

```

hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hdfs dfs -ls /kusum_joinls:
'/kusum_join': No such file or directory
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hdfs dfs -mkdir /kusum_join
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hdfs dfs -ls /kusum_join
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hdfs dfs -put ./DeptName.txt
/kusum_join/
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hdfs dfs -put ./DeptStrength.txt
/kusum_join/
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hadoop jar MapReduceJoin.jar
/kusum_join/DeptName.txt /kusum_join/DeptStrength.txt /kusum_join/output/ 22/06/27
15:12:24 INFO Configuration.deprecation: session.id is deprecated. Instead, use
dfs.metrics.session-id
22/06/27 15:12:24 INFO jvm.JvmMetrics: Initializing JVM Metrics with
processName=JobTracker, sessionId=
22/06/27 15:12:24 INFO jvm.JvmMetrics: Cannot initialize JVM Metrics with
processName=JobTracker, sessionId= - already initialized
22/06/27 15:12:24 INFO mapred.FileInputFormat: Total input paths to process :
122/06/27 15:12:24 INFO mapred.FileInputFormat: Total input paths to process :
122/06/27 15:12:24 INFO mapreduce.JobSubmitter: number of splits:2
22/06/27 15:12:24 INFO mapreduce.JobSubmitter: Submitting tokens for job:
job_local1238804660_000122/06/27 15:12:24 INFO mapreduce.Job: The url to track the job: http://
localhost:8080/
22/06/27 15:12:24 INFO mapred.LocalJobRunner: OutputCommitter set in config
null22/06/27 15:12:24 INFO mapreduce.Job: Running job: job_local1238804660_0001
22/06/27 15:12:24 INFO mapred.LocalJobRunner: OutputCommitter is
org.apache.hadoop.mapred.FileOutputCommitter
22/06/27 15:12:24 INFO mapred.LocalJobRunner: Waiting for map tasks
22/06/27 15:12:24 INFO mapred.LocalJobRunner: Starting task:
attempt_local1238804660_0001_m_000000_022/06/27 15:12:24 INFO mapred.Task: Using
ResourceCalculatorProcessTree : [ ]
22/06/27 15:12:24 INFO mapred.MapTask: Processing
split:hdfs://localhost:54310/kusum_join/
DeptName.txt:0+59 22/06/27 15:12:24 INFO mapred.MapTask:
numReduceTasks: 1
22/06/27 15:12:24 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)
22/06/27 15:12:24 INFO mapred.MapTask: mapreduce.task.io.sort.mb:
10022/06/27 15:12:24 INFO mapred.MapTask: soft limit at 83886080
22/06/27 15:12:24 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600
22/06/27 15:12:24 INFO mapred.MapTask: kvstart = 26214396; length =
655360022/06/27 15:12:24 INFO mapred.MapTask: Map output collector class =
org.apache.hadoop.mapred.MapTask$MapOutputBuffer
22/06/27 15:12:24 INFO mapred.LocalJobRunner:
22/06/27 15:12:24 INFO mapred.MapTask: Starting flush of map
output22/06/27 15:12:24 INFO mapred.MapTask: Spilling map output
22/06/27 15:12:24 INFO mapred.MapTask: bufstart = 0; bufend = 63; bufvoid = 104857600
22/06/27 15:12:24 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26214384(104857536);
length = 13/6553600
22/06/27 15:12:24 INFO mapred.MapTask: Finished spill 0
22/06/27 15:12:24 INFO mapred.Task: Task:attempt_local1238804660_0001_m_000000_0 is done. And is
inthe process of committing
22/06/27 15:12:24 INFO mapred.LocalJobRunner: hdfs://localhost:54310/kusum_join/DeptName.txt:0+59
22/06/27 15:12:24 INFO mapred.Task: Task 'attempt_local1238804660_0001_m_000000_0' done.
