```
16/11/23 01:04:28 INFO client.RMProxy: Connecting to ResourceManager at /0.0.0.0:8032
16/11/23 01:04:28 INFO client.RMProxy: Connecting to ResourceManager at /0.0.0:0322
16/11/23 01:04:29 WARN mapreduce.JobResourceUploader: Hadoop command—line option parsing not performed. Implement the Tool interface and execute your application with ToolRunner to remedy this.
16/11/23 01:04:29 INFO mapred.FileInputFormat: Total input paths to process: 169
16/11/23 01:04:29 INFO mapreduce.JobSubmitter: number of splits:169
16/11/23 01:04:29 INFO mapreduce.JobSubmitter: number of splits:169
16/11/23 01:04:29 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1479888398216_0003
16/11/23 01:04:29 INFO impl.YarnClientImpl: Submitted application application_1479888398216_0003
16/11/23 01:04:29 INFO mapreduce.Job: The url to track the job: http://uwl-320-07:8088/proxy/application_1479888398216_0003/
16/11/23 01:04:29 INFO mapreduce.Job: Running job: job_1479888398216_0003
16/11/23 01:04:34 INFO mapreduce.Job: Job job_1479888398216_0003 running in uber mode : false
16/11/23 01:04:34 INFO mapreduce.Job: map 0% reduce 0%
16/11/23 01:04:41 INFO mapreduce.Job: map 4% reduce 0%
16/11/23 01:04:41 INFO mapreduce.Job: map 4% reduce 0%
16/11/23 01:04:44 INFO mapreduce.Job: map 5% reduce 0%
                                                        map 7% reduce 0%
16/11/23 01:04:46 INFO mapreduce.Job:
16/11/23 01:04:49 INFO mapreduce.Job: map 8% reduce 0%
16/11/23 01:04:50 INFO mapreduce.Job: map 9% reduce 0%
16/11/23 01:04:51 INFO mapreduce.Job: map 10% reduce 0%
16/11/23 01:04:52 INFO mapreduce.Job:
                                                        map 11% reduce 0%
16/11/23 01:04:54 INFO mapreduce.Job:
                                                        map 12% reduce 0%
16/11/23 01:04:57 INFO mapreduce.Job: map 14% reduce 0%
16/11/23 01:04:58 INFO mapreduce.Job: map 15% reduce 0%
16/11/23 01:05:02 INFO mapreduce.Job:
                                                        map 17% reduce 0%
16/11/23 01:05:03 INFO mapreduce.Job: map 19% reduce 0%
16/11/23 01:05:07 INFO mapreduce.Job:
                                                        map 21% reduce 0%
16/11/23 01:05:08 INFO mapreduce.Job: map 22% reduce 0%
16/11/23 01:05:12 INFO mapreduce.Job: map 24% reduce 0%
16/11/23 01:05:13 INFO mapreduce.Job:
                                                        map 25% reduce 0%
16/11/23 01:05:16 INFO mapreduce.Job:
                                                        map 27% reduce 0%
16/11/23 01:05:17 INFO mapreduce.Job: map 28% reduce 9% 16/11/23 01:05:20 INFO mapreduce.Job: map 30% reduce 9%
16/11/23 01:05:21 INFO mapreduce.Job: map 31% reduce 9%
16/11/23 01:05:23 INFO mapreduce.Job:
                                                        map 31% reduce 10%
16/11/23 01:05:24 INFO mapreduce.Job: map 33% reduce 10%
16/11/23 01:05:25 INFO mapreduce.Job: map 34% reduce 10%
16/11/23 01:05:26 INFO mapreduce.Job: map 34% reduce 11%
16/11/23 01:05:28 INFO mapreduce.Job: map 36% reduce 11%
16/11/23 01:05:29 INFO mapreduce.Job:
                                                        map 37% reduce 12%
16/11/23 01:05:31 INFO mapreduce.Job:
                                                        map 38% reduce 12%
16/11/23 01:05:32 INFO mapreduce.Job:
                                                        map 38% reduce 13%
16/11/23 01:05:33 INFO mapreduce.Job:
                                                        map 40% reduce 13%
16/11/23 01:05:35 INFO mapreduce.Job:
                                                         map 41% reduce
16/11/23 01:06:17 INFO mapreduce.Job: 16/11/23 01:06:18 INFO mapreduce.Job:
                                                       map 73% reduce 24%
map 75% reduce 24%
16/11/23 01:06:20 INFO mapreduce.Job:
                                                         map 75% reduce 25%
16/11/23 01:06:21 INFO mapreduce.Job:
                                                         map 76% reduce 25%
16/11/23 01:06:22 INFO mapreduce.Job: 16/11/23 01:06:23 INFO mapreduce.Job:
