```
[cloudera@quickstart ~]$ mkdir bigdata
[cloudera@quickstart ~]$ hdfs dfs -put bigdata/
[cloudera@quickstart ~]$ hdfs dfs -ls
Found 22 items
             - cloudera cloudera
drwx----
                                          0 2022-01-12 01:17 .staging
drwxr-xr-x
             - cloudera cloudera
                                          0 2022-01-12 01:17 CHARACTER SETS
             - cloudera cloudera
drwxr-xr-x
                                          0 2020-05-23 23:09 avro json write
drwxr-xr-x
             - cloudera cloudera
                                          0 2022-01-20 03:15 bigdata
drwxr-xr-x
            - cloudera cloudera
                                          0 2020-05-22 22:15 csv_dir
                                         39 2022-01-20 02:50 example.txt
             1 cloudera cloudera
-rw-r--r--
drwxr-xr-x
             - cloudera cloudera
                                          0 2022-01-20 02:32 hdfs
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-06-04 08:36 import avro
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 22:56 json avro 1
             - cloudera cloudera
                                          0 2020-05-22 22:13 json dir
drwxr-xr-x
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 22:39 json orc
             - cloudera cloudera
                                          0 2020-05-23 22:56 json orc 1
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 22:38 json_parquet
drwxr-xr-x
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 22:56 json_parquet_1
             - cloudera cloudera
drwxr-xr-x
                                          0 2020-05-22 22:11 orc_dir
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-22 22:14 parquet dir
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 23:11 parquet json write
             - cloudera cloudera
                                          0 2020-05-22 13:40 part dir
drwxr-xr-x
            - cloudera cloudera
                                          0 2020-05-22 14:01 part dir2
drwxr-xr-x
-rw-r--r--
            1 cloudera cloudera
                                         37 2022-01-09 22:32 sample.txt
                                         49 2022-01-11 03:08 sample_kpi.csv
-rw-r--r--
             1 cloudera cloudera
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-06-04 09:04 zeyo_dir
[cloudera@quickstart ~]$ rm -r bigdata
rm: remove directory `bigdata'? y
[cloudera@quickstart ~]$ hdfs dfs -get /bigdata
get: `/bigdata': No such file or directory
[cloudera@quickstart ~]$ hdfs dfs -ls
Found 22 items
drwx----
             - cloudera cloudera
                                          0 2022-01-12 01:17 .staging
             - cloudera cloudera
drwxr-xr-x
                                          0 2022-01-12 01:17 CHARACTER SETS
             - cloudera cloudera
                                          0 2020-05-23 23:09 avro json write
drwxr-xr-x
             - cloudera cloudera
                                          0 2022-01-20 03:15 bigdata
drwxr-xr-x
drwxr-xr-x
            - cloudera cloudera
                                          0 2020-05-22 22:15 csv dir
-rw-r--r--
             1 cloudera cloudera
                                         39 2022-01-20 02:50 example.txt
drwxr-xr-x
             - cloudera cloudera
                                          0 2022-01-20 02:32 hdfs
                                          0 2020-06-04 08:36 import_avro
drwxr-xr-x
             - cloudera cloudera
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 22:56 json avro 1
             - cloudera cloudera
drwxr-xr-x
                                          0 2020-05-22 22:13 json_dir
             - cloudera cloudera
                                          0 2020-05-23 22:39 json orc
drwxr-xr-x
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 22:56 json_orc_1
             - cloudera cloudera
                                          0 2020-05-23 22:38 json_parquet
drwxr-xr-x
             - cloudera cloudera
drwxr-xr-x
                                          0 2020-05-23 22:56 json parquet 1
             - cloudera cloudera
                                          0 2020-05-22 22:11 orc_dir
drwxr-xr-x
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-22 22:14 parquet_dir
             - cloudera cloudera
drwxr-xr-x
                                          0 2020-05-23 23:11 parquet json write
             - cloudera cloudera
                                          0 2020-05-22 13:40 part_dir
drwxr-xr-x
```

```
- cloudera cloudera
                                          0 2020-05-22 14:01 part_dir2
drwxr-xr-x
             1 cloudera cloudera
