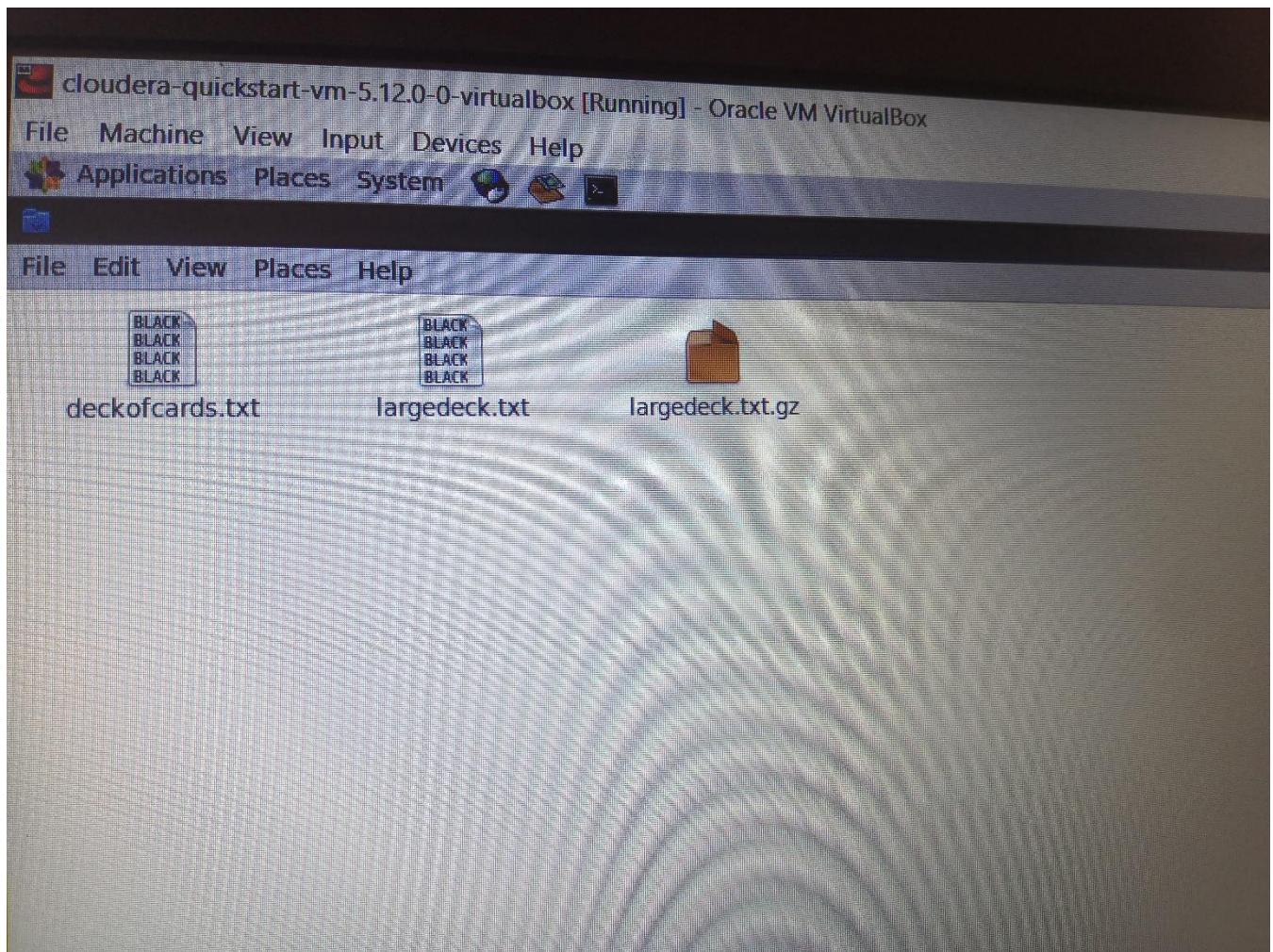


## HDFS TASK 1:

```
cloudera-quickstart-vm-5.12.0-0-virtualbox [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places System
Wed Jun 2, 9:47 PM cloudera
cloudera@quickstart:~$ hdfs --config confdir COMMAND
Usage: hdfs [--config confdir] COMMAND
where COMMAND is one of:
  dfs          run a filesystem command on the file systems supported in Hadoop.
  namenode     format the DFS filesystem
  secondarynamenode   run the DFS secondary namenode
  namenode     run the DFS namenode
  journalnode  run the ZK Failover Controller daemon
  zkfc         run a DFS datanode
  datanode     run a DFS admin client
  diskbalancer Distributes data evenly among disks on a given node
  haadmin      run a DFS HA admin client
  fsck         run a DFS filesystem checking utility
  balancer    run a cluster balancing utility
  jmxget      get JMX exported values from NameNode or DataNode.
  mover        run a utility to move block replicas across
               storage types
  oiv          apply the offline fsimage viewer to an fsimage
  oiv legacy   apply the offline fsimage viewer to an legacy fsimage
  oev          apply the offline edits viewer to an edits file
  fetchdt     fetch a delegation token from the NameNode
  getconf      get config values from configuration
  groups       get the groups which users belong to
  snapshotDiff diff two snapshots of a directory or diff the
               current directory contents with a snapshot
  lsSnapshottableDir list all snapshottable dirs owned by the current user
                      Use -help to see #options
  portmap      run a portmap service
  nfs3         run an NFS version 3 gateway
  cacheadmin   configure the HDFS cache
  crypto       configure HDFS encryption zones
  storagepolicies list/get/set block storage policies
  version      print the version
Most commands print help when invoked w/o parameters.
[cloudera@quickstart:~]$
```

