

### Job run time

	Single Record Lookup	Filter	Group by accompanied by order by
Map reduce	2 min 44 sec	2 min 26 sec	14 min 53 sec
Spark	2 min 2 sec	1 min 35 sec	2 min 28 sec

From the job run time for map reduce and spark we can see that spark is faster than map reduce. This also verifies that compared in in memory processing, spark prevents the unnecessary input output operations with disks and is fast.

### Count of records

	Single Record Lookup	Filter	Group by accompanied by order by
Map reduce	1	31029	4 1449879 3 4965530 2 300019553 1 620370902
Spark	1	31029	4 1449879 3 4965530 2 300019553 1 620370902