22/06/27 15:12:24 INFO mapred.LocalJobRunner: Finishing
task:attempt_local1238804660_0001_m_000000_0
22/06/27 15:12:24 INFO mapred.LocalJobRunner: Starting task:
attempt_local1238804660_0001_m_000001_022/06/27 15:12:24 INFO mapred.Task: Using
ResourceCalculatorProcessTree : [ ]
22/06/27 15:12:24 INFO mapred.MapTask: Processing split:
hdfs://localhost:54310/kusum_join/DeptStrength.txt:0+50
22/06/27 15:12:24 INFO mapred.MapTask: numReduceTasks: 1
22/06/27 15:12:24 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)
22/06/27 15:12:24 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100

```

```

22/06/27 15:12:24 INFO mapred.MapTask: soft limit at 83886080
22/06/27 15:12:24 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600
22/06/27 15:12:24 INFO mapred.MapTask: kvstart = 26214396; length =
655360022/06/27 15:12:24 INFO mapred.MapTask: Map output collector class =
org.apache.hadoop.mapred.MapTask$MapOutputBuffer
22/06/27 15:12:24 INFO mapred.LocalJobRunner:
22/06/27 15:12:24 INFO mapred.MapTask: Starting flush of map
output22/06/27 15:12:24 INFO mapred.MapTask: Spilling map output
22/06/27 15:12:24 INFO mapred.MapTask: bufstart = 0; bufend = 54; bufvoid = 104857600
22/06/27 15:12:24 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26214384(104857536);
length = 13/6553600
22/06/27 15:12:24 INFO mapred.MapTask: Finished spill 0
22/06/27 15:12:24 INFO mapred.Task: Task:attempt_local1238804660_0001_m_000001_0 is done. And is
inthe process of committing
22/06/27 15:12:24 INFO mapred.LocalJobRunner: hdfs://
localhost:54310/kusum_join/DeptStrength.txt:0+50
22/06/27 15:12:24 INFO mapred.Task: Task 'attempt_local1238804660_0001_m_000001_0'
done.22/06/27 15:12:24 INFO mapred.LocalJobRunner: Finishing task:
attempt_local1238804660_0001_m_000001_0
22/06/27 15:12:24 INFO mapred.LocalJobRunner: map task executor
complete.22/06/27 15:12:24 INFO mapred.LocalJobRunner: Waiting for reduce
tasks
22/06/27 15:12:24 INFO mapred.LocalJobRunner: Starting task:
attempt_local1238804660_0001_r_000000_022/06/27 15:12:24 INFO mapred.Task: Using
ResourceCalculatorProcessTree : [ ]
22/06/27 15:12:24 INFO mapred.ReduceTask: Using
ShuffleConsumerPlugin:
org.apache.hadoop.mapreduce.task.reduce.Shuffle@45cblc
22/06/27 15:12:24 INFO reduce.MergeManagerImpl: MergerManager:
memoryLimit=334338464,maxSingleShuffleLimit=83584616, mergeThreshold=220663392,
ioSortFactor=10, memToMemMergeOutputsThreshold=10
22/06/27 15:12:24 INFO reduce.EventFetcher: attempt_local1238804660_0001_r_000000_0 Thread
started:EventFetcher for fetching Map Completion Events
22/06/27 15:12:24 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of
mapattempt_local1238804660_0001_m_000001_0 decomp: 64 len: 68 to MEMORY
22/06/27 15:12:24 INFO reduce.InMemoryMapOutput: Read 64 bytes from map-output
forattempt_local1238804660_0001_m_000001_0
22/06/27 15:12:24 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size:
64,inMemoryMapOutputs.size() -> 1, commitMemory -> 0, usedMemory ->64
22/06/27 15:12:24 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of
mapattempt_local1238804660_0001_m_000000_0 decomp: 73 len: 77 to MEMORY
22/06/27 15:12:24 INFO reduce.InMemoryMapOutput: Read 73 bytes from map-output
forattempt_local1238804660_0001_m_000000_0
22/06/27 15:12:24 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size:
73,inMemoryMapOutputs.size() -> 2, commitMemory -> 64, usedMemory ->137
22/06/27 15:12:24 INFO reduce.EventFetcher: EventFetcher is interrupted..