1.

```
cloudera@quickstart-vm:~$ hdfs dfs -ls /
Found 6 items
drwxrwxrwx  -  hdfs  supergroup  0 2017-07-19 05:34 /benchmarks
drwxr-xr-x  -  hbase supergroup  0 2021-05-02 21:33 /hbase
drwxr-xr-x  -  solr  supergroup  0 2017-07-19 05:37 /solr
drwxrwxrwt  -  hdfs  supergroup  0 2021-05-25 06:04 /tmp
drwxr-xr-x  -  hdfs  supergroup  0 2021-05-28 03:28 /user
drwxr-xr-x  -  hdfs  supergroup  0 2017-07-19 05:36 /var
[cloudera@quickstart ~]$ hdfs dfs -ls /user
Found 9 items
drwxr-xr-X  cloudera  cloudera  0 2021-05-28 03:25 /user/cloudera
drwxr-xr-X  mapred    hadoop   0 2017-07-19 05:34 /user/history
drwxrwxrwx  hive      supergroup 0 2017-07-19 05:36 /user/hive
drwxrwxrwx  hue       supergroup 0 2017-07-19 05:35 /user/hue
drwxrwxrwx  jenkins   supergroup 0 2017-07-19 05:35 /user/jenkins
drwxr-xr-X  cloudera  supergroup 0 2021-05-28 04:14 /user/mydir
drwxrwxrwx  oozie     supergroup 0 2017-07-19 05:35 /user/oozie
drwxrwxrwx  root      supergroup 0 2017-07-19 05:35 /user/root
drwxr-xr-X  hdfs     supergroup 0 2017-07-19 05:36 /user/spark
[cloudera@quickstart ~]$ hdfs dfs -mkdir /user/exercise1
[cloudera@quickstart ~]$ hdfs dfs -ls /user
Found 10 items
drwxr-xr-X  cloudera  cloudera  0 2021-05-28 03:25 /user/cloudera
drwxr-xr-X  cloudera  supergroup 0 2021-06-02 21:52 /user/exercise1
drwxr-xr-X  mapred    hadoop   0 2017-07-19 05:34 /user/history
drwxrwxrwx  hive      supergroup 0 2017-07-19 05:36 /user/hive
drwxrwxrwx  hue       supergroup 0 2017-07-19 05:35 /user/hue
drwxrwxrwx  jenkins   supergroup 0 2017-07-19 05:35 /user/jenkins
drwxr-xr-X  cloudera  supergroup 0 2021-05-28 04:14 /user/mydir
drwxrwxrwx  oozie     supergroup 0 2017-07-19 05:35 /user/oozie
drwxrwxrwx  root      supergroup 0 2017-07-19 05:35 /user/root
drwxr-xr-X  hdfs     supergroup 0 2017-07-19 05:36 /user/spark
[cloudera@quickstart ~]$
```



```
drwxrwxrwx - hive    supergroup          0 2017-07-19 05:36 /user/hive
drwxrwxrwx - hue     supergroup          0 2017-07-19 05:35 /user/hue
drwxrwxrwx - jenkins supergroup          0 2017-07-19 05:35 /user/jenkins
drwxr-xr-x - cloudera supergroup        0 2021-05-28 04:14 /user/mydir
drwxrwxrwx - oozie   supergroup          0 2017-07-19 05:35 /user/oozie
drwxrwxrwx - root    supergroup          0 2017-07-19 05:35 /user/root
drwxr-xr-x - hdfs   supergroup          0 2017-07-19 05:36 /user/spark
[cloudera@quickstart ~]$ hdfs dfs -mkdir /user/exercise1
[cloudera@quickstart ~]$ hdfs dfs -ls /user
Found 10 items
drwxr-xr-x - cloudera cloudera          0 2021-05-28 03:25 /user/cloudera
drwxr-xr-x - cloudera supergroup         0 2021-06-02 21:52 /user/exercise1
drwxr-xr-x - mapred   hadoop            0 2017-07-19 05:34 /user/history
drwxrwxrwx - hive    supergroup          0 2017-07-19 05:36 /user/hive
drwxrwxrwx - hue     supergroup          0 2017-07-19 05:35 /user/hue
drwxrwxrwx - jenkins supergroup          0 2017-07-19 05:35 /user/jenkins
drwxr-xr-x - cloudera supergroup         0 2021-05-28 04:14 /user/mydir
drwxrwxrwx - oozie   supergroup          0 2017-07-19 05:35 /user/oozie
drwxrwxrwx - root    supergroup          0 2017-07-19 05:35 /user/root
drwxr-xr-x - hdfs   supergroup          0 2017-07-19 05:36 /user/spark
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise1
[cloudera@quickstart ~]$ hdfs dfs -put /home/cloudera/Downloads/deckofcards.txt /user/exercise1
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise1
Found 1 items
-rw-r--r--  1 cloudera supergroup      693 2021-06-02 22:11 /user/exercise1/deckofcards.txt
[cloudera@quickstart ~]$
```

deckofcards.txt Prope...

