Exp -3

Here is a comprehensive guide for performing file management tasks using basic HDFS and Linux commands:

**(i) Creating a directory in HDFS**

To create a directory in HDFS, use the hadoop fs -mkdir command:

hadoop fs -mkdir /user/hdfs/new\_directory

This command creates a directory named new\_directory under /user/hdfs/.

**(ii) Moving forth and back to directories**

To navigate between directories in the terminal, use the following commands:

* To move to a directory:

cd /path/to/directory

* To go back to the previous directory:

cd ..

**(iii) Listing directory contents**

To list the contents of a directory, use:

hadoop fs -ls /user/hdfs/

This command lists the files and directories in the specified path of HDFS.

For local directories:

ls /path/to/local/directory

**(iv) Uploading and downloading a file in HDFS**

* To upload a file from the local filesystem to HDFS:

hadoop fs -put /local/path/to/file /hdfs/destination/path

* To download a file from HDFS to the local filesystem:

hadoop fs -get /hdfs/path/to/file /local/destination/path

**(v) Checking the contents of the file**

To check the contents of a file in HDFS, use:

hadoop fs -cat /path/to/hdfs/file

For local files, you can use:

cat /local/path/to/file

**(vi) Copying and moving files**

* To copy files within HDFS:

hadoop fs -cp /path/to/source /path/to/destination

* To move files within HDFS:

hadoop fs -mv /path/to/source /path/to/destination

**(vii) Copying and moving files between local to HDFS environment**

* To copy a file from the local system to HDFS:

hadoop fs -copyFromLocal /local/path/to/file /hdfs/path/to/destination

* To copy a file from HDFS to the local system:

hadoop fs -copyToLocal /hdfs/path/to/file /local/path/to/destination

* To move files from local to HDFS:

hadoop fs -moveFromLocal /local/path/to/file /hdfs/destination/path

**(viii) Removing files and paths**

* To remove a file in HDFS:

hadoop fs -rm /path/to/hdfs/file

* To remove a directory in HDFS (and its contents):

hadoop fs -rm -r /path/to/hdfs/directory

For local files:

rm /local/path/to/file

**(ix) Displaying few lines of a file**

To display the first few lines of a file in HDFS, use:

hadoop fs -head /path/to/hdfs/file

For local files:

head /local/path/to/file

**(x) Display the aggregate length of a file**

To get the length of a file in HDFS, use:

hadoop fs -du -s /path/to/hdfs/file

For local files, you can use:

du -sh /local/path/to/file

**(xi) Checking the permissions of a file**

To check the permissions of a file or directory in HDFS:

hadoop fs -ls /path/to/hdfs/file

For local files:

ls -l /local/path/to/file

**(xii) Zipping and unzipping the files with & without permission pasting it to a location**

* To zip a file:

zip filename.zip /path/to/file

* To unzip a file:

unzip filename.zip

To preserve permissions when copying or zipping/unzipping:

* When copying in Linux:

cp -p /path/to/file /destination/path

* For HDFS operations, use hadoop fs -copyFromLocal or hadoop fs -put which preserve file attributes during the transfer.

**(xiii) Copy, Paste commands**

* **Copy** (for local files):

cp /path/to/source /path/to/destination

* **Paste** (just move the file or copy to a new location):

mv /path/to/source /path/to/destination

These are the basic commands and their usage to manage files and directories in both HDFS and the local environment.