Returning22/06/27 15:12:24 INFO mapred.LocalJobRunner: 2 / 2 copied.
22/06/27 15:12:24 INFO reduce.MergeManagerImpl: finalMerge called with 2 in-memory map-outputs and
0on-disk map-outputs
22/06/27 15:12:24 INFO mapred.Merger: Merging 2 sorted segments
22/06/27 15:12:24 INFO mapred.Merger: Down to the last merge-pass, with 2 segments left of
totalsize: 121 bytes
22/06/27 15:12:24 INFO reduce.MergeManagerImpl: Merged 2 segments, 137 bytes to disk to
satisfyreduce memory limit
22/06/27 15:12:24 INFO reduce.MergeManagerImpl: Merging 1 files, 139 bytes from disk
22/06/27 15:12:24 INFO reduce.MergeManagerImpl: Merging 0 segments, 0 bytes from memory into
reduce22/06/27 15:12:24 INFO mapred.Merger: Merging 1 sorted segments
22/06/27 15:12:24 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left of
totalsize: 127 bytes
22/06/27 15:12:24 INFO mapred.LocalJobRunner: 2 / 2 copied.

```

```

22/06/27 15:12:24 INFO mapred.Task: Task:attempt_local1238804660_0001_r_000000_0 is done. And is
inthe process of committing
22/06/27 15:12:24 INFO mapred.LocalJobRunner: 2 / 2 copied.
22/06/27 15:12:24 INFO mapred.Task: Task attempt_local1238804660_0001_r_000000_0 is allowed
to commit now
22/06/27 15:12:24 INFO output.FileOutputCommitter: Saved output of task
'attempt_local1238804660_0001_r_000000_0' to hdfs://localhost:54310/kusum_join/output/
_temporary/0/task_local1238804660_0001_r_000000
22/06/27 15:12:24 INFO mapred.LocalJobRunner:
reduce > reduce
22/06/27 15:12:24 INFO mapred.Task: Task 'attempt_local1238804660_0001_r_000000_0'
done. 22/06/27 15:12:24 INFO mapred.LocalJobRunner: Finishing task:
attempt_local1238804660_0001_r_000000_0
22/06/27 15:12:24 INFO mapred.LocalJobRunner: reduce task executor complete.
22/06/27 15:12:25 INFO mapreduce.Job: Job job_local1238804660_0001 running in uber mode :
false
22/06/27 15:12:25 INFO mapreduce.Job: map 100% reduce 100%
22/06/27 15:12:25 INFO mapreduce.Job: Job job_local1238804660_0001 completed
successfully
22/06/27 15:12:25 INFO mapreduce.Job: Counters: 38
File System Counters
FILE: Number of bytes read=26370
FILE: Number of bytes
written=782865
FILE: Number of read
operations=0
FILE: Number of large read
operations=0
FILE: Number of write
operations=0
HDFS: Number of bytes
read=277
HDFS: Number of bytes written=85
HDFS: Number of read operations=28
HDFS: Number of large read
operations=0
HDFS: Number of write
operations=5
Map-Reduce
FrameworkMap input
records=8
Map output
records=8
Map output
bytes=117
Map output materialized
bytes=145
Input split bytes=443
Combine input records=0
Combine output
records=0
Reduce input
groups=4
Reduce shuffle
bytes=145
Reduce input
records=8
Reduce output
records=4
Spilled
Records=16
Shuffled Maps
=2
Failed Shuffles=0
Merged Map outputs=2
GC time elapsed
(ms)=2
CPU time spent
(ms)=0
Physical memory (bytes)
snapshot=0
Virtual memory (bytes)
snapshot=0
Total committed heap usage
(bytes)=916979712