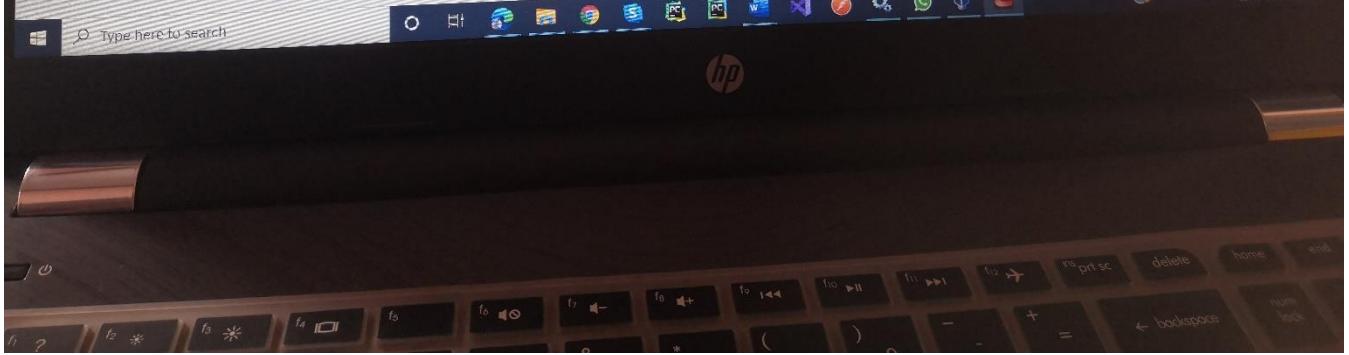
```
Jun 2, 20:24 PM cloudera
cloudera@quickstart:~
```

```
File Edit View Search Terminal Help
drwxrwxrwx - jenkins supergroup 0 2017-07-19 05:35 /user/jenkins
drwxr-xr-x - cloudera supergroup 0 2021-05-28 04:14 /user/mydir
drwxrwxrwx - pozie supergroup 0 2017-07-19 05:35 /user/pozie
drwxrwxrwx - root supergroup 0 2017-07-19 05:35 /user/root
drwxr-xr-x - hdfs supergroup 0 2017-07-19 05:36 /user/spark
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise1
[cloudera@quickstart ~]$ hdfs dfs -put /home/cloudera/Downloads/deckofcards.txt /user/exercise1
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise1
Found 1 items
-rw-r--r-- 1 cloudera supergroup 693 2021-06-02 22:11 /user/exercise1/deckofcards.txt
[cloudera@quickstart ~]$ hdfs dfs -cat /user/exercise1/deckofcards.txt
BLACK|SPADE|2
BLACK|SPADE|3
BLACK|SPADE|4
BLACK|SPADE|5
BLACK|SPADE|6
BLACK|SPADE|7
BLACK|SPADE|8
BLACK|SPADE|9
BLACK|SPADE|10
BLACK|SPADE|J
BLACK|SPADE|Q
BLACK|SPADE|K
BLACK|SPADE|A
BLACK|CLUB|2
BLACK|CLUB|3
BLACK|CLUB|4
BLACK|CLUB|5
BLACK|CLUB|6
BLACK|CLUB|7
BLACK|CLUB|8
BLACK|CLUB|9
BLACK|CLUB|10
BLACK|CLUB|J
BLACK|CLUB|Q
BLACK|CLUB|K
BLACK|CLUB|A
RED|DIAMOND|2
RED|DIAMOND|3
RED|DIAMOND|4
RED|DIAMOND|5
RED|DIAMOND|6
RED|DIAMOND|7
RED|DIAMOND|8
RED|DIAMOND|9
RED|DIAMOND|10
RED|DIAMOND|J
RED|DIAMOND|Q
RED|DIAMOND|K
```

deckofcards.txt

```
RED [DIAMOND] 6
RED [DIAMOND] 7
RED [DIAMOND] 8
RED [DIAMOND] 9
RED [DIAMOND] 10
RED [DIAMOND] J
RED [DIAMOND] Q
RED [DIAMOND] K
RED [DIAMOND] A
RED [HEART] 2
RED [HEART] 3
RED [HEART] 4
RED [HEART] 5
RED [HEART] 6
RED [HEART] 7
RED [HEART] 8
RED [HEART] 9
RED [HEART] 10
RED [HEART] J
RED [HEART] Q
RED [HEART] K
RED [HEART] A
[cloudera@quickstart ~]$ hdfs dfs -cat /user/exercise1/deckofcards.txt | head -25
BLACK [SPADE] 2
BLACK [SPADE] 3
BLACK [SPADE] 4
BLACK [SPADE] 5
BLACK [SPADE] 6
BLACK [SPADE] 7
BLACK [SPADE] 8
BLACK [SPADE] 9
BLACK [SPADE] 10
BLACK [SPADE] J
BLACK [SPADE] Q
BLACK [SPADE] K
BLACK [SPADE] A
BLACK [CLUB] 2
BLACK [CLUB] 3
BLACK [CLUB] 4
BLACK [CLUB] 5
BLACK [CLUB] 6
BLACK [CLUB] 7
BLACK [CLUB] 8
BLACK [CLUB] 9
BLACK [CLUB] 10
BLACK [CLUB] J
BLACK [CLUB] Q
BLACK [CLUB] K
BLACK [CLUB] A
[cloudera@quickstart ~]$
```

