

```
root@localhost:~  
File Edit View Search Terminal Help  
[training@localhost ~]$ ls  
13dec derby.log eclipse pig_1406462634650.log workspace  
14dec Desktop employees.csv Public  
bk.txt Documents hive src  
data Downloads Pictures udacity_training  
[training@localhost ~]$ sudo su  
[root@localhost training]# hdfs dfs -ls /  
Found 4 items  
drwxr-xr-x 0 2023-12-20 02:20 /hbase  
drwxrwxrwt 0 2023-12-20 02:44 /tmp  
drwxrwxrwx 0 2023-12-19 00:57 /user  
drwxr-xr-x 0 2014-07-27 09:23 /var  
[root@localhost training]# hdfs dfs -mkdir /sample  
[root@localhost training]# hdfs dfs -ls /  
Found 5 items  
drwxr-xr-x 0 2023-12-20 02:20 /hbase  
drwxr-xr-x 0 2024-01-02 14:12 /sample  
drwxrwxrwt 0 2023-12-20 02:44 /tmp  
drwxrwxrwx 0 2023-12-19 00:57 /user  
drwxr-xr-x 0 2014-07-27 09:23 /var  
[root@localhost training]# cd ~  
[root@localhost ~]# ls  
[root@localhost ~]# cd Desktop/  
bash: cd: Desktop/: No such file or directory  
[root@localhost ~]# ls  
[root@localhost ~]# vi sampledata.txt  
[root@localhost ~]# ls  
sampledata.txt  
[root@localhost ~]# pwd
```

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root@localhost:~  
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[root@localhost ~]# ls  
[root@localhost ~]# vi sampledata.txt  
[root@localhost ~]# ls  
sampledata.txt  
[root@localhost ~]# pwd  
/root  
[root@localhost ~]# cat sampledata.txt  
[root@localhost ~]# vi sampledata.txt  
[root@localhost ~]# cat sampledata.txt  
  
Hello ,I am Balaji.  
  
[root@localhost ~]# hdfs dfs -pt sample.data.txt/sample/  
-pt: Unknown command  
[root@localhost ~]# hdfs dfs -put sample.data.txt/sample/  
put: 'sample.data.txt/sample': No such file or directory  
[root@localhost ~]# hdfs dfs -put sample.data.txt /sample/  
put: 'sample.data.txt': No such file or directory  
[root@localhost ~]# hdfs dfs -put sampledata.txt /sample/  
[root@localhost ~]# hdfs dfs -ls /  
Found 5 items  
drwxr-xr-x 0 2023-12-20 02:20 /hbase  
drwxr-xr-x 0 2024-01-02 14:21 /sample  
drwxrwxrwt 0 2023-12-20 02:44 /tmp  
drwxrwxrwx 0 2023-12-19 00:57 /user  
drwxr-xr-x 0 2014-07-27 09:23 /var  
[root@localhost ~]# hdfs dfs -ls /sample  
Found 1 items  
-rw-r--r-- 1 root supergroup 22 2024-01-02 14:21 /sample/sampledata.txt
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drwxrwxrwx - hue supergroup 0 2023-12-19 00:57 /user
drwxr-xr-x - hdfs supergroup 0 2014-07-27 09:23 /var
[root@localhost ~]# hdfs dfs -ls /sample
Found 1 items
-rw-r--r-- 1 root supergroup 22 2024-01-02 14:21 /sample/sampledata.txt
[root@localhost ~]# hdfs fck - /
Exception in thread "main" java.lang.NoClassDefFoundError: fck
Caused by: java.lang.ClassNotFoundException: fck
    at java.net.URLClassLoader$1.run(URLClassLoader.java:202)
    at java.security.AccessController.doPrivileged(Native Method)
    at java.net.URLClassLoader.findClass(URLClassLoader.java:190)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:306)
    at sun.misc.Launcher$AppClassLoader.loadClass(Launcher.java:301)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:247)
Could not find the main class: fck. Program will exit.
[root@localhost ~]# hdfs fsck - /
Connecting to namenode via http://localhost:50070
FSCK started by root (auth:SIMPLE) from /127.0.0.1 for path / at Tue Jan 02 14:23:48 EST 2024
.....