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=0

```

```

File Output Format
CountersBytes Written=85
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hdfs dfs -ls /kusum_join/output/
Found 2 items
-rw-r--r-- 1 hduser supergroup          0 2022-06-27 15:12 /kusum_join/output/_SUCCESS
-rw-r--r-- 1 hduser supergroup        85 2022-06-27 15:12 /kusum_join/output/part-00000
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hdfs dfs -cat /kusum_join/output/part-00000
All      Finance          50
B12      HR                100
C13      Manufacturing      250
Dept_ID Dept_Name          Total_Employee
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hadoop jar MapReduceJoin.jar
/kusum_join/DeptStrength.txt /kusum_join/DeptName.txt /kusum_join/output/ 22/06/27
15:15:17 INFO Configuration.deprecation: session.id is deprecated. Instead, use
dfs.metrics.session-id
22/06/27 15:15:17 INFO jvm.JvmMetrics: Initializing JVM Metrics with
processName=JobTracker,sessionId=
22/06/27 15:15:17 INFO jvm.JvmMetrics: Cannot initialize JVM Metrics with
processName=JobTracker,sessionId= - already initialized
Exception in thread "main" org.apache.hadoop.mapred.FileAlreadyExistsException: Output
directoryhdfs://localhost:54310/kusum_join/output already exists
    at
    org.apache.hadoop.mapred.FileOutputFormat.checkOutputSpecs(FileOutputFormat.java:132) at
    org.apache.hadoop.mapreduce.JobSubmitter.checkSpecs(JobSubmitter.java:564)
    at
    org.apache.hadoop.mapreduce.JobSubmitter.submitJobInternal(JobSubmitter.java:432) at
    org.apache.hadoop.mapreduce.Job$10.run(Job.java:1296)
    at org.apache.hadoop.mapreduce.Job$10.run(Job.java:1293)
    at java.security.AccessController.doPrivileged(Native
    Method) at javax.security.auth.Subject.doAs(Subject.java:422)
    at
    org.apache.hadoop.security.UserGroupInformation.doAs(UserGroupInformation.java:1628) at
    org.apache.hadoop.mapreduce.Job.submit(Job.java:1293)
    at
    org.apache.hadoop.mapred.JobClient$1.run(JobClient.java:562) at
    org.apache.hadoop.mapred.JobClient$1.run(JobClient.java:557) at
    java.security.AccessController.doPrivileged(Native Method) at
    javax.security.auth.Subject.doAs(Subject.java:422)
    at
    org.apache.hadoop.security.UserGroupInformation.doAs(UserGroupInformation.java:1628) at
    org.apache.hadoop.mapred.JobClient.submitJobInternal(JobClient.java:557)
    at
    org.apache.hadoop.mapred.JobClient.submitJob(JobClient.java:548) at
    org.apache.hadoop.mapred.JobClient.runJob(JobClient.java:833) at
    MapReduceJoin.JoinDriver.run(JoinDriver.java:53)
    a
    org.apache.hadoop.util.ToolRunner.run(ToolRunner.java:70) at
    org.apache.hadoop.util.ToolRunner.run(ToolRunner.java:84) at
    MapReduceJoin.JoinDriver.main(JoinDriver.java:60)
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
    at
    sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43) at
    java.lang.reflect.Method.invoke(Method.java:498)
