PA 5 report

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***Rubric:***

Report should show the runtime comparison with varying w against PA4. For data requests:

* 1. The runtime of PA5 should not be any slower. **Deduct 5 points if PA5 is slower.**
  2. The point of diminishing return should be mentioned - **deduct 5** points otherwise. Compare this point against the same for PA4. This time, the point may shift to the right or at least, stay roughly the same. But it should not be any worse.
  3. Compare file transfer runtimes of PA4 and PA5 for the same file. They should be roughly the same (i.e., there is no reason to see any differences)

***Video link:*** https://youtu.be/YAMmsiZdFo0

***Data requests PA4 vs PA5:***

Command used: ./client -n 15000 -p 15 -w X -b 1024

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| -w | 10 | 20 | 30 | 50 | 100 | 200 | 300 | 350 | 400 | 500 |
| PA4 | 89.95 | 67.21 | 39.65 | 39.54 | 26.36 | 25.53 | 27.59 | 27.11 | 28.20 | 30.64 |
| PA5 | 86.21 | 61.14 | 40.40 | 31.93 | 24.44 | 24.58 | 21.32 | 22.82 | 23.86 | 26.10 |

The point of diminishing return for PA4:100

The point of diminishing return for PA5: 300

Reason of an early point of diminishing return:

For PA4, since all the modules needed are supported by Mac OS, I ran PA4 on local machine, and the point was around 300-400. However, epoll needed by PA 5 is not supported by Mac OS, so I ran both PA again in VM for a better comparison. As a result of using VM, I am hitting the point of diminishing return earlier than what I have in local machine. This causes me to choose several smaller test cases.

***File transfer PA4 vs PA5:***

Command used: ./client -f X -w 50

|  |  |  |
| --- | --- | --- |
| -f | 12.csv | handout.pdf |
| PA4 |  |  |
| PA5 |  |  |