                                         37 2022-01-09 22:32 sample.txt
-rw-r--r--
             1 cloudera cloudera
-rw-r--r--
                                         49 2022-01-11 03:08 sample_kpi.csv
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-06-04 09:04 zeyo dir
[cloudera@quickstart ~]$ vi practice.txt
[cloudera@quickstart ~]$ cat practice.txt
Hello Everyone Welcom to KPI PARTNERS
This is my first file in vmware
[cloudera@quickstart ~]$ hadoop fs -put practice.txt /user/cloudera
[cloudera@quickstart ~]$ hdfs dfs -ls /user/cloudera
Found 23 items
             - cloudera cloudera
drwx----
                                          0 2022-01-12 01:17
/user/cloudera/.staging
drwxr-xr-x
             - cloudera cloudera
                                          0 2022-01-12 01:17
/user/cloudera/CHARACTER SETS
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 23:09
/user/cloudera/avro_json_write
drwxr-xr-x
             - cloudera cloudera
                                          0 2022-01-20 03:15 /user/cloudera/bigdata
             - cloudera cloudera
                                          0 2020-05-22 22:15 /user/cloudera/csv_dir
drwxr-xr-x
                                         39 2022-01-20 02:50
-rw-r--r--
             1 cloudera cloudera
/user/cloudera/example.txt
             - cloudera cloudera
                                          0 2022-01-20 02:32 /user/cloudera/hdfs
drwxr-xr-x
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-06-04 08:36
/user/cloudera/import avro
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 22:56
/user/cloudera/json_avro_1
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-22 22:13
/user/cloudera/json_dir
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 22:39
/user/cloudera/json orc
             - cloudera cloudera
drwxr-xr-x
                                          0 2020-05-23 22:56
/user/cloudera/json orc 1
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 22:38
/user/cloudera/json parquet
             - cloudera cloudera
                                          0 2020-05-23 22:56
drwxr-xr-x
/user/cloudera/json_parquet_1
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-22 22:11 /user/cloudera/orc dir
                                          0 2020-05-22 22:14
drwxr-xr-x
             - cloudera cloudera
/user/cloudera/parquet_dir
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 23:11
/user/cloudera/parquet_json_write
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-22 13:40
/user/cloudera/part dir
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-22 14:01
/user/cloudera/part dir2
             1 cloudera cloudera
                                         70 2022-01-20 03:20
-rw-r--r--
/user/cloudera/practice.txt
-rw-r--r--
             1 cloudera cloudera
                                         37 2022-01-09 22:32
/user/cloudera/sample.txt
             1 cloudera cloudera
-rw-r--r--
                                         49 2022-01-11 03:08
```

```
/user/cloudera/sample_kpi.csv
             - cloudera cloudera
                                      0 2020-06-04 09:04
drwxr-xr-x
/user/cloudera/zeyo_dir
[cloudera@quickstart ~]$ hadoop jar
/usr/lib/hadoop-mapreduce/hadoop-map-reduce-examples.jar
Not a valid JAR: /usr/lib/hadoop-mapreduce/hadoop-map-reduce-examples.jar
[cloudera@quickstart ~]$ hadoop jar
/usr/lib/hadoop-mapreduce/hadoop-map-reduce-examples.jar
Not a valid JAR: /usr/lib/hadoop-mapreduce/hadoop-map-reduce-examples.jar
[cloudera@quickstart ~]$ hadoop jar
/usr/lib/hadoop-mapreduce/hadoop-mapreduce-examples.jar wordcount
/user/cloudera/practice.txt /user/cloudera/output
22/01/20 03:27:57 INFO client.RMProxy: Connecting to ResourceManager at
quickstart.cloudera/127.0.0.1:8032
22/01/20 03:27:57 WARN hdfs.DFSClient: Caught exception
java.lang.InterruptedException
        at java.lang.Object.wait(Native Method)
        at java.lang.Thread.join(Thread.java:1252)
        at java.lang.Thread.join(Thread.java:1326)
        at
org.apache.hadoop.hdfs.DFSOutputStream$DataStreamer.closeResponder(DFSOutputStream.
java:967)
        at
org.apache.hadoop.hdfs.DFSOutputStream$DataStreamer.endBlock(DFSOutputStream.java:7
05)
org.apache.hadoop.hdfs.DFSOutputStream$DataStreamer.run(DFSOutputStream.java:894)
22/01/20 03:27:57 INFO input.FileInputFormat: Total input paths to process : 1
22/01/20 03:27:57 WARN hdfs.DFSClient: Caught exception
java.lang.InterruptedException
        at java.lang.Object.wait(Native Method)
        at java.lang.Thread.join(Thread.java:1252)
        at java.lang.Thread.join(Thread.java:1326)
org.apache.hadoop.hdfs.DFSOutputStream$DataStreamer.closeResponder(DFSOutputStream.
