uzi/bigdata.txt
801 801 /uzi/bigdata.txt
1          3      883 /uzi
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$
```

## Chmod

The hadoop chmod command is used to change the permissions of files. The -R option can be used to recursively change the permissions of a directory structure. The usage is shown below:



A screenshot of a Linux desktop environment (Ubuntu) showing a terminal window titled "Terminal". The terminal window has a red border and displays the following command-line session:

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Terminal Aug 4 17:36 hadoopuser@ujjwal-VirtualBox: ~/hadoop-3.2.3/sbin

hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nb bigdata.txt
stat: 'bigdata.txt': No such file or directory
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nb /uzi/bigdata.txt
801
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nu /uzi/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nn /uzi/bigdata.txt
bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Ng /uzi/bigdata.txt
supergroup
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat No /uzi/bigdata.txt
134217728
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Nr /uzi/bigdata.txt
1
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Ny /uzi/bigdata.txt
2022-08-04 11:54:17
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -df
Filesystem           Size   Used  Available  Use%
hdfs://hadoop.ujjwal-VirtualBox.com:9000  30513430528  693866496  14412267520  2%
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -du -s /uzi/bigdata.txt
801 801 /uzi/bigdata.txt
1          3      883 /uzi
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -chmod -r /uzi/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$
```

## Balancer

Commands useful for administrators of a hadoop cluster. balancer Runs a cluster balancing utility. An administrator can simply press Ctrl-C to stop the rebalancing process.

```

Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat <hdfs://> /uzi/bigdata.txt
bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat <hdfs://> /uzi/bigdata.txt
supergroup
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat <hdfs://> /uzi/bigdata.txt
134217728
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat <hdfs://> /uzi/bigdata.txt
1
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat <hdfs://> /uzi/bigdata.txt
2022-08-04 11:54:17
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -df
Filesystem          Size  Used   Available  Use%
hdfs://hadoop.ujjwal-VirtualBox.com:9000 30513430528 693866496 14412267520  2%
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -du -s /uzi/bigdata.txt
801 801 /uzi/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -count /uzi
3
883 /uzi
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -chmod -r /uzi/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs balancer
2022-08-04 17:38:49,747 INFO balancer.Balancer: namenodes = [hdfs://hadoop.ujjwal-VirtualBox.com:9000]
2022-08-04 17:38:49,751 INFO balancer.Balancer: parameters = Balancer.BalancerParameters [BalancingPolicy.Node, threshold = 10.0, max idle iteration = 5, #excluded nodes = 0, #included nodes = 0, #source nodes = 0, #target nodes = 0, #blockpools = 0, #runtimes = 0, #failures = 0]
2022-08-04 17:38:49,758 INFO balancer.Balancer: included nodes = []
2022-08-04 17:38:49,751 INFO balancer.Balancer: excluded nodes = []
2022-08-04 17:38:49,751 INFO balancer.Balancer: source nodes = []
Time Stamp           Iterations  Bytes Already Moved  Bytes Left To Move  Bytes Being Moved  NameNode
2022-08-04 17:38:49,753 INFO balancer.NameNodeConnector: getBlocks calls for hdfs://hadoop.ujjwal-VirtualBox.com:9000 will be rate-limited to 20 per second
2022-08-04 17:38:49,753 INFO balancer.Balancer: max.concurrent.moves = 50 (default=50)
2022-08-04 17:38:49,757 INFO balancer.Balancer: dfs.balancer.movedWidth = 5400000 (default=5400000)
2022-08-04 17:38:49,757 INFO balancer.Balancer: dfs.balancer.moverThreads = 1000 (default=1000)
2022-08-04 17:38:49,757 INFO balancer.Balancer: dfs.balancer.dispatcherThreads = 200 (default=200)
2022-08-04 17:38:49,757 INFO balancer.Balancer: dfs.balancer.getBlocks.size = 2147483648 (default=2147483648)
2022-08-04 17:38:49,758 INFO balancer.Balancer: dfs.balancer.getBlocks.size.blockSize = 10485760 (default=10485760)
2022-08-04 17:38:49,758 INFO balancer.Balancer: dfs.datanode.balance.max.concurrent.moves = 50 (default=50)
2022-08-04 17:38:49,758 INFO balancer.Balancer: dfs.datanode.balance.bandwidthPerSec = 10485760 (default=10485760)
2022-08-04 17:38:49,758 INFO balancer.Balancer: dfs.datanode.balance.max.size.to.move = 10737418240 (default=10737418240)
2022-08-04 17:38:49,758 INFO balancer.Balancer: dfs.blocksize = 134217728 (default=134217728)
2022-08-04 17:38:49,758 INFO net.NetworkTopology: Adding a new node: /default-rack/127.0.0.1:9866
2022-08-04 17:38:50,954 INFO balancer.Balancer: 0 over-utilized: []
2022-08-04 17:38:50,954 INFO balancer.Balancer: 0 underutilized: []
The cluster is balanced. Exiting...
04-Aug-2022, 5:38:50 PM      0          0 B        0 B        0 B          0 hdfs://hadoop.ujjwal-VirtualBox.com:9000
04-Aug-2022, 5:38:51 PM  Balancing took 1.515 seconds
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ 

