Basic Hadoop Commands (PART 2)

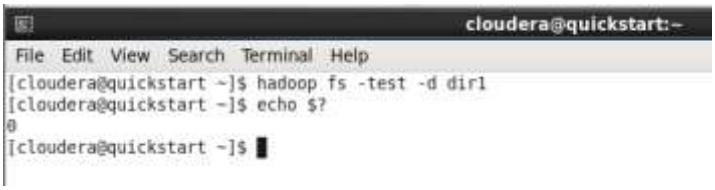
➢ Command used for conditional checking.

- We can use multiple parameters with test command they are d,s,f,e,r,w,z

Command: hadoop fs -test -d directoryname

- To check the result for the above command we have to use echo $?

Output:



- -d → Check whether the path given by the user is a directory or not, return 0 if it is a directory.
- -f → Check whether the path given by the user is a file or not, return 0 if it is a file.
- -e → Check whether the path given by the user exists or not, return 0 if the path exists.
- -z → Checks whether the file size is 0 byte or not, return 0 if the file is of 0 bytes.
- -w →Return 0 if the path exists and write permission is granted.
- -r → Return 0 if the path exists and read permission is granted.
- -s → Check if the path is not empty, return 0 if a path is not empty.
- And the result will be in the form of 0 and 1.
  0 → we will get output as 0 if the directory is present.
  1 → we will get output as 1 if the directory is not present.

• To Move file from hdfs to local system and vice versa.

hadoop fs -moveFromLocal filelocation (present in local system) location (of hadoop file system)

hadoop fs -moveToLocal filelocation (present in hadoop system) location (of local file system)

Output:

```
[cloudera@quickstart ~]$ hadoop fs -moveFromLocal Desktop/TSRTC.pdf dir1
[cloudera@quickstart ~]$ hadoop fs -ls dir1
Found 3 items
-rw-r--r--   1 cloudera cloudera    8492119 2022-09-28 02:15 dir1/TSRTC.pdf
-rwxr-xr-x   1 cloudera cloudera      14784 2022-09-07 01:29 dir1/country_wise_latest.csv
-rwxr-xr-x   1 cloudera cloudera         56 2022-09-07 01:58 dir1/inptfile.csv
[cloudera@quickstart ~]$
```

- **To Merge the files of Hadoop file system to Local file system.**

hadoop fs -getmerge (filename) file location (file name present in hadoop system) ~/localfile system location/ merged file (as per our choice)

You can add 'n' number of files of local system to get merged with the hadoop file.

Output:

```
[cloudera@quickstart ~]$ hadoop fs -getmerge dir1/q2.txt dir1/q3.txt  ~/Desktop/q1.txt
[cloudera@quickstart ~]$ cat Desktop/q1.txt
soumya soumya
abcdefghij
abcdefghij
lmnopqrstuvwxyz
```

- **To append files of local system to one of the file present in hadoop.**

hadoop fs -appendToFile (files location of local file system) (file of hdfs location)

Output:

```
[cloudera@quickstart ~]$ hadoop fs -appendToFile q1.txt q4.txt q2.txt
[cloudera@quickstart ~]$ hadoop fs -cat dir1/q2.txt
soumya soumya
soumya soumya
abcdefghij
abcdefghij
lmnopqrstuvwxyz
hello
hello
hello
hello

abcdefghij
hello
hello
hello
hello
```

- **To check the integrity of a file.**

- Such as whether the file has been modified or not.
- Hashing concept is used in this command. (MD5 Algo is used—Message Digest)
- Output of this command will be in alpha-numeric.

hadoop fs -checksum file location

Output:

