

HADOOP LAB DOCUMENTATION – 06/06/2022

Hadoop Basic Commands

1. mkdir

Hadoop HDFS mkdir Command Usage

mkdir

Hadoop HDFS mkdir Command Example

hdfs dfs -mkdir /abc

Hadoop HDFS mkdir Command Description

This HDFS command takes path URI's as an argument and creates directories.

2. ls

Hadoop HDFS ls Command Usage

ls

Hadoop HDFS ls Command Example

hadoop fs -ls /

Hadoop HDFS ls Command Description

This Hadoop HDFS ls command displays a list of the contents of a directory specified by path provided by the user, showing the names, permissions, owner, size and modification date for each entry.

3. put

Hadoop HDFS put Command Usage

put

Hadoop HDFS put Command Example

hdfs dfs -put /home/hduser/Desktop/Welcome.txt /abc/WC.txt

Hadoop

HDFS put Command Description

This hadoop basic command copies the file or directory from the local file system to the destination within the DFS.

Display the contents of the file WC.txt

hdfs dfs -cat /abc/WC.txt

4. copyFromLocal

Hadoop HDFS copyFromLocal Command Usage

copyFromLocal

Hadoop HDFS copyFromLocal Command Example

hdfs dfs -put /home/hduser/Desktop/Welcome.txt /abc/WC.txt

Hadoop HDFS copyFromLocal Command Description

This hadoop shell command is similar to put command, but the source is restricted to a local file reference.

Display the contents of the file WC2.txt

hdfs dfs -cat /abc/WC2.txt

5. get

Hadoop HDFS get Command Usage

get [-crc]

i.Hadoop HDFS get Command Example

hdfs dfs -get /abc/WC.txt /home/hduser/Downloads/WWC.txt

This HDFS fs command copies the file or directory in HDFS identified by the source to the local file system path identified by local destination.

ii.Hadoop HDFS get Command Example

```
hdfs dfs -getmerge /abc/WC.txt /abc/WC2.txt
/home/hduser/Desktop/Merge.txt
```

This HDFS basic command retrieves all files that match to the source path entered by the user in HDFS, and creates a copy of them to one single, merged file in the local file system identified by local destination.

iii. Hadoop HDFS get Command Example
hadoop fs -getfacl /abc/

This Apache Hadoop command shows the Access Control Lists (ACLs) of files and directories.

6. copyToLocal

Hadoop HDFS copyToLocal Command Usage

copyToLocal

Hadoop HDFS copyToLocal Command Example

```
hdfs dfs -copyToLocal /abc/WC.txt /home/hduser/Desktop
```

Similar to get command, only the difference is that in this the destination is restricted to a local file reference.

7. cat

Hadoop HDFS cat Command Usage

cat

Hadoop HDFS cat Command Example

```
hdfs dfs -cat /abc/WC.txt
```

This Hadoop fs shell command displays the contents of the filename on console or stdout.

8. mv

Hadoop HDFS mv Command Usage

mv

Hadoop HDFS mv Command Example

```
hadoop fs -mv /abc /FFF
```

```
hadoop fs -ls /FFF
```

This basic HDFS command moves the file or directory indicated by the source to destination, within HDFS.

9. cp

Hadoop HDFS cp Command Usage

cp

Hadoop HDFS cp Command Example

```
hadoop fs -cp /CSE/ /LLL
```

```
hadoop fs -ls /LLL
```

The cp command copies a file from one directory to another directory within the HDFS.