    at org.apache.hadoop.util.RunJar.run(RunJar.java:221)
    at org.apache.hadoop.util.RunJar.main(RunJar.java:136)
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hadoop jar MapReduceJoin.jar
/kusum_join/DeptStrength.txt /kusum_join/DeptName.txt /kusum_join/output2/ 22/06/27
15:15:26 INFO Configuration.deprecation: session.id is deprecated. Instead, use
dfs.metrics.session-id
22/06/27 15:15:26 INFO jvm.JvmMetrics: Initializing JVM Metrics with
processName=JobTracker,sessionId=
22/06/27 15:15:26 INFO jvm.JvmMetrics: Cannot initialize JVM Metrics with
processName=JobTracker,sessionId= - already initialized
22/06/27 15:15:26 INFO mapred.FileInputFormat: Total input paths to process : 1

```


22/06/27 15:15:26 INFO mapred.FileInputFormat: Total input paths to process :
122/06/27 15:15:26 INFO mapreduce.JobSubmitter: number of splits:2
22/06/27 15:15:26 INFO mapreduce.JobSubmitter: Submitting tokens for job:
job_local1698947086_000122/06/27 15:15:26 INFO mapreduce.Job: The url to track the job: http://
localhost:8080/
22/06/27 15:15:26 INFO mapred.LocalJobRunner: OutputCommitter set in config
null22/06/27 15:15:26 INFO mapreduce.Job: Running job: job_local1698947086_0001
22/06/27 15:15:26 INFO mapred.LocalJobRunner: OutputCommitter is
org.apache.hadoop.mapred.FileOutputCommitter
22/06/27 15:15:26 INFO mapred.LocalJobRunner: Waiting for map tasks
22/06/27 15:15:26 INFO mapred.LocalJobRunner: Starting task:
attempt_local1698947086_0001_m_000000_022/06/27 15:15:26 INFO mapred.Task: Using
ResourceCalculatorProcessTree : []
22/06/27 15:15:26 INFO mapred.MapTask: Processing
split:hdfs://localhost:54310/kusum_join/
DeptName.txt:0+59 22/06/27 15:15:26 INFO mapred.MapTask:
numReduceTasks: 1
22/06/27 15:15:26 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)
22/06/27 15:15:26 INFO mapred.MapTask: mapreduce.task.io.sort.mb:
10022/06/27 15:15:26 INFO mapred.MapTask: soft limit at 83886080
22/06/27 15:15:26 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600
22/06/27 15:15:26 INFO mapred.MapTask: kvstart = 26214396; length =
655360022/06/27 15:15:26 INFO mapred.MapTask: Map output collector class =
org.apache.hadoop.mapred.MapTask\$MapOutputBuffer
22/06/27 15:15:26 INFO mapred.LocalJobRunner:
22/06/27 15:15:26 INFO mapred.MapTask: Starting flush of map
output22/06/27 15:15:26 INFO mapred.MapTask: Spilling map output
22/06/27 15:15:26 INFO mapred.MapTask: bufstart = 0; bufend = 63; bufvoid = 104857600
22/06/27 15:15:26 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26214384(104857536);
length = 13/6553600
22/06/27 15:15:26 INFO mapred.MapTask: Finished spill 0
22/06/27 15:15:26 INFO mapred.Task: Task:attempt_local1698947086_0001_m_000000_0 is done. And is
inthe process of committing
22/06/27 15:15:26 INFO mapred.LocalJobRunner: hdfs://localhost:54310/kusum_join/DeptName.txt:0+59
22/06/27 15:15:26 INFO mapred.Task: Task 'attempt_local1698947086_0001_m_000000_0' done.