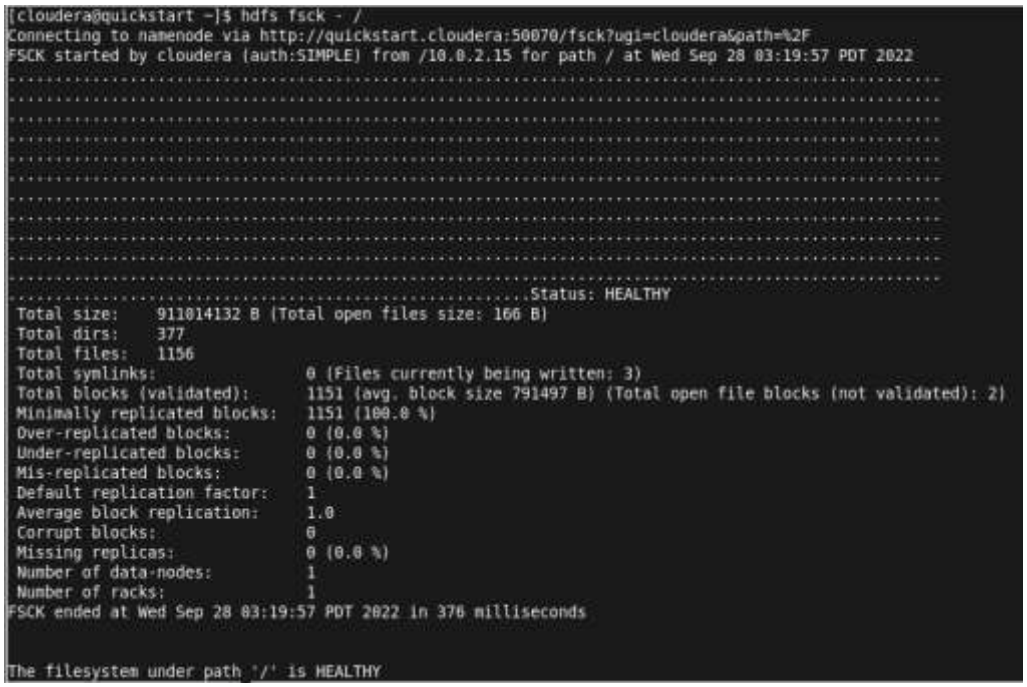
```
[cloudera@quickstart ~]$ hadoop fs -checksum  dir1/q2.txt
dir1/q2.txt     MD5-of-0MD5-of-512CRC32C        00000200000000000000000fc67897e1b03f9d08bee061f26ddfc38
```

- **To check the health status of Hadoop System of a particular directory and entire root directory.**

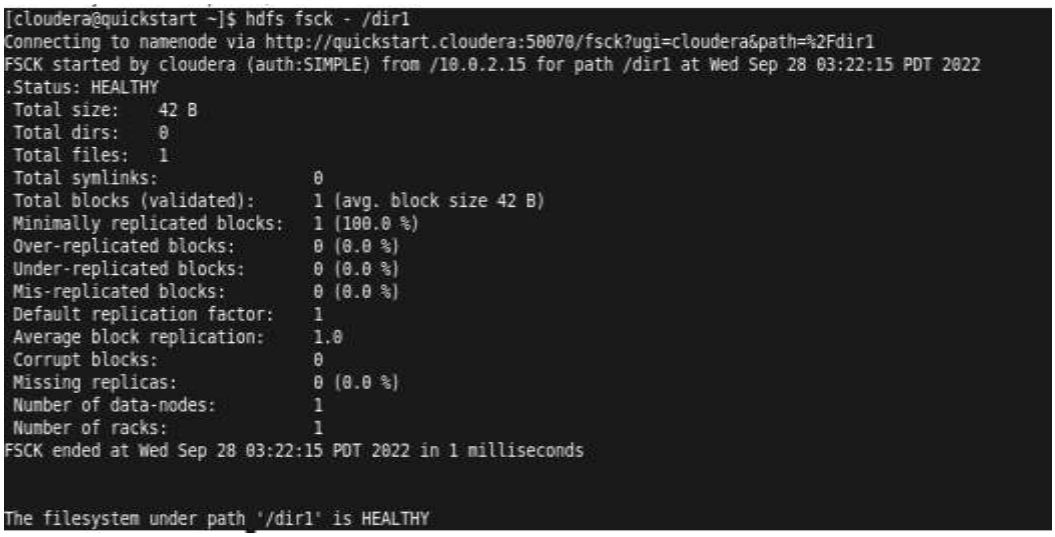
➢ **fsck→ file system check.**

hdfs fsck - /

Output:



hdfs fsck - /dir1



- **To check count of files and directories present in the given location.**

  hadoop fs -count directoryname

  Output:

```
[cloudera@quickstart ~]$ hadoop fs -count dir1
           1            5            8507124 dir1
[cloudera@quickstart ~]$ hadoop fs -count /
         377         1158          911014237 /
```

➢ **From the above output of hadoop fs -count dir1 explanation:**

1 → number of directories.
5 → number of files.
8507124 → size occupied by those files.