                                                        map 78% reduce 25%
                                                        map 78% reduce 26%
16/11/23 01:06:25 INFO mapreduce.Job:
                                                         map 79% reduce 26%
16/11/23 01:06:26 INFO mapreduce.Job:
                                                         map 81% reduce 27%
16/11/23 01:06:28 INFO mapreduce.Job:
                                                        map 82% reduce 27%
16/11/23 01:06:30 INFO mapreduce.Job: 16/11/23 01:06:31 INFO mapreduce.Job:
                                                        map 83% reduce 27%
map 84% reduce 27%
16/11/23 01:06:32 INFO mapreduce.Job:
                                                        map 85% reduce 28%
16/11/23 01:06:34 INFO mapreduce.Job:
                                                         map 86% reduce 28%
16/11/23 01:06:35 INFO mapreduce.Job: map 88% reduce 28%
16/11/23 01:06:36 INFO mapreduce.Job: map 88% reduce 29% 16/11/23 01:06:38 INFO mapreduce.Job: map 90% reduce 29%
16/11/23 01:06:39 INFO mapreduce.Job: map 91% reduce 30%
16/11/23 01:06:42 INFO mapreduce.Job: map 93% reduce 30% 16/11/23 01:06:45 INFO mapreduce.Job: map 93% reduce 31%
16/11/23 01:06:46 INFO mapreduce.Job: map 96% reduce 31% 16/11/23 01:06:48 INFO mapreduce.Job: map 96% reduce 32%
16/11/23 01:06:50 INFO mapreduce.Job: map 99% reduce 32% 16/11/23 01:06:51 INFO mapreduce.Job: map 99% reduce 33% 16/11/23 01:06:52 INFO mapreduce.Job: map 100% reduce 33%
16/11/23 01:06:53 INFO mapreduce.Job: map 100% reduce 100%
16/11/23 01:06:54 INFO mapreduce.Job: Job job_1479888398216_0003 completed successfully
16/11/23 01:06:54 INFO mapreduce.Job: Counters: 49
            File System Counters
                       FILE: Number of bytes read=3389
FILE: Number of bytes written=20300519
                       FILE: Number of read operations=0
FILE: Number of large read operations=0
                       FILE: Number of write operations=0
HDFS: Number of bytes read=11481647
                        HDFS: Number of bytes written=2283
                       HDFS: Number of read operations=510
HDFS: Number of large read operations=0
HDFS: Number of write operations=2
            Job Counters
                       Launched map tasks=169
                       Launched reduce tasks=1
                       Data-local map tasks=169
```

```
- ssh elizavet@uw1-320-07.uwb.edu
                                                Data-local map tasks=169
                      Data-local map tasks=169
Total time spent by all maps in occupied slots (ms)=587234
Total time spent by all reduces in occupied slots (ms)=106143
Total time spent by all map tasks (ms)=587234
Total time spent by all reduce tasks (ms)=106143
Total vcore-milliseconds taken by all map tasks=587234
Total vcore-milliseconds taken by all reduce tasks=106143
Total megabyte-milliseconds taken by all map tasks=601327616
Total megabyte-milliseconds taken by all reduce tasks=108690432
Map-Reduce Framework
Map input records=299992
                                              Map input records=299992
Map output records=2047
Map output bytes=36504
Map output materialized bytes=4397
                                                 Input split bytes=17715
                                                Combine input records=2047
Combine output records=160
                                                Reduce input groups=5
Reduce shuffle bytes=4397
Reduce input records=160
                                              Reduce input records=160
Reduce output records=5
Spilled Records=320
Shuffled Maps =169
Failed Shuffles=0
Merged Map outputs=169
GC time elapsed (ms)=20896
CPU time spent (ms)=120270
Physical memory (bytes) snapshot=54736089088
Virtual memory (bytes) snapshot=482242150400
Total committed heap usage (bytes)=54937518080
Errors
                       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=11463932
                       File Output Format Counters
                                                Bytes Written=2283
Time elapsed (in miliseconds): 146842
```