22/06/27 15:15:26 INFO mapred.LocalJobRunner: Finishing
task:attempt_local1698947086_0001_m_000000_0
22/06/27 15:15:26 INFO mapred.LocalJobRunner: Starting task:
attempt_local1698947086_0001_m_000001_022/06/27 15:15:26 INFO mapred.Task: Using
ResourceCalculatorProcessTree : []
22/06/27 15:15:26 INFO mapred.MapTask: Processing split:
hdfs://localhost:54310/kusum_join/DeptStrength.txt:0+50
22/06/27 15:15:26 INFO mapred.MapTask: numReduceTasks: 1
22/06/27 15:15:27 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)
22/06/27 15:15:27 INFO mapred.MapTask: mapreduce.task.io.sort.mb:
10022/06/27 15:15:27 INFO mapred.MapTask: soft limit at 83886080
22/06/27 15:15:27 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600
22/06/27 15:15:27 INFO mapred.MapTask: kvstart = 26214396; length =
655360022/06/27 15:15:27 INFO mapred.MapTask: Map output collector class =
org.apache.hadoop.mapred.MapTask\$MapOutputBuffer
22/06/27 15:15:27 INFO mapred.LocalJobRunner:
22/06/27 15:15:27 INFO mapred.MapTask: Starting flush of map
output22/06/27 15:15:27 INFO mapred.MapTask: Spilling map output
22/06/27 15:15:27 INFO mapred.MapTask: bufstart = 0; bufend = 54; bufvoid = 104857600
22/06/27 15:15:27 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26214384(104857536);
length = 13/6553600
22/06/27 15:15:27 INFO mapred.MapTask: Finished spill 0
22/06/27 15:15:27 INFO mapred.Task: Task:attempt_local1698947086_0001_m_000001_0 is done. And is
inthe process of committing
22/06/27 15:15:27 INFO mapred.LocalJobRunner: hdfs://
localhost:54310/kusum_join/DeptStrength.txt:0+50
22/06/27 15:15:27 INFO mapred.Task: Task 'attempt_local1698947086_0001_m_000001_0' done.

```

22/06/27 15:15:27 INFO mapred.LocalJobRunner: Finishing
task:attempt_local1698947086_0001_m_000001_0
22/06/27 15:15:27 INFO mapred.LocalJobRunner: map task executor
complete. 22/06/27 15:15:27 INFO mapred.LocalJobRunner: Waiting for reduce
tasks
22/06/27 15:15:27 INFO mapred.LocalJobRunner: Starting task:
attempt_local1698947086_0001_r_000000_022/06/27 15:15:27 INFO mapred.Task: Using
ResourceCalculatorProcessTree : [ ]
22/06/27 15:15:27 INFO mapred.ReduceTask: Using
ShuffleConsumerPlugin:
org.apache.hadoop.mapreduce.task.reduce.Shuffle@477ec0d7
22/06/27 15:15:27 INFO reduce.MergeManagerImpl: MergerManager:
memoryLimit=334338464, maxSingleShuffleLimit=83584616, mergeThreshold=220663392,
ioSortFactor=10, memToMemMergeOutputsThreshold=10
22/06/27 15:15:27 INFO reduce.EventFetcher: attempt_local1698947086_0001_r_000000_0 Thread
started:EventFetcher for fetching Map Completion Events
22/06/27 15:15:27 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of
mapattempt_local1698947086_0001_m_000000_0 decomp: 73 len: 77 to MEMORY
22/06/27 15:15:27 INFO reduce.InMemoryMapOutput: Read 73 bytes from map-output
forattempt_local1698947086_0001_m_000000_0
22/06/27 15:15:27 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size:
73, inMemoryMapOutputs.size() -> 1, commitMemory -> 0, usedMemory ->73
22/06/27 15:15:27 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of
mapattempt_local1698947086_0001_m_000001_0 decomp: 64 len: 68 to MEMORY
22/06/27 15:15:27 INFO reduce.InMemoryMapOutput: Read 64 bytes from map-output
forattempt_local1698947086_0001_m_000001_0
22/06/27 15:15:27 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size:
64, inMemoryMapOutputs.size() -> 2, commitMemory -> 73, usedMemory ->137
22/06/27 15:15:27 INFO reduce.EventFetcher: EventFetcher is interrupted..
Returning22/06/27 15:15:27 INFO mapred.LocalJobRunner: 2 / 2 copied.
