

Hadoop HDFS Command Cheatsheet



List Files

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| <code>hdfs dfs -ls /</code> | List all the files/directories for the given hdfs destination path. |
| <code>hdfs dfs -ls -d /hadoop</code> | <u>Directories</u> are listed as plain files. In this case, this command will list the details of hadoop folder. |
| <code>hdfs dfs -ls -h /data</code> | Format file sizes in a <u>human-readable fashion</u> (eg 64.0m instead of 67108864). |
| <code>hdfs dfs -ls -R /hadoop</code> | Recursively list all files in hadoop directory and all subdirectories in hadoop directory. |
| <code>hdfs dfs -ls /hadoop/dat*</code> | List all the files matching the pattern. In this case, it will list all the files inside hadoop directory which starts with 'dat'. |

Read/Write Files

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| <code>hdfs dfs -text /hadoop/derby.log</code> | HDFS Command that takes a source file and outputs the file in text format on the terminal. The allowed formats are zip and TextRecordInputStream. |
| <code>hdfs dfs -cat /hadoop/test</code> | This command will display the content of the HDFS file test on your stdout . |
| <code>hdfs dfs -appendToFile /home/ubuntu/test1 /hadoop/text2</code> | Appends the content of a <u>local file test1</u> to a <u>hdfs file test2</u> . |

Upload/Download Files

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| <code>hdfs dfs -put /home/ubuntu/sample /hadoop</code> | Copies the file from local file system to HDFS. |
| <code>hdfs dfs -put -f /home/ubuntu/sample /hadoop</code> | Copies the file from local file system to HDFS, and in case the local already exists in the given destination path, using -f option with put command will overwrite it. |
| <code>hdfs dfs -put -l /home/ubuntu/sample /hadoop</code> | Copies the file from local file system to HDFS. Allow DataNode to lazily persist the file to disk. Forces replication factor of 1. |
| <code>hdfs dfs -put -p /home/ubuntu/sample /hadoop</code> | Copies the file from local file system to HDFS. Passing -p preserves access and modification times, ownership and the mode. |
| <code>hdfs dfs -get /newfile /home/ubuntu/</code> | Copies the file from HDFS to local file system. |
| <code>hdfs dfs -get -p /newfile /home/ubuntu/</code> | Copies the file from HDFS to local file system. Passing -p preserves access and modification times, ownership and the mode. |
| <code>hdfs dfs -get /hadoop/*.txt /home/ubuntu/</code> | Copies all the files matching the pattern from local file system to HDFS. |
| <code>hdfs dfs -copyFromLocal /home/ubuntu/sample /hadoop</code> | Works similarly to the put command, except that the source is restricted to a local file reference. |
| <code>hdfs dfs -copyToLocal /newfile /home/ubuntu/</code> | Works similarly to the put command, except that the destination is restricted to a local file reference. |
| <code>hdfs dfs -moveFromLocal /home/ubuntu/sample /hadoop</code> | Works similarly to the put command, except that the source is deleted after it's copied. |

File Management

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| <code>hdfs dfs -cp /hadoop/file1 /hadoop1</code> | Copies file from source to destination on HDFS. In this case, copying file1 from hadoop directory to hadoop1 directory. |
| <code>hdfs dfs -cp -p /hadoop/file1 /hadoop1</code> | Copies file from source to destination on HDFS. Passing -p preserves access and modification times, ownership and the mode. |
| <code>hdfs dfs -cp -f /hadoop/file1 /hadoop1</code> | Copies file from source to destination on HDFS. Passing -f overwrites the destination if it already exists. |
| <code>hdfs dfs -mv /hadoop/file1 /hadoop1</code> | Move files that match the specified file pattern <src> to a destination <dst>. When moving multiple files, the destination must be a directory. |
| <code>hdfs dfs -rm /hadoop/file1</code> | Deletes the file (sends it to the trash). |

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| hdfs dfs -rm -r /hadoop hdfs dfs -rm -R /hadoop hdfs dfs -rmr /hadoop | Deletes the directory and any content under it recursively. |
| hdfs dfs -rm -skipTrash /hadoop | The -skipTrash option will bypass trash, if enabled, and delete the specified file(s) immediately. |
| hdfs dfs -rm -f /hadoop | If the file does not exist, do not display a diagnostic message or modify the exit status to reflect an error. |
| hdfs dfs -rmdir /hadoop1 | Delete a directory. |
| hdfs dfs -mkdir /hadoop2 | Create a directory in specified HDFS location. |
| hdfs dfs -mkdir -f /hadoop2 | Create a directory in specified HDFS location. This command does not fail even if the directory already exists. |
| hdfs dfs -touchz /hadoop3 | Creates a file of zero length at <path> with current time as the timestamp of that <path>. |

| Ownership and Validation | |
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| hdfs dfs -checksum /hadoop/file1 | Dump checksum information for files that match the file pattern <src> to stdout. |
| hdfs dfs -chmod 755 /hadoop/file1 | Changes permissions of the file. |
| hdfs dfs -chmod -R 755 /hadoop | Changes permissions of the files recursively. |
| hdfs dfs -chown ubuntu:ubuntu /hadoop | Changes owner of the file. 1st ubuntu in the command is owner and 2nd one is group. |
| hdfs dfs -chown -R ubuntu:ubuntu /hadoop | Changes owner of the files recursively. |
| hdfs dfs -chgrp ubuntu /hadoop | Changes group association of the file. |
| hdfs dfs -chgrp -R ubuntu /hadoop | Changes group association of the files recursively. |
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| Filesystem | |
| hdfs dfs -df /hadoop | Shows the capacity, free and used space of the filesystem. |
| hdfs dfs -df -h /hadoop | Shows the capacity, free and used space of the filesystem. -h parameter Formats the sizes of files in a human-readable fashion. |
| hdfs dfs -du /hadoop/file | Show the amount of space, in bytes, used by the files that match the specified file pattern. |
| hdfs dfs -du -s /hadoop/file | Rather than showing the size of each individual file that matches the pattern, shows the total (summary) size. |
| hdfs dfs -du -h /hadoop/file | Show the amount of space, in bytes, used by the files that match the specified file pattern. Formats the sizes of files in a human-readable fashion. |
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| Administration | |
| hdfs balancer -threshold 30 | Runs a cluster balancing utility. Percentage of disk capacity. This overwrites the default threshold. |
| hadoop version | To check the version of Hadoop. |
| hdfs fsck / | It checks the health of the Hadoop file system. |
| hdfs dfsadmin -safemode leave | The command to turn off the safemode of NameNode. |
| hdfs dfsadmin -refreshNodes | Re-read the hosts and exclude files to update the set of Datanodes that are allowed to connect to the Namenode and those that should be decommissioned or recommissioned. |
| hdfs namenode -format | Formats the NameNode. |