

```
root@student-ThinkCentre-M72e:~# hdfs dfs -mkdir /word
19/10/04 10:26:11 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your
platform... using builtin-java classes where applicable
```

```
root@student-ThinkCentre-M72e:~# hdfs dfs -ls /
19/10/04 10:26:35 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your
platform... using builtin-java classes where applicable
```

Found 27 items

```
drwxr-xr-x - root root    4096 2019-10-04 10:20 /aggregate
drwxr-xr-x - root root    4096 2014-11-19 18:00 /bin
drwxr-xr-x - root root    4096 2019-10-04 10:26 /word
```

```
root@student-ThinkCentre-M72e:~# hdfs dfs -copyFromLocal
/home/administrator/wordcount/input.txt /word
19/10/04 10:29:39 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your
platform... using builtin-java classes where applicable
```

```
root@student-ThinkCentre-M72e:~# hdfs dfs -ls /word
19/10/04 10:29:45 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your
platform... using builtin-java classes where applicable
```

Found 1 items

```
-rw-r--r--  1 root root      59 2019-10-04 10:29 /word/input.txt
```

```
root@student-ThinkCentre-M72e:~# javac -d /home/administrator/wordcount/class
/home/administrator/wordcount/wordcount.java
Note: /home/administrator/wordcount/wordcount.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
```

```
root@student-ThinkCentre-M72e:~# jar -cvf /home/administrator/wordcount/word.jar -C
/home/administrator/wordcount/class/ .
added manifest
adding: wordcount.class(in = 1675) (out= 888)(deflated 46%)
adding: wordcount$MapForWordCount.class(in = 1788) (out= 754)(deflated 57%)
adding: wordcount$ReduceForWordCount.class(in = 1647) (out= 688)(deflated 58%)
```

```
root@student-ThinkCentre-M72e:~# hadoop jar /home/administrator/wordcount/word.jar
wordcount /word/input.txt /word/output
19/10/04 10:33:21 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your
platform... using builtin-java classes where applicable
19/10/04 10:33:21 INFO Configuration.deprecation: session.id is deprecated. Instead, use
dfs.metrics.session-id
19/10/04 10:33:21 INFO jvm.JvmMetrics: Initializing JVM Metrics with
processName=JobTracker, sessionId=
19/10/04 10:33:21 INFO input.FileInputFormat: Total input paths to process : 1
19/10/04 10:33:21 INFO mapreduce.JobSubmitter: number of splits:1
19/10/04 10:33:21 INFO mapreduce.JobSubmitter: Submitting tokens for job:
job_local235199618_0001
19/10/04 10:33:21 INFO mapreduce.Job: The url to track the job: http://localhost:8080/
```

19/10/04 10:33:21 INFO mapreduce.Job: Running job: job\_local235199618\_0001  
19/10/04 10:33:21 INFO mapred.LocalJobRunner: OutputCommitter set in config null  
19/10/04 10:33:21 INFO mapred.LocalJobRunner: OutputCommitter is  
org.apache.hadoop.mapreduce.lib.output.FileOutputCommitter  
19/10/04 10:33:21 INFO mapred.LocalJobRunner: Waiting for map tasks  
19/10/04 10:33:21 INFO mapred.LocalJobRunner: Starting task:  
attempt\_local235199618\_0001\_m\_000000\_0  
19/10/04 10:33:22 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]  
19/10/04 10:33:22 INFO mapred.MapTask: Processing split: file:/word/input.txt:0+59  
19/10/04 10:33:22 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)  
19/10/04 10:33:22 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100  
19/10/04 10:33:22 INFO mapred.MapTask: soft limit at 83886080  
19/10/04 10:33:22 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600  
19/10/04 10:33:22 INFO mapred.MapTask: kvstart = 26214396; length = 6553600  
19/10/04 10:33:22 INFO mapred.MapTask: Map output collector class =  
org.apache.hadoop.mapred.MapTask\$MapOutputBuffer  
19/10/04 10:33:22 INFO mapred.LocalJobRunner:  
19/10/04 10:33:22 INFO mapred.MapTask: Starting flush of map output  
19/10/04 10:33:22 INFO mapred.MapTask: Spilling map output  
19/10/04 10:33:22 INFO mapred.MapTask: bufstart = 0; bufend = 123; bufvoid = 104857600  
19/10/04 10:33:22 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend =  
26214336(104857344); length = 61/6553600  
19/10/04 10:33:22 INFO mapred.MapTask: Finished spill 0  
19/10/04 10:33:22 INFO mapred.Task: Task:attempt\_local235199618\_0001\_m\_000000\_0 is  
done. And is in the process of committing  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: map  
19/10/04 10:33:22 INFO mapred.Task: Task 'attempt\_local235199618\_0001\_m\_000000\_0'  
done.  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: Finishing task:  
attempt\_local235199618\_0001\_m\_000000\_0  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: map task executor complete.  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: Waiting for reduce tasks  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: Starting task:  
attempt\_local235199618\_0001\_r\_000000\_0  
19/10/04 10:33:22 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]  
19/10/04 10:33:22 INFO mapred.ReduceTask: Using ShuffleConsumerPlugin:  
org.apache.hadoop.mapreduce.task.reduce.Shuffle@48a6d3  
19/10/04 10:33:22 INFO reduce.MergeManagerImpl: MergerManager:  
memoryLimit=334063200, maxSingleShuffleLimit=83515800, mergeThreshold=220481728,  
ioSortFactor=10, memToMemMergeOutputsThreshold=10  
19/10/04 10:33:22 INFO reduce.EventFetcher: attempt\_local235199618\_0001\_r\_000000\_0  
Thread started: EventFetcher for fetching Map Completion Events  
19/10/04 10:33:22 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of map  
attempt\_local235199618\_0001\_m\_000000\_0 decomp: 157 len: 161 to MEMORY  
19/10/04 10:33:22 INFO reduce.InMemoryMapOutput: Read 157 bytes from map-output for  
attempt\_local235199618\_0001\_m\_000000\_0  
19/10/04 10:33:22 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size:  
157, inMemoryMapOutputs.size() -> 1, commitMemory -> 0, usedMemory -> 157