- **To delete a Directory.**

  hadoop fs -rmr directoryname

  Output:

```
[cloudera@quickstart ~]$ hadoop fs -rmr  mydirectory1
rmr: DEPRECATED: Please use 'rm -r' instead.
Deleted mydirectory1
```

- **To delete a File**

  hadoop fs -rm file location

  Output:

```
[cloudera@quickstart ~]$ hadoop fs -rm foldr/file1.txt
Deleted foldr/file1.txt
```

- **To know Statistics of a file**

  Output:

```
[cloudera@quickstart ~]$ hadoop fs -stat %r /f2.txt
1
[cloudera@quickstart ~]$ hadoop fs -stat %b /f2.txt
42
[cloudera@quickstart ~]$ hadoop fs -stat %g /f2.txt
cloudera
[cloudera@quickstart ~]$ hadoop fs -stat %u /f2.txt
cloudera
[cloudera@quickstart ~]$ hadoop fs -stat %y /f2.txt
2022-09-02 06:13:29
```

hadoop fs -stat %b file location

we can use multiple parameters:

%r→to know replication factor of a file

%b→to know number of bytes of file

%g→to know the group name

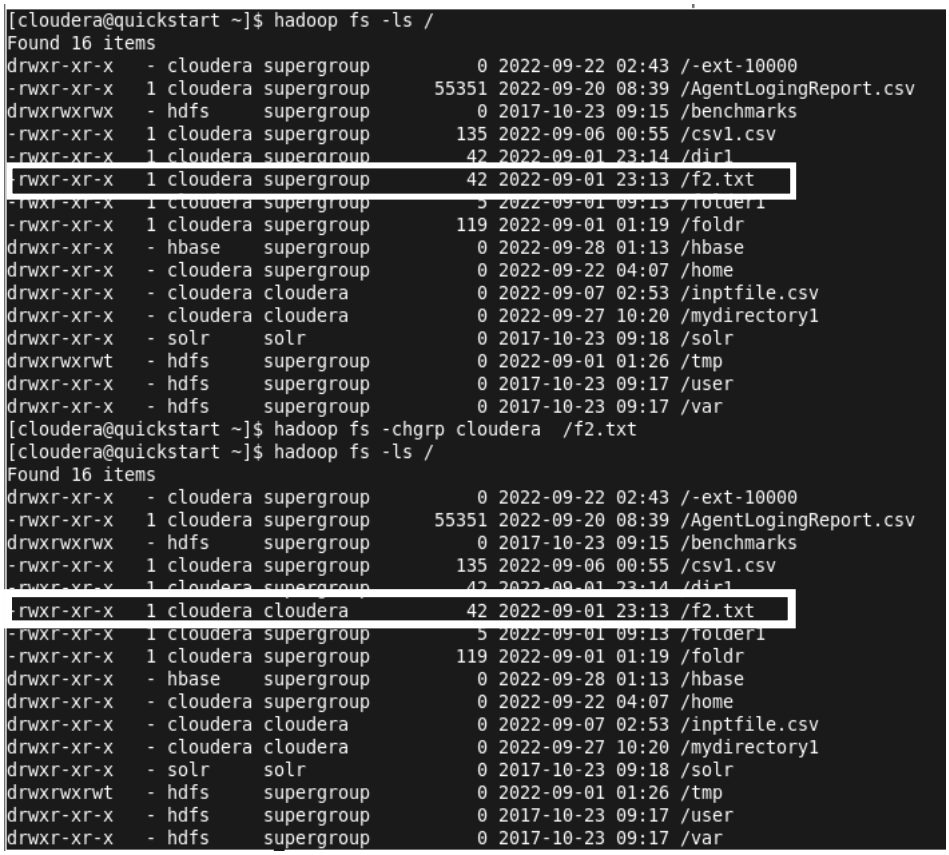
%u→to know username of a file

%y→to know when the file is modified

- **To change group of a file**

hadoop fs -chgrp groupname(own choice) filelocation

Output:



- **To change the permissions of a file or directory.**

hadoop fs -chmod 777(any rule you want to give) filelocation or directory You can give 777,754,755…etc., any rule as per your convenience.

Output: