**Hadoop Distributed File System (Basic Commands)**

Hadoop Distributed file system is a scalable storage i.e. it can be increased or decreased. And it can be accessed easily from anywhere.

Features of HDFS:-

1. It is optimized for Hadoop.
2. It is primarily accessed via command-line utilities and Java API.
3. HDFS is much similar to UNIX file system.

**HDFS Commands**

1. **Listing Directory Contents**

**a) Command :-** hadoop fs -ls /

**Function** :- Display all the files and folders which are present in the HDFS root directory i.e. ‘/’.

**b) Command :-** hadoop fs -ls /user

**Function** :- Display all the files and folders in the HDFS ‘user’ folder . In this example, user is present in root directory.

1. **Creating a directory**

**a) Command :-** hadoop fs -mkdir organization

**Function** :- It creates a directory in HDFS. In this example, it’s creating a directory *organization*in the root of HDFS.

1. **Copying a file**

**a) Command :-** hadoop fs -cp /employee.txt /organization/

**Function** :- This command copies files from one location to another within HDFS only. The command mentioned in the command section copies the file employee.txt from root folder to organization folder.

1. **Rename a file**

**a) Command :-** hadoop fs -mv /employee.txt /newemployee.txt

**Function** :- Renames file employee.txt to newemployee.txt.

1. **Move file from one directory to another**

**a) Command :-** hadoop fs -mv /newemployee.txt /organization/employee.txt

**Function** :- This command moves the file from one location to another within HDFS. In this example, Moves the file newemployee.txt from current directory into subdirectory organization with name employee.txt - newemployee.txt will no longer exist in the current directory.

1. **Delete a file**

**a) Command :-** hadoop fs -rm /organization/employee.txt

**Function** :- It removes file from HDFS. Here, Deletes file employee.txt from organization folder.

1. **Delete a directory**

**a) Command :-** hadoop fs -rmr /organization/temp

**Function** :- Deletes temp directory from organization folder in HDFS.

1. **Viewing files**

**a) Command :-** cat file1

**Function** :- Will display contents of file1 on screen.

1. **CopyFromLocal directory to HDFS**

**a) Command :-** hadoop fs -copyFromLocal sales.txt /organization/sales.txt

**Function** :- Will copy the file sales.txt from the local file system into organization folder in HDFS file system.

1. **CopyToLocal directory from HDFS**

**a) Command :-** hadoop fs -copyToLocal /organization/first.txt localfirst.txt

**Function** :- Will copy the file first.txt from HDFS into the current local file system with the name localfirst.txt

1. **Putting file on HDFS**

**a) Command :-** hadoop fs -put employee.txt /organization/employee.txt

**Function** :- Similar to copyFromLocal **.**Will copy the file employee.txt from local file system into HDFS.

1. **Getting file from HDFS**

**a) Command :-** hadoop fs -get /organization/first.txt first.txt

**Function** :- Similar to copyToLocal Will copy the file first.txt from HDFS to local file system.

1. **Display size of files**

**a) Command :-** hadoop fs -du /organization/\*

**Function** :- Will display the size of files.

1. **Change group of file/directory**

**a) Command :-** hadoop fs -chgrp -R hortonworks /organization/

**Function** :- Will change the group from super group to hortonworks (or any such super group on hdfs).

1. **Change permissions of file/directory**

**a) Command :-** hadoop fs -chmod -R 777 /organization/

**Function** :- This command changes the permission of files. In this example, read, write & execute permission is provided.