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