/var/lib/hadoop-hdfs/cache/mapred/mapred/staging/training/.staging/job_201309052031_0005/job.jar: Under replicated BP-2100
.
/var/lib/hadoop-hdfs/cache/mapred/mapred/staging/training/.staging/job_201309111631_0002/job.jar: Under replicated BP-2100
.
Status: HEALTHY
Total size: 17228456 B
Total dirs: 92
Total files: 80
Total blocks (validated): 64 (avg. block size 269194 B)
Minimally replicated blocks: 64 (100.0 %)
Over-replicated blocks: 0 (0.0 %)
Over-replicated blocks: 0 (0.0 %)
```

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    at sun.misc.Launcher$AppClassLoader.loadClass(Launcher.java:301)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:247)
Could not find the main class: fck. Program will exit.
[root@localhost ~]# hdfs fsck - /
Connecting to namenode via http://localhost:50070
FSCK started by root (auth:SIMPLE) from /127.0.0.1 for path / at Tue Jan 02 14:23:48 EST 2024
.....
/var/lib/hadoop-hdfs/cache/mapred/mapred/staging/training/.staging/job_201309052031_0005/job.jar: Under replicated BP-2100
.
/var/lib/hadoop-hdfs/cache/mapred/mapred/staging/training/.staging/job_201309111631_0002/job.jar: Under replicated BP-2100
.
Status: HEALTHY
Total size: 17228456 B
Total dirs: 92
Total files: 80
Total blocks (validated): 64 (avg. block size 269194 B)
Minimally replicated blocks: 64 (100.0 %)
Over-replicated blocks: 0 (0.0 %)
Under-replicated blocks: 2 (3.125 %)
Mis-replicated blocks: 0 (0.0 %)
Default replication factor: 1
Average block replication: 1.0
Corrupt blocks: 0
Missing replicas: 18 (21.95122 %)
Number of data-nodes: 1
Number of racks: 1
FSCK ended at Tue Jan 02 14:23:48 EST 2024 in 37 milliseconds

The filesystem under path '/' is HEALTHY
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[root@localhost ~]# hdfs dfsadmin -report
Configured Capacity: 15118729216 (14.08 GB)
Present Capacity: 10511601697 (9.79 GB)
DFS Remaining: 10493542400 (9.77 GB)
DFS Used: 18059297 (17.22 MB)
DFS Used%: 0.17%
Under replicated blocks: 2
Blocks with corrupt replicas: 0
Missing blocks: 0

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Datanodes available: 1 (1 total, 0 dead)

Live datanodes:
Name: 127.0.0.1:50010 (localhost.localdomain)
Hostname: localhost.localdomain
Decommission Status : Normal
Configured Capacity: 15118729216 (14.08 GB)
DFS Used: 18059297 (17.22 MB)
Non DFS Used: 4607127519 (4.29 GB)
DFS Remaining: 10493542400 (9.77 GB)
DFS Used%: 0.12%
DFS Remaining%: 69.41%
Last contact: Tue Jan 02 14:24:39 EST 2024

[root@localhost ~]# hdfs fsck /sample
Connecting to namenode via http://localhost:50070
FSCK started by root (auth:SIMPLE) from /127.0.0.1 for path /sample at Tue Jan 02 14:26:22 EST 2024
```

```
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[root@localhost ~]# hdfs fsck /sample
Connecting to namenode via http://localhost:50070
FSCK started by root (auth:SIMPLE) from /127.0.0.1 for path /sample at Tue Jan 02 14:26:22 EST 2024
.STATUS: HEALTHY
Total size: 22 B
Total dirs: 1
Total files: 1
Total blocks (validated): 1 (avg. block size 22 B)
Minimally replicated blocks: 1 (100.0 %)
Over-replicated blocks: 0 (0.0 %)
Under-replicated blocks: 0 (0.0 %)
Mis-replicated blocks: 0 (0.0 %)
Default replication factor: 1
Average block replication: 1.0
Corrupt blocks: 0
Missing replicas: 0 (0.0 %)
Number of data-nodes: 1
Number of racks: 1
FSCK ended at Tue Jan 02 14:26:22 EST 2024 in 8 milliseconds

The filesystem under path '/sample' is HEALTHY
[root@localhost ~]# hdfs dfsadmin -safemode enter
Safe mode is ON
[root@localhost ~]# hadoop fs -df hdfs:/
Filesystem      Size      Used    Available  Use%
hdfs://localhost:8020 15118729216 18059297 10493538304 0%
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Safe mode is ON
[root@localhost ~]# hadoop fs -df hdfs:/
Filesystem              Size          Used    Available  Use%
hdfs://localhost:8020  15118729216  18059297  10493538304    0%
[root@localhost ~]# hadoop fs -count hdfs:/
          92          80      17228456 hdfs:///
[root@localhost ~]# hdfs balancer
24/01/02 14:28:43 INFO balancer.Balancer: namenodes = [hdfs://localhost:8020]
24/01/02 14:28:43 INFO balancer.Balancer: p = Balancer.Parameters[BalancingPolicy.Node, threshold=10.0]
Time Stamp          Iteration#  Bytes Already Moved  Bytes Left To Move  Bytes Being Moved
org.apache.hadoop.ipc.RemoteException(org.apache.hadoop.hdfs.server.namenode.SafeModeException): Cannot create file/system/
Use "hdfs dfsadmin -safemode leave" to turn safe mode off.
