

ENSC 351 - Lab 3: MapReduce

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1 Explanation of workload

The workload invented to fit the MapReduce framework better than word counts was [matrix multiplication | distributed sort problem | merge sort problem]

1.1 Conception

[Matrix multiplication | distributed sort problem | merge sort problem] was chosen as a better alternative to word counts because...

1.2 Speed: Single-threaded implementation

1.3 Speed: MapReduce implementation

1.4 Comparison

2 Word count efficiency

Both implementations of the program counted the instances of words in the first five paragraphs (516 words) of Lorem Ipsum.

2.1 Single-threaded implementation

2.2 MapReduce implementation

2.3 Comparison

3 Most appropriate workload for MapReduce

Data that needs sorting?

4 Impact of using multiple machines on execution speed