PRACTICAL-2

AIM:

To implement file management tasks in Hadoop HDFS and perform Hadoop commands.

IMPLEMENTATION:

- There are many more commands in "$HADOOP_HOME/bin/hadoop fs" than are demonstrated here, although these basic operations will get you started. Running ./bin/hadoop dfs with no additional arguments will list all the commands that can be run with the FsShell system. Furthermore, $HADOOP_HOME/bin/hadoop fs -help commandName will display a short usage summary for the operation in question, if you are stuck.

- Firstly, start the Hadoop

- To check the Hadoop services are up and running, use the following command:

- The version command is used to find out the version of the Hadoop.

- The mkdir is used create a directory. In Hadoop dfs there is no home directory by default.
- the **ls** command is used to check for the directories in HDFS

- The touchz command is to create an empty file.

```
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -touchz /fileOne/text1.txt
2022-08-28 17:08:41,793 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes
 where applicable
```

```
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -ls /fileOne
2022-08-28 17:09:23,153 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your
platform... using builtin-java classes where applicable
Found 1 items
-rw-r--r--   1 hdoop supergroup          0 2022-08-28 17:08 /fileOne/text1.txt
```

- The copyFromLocal /put is to copy files/folders from local file system to hdfs store. This is the most important command. Local filesystem means the files present on the OS.

```
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -copyFromLocal ~/desktopDirectory /fileOne
2022-08-28 17:24:42,276 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your
a classes where applicable
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -ls /fileOne
2022-08-28 17:25:00,730 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your
a classes where applicable
Found 2 items
drwxr-xr-x   - hdoop supergroup          0 2022-08-28 17:24 /fileOne/desktopDirectory
-rw-r--r--   1 hdoop supergroup          0 2022-08-28 17:08 /fileOne/text1.txt
```

- The copyToLocal/get is used to copy files/folders from hdfs store to local file system.

```
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -get /fileOne/desktopDirectory ~/Desktop
2022-08-28 17:35:35,266 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platf
```

```
hdoop@parth-virtual-machine:~$ ls
Desktop            dfsdata     hadoop-3.2.4         Pictures   Templates
desktopDirectory   Documents   hadoop-3.2.4.tar.gz  Public     tmpdata
desktopFile.txt    Downloads   Music                snap       Videos
```

- The cp command is used to copy files within hdfs.

```
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -cp /fileOne/desktopDirectory /fileTwo
2022-08-28 17:38:22,884 WARN util.NativeCodeLoader: Unable to load native-hadoop library for
a classes where applicable
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -ls /fileTwo
2022-08-28 17:38:34,869 WARN util.NativeCodeLoader: Unable to load native-hadoop library for
a classes where applicable
Found 1 items
drwxr-xr-x   - hdoop supergroup          0 2022-08-28 17:38 /fileTwo/desktopDirectory
```

- The mv command is used to move files within hdfs.

```
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -mv /fileOne/text1.txt /fileTwo
2022-08-28 17:45:27,799 WARN util.NativeCodeLoader: Unable to load native-hadoop librar
a classes where applicable
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -ls /fileTwo
2022-08-28 17:45:35,617 WARN util.NativeCodeLoader: Unable to load native-hadoop librar
a classes where applicable
Found 2 items
drwxr-xr-x   - hdoop supergroup          0 2022-08-28 17:38 /fileTwo/desktopDirectory
-rw-r--r--   1 hdoop supergroup          0 2022-08-28 17:08 /fileTwo/text1.txt
```

- The rm -r command deletes a file from HDFS recursively.

```
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -rmr /fileTwo/desktopDirectory
2022-08-28 17:47:22,074 WARN util.NativeCodeLoader: Unable to load native-hadoop library
a classes where applicable
rmr: DEPRECATED: Please use '-rm -r' instead.
Deleted /fileTwo/desktopDirectory
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -ls /fileTwo
2022-08-28 17:47:49,485 WARN util.NativeCodeLoader: Unable to load native-hadoop library
a classes where applicable
Found 1 items
-rw-r--r--   1 hdoop supergroup          0 2022-08-28 17:08 /fileTwo/text1.txt
```

- The du command will give the size of each file in directory.

```
hdoop@parth-virtual-machine:~/hadoop-3.2.4$ hadoop fs -du /fileOne/
2022-08-28 17:49:16,464 WARN util.NativeCodeLoader: Unable to load native-hadoo
a classes where applicable
37   37  /fileOne/desktopDirectory
```

CONCLUSION:

In this practical, we learnt about basic commands in Hadoop file system.