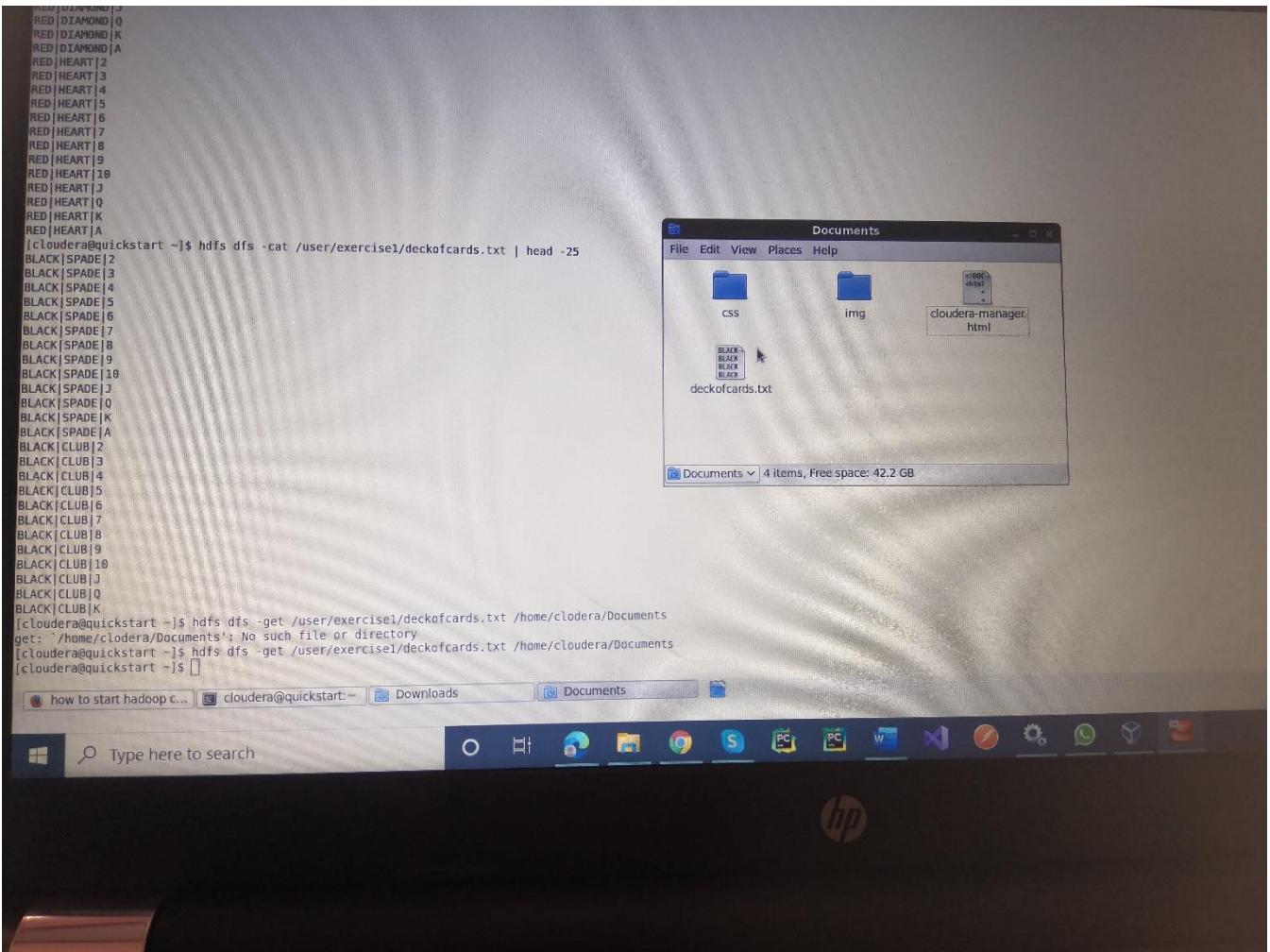
how-to-start-hadoop.c... cloudera@quickstart:~ Downloads



```
File Edit View Search Terminal Help
2013-08-02, 10:17 PM cloudera
cloudera@quickstart:~
```