The Similar commands are practically implemented and the screenshots are shown below.

```
Activities Terminal Jun 6 15:05 hduser@bmsce-Precision-T1700-
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:30 /sample
drwxrwxr-x - hduser supergroup 0 2019-08-01 16:19 /tmp
drwxr-xr-x - hduser supergroup 0 2019-08-01 16:03 /user
hduser@bmsce-Precision-T1700:~$ hdfs dfs -cat /abc/WC.txt
welcome ,hi good afternoon.
hduser@bmsce-Precision-T1700:~$ hdfs dfs -cat /abc/WC.txt
welcome ,hi good afternoon.
hduser@bmsce-Precision-T1700:~$ hdfs dfs -cat /abc/kar.txt
cat: '/abc/kar.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -cat /Karthik/kar.txt
cat: '/Karthik/kar.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -cat /Kardir/kar.txt
Hello this is a sample Welcome Text File..
hduser@bmsce-Precision-T1700:~$ hdfs dfs -get /Kardir/kar.txt /home/hduser/Downloads/kar2.txt
hduser@bmsce-Precision-T1700:~$ dfs dfs -getmerge /abc/WC.txt /abc/WC2.txt /home/hduser/Desktop/Merge.txt
Command 'dfs' not found, did you mean:
command 'dfc' from deb dfc (3.1.1-1)
command 'dns' from deb anacrolix-dns (1.1.0-1)
command 'df' from deb coreutils (8.30-3ubuntu2)
command 'bfs' from deb bfs (1.5.2-1)
command 'dcs' from deb drbl (2.30.5-1)
command 'zfs' from deb zfsutils-linux (0.8.3-1ubuntu12.14)
command 'zfs' from deb zfs-fuse (0.7.0-20)
command 'hfs' from deb hfsutils-tcltk (3.2.6-14)
command 'fs' from deb openafs-client (1.8.4-pre1-1ubuntu2.4)
Try: sudo apt install <deb name>
hduser@bmsce-Precision-T1700:~$ hdfs dfs -getmerge /Kardir/kar.txt /Kardir/kar2.txt /home/hduser/Desktop/Merge.txt
getmerge: '/Kardir/kar2.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -getmerge /Kardir/kar.txt /Kardir/kar.txt /home/hduser/Desktop/Merge.txt
hduser@bmsce-Precision-T1700:~$ hadoop fs -getfacl /Karthik/
# file: /Karthik
# owner: hduser
# group: supergroup
user::rwx
user::rwx
```

```
Activities Terminal Jun 6 15:05 hduser@bmsce-Precision-T1700-
command 'fs' from deb openafs-client (1.8.4-pre1-1ubuntu2.4)
Try: sudo apt install <deb name>
hduser@bmsce-Precision-T1700:~$ hdfs dfs -getmerge /Kardir/kar.txt /Kardir/kar2.txt /home/hduser/Desktop/Merge.txt
getmerge: '/Kardir/kar2.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -getmerge /Kardir/kar.txt /Kardir/kar.txt /home/hduser/Desktop/Merge.txt
hduser@bmsce-Precision-T1700:~$ hadoop fs -getfacl /Karthik/
# file: /Karthik
# owner: hduser
# group: supergroup
user::rwx
group::r-x
other::r-x
hduser@bmsce-Precision-T1700:~$ hdfs dfs -copyToLocal /Karthik/kar.txt /home/hduser/Desktop
copyToLocal: '/Karthik/kar.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -copyToLocal /Karthik/karfile.txt /home/hduser/Desktop
copyToLocal: '/Karthik/karfile.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -copyToLocal /Karthik/kar2.txt /home/hduser/Desktop
copyToLocal: '/Karthik/kar2.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hadoop fs -getfacl /Kardir/
# file: /Kardir
# owner: hduser
# group: supergroup
user::rwx
group::r-x
other::r-x
hduser@bmsce-Precision-T1700:~$ hdfs dfs -copyToLocal /Kardir/kar.txt /home/hduser/Desktop
hduser@bmsce-Precision-T1700:~$ hdfs dfs -cat /Kardir/kar.txt
Hello this is a sample Welcome Text File..
hduser@bmsce-Precision-T1700:~$ hadoop fs -mv /Kardir /FFF
hduser@bmsce-Precision-T1700:~$ hadoop fs -ls /FFF
Found 2 items
drwxr-xr-x - hduser supergroup 0 2022-06-06 14:49 /FFF/Kardir
-rw-r--r-- 1 hduser supergroup 31 2022-05-31 09:59 /FFF/sample2
hduser@bmsce-Precision-T1700:~$ hadoop fs -cp /Kardir/ /LLL
cp: '/Kardir/': No such file or directory
```

```
Activities Terminal Jun 6 15:10 hduser@bmsce-Precision-T1700-
# owner: hduser
# group: supergroup
user::rwx
group::r-x
other::r-x

hduser@bmsce-Precision-T1700:~$ hdfs dfs -copyToLocal /Karthik/kar.txt /home/hduser/Desktop