19/10/04 10:33:22 INFO reduce.EventFetcher: EventFetcher is interrupted.. Returning  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: 1 / 1 copied.  
19/10/04 10:33:22 INFO reduce.MergeManagerImpl: finalMerge called with 1 in-memory  
map-outputs and 0 on-disk map-outputs  
19/10/04 10:33:22 INFO mapred.Merger: Merging 1 sorted segments  
19/10/04 10:33:22 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left of  
total size: 154 bytes  
19/10/04 10:33:22 INFO reduce.MergeManagerImpl: Merged 1 segments, 157 bytes to disk to  
satisfy reduce memory limit  
19/10/04 10:33:22 INFO reduce.MergeManagerImpl: Merging 1 files, 161 bytes from disk  
19/10/04 10:33:22 INFO reduce.MergeManagerImpl: Merging 0 segments, 0 bytes from memory  
into reduce  
19/10/04 10:33:22 INFO mapred.Merger: Merging 1 sorted segments  
19/10/04 10:33:22 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left of  
total size: 154 bytes  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: 1 / 1 copied.  
19/10/04 10:33:22 INFO Configuration.deprecation: mapred.skip.on is deprecated. Instead, use  
mapreduce.job.skiprecords  
19/10/04 10:33:22 INFO mapred.Task: Task:attempt\_local235199618\_0001\_r\_000000\_0 is  
done. And is in the process of committing  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: 1 / 1 copied.  
19/10/04 10:33:22 INFO mapred.Task: Task attempt\_local235199618\_0001\_r\_000000\_0 is  
allowed to commit now  
19/10/04 10:33:22 INFO output.FileOutputCommitter: Saved output of task  
'attempt\_local235199618\_0001\_r\_000000\_0' to  
file:/word/output/\_temporary/0/task\_local235199618\_0001\_r\_000000  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: reduce > reduce  
19/10/04 10:33:22 INFO mapred.Task: Task 'attempt\_local235199618\_0001\_r\_000000\_0'  
done.  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: Finishing task:  
attempt\_local235199618\_0001\_r\_000000\_0  
19/10/04 10:33:22 INFO mapred.LocalJobRunner: reduce task executor complete.  
19/10/04 10:33:22 INFO mapreduce.Job: Job job\_local235199618\_0001 running in uber mode :  
false  
19/10/04 10:33:22 INFO mapreduce.Job: map 100% reduce 100%  
19/10/04 10:33:22 INFO mapreduce.Job: Job job\_local235199618\_0001 completed  
successfully  
19/10/04 10:33:22 INFO mapreduce.Job: Counters: 33  
    File System Counters  
        FILE: Number of bytes read=7004  
        FILE: Number of bytes written=511076  
        FILE: Number of read operations=0  
        FILE: Number of large read operations=0  
        FILE: Number of write operations=0  
    Map-Reduce Framework  
        Map input records=8  
        Map output records=16  
        Map output bytes=123

```

Map output materialized bytes=161
Input split bytes=85
Combine input records=0
Combine output records=0
Reduce input groups=13
Reduce shuffle bytes=161
Reduce input records=16
Reduce output records=13
Spilled Records=32
Shuffled Maps =1
Failed Shuffles=0
Merged Map outputs=1
GC time elapsed (ms)=7
CPU time spent (ms)=0
Physical memory (bytes) snapshot=0
Virtual memory (bytes) snapshot=0
Total committed heap usage (bytes)=361889792

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=75
File Output Format Counters
  Bytes Written=89

```

```

root@student-ThinkCentre-M72e:~# hdfs dfs -ls /word/output
19/10/04 10:33:43 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your
platform... using builtin-java classes where applicable
Found 2 items
-rw-r--r--  1 root root      0 2019-10-04 10:33 /word/output/_SUCCESS
-rw-r--r--  1 root root    77 2019-10-04 10:33 /word/output/part-r-00000

```

```

root@student-ThinkCentre-M72e:~# hdfs dfs -cat /word/output/part-r-00000
19/10/04 10:34:49 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your
platform... using builtin-java classes where applicable
2
:WQ  1
AM   1
ARE  1
GOOD 1
HELLO      1
HI       2
HOW      2
I        1

```

IS	1	
SISTER		1
YOU	1	
YOUR	1	