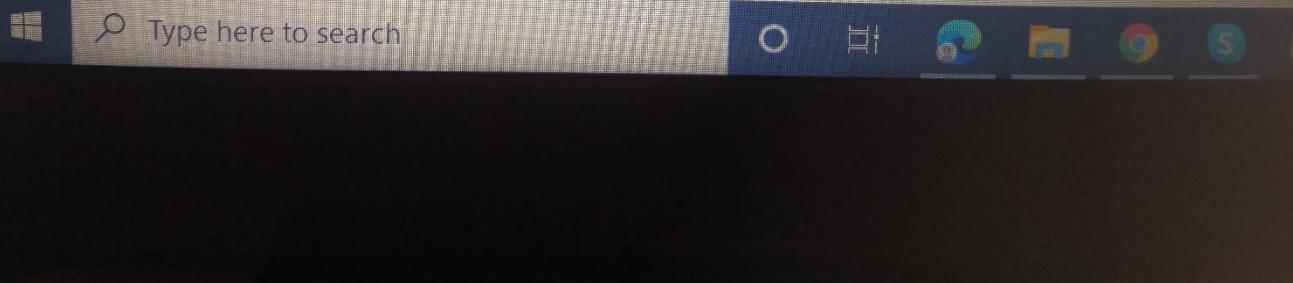
```
RED|DIAMOND|6
RED|DIAMOND|7
RED|DIAMOND|8
RED|DIAMOND|9
RED|DIAMOND|10
RED|DIAMOND|J
RED|DIAMOND|Q
RED|DIAMOND|K
RED|DIAMOND|A
RED|HEART|2
RED|HEART|3
RED|HEART|4
RED|HEART|5
RED|HEART|6
RED|HEART|7
RED|HEART|8
RED|HEART|9
RED|HEART|10
RED|HEART|J
RED|HEART|Q
RED|HEART|K
RED|HEART|A
[cloudera@quickstart ~]$ hdfs dfs -cat /user/exercise1/deckofcards.txt | head -25
BLACK|SPADE|2
BLACK|SPADE|3
BLACK|SPADE|4
BLACK|SPADE|5
BLACK|SPADE|6
BLACK|SPADE|7
BLACK|SPADE|8
BLACK|SPADE|9
BLACK|SPADE|10
BLACK|SPADE|J
BLACK|SPADE|Q
BLACK|SPADE|K
BLACK|SPADE|A
BLACK|CLUB|2
BLACK|CLUB|3
BLACK|CLUB|4
BLACK|CLUB|5
BLACK|CLUB|6
BLACK|CLUB|7
BLACK|CLUB|8
BLACK|CLUB|9
BLACK|CLUB|10
BLACK|CLUB|J
BLACK|CLUB|Q
BLACK|CLUB|K
[cloudera@quickstart ~]$
```

The screenshot shows a Windows desktop environment. In the center is a terminal window titled 'Terminal' with the command 'hdfs dfs -cat /user/exercise1/deckofcards.txt | head -25'. The output of this command is displayed, listing 25 cards from a standard 52-card deck. The cards are grouped by suit: RED (Diamonds) and BLACK (Spades and Clubs). The terminal window has a dark blue background and white text. At the bottom of the screen is a taskbar with several icons, including the Start button, a search bar, and pinned applications like File Explorer, Google Chrome, and Microsoft Word.



```
BLACK|CLUB|5
BLACK|CLUB|4
BLACK|CLUB|5
BLACK|CLUB|6
BLACK|CLUB|7
BLACK|CLUB|8
BLACK|CLUB|9
BLACK|CLUB|10
BLACK|CLUB|J
BLACK|CLUB|Q
BLACK|CLUB|K
[cloudera@quickstart ~]$ hdfs dfs -get /user/exercise1/deckofcards.txt /home/cloudera/Documents
get: `/home/cloudera/Documents': No such file or directory
[cloudera@quickstart ~]$ hdfs dfs -get /user/exercise1/deckofcards.txt /home/cloudera/Documents
[cloudera@quickstart ~]$ hdfs dfs -mkdir /user/exercise12
[cloudera@quickstart ~]$ hdfs dfs -cp /user/exercise1/deckofcards.txt /user/exercise12
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise1
Found 1 items
-rw-r--r-- 1 cloudera supergroup      693 2021-06-02 22:11 /user/exercise1/deckofcards.txt
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise12
Found 1 items
-rw-r--r-- 1 cloudera supergroup      693 2021-06-02 22:37 /user/exercise12/deckofcards.txt
[cloudera@quickstart ~]$
```

