



Execution time printed in MS at top, for input, and in the second image for total application runtime

```
953
2021-03-29 15:23:14,346 INFO client.RMPProxy: Connecting to ResourceManager at cluster-cs1660-m/10.142.0.2:8032
2021-03-29 15:23:14,514 INFO client.AHSProxy: Connecting to Application History server at cluster-cs1660-m/10.142.0.2:10200
2021-03-29 15:23:14,690 INFO mapreduce.JobResourceUploader: Disabling Erasure Coding for path: /tmp/hadoop-yarn/staging/kevin_r_tsui/.staging/job_1617027930514_0006
2021-03-29 15:23:14,877 INFO InputFileInputFormat: Total input files to process : 1
2021-03-29 15:23:15,046 INFO mapreduce.JobSubmitter: number of splits:1
2021-03-29 15:23:15,182 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1617027930514_0006
2021-03-29 15:23:15,183 INFO mapreduce.JobSubmitter: Executing with tokens: []
2021-03-29 15:23:15,448 INFO conf.Configuration: resource-types.xml not found
2021-03-29 15:23:15,448 INFO resource.ResourceUtils: Unable to find 'resource-types.xml'.
2021-03-29 15:23:15,537 INFO Impl.YarnClientImpl: Submitted application application_1617027930514_0006
2021-03-29 15:23:15,586 INFO mapreduce.Job: The url to track the job: http://cluster-cs1660-m:8088/proxy/application_1617027930514_0006/
2021-03-29 15:23:15,588 INFO mapreduce.Job: Running job: job_1617027930514_0006
2021-03-29 15:23:23,749 INFO mapreduce.Job: Job job_1617027930514_0006 running in uber mode : false
2021-03-29 15:23:23,750 INFO mapreduce.Job:  map 0% reduce 0%
2021-03-29 15:23:29,821 INFO mapreduce.Job:  map 100% reduce 0%
2021-03-29 15:23:36,867 INFO mapreduce.Job:  map 100% reduce 29%
2021-03-29 15:23:37,873 INFO mapreduce.Job:  map 100% reduce 43%
2021-03-29 15:23:38,878 INFO mapreduce.Job:  map 100% reduce 71%
2021-03-29 15:23:39,885 INFO mapreduce.Job:  map 100% reduce 100%
2021-03-29 15:23:41,903 INFO mapreduce.Job: Job job_1617027930514_0006 completed successfully
2021-03-29 15:23:42,004 INFO mapreduce.Job: Counters: 56
File System Counters
  FILE: Number of bytes read=132
  FILE: Number of bytes written=1957559
  FILE: Number of read operations=0
  FILE: Number of large read operations=0
  FILE: Number of write operations=0
  HDFS: Number of bytes read=169
  HDFS: Number of bytes written=58
  HDFS: Number of read operations=38
  HDFS: Number of large read operations=0
  HDFS: Number of write operations=21
  HDFS: Number of bytes read erasure-coded=0
Job Counters
  Killed reduce tasks=1
  Launched map tasks=1
  Launched reduce tasks=7
  Data-local map tasks=1
  Total time spent by all maps in occupied slots (ms)=9752040
  Total time spent by all reduces in occupied slots (ms)=111593004
  Total time spent by all map tasks (ms)=3090
  Total time spent by all reduce tasks (ms)=35359
  Total vcore-milliseconds taken by all map tasks=3090
  Total vcore-milliseconds taken by all reduce tasks=35359
  Total megabyte-milliseconds taken by all map tasks=9752040
  Total megabyte-milliseconds taken by all reduce tasks=111593004
Map-Reduce Framework
  Map input records=1
  Map output records=10
  Map output bytes=88
  Map output materialized bytes=132
  Input split bytes=110
  Combine input records=10
  Combine output records=8
  Reduce input groups=8
  Reduce shuffle bytes=132
  Reduce input records=8
  Reduce output records=8
  Spilled Records=16
  Shuffled Maps =7
```

```
2021-03-29 15:23:42,004 INFO mapreduce.Job: Counters: 56
  File System Counters
    FILE: Number of bytes read=132
    FILE: Number of bytes written=1957559
    FILE: Number of read operations=0
    FILE: Number of large read operations=0
    FILE: Number of write operations=0
    HDFS: Number of bytes read=163
    HDFS: Number of bytes written=38
    HDFS: Number of read operations=38
    HDFS: Number of large read operations=0
    HDFS: Number of write operations=21
    HDFS: Number of bytes read erasure-coded=0
  Job Counters
    Killed reduce tasks=1
    Launched map tasks=1
    Launched reduce tasks=7
    Data-local map tasks=1
    Total time spent by all maps in occupied slots (ms)=9752040
    Total time spent by all reduces in occupied slots (ms)=111593004
    Total time spent by all map tasks (ms)=3090
    Total time spent by all reduce tasks (ms)=35359
    Total vcore-milliseconds taken by all map tasks=3090
    Total vcore-milliseconds taken by all reduce tasks=35359
    Total megabyte-milliseconds taken by all map tasks=9752040
    Total megabyte-milliseconds taken by all reduce tasks=111593004
  Map-Reduce Framework
    Map input records=1
    Map output records=10
    Map output bytes=80
    Map output materialized bytes=132
    Input split bytes=118
    Combine input records=10
    Combine output records=8
    Reduce input groups=8
    Reduce shuffle bytes=132
    Reduce input records=8
    Reduce output records=8
    Spilled Records=16
    Shuffled Maps=7
    Failed Shuffles=0
    Merged Map outputs=7
    GC time elapsed (ms)=1034
    CPU time spent (ms)=5240
    Physical memory (bytes) snapshot=2523291648
    Virtual memory (bytes) snapshot=35442880512
    Total committed heap usage (bytes)=2626158592
    Peak Map Physical memory (bytes)=352681472
    Peak Map Virtual memory (bytes)=4426313728
    Peak Reduce Physical memory (bytes)=298045440
    Peak Reduce Virtual memory (bytes)=4434710528
  Shuffle Errors
    BAD_ID=0
    CONNECTION=0
    IO_ERROR=0
    WRONG_LENGTH=0
    WRONG_MAP=0
    WRONG_REDUCE=0
  WordCount$TokenizerMapper$CountersEnum
    INPUT_WORDS=10
  File Input Format Counters
    Bytes Read=47
  File Output Format Counters
    Bytes Written=58
mapreduce.taskcounter.output=5
```