    at org.apache.hadoop.hdfs.server.namenode.FSNamesystem.startFileInternal(FSNamesystem.java:1736)
    at org.apache.hadoop.hdfs.server.namenode.FSNamesystem.startFileInt(FSNamesystem.java:1690)
    at org.apache.hadoop.hdfs.server.namenode.FSNamesystem.startFile(FSNamesystem.java:1669)
    at org.apache.hadoop.hdfs.server.namenode.NameNodeRpcServer.create(NameNodeRpcServer.java:409)
    at org.apache.hadoop.hdfs.protocolPB.ClientNameNodeProtocolServerSideTranslatorPB.create(ClientNameNodeProtocolServ
    at org.apache.hadoop.hdfs.protocol.proto.ClientNameNodeProtocolProtos$ClientNameNodeProtocol$2.callBlockingMethod(C
    at org.apache.hadoop.ipc.ProtobufRpcEngine$Server$ProtoBufRpcInvoker.call(ProtobufRpcEngine.java:453)
    at org.apache.hadoop.ipc.RPC$Server.call(RPC.java:898)
    at org.apache.hadoop.ipc.Server$Handler$1.run(Server.java:1693)
    at org.apache.hadoop.ipc.Server$Handler$1.run(Server.java:1689)
    at java.security.AccessController.doPrivileged(Native Method)
    at javax.security.auth.Subject.doAs(Subject.java:396)
    at org.apache.hadoop.security.UserGroupInformation.doAs(UserGroupInformation.java:1332)
    at org.apache.hadoop.ipc.Server$Handler.run(Server.java:1687)
. Exiting ...
Balancing took 1.472 seconds
[root@localhost ~]# hadoop fs -mkdir /twit
```

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. Exiting ...
Balancing took 1.472 seconds
[root@localhost ~]# hadoop fs -mkdir /twit
mkdir: Cannot create directory /twit. Name node is in safe mode.
[root@localhost ~]# hdfs dfsadmin -safemode get
Safe mode is ON
[root@localhost ~]# hdfs dfsadmin -safemode leave
Safe mode is OFF
[root@localhost ~]# hadoop fs -mkdir /twit
[root@localhost ~]# cd /root/Desktop/
bash: cd: /root/Desktop/: No such file or directory
[root@localhost ~]# cd root
bash: cd: root: No such file or directory
[root@localhost ~]# ls
sampledata.txt
[root@localhost ~]# sudo su
[root@localhost ~]# ls
sampledata.txt
[root@localhost ~]# cd usr
bash: cd: usr: No such file or directory
[root@localhost ~]# cd /
[root@localhost /]# ls
bin boot data dev etc home lib logs lost+found media mnt opt proc root sbin selinux srv sys tmp usr var
[root@localhost /]# cd /root/Desktop/
bash: cd: /root/Desktop/: No such file or directory
[root@localhost /]# cd root
[root@localhost ~]# ls
sampledata.txt
[root@localhost ~]#
```