copyToLocal: '/Karthik/kar.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -copyToLocal /Karthik/karfile.txt /home/hduser/Desktop
copyToLocal: '/Karthik/karfile.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -copyToLocal /Karthik/kar2.txt /home/hduser/Desktop
copyToLocal: '/Karthik/kar2.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hadoop fs -getfacl /Kardir/
# file: /Kardir
# owner: hduser
# group: supergroup
user::rwx
group::r-x
other::r-x

hduser@bmsce-Precision-T1700:~$ hdfs dfs -copyToLocal /Kardir/kar.txt /home/hduser/Desktop
hduser@bmsce-Precision-T1700:~$ hdfs dfs -cat /Kardir/kar.txt
Hello this is a sample Welcome Text File..
hduser@bmsce-Precision-T1700:~$ hadoop fs -mv /Kardir /FFF
hduser@bmsce-Precision-T1700:~$ hadoop fs -ls /FFF
Found 2 items
drwxr-xr-x - hduser supergroup 0 2022-06-06 14:49 /FFF/Kardir
-rw-r--r-- 1 hduser supergroup 31 2022-05-31 09:59 /FFF/sample2
hduser@bmsce-Precision-T1700:~$ hadoop fs -cp /Kardir/ /LLL
cp: '/Kardir/': No such file or directory
hduser@bmsce-Precision-T1700:~$ hadoop fs -cp /CSE/ /LLL
cp: '/CSE/': No such file or directory
hduser@bmsce-Precision-T1700:~$ hadoop fs -cp /FFF/ /LLL
hduser@bmsce-Precision-T1700:~$ hadoop fs -ls /LLL
Found 2 items
drwxr-xr-x - hduser supergroup 0 2022-06-06 15:09 /LLL/Kardir
-rw-r--r-- 1 hduser supergroup 31 2022-06-06 15:09 /LLL/sample2
hduser@bmsce-Precision-T1700:~$
```

```
Activities Terminal Jun 4 10:31 hduser@bmsce-Precision-T1700-
hduser@bmsce-Precision-T1700:~$ sbin/start-all.sh
bash: sbin/start-all.sh: No such file or directory
hduser@bmsce-Precision-T1700:~$ start-all.sh
this script is deprecated. Instead use start-dfs.sh and start-yarn.sh
Starting namenodes on [localhost]
hduser@localhost:~$ password:
localhost: namenode running as process 9999. Stop it first.
hduser@localhost:~$ password:
localhost: datanode running as process 10175. Stop it first.
Starting secondary namenodes [0.0.0.0]
hduser@0.0.0.0:~$ password:
0.0.0.0: Permission denied, please try again.
hduser@0.0.0.0:~$ password:
0.0.0.0: secondarynamenode running as process 11844. Stop it first.
starting yarn daemons
resourcemanager running as process 11246. Stop it first.
hduser@localhost:~$ password:
localhost: nodemanager running as process 11590. Stop it first.
hduser@bmsce-Precision-T1700:~$ jps
17169 Jps
11844 SecondaryNameNode
11590 NodeManager
11246 ResourceManager
9999 NameNode
10175 DataNode
hduser@bmsce-Precision-T1700:~$ hdfs dfs -ls /
Found 17 items
drwxr-xr-x - hduser supergroup 0 2022-05-31 10:13 /127
drwxr-xr-x - hduser supergroup 0 2022-06-03 12:51 /Desktop
drwxr-xr-x - hduser supergroup 0 2022-05-31 10:13 /FFF
drwxr-xr-x - hduser supergroup 0 2022-05-31 10:15 /NextFFF
drwxr-xr-x - hduser supergroup 0 2022-06-03 15:10 /Revanth
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:56 /MC2.txt
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:48 /Mc.txt
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:49 /Welcome.txt
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:52 /abc
drwxr-xr-x - hduser supergroup 0 2022-06-03 12:39 /akash
drwxr-xr-x - hduser supergroup 0 2022-06-03 15:03 /arya
drwxr-xr-x - hduser supergroup 0 2022-06-01 15:31 /bindu
drwxr-xr-x - hduser supergroup 0 2022-06-01 15:29 /new2
drwxr-xr-x - hduser supergroup 0 2022-05-31 09:10 /saijan
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:30 /sample
drwxrwxr-x - hduser supergroup 0 2019-08-01 16:19 /tmp
drwxr-xr-x - hduser supergroup 0 2019-08-01 16:03 /user
hduser@bmsce-Precision-T1700:~$ hdfs dfs -mkdir /hduser
mkdir: '/hduser': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -mkdir /hduser2
mkdir: '/hduser2': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -touchz /hduser/myfile.txt
hduser@bmsce-Precision-T1700:~$ hdfs dfs -put ../Desktop/Al.txt /hduser
put: '../Desktop/Al.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -put ../Desktop/Al.txt /hduser
