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CSE130

<center>Write up Assignment 0: Shoulders</center>

Testing

Shoulders, should be identical to head. (With consideration to *shoulders* limited design.

    i. Comparing general command:
1.   head -qn
2. ./shoulders n

Example:
1.   head -qn 10 file1 > test_h.txt
2. ./*shoulders* 10 file1 > test_s.txt

Taking diff test_h.txt test_s.txt **shows no diff**

Testing Code for the spec:

Majority of tests were done using Scripts provided by **Christopher Lim** and **Anish P**.

These tests include various arguments for *shoulders* and head to compare behavior.

Outside of the behavioral comparison testing , I benchmarked performance by

    ii. Comparing time general command:
1. Time   head -qn
2. Time ./shoulders n

Made iterations upon *shoulder* to determine the deficiencies regarding performance.

By removing the amount of system calls and using referencing instead of copies of data, I significantly reduced the run time of shoulders to be closer to head.