

## Week 3

I ran the MaxTemperature script on 3 data sets. Following are the outputs and execution time:

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ubuntu-xenial-large-521 — vagrant@pleasechangeme: ~/hadoop-book/ch02-mr-intro/src/main/java — s
Map input records=5000000
Map output records=4642067
Map output bytes=41778603
Map output materialized bytes=51062785
Input split bytes=904
Combine input records=0
Combine output records=0
Reduce input groups=1
Reduce shuffle bytes=51062785
Reduce input records=4642067
Reduce output records=1
Spilled Records=9284134
Shuffled Maps =8
Failed Shuffles=0
Merged Map outputs=8
GC time elapsed (ms)=3167
CPU time spent (ms)=21880
Physical memory (bytes) snapshot=1924378624
Virtual memory (bytes) snapshot=16911880192
Total committed heap usage (bytes)=1391427584
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=1030902727
File Output Format Counters
Bytes Written=9

real    1m4.189s
user    0m3.444s
sys     0m0.120s
vagrant@pleasechangeme:~/hadoop-book/ch02-mr-intro/src/main/java$ Hadoop fs -ls /user/$USER/output1
Hadoop: command not found
vagrant@pleasechangeme:~/hadoop-book/ch02-mr-intro/src/main/java$ hadoop fs -ls /user/$USER/output1
-ls: Unknown command
[vagrant@pleasechangeme:~/hadoop-book/ch02-mr-intro/src/main/java$ hadoop fs -ls /user/$USER/output1
Found 2 items
-rw-r--r--  1 vagrant supergroup          0 2017-02-10 20:14 /user/vagrant/output1/_SUCCESS
-rw-r--r--  1 vagrant supergroup          9 2017-02-10 20:14 /user/vagrant/output1/part-r-00000
[vagrant@pleasechangeme:~/hadoop-book/ch02-mr-intro/src/main/java$ hadoop fs -cat /user/$USER/output1/part-r-00000
1990    607
vagrant@pleasechangeme:~/hadoop-book/ch02-mr-intro/src/main/java$
```

```

Total time spent by all map tasks (ms)=1816038
Total time spent by all reduce tasks (ms)=318858
Total vcore-seconds taken by all map tasks=1816038
Total vcore-seconds taken by all reduce tasks=318858
Total megabyte-seconds taken by all map tasks=1859622912
Total megabyte-seconds taken by all reduce tasks=326510592
Map-Reduce Framework
  Map input records=35000000
  Map output records=30592765
  Map output bytes=275334885
  Map output materialized bytes=336520775
  Input split bytes=6840
  Combine input records=0
  Combine output records=0
  Reduce input groups=2
  Reduce shuffle bytes=336520775
  Reduce input records=30592765
  Reduce output records=2
  Spilled Records=61185530
  Shuffled Maps =60
  Failed Shuffles=0
  Merged Map outputs=60
  GC time elapsed (ms)=28745
  CPU time spent (ms)=176790
  Physical memory (bytes) snapshot=13301149696
  Virtual memory (bytes) snapshot=114581987328
  Total committed heap usage (bytes)=9769713664
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=7993006187
File Output Format Counters
  Bytes Written=18

real    6m40.488s
user    0m4.712s
sys     0m0.288s
[vagrant@pleasechangeme:~/hadoop-book/ch02-mr-intro/src/main/java$ hadoop fs -cat /user/$USER/output3/par
1990    607
1992    605
[vagrant@pleasechangeme:~/hadoop-book/ch02-mr-intro/src/main/java$ ]

```

```
ubuntu-xenial-large-521 — vagrant@pleasechangeme: ~/hadoop-book/ch02-mr-intro/src/main/java —
Total time spent by all reduce tasks (ms)=541533
Total vcore-seconds taken by all map tasks=3114199
Total vcore-seconds taken by all reduce tasks=541533
Total megabyte-seconds taken by all map tasks=3188939776
Total megabyte-seconds taken by all reduce tasks=554529792
Map-Reduce Framework
  Map input records=50000000
  Map output records=42671468
  Map output bytes=384043212
  Map output materialized bytes=469386676
  Input split bytes=10032
  Combine input records=0
  Combine output records=0
  Reduce input groups=3
  Reduce shuffle bytes=469386676
  Reduce input records=42671468
  Reduce output records=3
  Spilled Records=85342936
  Shuffled Maps =88
  Failed Shuffles=0
  Merged Map outputs=88
  GC time elapsed (ms)=51784
  CPU time spent (ms)=285500
  Physical memory (bytes) snapshot=19448356864
  Virtual memory (bytes) snapshot=167180423168
  Total committed heap usage (bytes)=14234288128
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=11753148425
File Output Format Counters
  Bytes Written=27

real    11m6.822s
user    0m5.820s
sys     0m0.440s
[vagrant@pleasechangeme:~/hadoop-book/ch02-mr-intro/src/main/java$ hadoop fs -cat /user/$USER/output4/part-r-00000
1990    607
1991    607
1992    605
vagrant@pleasechangeme:~/hadoop-book/ch02-mr-intro/src/main/java$
```

## Retired Jobs

| Show 20 ▾ entries           |                         |                         |  |                 |         |         |           |              |                  | Search:         |                     |      |      |
|-----------------------------|-------------------------|-------------------------|--|-----------------|---------|---------|-----------|--------------|------------------|-----------------|---------------------|------|------|
| Submit Time ▾               | Start Time ▾            | Finish Time ▾           | Job ID ▾                               | Name ▾          | User ▾  | Queue ▾ | State ▾   | Maps Total ▾ | Maps Completed ▾ | Reduces Total ▾ | Reduces Completed ▾ |      |      |
| 2017.02.10 21:29:11 CST     | 2017.02.10 21:29:19 CST | 2017.02.10 21:40:12 CST | <a href="#">job_1486782805443_0001</a> | Max temperature | vagrant | default | SUCCEEDED | 88           | 88               | 1               | 1                   |      |      |
| Submit Time                 | Start Time              | Finish Time             | Job ID                                 | Name            | User    | Queue   | State     | Maps T       | Maps Comple      | Reduces Tc      | Reduces Com         |      |      |
| Showing 1 to 1 of 1 entries |                         |                         |  |                 |         |         |           |              |                  | First           | Previous 1          | Next | Last |