put: '../Desktop/Al.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -put /Desktop/Al.txt /hduser
put: '/Desktop/Al.txt': No such file or directory
```

```
Activities Terminal Jun 6 15:05
hduser@bmsce-Precision-T1700:~$ sudo su hduser
[sudo] password for hduser:
hduser@bmsce-Precision-T1700:~$ start-all.sh
This script is Deprecated. Instead use start-dfs.sh and start-yarn.sh
Starting namenodes on [localhost]
hduser@localhost's password:
localhost: namenode running as process 6828. Stop it first.
hduser@localhost's password:
localhost: datanode running as process 7000. Stop it first.
Starting secondary namenodes [0.0.0.0]
hduser@0.0.0.0's password:
0.0.0.0: secondarynamenode running as process 7213. Stop it first.
starting yarn daemons
resourcemanager running as process 7372. Stop it first.
hduser@localhost's password:
localhost: nodemanager running as process 7707. Stop it first.
hduser@bmsce-Precision-T1700:~$ jps
7000 DataNode
7707 NodeManager
7372 ResourceManager
6828 NameNode
7213 SecondaryNameNode
9917 Jps
hduser@bmsce-Precision-T1700:~$ hdfs dfs -mkdir /Kardir
hduser@bmsce-Precision-T1700:~$ hdfs dfs -ls /
Found 24 items
drwxr-xr-x - hduser supergroup 0 2022-05-31 10:13 /127
drwxr-xr-x - hduser supergroup 0 2022-06-03 12:51 /Desktop
drwxr-xr-x - hduser supergroup 0 2022-05-31 10:13 /FFF
drwxr-xr-x - hduser supergroup 0 2022-06-06 14:46 /Kardir
drwxr-xr-x - hduser supergroup 0 2022-06-06 14:35 /Karthik
drwxr-xr-x - hduser supergroup 0 2022-05-31 10:15 /NextFFF
drwxr-xr-x - hduser supergroup 0 2022-06-03 15:10 /Revanth
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:56 /WC2.txt
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:48 /WC.txt
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:49 /Welcome.txt
-rw-r--r-- 1 hduser supergroup 43 2022-06-06 14:44 /abc.txt
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:52 /abc
drwxr-xr-x - hduser supergroup 0 2022-06-03 12:39 /akash
```

```
Activities Terminal Jun 6 15:05
hduser@bmsce-Precision-T1700:~$ hdfs dfs -put /home/hduser/Desktop/karfile.txt /Kardir/kar.txt
put: '/Kardir/kar.txt': No such file or directory
hduser@bmsce-Precision-T1700:~$ hdfs dfs -put /home/hduser/Desktop/karfile.txt /Kardir/kar.txt
hduser@bmsce-Precision-T1700:~$ hdfs dfs -ls /
Found 24 items
drwxr-xr-x - hduser supergroup 0 2022-05-31 10:13 /127
drwxr-xr-x - hduser supergroup 0 2022-06-03 12:51 /Desktop
drwxr-xr-x - hduser supergroup 0 2022-05-31 10:13 /FFF
drwxr-xr-x - hduser supergroup 0 2022-06-06 14:49 /Kardir
drwxr-xr-x - hduser supergroup 0 2022-06-06 14:35 /Karthik
drwxr-xr-x - hduser supergroup 0 2022-05-31 10:15 /NextFFF
drwxr-xr-x - hduser supergroup 0 2022-06-03 15:10 /Revanth
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:56 /WC2.txt
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:48 /WC.txt
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:49 /Welcome.txt
-rw-r--r-- 1 hduser supergroup 43 2022-06-06 14:44 /abc.txt
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:52 /abc
drwxr-xr-x - hduser supergroup 0 2022-06-03 12:39 /akash
drwxr-xr-x - hduser supergroup 0 2022-06-06 12:23 /anant
drwxr-xr-x - hduser supergroup 0 2022-06-06 12:13 /arhant
drwxr-xr-x - hduser supergroup 0 2022-06-03 15:03 /arya
drwxr-xr-x - hduser supergroup 0 2022-06-01 15:31 /bindu
drwxr-xr-x - hduser supergroup 0 2022-06-04 10:26 /hduser
drwxr-xr-x - hduser supergroup 0 2022-06-04 10:26 /hduser_copied
drwxr-xr-x - hduser supergroup 0 2022-06-01 15:29 /new2
drwxr-xr-x - hduser supergroup 0 2022-05-31 09:16 /sajjan
drwxr-xr-x - hduser supergroup 0 2022-06-04 09:30 /sample
drwxr-xr-x - hduser supergroup 0 2019-08-01 16:19 /tmp
drwxr-xr-x - hduser supergroup 0 2019-08-01 16:03 /user
hduser@bmsce-Precision-T1700:~$ hdfs dfs -cat /abc/WC.txt
hdfs dfs -cat /abc/WC.txt
welcome ,hi good afternoon.
hduser@bmsce-Precision-T1700:~$ hdfs dfs -cat /abc/WC.txt
```