java:967)
org.apache.hadoop.hdfs.DFSOutputStream$DataStreamer.endBlock(DFSOutputStream.java:7
05)
        at
org.apache.hadoop.hdfs.DFSOutputStream$DataStreamer.run(DFSOutputStream.java:894)
22/01/20 03:27:57 WARN hdfs.DFSClient: Caught exception
java.lang.InterruptedException
        at java.lang.Object.wait(Native Method)
        at java.lang.Thread.join(Thread.java:1252)
        at java.lang.Thread.join(Thread.java:1326)
org.apache.hadoop.hdfs.DFSOutputStream$DataStreamer.closeResponder(DFSOutputStream.
java:967)
        at
```

```
org.apache.hadoop.hdfs.DFSOutputStream$DataStreamer.endBlock(DFSOutputStream.java:7
05)
org.apache.hadoop.hdfs.DFSOutputStream$DataStreamer.run(DFSOutputStream.java:894)
22/01/20 03:27:57 INFO mapreduce.JobSubmitter: number of splits:1
22/01/20 03:27:58 INFO mapreduce. JobSubmitter: Submitting tokens for job:
job 1642677741747 0001
22/01/20 03:27:58 INFO impl.YarnClientImpl: Submitted application
application 1642677741747 0001
22/01/20 03:27:58 INFO mapreduce. Job: The url to track the job:
http://quickstart.cloudera:8088/proxy/application 1642677741747 0001/
22/01/20 03:27:58 INFO mapreduce. Job: Running job: job 1642677741747 0001
22/01/20 03:28:07 INFO mapreduce.Job: Job job 1642677741747 0001 running in uber
mode : false
22/01/20 03:28:07 INFO mapreduce.Job: map 0% reduce 0%
22/01/20 03:28:12 INFO mapreduce.Job: map 100% reduce 0%
22/01/20 03:28:18 INFO mapreduce.Job: map 100% reduce 100%
22/01/20 03:28:19 INFO mapreduce.Job: Job job_1642677741747_0001 completed
successfully
22/01/20 03:28:19 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=147
                FILE: Number of bytes written=295189
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=193
                HDFS: Number of bytes written=96
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
                Data-local map tasks=1
                Total time spent by all maps in occupied slots (ms)=1543680
                Total time spent by all reduces in occupied slots (ms)=1772544
                Total time spent by all map tasks (ms)=3015
                Total time spent by all reduce tasks (ms)=3462
                Total vcore-milliseconds taken by all map tasks=3015
                Total vcore-milliseconds taken by all reduce tasks=3462
                Total megabyte-milliseconds taken by all map tasks=1543680
                Total megabyte-milliseconds taken by all reduce tasks=1772544
        Map-Reduce Framework
                Map input records=2
                Map output records=13
                Map output bytes=122
                Map output materialized bytes=143
                Input split bytes=123
                Combine input records=13
```

```
Reduce input groups=13
                Reduce shuffle bytes=143
                Reduce input records=13
                Reduce output records=13
                Spilled Records=26
                Shuffled Maps =1
                Failed Shuffles=0
                Merged Map outputs=1
                GC time elapsed (ms)=72
                CPU time spent (ms)=720
                Physical memory (bytes) snapshot=255373312
                Virtual memory (bytes) snapshot=3890036736
                Total committed heap usage (bytes)=101449728
        Shuffle Errors
                BAD ID=0
                CONNECTION=0
                IO ERROR=0
                WRONG_LENGTH=0
                WRONG MAP=0
                WRONG REDUCE=0
        File Input Format Counters
                Bytes Read=70
        File Output Format Counters
                Bytes Written=96
[cloudera@quickstart ~]$ hadoop dfs -ls /user/cloudera/output
DEPRECATED: Use of this script to execute hdfs command is deprecated.
Instead use the hdfs command for it.
Found 2 items
-rw-r--r-- 1 cloudera cloudera
                                        0 2022-01-20 03:28
/user/cloudera/output/ SUCCESS
-rw-r--r--
           1 cloudera cloudera
                                         96 2022-01-20 03:28
/user/cloudera/output/part-r-00000
[cloudera@quickstart ~]$ hadoop dfs -cat /user/cloudera/output/part-r-00000
DEPRECATED: Use of this script to execute hdfs command is deprecated.
Instead use the hdfs command for it.