```

## Datanode

```

Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat <hdfs://> /uzi/bigdata.txt
bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat <hdfs://> /uzi/bigdata.txt
supergroup
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat <hdfs://> /uzi/bigdata.txt
134217728
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat <hdfs://> /uzi/bigdata.txt
1
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat <hdfs://> /uzi/bigdata.txt
2022-08-04 11:54:17
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -df
Filesystem          Size  Used   Available  Use%
hdfs://hadoop.ujjwal-VirtualBox.com:9000 30513430528 693866496 14412267520  2%
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -du -s /uzi/bigdata.txt
801 801 /uzi/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -count /uzi
3
883 /uzi
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -chmod -r /uzi/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs balancer
2022-08-04 17:38:49,747 INFO balancer.Balancer: namenodes = [hdfs://hadoop.ujjwal-VirtualBox.com:9000]
2022-08-04 17:38:49,758 INFO balancer.Balancer: parameters = Balancer.BalancerParameters [BalancingPolicy.Node, threshold = 10.0, max idle iteration = 5, #excluded nodes = 0, #included nodes = 0, #source nodes = 0, #target nodes = 0, #blockpools = 0, #runtimes = 0, #failures = 0]
2022-08-04 17:38:49,751 INFO balancer.Balancer: included nodes = []
2022-08-04 17:38:49,751 INFO balancer.Balancer: excluded nodes = []
2022-08-04 17:38:49,751 INFO balancer.Balancer: source nodes = []
Time Stamp           Iterations  Bytes Already Moved  Bytes Left To Move  Bytes Being Moved  NameNode
2022-08-04 17:38:49,753 INFO balancer.NameNodeConnector: getBlocks calls for hdfs://hadoop.ujjwal-VirtualBox.com:9000 will be rate-limited to 20 per second
2022-08-04 17:38:49,753 INFO balancer.Balancer: max.concurrent.moves = 50 (default=50)
2022-08-04 17:38:49,757 INFO balancer.Balancer: dfs.balancer.movedWidth = 5400000 (default=5400000)
2022-08-04 17:38:49,757 INFO balancer.Balancer: dfs.balancer.moverThreads = 1000 (default=1000)
2022-08-04 17:38:49,757 INFO balancer.Balancer: dfs.balancer.dispatcherThreads = 200 (default=200)
2022-08-04 17:38:49,757 INFO balancer.Balancer: dfs.balancer.getBlocks.size = 2147483648 (default=2147483648)
2022-08-04 17:38:49,758 INFO balancer.Balancer: dfs.balancer.getBlocks.size.blockSize = 10485760 (default=10485760)
2022-08-04 17:38:49,758 INFO balancer.Balancer: dfs.datanode.balance.max.concurrent.moves = 50 (default=50)
2022-08-04 17:38:49,758 INFO balancer.Balancer: dfs.datanode.balance.bandwidthPerSec = 10485760 (default=10485760)
2022-08-04 17:38:49,758 INFO balancer.Balancer: dfs.datanode.balance.max.size.to.move = 10737418240 (default=10737418240)
2022-08-04 17:38:49,758 INFO balancer.Balancer: dfs.blocksize = 134217728 (default=134217728)
2022-08-04 17:38:49,758 INFO net.NetworkTopology: Adding a new node: /default-rack/127.0.0.1:9866
2022-08-04 17:38:50,954 INFO balancer.Balancer: 0 over-utilized: []
2022-08-04 17:38:50,954 INFO balancer.Balancer: 0 underutilized: []
The cluster is balanced. Exiting...
04-Aug-2022, 5:38:50 PM      0          0 B        0 B        0 B          0 hdfs://hadoop.ujjwal-VirtualBox.com:9000
04-Aug-2022, 5:38:51 PM  Balancing took 1.515 seconds
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs datanode
datanode is running as process 2356. Stop it first and ensure /tmp/hadoop-hadoopuser-datanode.pid file is empty before retry.
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ 

