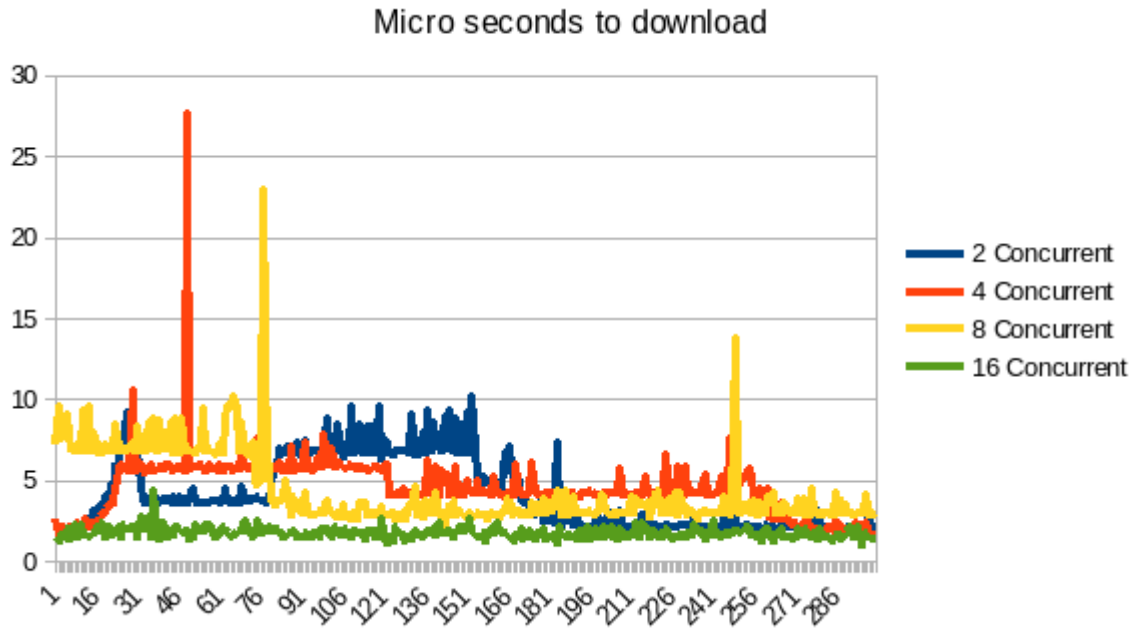
Evaluation for second programming assignment 2

Juan Pedrajas

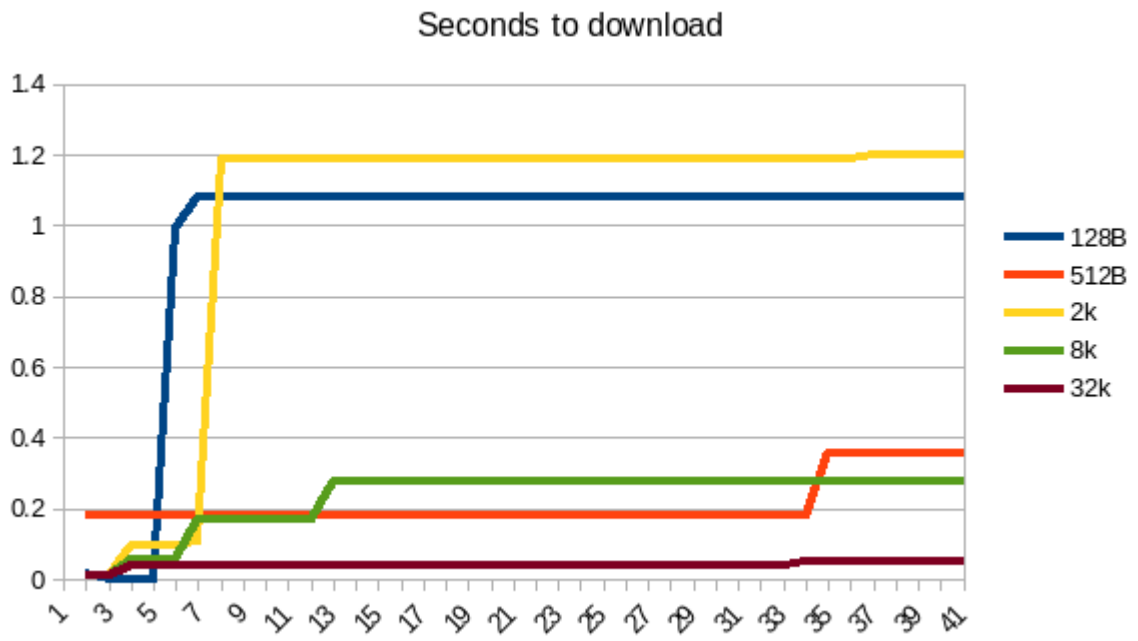
Evaluation 2

Measuring the average response time when multiple peer nodes are concurrently querying file from the indexing server node.



This graph illustrates the response times, measured in microseconds, for each request sent to the indexing server. Notably, these requests were conducted on the same machine, revealing minimal differences that could potentially be attributed more to concurrent processes on the system rather than the actual server load.

Evaluation 3



This plot depicts the download times for varying file sizes, and akin to the previous graph, it suggests that data transfer occurs rapidly. Notably, all nodes are located on the same machine, and the relatively small file sizes may contribute to the observed minimal differences. In this context, fluctuations in download times are more likely attributed to changes in the machine environment rather than variations in the performance related to different file sizes. It's crucial to acknowledge that the experimental setup, including file sizes and the localized nature of the nodes, might be influencing the observed results. To gain a more nuanced understanding and ascertain the impact of file size on download times, future investigations involving a diverse range of file sizes and potentially distributed nodes may be instrumental.

Conclusion

The first graph, illustrating microseconds per request to the indexing server, suggests minimal differences in response times when requests originate from the same machine. Similarly, the second graph, showcasing download times for different file sizes, indicates rapid data transfer, particularly as all nodes are co-located on the same machine. The minimal differences observed may primarily stem from changes in the machine environment rather than intrinsic disparities in the performance related to distinct file sizes. To enhance the robustness of these findings, future investigations should involve a broader range of file sizes and potentially distributed nodes to better assess the impact of both factors on download times. Ultimately, these conclusions underscore the importance of considering nuanced experimental conditions and the potential influence of external factors in comprehensively evaluating system performance.