how to start hadoop c... cloudera@quickstart:~ Downloads [Documents] ■



```
BLACK|CLUB|2
BLACK|CLUB|3
BLACK|CLUB|4
BLACK|CLUB|5
BLACK|CLUB|6
BLACK|CLUB|7
BLACK|CLUB|8
BLACK|CLUB|9
BLACK|CLUB|10
BLACK|CLUB|J
BLACK|CLUB|Q
BLACK|CLUB|K
[cloudera@quickstart ~]$ hdfs dfs -get /user/exercise1/deckofcards.txt /home/cloudera/Documents
get: '/home/cloudera/Documents': No such file or directory
[cloudera@quickstart ~]$ hdfs dfs -get /user/exercise1/deckofcards.txt /home/cloudera/Documents
[cloudera@quickstart ~]$ hdfs dfs -mkdir /user/exercise12
[cloudera@quickstart ~]$ hdfs dfs -cp /user/exercise1/deckofcards.txt /user/exercise12
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise1
Found 1 items
-rw-r--r-- 1 cloudera supergroup      693 2021-06-02 22:11 /user/exercise1/deckofcards.txt
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise12
Found 1 items
-rw-r--r-- 1 cloudera supergroup      693 2021-06-02 22:37 /user/exercise12/deckofcards.txt
[cloudera@quickstart ~]$ hdfs dfs -cp /user/exercise1/deckofcards.txt /user/exercise1/deckofcardsCopy.txt
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise1
Found 2 items
-rw-r--r-- 1 cloudera supergroup      693 2021-06-02 22:11 /user/exercise1/deckofcards.txt
-rw-r--r-- 1 cloudera supergroup      693 2021-06-02 22:51 /user/exercise1/deckofcardsCopy.txt
[cloudera@quickstart ~]$
```

how to start hadoop c... cloudera@quickstart:~ Downloads [Documents]



Type here to search



Applications Places System

File Edit View Search Terminal Help

cloudera@quickstart:~

```
[cloudera@quickstart ~]$ hdfs dfs -cat /user/exercise1/deckofcards.txt | head -25
RED|HEART|Q
RED|HEART|K
RED|HEART|A
[cloudera@quickstart ~]$ hdfs dfs -cat /user/exercise1/deckofcards.txt | head -25
BLACK|SPADE|2
BLACK|SPADE|3
BLACK|SPADE|4
BLACK|SPADE|5
BLACK|SPADE|6
BLACK|SPADE|7
BLACK|SPADE|8
BLACK|SPADE|9
BLACK|SPADE|10
BLACK|SPADE|J
BLACK|SPADE|Q
BLACK|SPADE|K
BLACK|SPADE|A
BLACK|CLUB|2
BLACK|CLUB|3
BLACK|CLUB|4
BLACK|CLUB|5
BLACK|CLUB|6
BLACK|CLUB|7
BLACK|CLUB|8
BLACK|CLUB|9
BLACK|CLUB|10
BLACK|CLUB|J
BLACK|CLUB|Q
BLACK|CLUB|K
[cloudera@quickstart ~]$ hdfs dfs -get /user/exercise1/deckofcards.txt /home/cloudera/Documents
get: '/home/cloudera/Documents': No such file or directory
[cloudera@quickstart ~]$ hdfs dfs -get /user/exercise1/deckofcards.txt /home/cloudera/Document
[cloudera@quickstart ~]$ hdfs dfs -mkdir /user/exercise12
[cloudera@quickstart ~]$ hdfs dfs -cp /user/exercise1/deckofcards.txt /user/exercise12
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise1
Found 1 items
-rw-r--r-- 1 cloudera supergroup 693 2021-06-02 22:11 /user/exercise1/deckofcards.txt
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise12
Found 1 items
-rw-r--r-- 1 cloudera supergroup 693 2021-06-02 22:37 /user/exercise12/deckofcards.txt
[cloudera@quickstart ~]$ hdfs dfs -cp /user/exercise1/deckofcards.txt /user/exercise1/deckofcardsCopy.txt
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise1
Found 2 items
-rw-r--r-- 1 cloudera supergroup 693 2021-06-02 22:11 /user/exercise1/deckofcards.txt
-rw-r--r-- 1 cloudera supergroup 693 2021-06-02 22:51 /user/exercise1/deckofcardsCopy.txt
[cloudera@quickstart ~]$ hdfs dfs -cp /user/exercise1/deckofcards.txt /home/cloudera/Downloads/deckofcards.Copy.txt
cp: '/home/cloudera/Downloads/deckofcards.Copy.txt': No such file or directory
[cloudera@quickstart ~]$ hdfs dfs -get /user/exercise1/deckofcards.txt /home/cloudera/Downloads/deckofcards.Copy.txt
[cloudera@quickstart ~]$ ]
```