```

## Secondarynamenode

```
Ujjwal Srivastava [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat /uzi/bigdata.txt
bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Xg /uzi/bigdata.txt
supergroup
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Xo /uzi/bigdata.txt
134217728
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Xr /uzi/bigdata.txt
1
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -stat Xy /uzi/bigdata.txt
2022-08-04 11:54:17
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ df
Filesystem           Size   Used  Available Use%
hdfs://hadoop.ujjwal-VirtualBox.com:9000  30513430528  693864496  14412267520   2%
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -du -s /uzi/bigdata.txt
801    801  /uzi/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -count /uzi
888 /uzi
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs dfs -chmod -r /uzi/bigdata.txt
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs balancer
2022-08-04 17:38:49,747 INFO balancer.Balancer: namenodes = [hdfs://hadoop.ujjwal-VirtualBox.com:9000]
2022-08-04 17:38:49,753 INFO balancer.Balancer: parameters = Balancer.BalancerParameters [BalancingPolicy.Node, threshold = 10.0, maxIdleIteration = 5, #excluded nodes = 0, #included nodes = 0, #source nodes = 0, #blockpools = 0, runDuringUpgrade = false]
2022-08-04 17:38:49,758 INFO balancer.Balancer: sourceNodes = []
2022-08-04 17:38:49,758 INFO balancer.Balancer: excludedNodes = []
2022-08-04 17:38:49,758 INFO balancer.Balancer: includedNodes = []
2022-08-04 17:38:49,758 INFO balancer.Balancer: sourceNodes = []
Time Stamp          Iterations#  Bytes Already Moved  Bytes Left To Move  Bytes Being Moved  NameNode
2022-08-04 17:38:49,753 INFO balancer.NameNodeConnector: getBlock calls for hdfs://hadoop.ujjwal-VirtualBox.com:9000 will be rate-limited to 20 per second
2022-08-04 17:38:50,954 INFO balancer.Balancer: dfs.namenode.getBlocks.max-qps = 20 (default=20)
2022-08-04 17:38:50,957 INFO balancer.Balancer: dfs.balancer.moveWidth = 5400000 (default=5400000)
2022-08-04 17:38:50,957 INFO balancer.Balancer: dfs.balancer.threshold = 10.0 (default=10.0)
2022-08-04 17:38:50,957 INFO balancer.Balancer: dfs.balancer.dispatcherThreads = 200 (default=200)
2022-08-04 17:38:50,957 INFO balancer.Balancer: dfs.balancer.getblocks.size = 2147483648 (default=2147483648)
2022-08-04 17:38:50,957 INFO balancer.Balancer: dfs.balancer.getblocks.mn.block.size = 10485760 (default=10485760)
2022-08-04 17:38:50,958 INFO balancer.Balancer: dfs.datanode.balance.max.concurrent.moves = 50 (default=50)
2022-08-04 17:38:50,958 INFO balancer.Balancer: dfs.datanode.balance.bandwidthPerSec = 10485760 (default=10485760)
2022-08-04 17:38:50,958 INFO balancer.Balancer: dfs.datanode.balance.max.toMove = 10737418240 (default=10737418240)
2022-08-04 17:38:50,961 INFO balancer.Balancer: dfs.blocksize = 134217728 (default=134217728)
2022-08-04 17:38:50,986 INFO balancer.Balancer: Adding a new node: /default-rack@127.0.0.1:9866
2022-08-04 17:38:50,998 INFO balancer.Balancer: 0 over-utilized: []
2022-08-04 17:38:50,999 INFO balancer.Balancer: 0 underutilized: []

The cluster is balanced. Exiting...
04-Aug-2022, 5:38:50 PM          0 B          0 B          0 B          0 B          0 B          hdfs://hadoop.ujjwal-VirtualBox.com:9000
24h 17:38:50 PM          0 B          0 B          0 B          0 B          0 B          hdfs://hadoop.ujjwal-VirtualBox.com:9000
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs datanode
datanode is running as process 2356. Stop it first and ensure /tmp/hadoop-hadoopuser-datanode.pid file is empty before retry.
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$ hdfs secondarynamenode
secondarynamenode is running as process 2547. Stop it first and ensure /tmp/hadoop-hadoopuser-secondarynamenode.pid file is empty before retry.
hadoopuser@ujjwal-VirtualBox:~/hadoop-3.2.3/sbin$
```

## Daemonlog

The `hadoop daemonlog` command gets and sets the log level for each daemon. Hadoop daemons all produce logfiles that you can use to learn about what is happening on the system. You can use the `hadoop daemonlog` command to temporarily change the log level of a component when debugging the system.