22/06/27 15:15:27 INFO reduce.MergeManagerImpl: finalMerge called with 2 in-memory map-outputs and
0 on-disk map-outputs
22/06/27 15:15:27 INFO mapred.Merger: Merging 2 sorted segments
22/06/27 15:15:27 INFO mapred.Merger: Down to the last merge-pass, with 2 segments left of
totalsize: 121 bytes
22/06/27 15:15:27 INFO reduce.MergeManagerImpl: Merged 2 segments, 137 bytes to disk to
satisfy reduce memory limit
22/06/27 15:15:27 INFO reduce.MergeManagerImpl: Merging 1 files, 139 bytes from disk
22/06/27 15:15:27 INFO reduce.MergeManagerImpl: Merging 0 segments, 0 bytes from memory into
reduce22/06/27 15:15:27 INFO mapred.Merger: Merging 1 sorted segments
22/06/27 15:15:27 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left of
totalsize: 127 bytes
22/06/27 15:15:27 INFO mapred.LocalJobRunner: 2 / 2 copied.
22/06/27 15:15:27 INFO mapred.Task: Task:attempt_local1698947086_0001_r_000000_0 is done. And is
in the process of committing
22/06/27 15:15:27 INFO mapred.LocalJobRunner: 2 / 2 copied.
22/06/27 15:15:27 INFO mapred.Task: Task attempt_local1698947086_0001_r_000000_0 is allowed
to commit now
22/06/27 15:15:27 INFO output.FileOutputCommitter: Saved output of task
'attempt_local1698947086_0001_r_000000_0' to hdfs://localhost:54310/kusum_join/output2/
_temporary/0/task_local1698947086_0001_r_00000022/06/27 15:15:27 INFO mapred.LocalJobRunner:
reduce > reduce
22/06/27 15:15:27 INFO mapred.Task: Task 'attempt_local1698947086_0001_r_000000_0'
done. 22/06/27 15:15:27 INFO mapred.LocalJobRunner: Finishing task:
attempt_local1698947086_0001_r_000000_0
22/06/27 15:15:27 INFO mapred.LocalJobRunner: reduce task executor complete.
22/06/27 15:15:27 INFO mapreduce.Job: Job job_local1698947086_0001 running in uber mode :
false22/06/27 15:15:27 INFO mapreduce.Job: map 100% reduce 100%
22/06/27 15:15:27 INFO mapreduce.Job: Job job_local1698947086_0001 completed
successfully22/06/27 15:15:27 INFO mapreduce.Job: Counters: 38
File System Counters

```

```

FILE: Number of bytes read=26370
FILE: Number of bytes
written=782871FILE: Number of read
operations=0
FILE: Number of large read
operations=0FILE: Number of write
operations=0 HDFS: Number of bytes
read=277
HDFS: Number of bytes written=85
HDFS: Number of read operations=28
HDFS: Number of large read
operations=0HDFS: Number of write
operations=5
Map-Reduce
FrameworkMap input
records=8 Map output
records=8Map output
bytes=117
Map output materialized
bytes=145Input split bytes=443
Combine input records=0
Combine output
records=0Reduce input
groups=4 Reduce shuffle
bytes=145Reduce input
records=8 Reduce output
records=4 Spilled
Records=16 Shuffled Maps
=2
Failed Shuffles=0
Merged Map outputs=2
GC time elapsed
(ms)=2CPU time spent
(ms)=0
Physical memory (bytes)
snapshot=0Virtual memory (bytes)
snapshot=0
Total committed heap usage
(bytes)=913833984Shuffle Errors
BAD_ID=0
CONNECTION=0
IO_ERROR=0
WRONG_LENGTH=
OWRONG_MAP=0
WRONG_REDUCE=0
File Input Format
CountersBytes Read=0
File Output Format
CountersBytes Written=85
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$ hdfs dfs -cat /kusum_join/output2/part-
00000
A11      50          Finance
B12      100         HR
C13      250         Manufacturing
Dept_ID Total_Employee      Dept_Name
hduser@bmsce-Precision-T1700:~/kusum/join/MapReduceJoin$

```