Downloads

File Edit View Places Help

deckofcards.Copy.txt deckofcards.txt largedeck.txt

largedeck.txt.gz

Downloads 4 items, Free space: 42.2 GB

how to start hadoop ... cloudera@quickstart:~ Downloads [Documents]

Type here to search



cloudera-quickstart-vm-5.12.0-0-virtualbox [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Applications Places System

Wed Jun 2, 11:03 PM cloudera  
cloudera@quickstart:~

```
[cloudera@quickstart ~]$ hdfs fsck /user/exercise1/deckofcards.txt -blocks
Connecting to namenode via http://quickstart.cloudera:50070/fsck?ugi=cloudera&blocks=1&path=%2Fuser%2Fexercise1%2Fdeckofcards.txt
FSCK started by cloudera (auth:SIMPLE) from /127.0.0.1 for path /user/exercise1/deckofcards.txt at Wed Jun 02 23:03:46 PDT 2021
.Status: HEALTHY
Total size: 693 B
Total dirs: 0
Total files: 1
Total symlinks: 0
Total blocks (validated): 1 (avg. block size 693 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 (0.0 %)
Missing replicas: 0
Number of data-nodes: 1
Number of racks: 1
FSCK ended at Wed Jun 02 23:03:46 PDT 2021 in 1 milliseconds

The filesystem under path '/user/exercise1/deckofcards.txt' is HEALTHY
[cloudera@quickstart ~]$
```

```
cloudera quickstart vm 5.12.0-0-virtualbox [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places System
Wed Jun 2, 11:13 PM cloudera
cloudera@quickstart:~$ File Edit View Search Terminal Help
[cloudera@quickstart ~]$ hdfs fsck /user/exercise1/deckofcards.txt -blocks
Connecting to namenode via http://quickstart.cloudera:50070/fsck?ugi=cloudera&blocks=1&path=%2Fuser%2Fexercise1%2Fdeckofcards.txt
FSCK started by cloudera (auth:SIMPLE) from /127.0.0.1 for path /user/exercise1/deckofcards.txt at Wed Jun 02 23:03:46 PDT 2021
.Status: HEALTHY
Total size: 693 B
Total dirs: 0
Total files: 1
Total symlinks: 0
Total blocks (validated): 1 (avg. block size 693 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 Wed Jun 02 23:03:46 PDT 2021 in 1 milliseconds

The filesystem under path '/user/exercise1/deckofcards.txt' is HEALTHY
[cloudera@quickstart ~]$ hdfs dfs -rm /user/exercise1/deckofcards.txt
Deleted /user/exercise1/deckofcards.txt
[cloudera@quickstart ~]$ hdfs dfs -ls /user/exercise1
Found 1 items
-rw-r--r-- 1 cloudera supergroup 693 2021-06-02 22:51 /user/exercise1/deckofcardsCopy.txt
[cloudera@quickstart ~]$
```