Everyone
Hello
KPT
PARTNERS
                1
This
Welcom 1
file
        1
first
        1
in
is
        1
        1
my
        1
to
```

Combine output records=13

```
vmware 1
[cloudera@quickstart ~]$ ^C
[cloudera@quickstart ~]$ dir
                     cm_api.py devices.json eclipse
express-deployment.json HiveDirectory kpi hadoop parcels
                                                                     Pictures
                   sample.txt
rakeshdata
                                   Videos
CHARACTER SETS.java data1
                                Documents
                                              emp.java
external jars
                                          lib
                           input.txt
                                                      parquet_write
                                                                     practice.txt
rakeshdata1
                   sparkjars_exec workspace
cloudera-manager
                     Desktop
                                Downloads
                                              enterprise-deployment.json
external-unified
                           kerberos
                                          Music
                                                      part dir
                                                                      Public
                                   zeyo_tab.java
sample kpi.csv Templates
[cloudera@quickstart ~]$ mkdir hadoop
[cloudera@quickstart ~]$ dir
avro
                     cm api.py devices.json
                                              eclipse
express-deployment.json hadoop
                                  kerberos
                                              Music
                                                              part dir
                                                                            Public
sample kpi.csv Templates zeyo tab.java
CHARACTER_SETS.java data1
                                Documents
                                              emp.java
external jars
                           HiveDirectory kpi_hadoop parcels
                                                                     Pictures
rakeshdata
                sample.txt
                                Videos
cloudera-manager
                     Desktop
                                Downloads
                                              enterprise-deployment.json
external-unified
                                          lib
                                                      parquet write practice.txt
                           input.txt
rakeshdata1
                sparkjars exec workspace
[cloudera@quickstart ~]$ pwd
/home/cloudera
[cloudera@quickstart ~]$ cd /home/cloudera/hadoop
[cloudera@quickstart hadoop]$ vi sample1.txt
[cloudera@quickstart hadoop]$ cat sample1.txt
Hello KPI Partners!
This is Tanuja
Nice to meet you guys.
[cloudera@quickstart hadoop]$ ls
sample1.txt
[cloudera@quickstart hadoop]$ ls -lst
total 4
4 -rw-rw-r-- 1 cloudera cloudera 58 Jan 20 03:50 sample1.txt
[cloudera@quickstart hadoop]$ hdfs dfs -ls
Found 24 items
drwx----
             - cloudera cloudera
                                          0 2022-01-20 03:28 .staging
drwxr-xr-x
             - cloudera cloudera
                                          0 2022-01-12 01:17 CHARACTER SETS
             - cloudera cloudera
                                          0 2020-05-23 23:09 avro json write
drwxr-xr-x
             - cloudera cloudera
                                          0 2022-01-20 03:15 bigdata
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-22 22:15 csv dir
drwxr-xr-x
-rw-r--r--
             1 cloudera cloudera
                                         39 2022-01-20 02:50 example.txt
             - cloudera cloudera
                                          0 2022-01-20 02:32 hdfs
drwxr-xr-x
             - cloudera cloudera
drwxr-xr-x
                                          0 2020-06-04 08:36 import avro
             - cloudera cloudera
                                          0 2020-05-23 22:56 json avro 1
drwxr-xr-x
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-22 22:13 json_dir
             - cloudera cloudera
                                          0 2020-05-23 22:39 json orc
drwxr-xr-x
             - cloudera cloudera
                                          0 2020-05-23 22:56 json_orc_1
drwxr-xr-x
```

```
- cloudera cloudera
drwxr-xr-x
drwxr-xr-x
            - cloudera cloudera
drwxr-xr-x - cloudera cloudera
drwxr-xr-x - cloudera cloudera
           - cloudera cloudera
drwxr-xr-x
drwxr-xr-x - cloudera cloudera
drwxr-xr-x
           - cloudera cloudera
drwxr-xr-x - cloudera cloudera
-rw-r--r--
            1 cloudera cloudera
-rw-r--r--
            1 cloudera cloudera
-rw-r--r--
            1 cloudera cloudera
drwxr-xr-x - cloudera cloudera
[cloudera@quickstart hadoop]$ 1s
sample1.txt
[cloudera@quickstart hadoop]$
```

```
0 2020-05-23 22:38 json_parquet
0 2020-05-23 22:56 json_parquet_1
0 2020-05-22 22:11 orc_dir
0 2022-01-20 03:28 output
0 2020-05-22 22:14 parquet_dir
0 2020-05-23 23:11 parquet_json_write
0 2020-05-22 13:40 part_dir
0 2020-05-22 14:01 part_dir2
70 2022-01-20 03:20 practice.txt
37 2022-01-09 22:32 sample.txt
49 2022-01-11 03:08 sample_kpi.csv
0 2020-06-04 09:04 zeyo_dir
```