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Project 2 analysis

Write a brief (½ single page) analysis considering the difficulty of implementing each of XML-RPC and gRPC servers and clients and the speed that each of them offers. Which would you choose if making an actual commercial application? Why? Submit this as a PDF with the timing results.

While implementing both servers and clients, XML-RPC was much easier than gRPC. This is because there is much more set up when implementing gRPC. Instead of just calling the helper functions we made, like in XML-RPC, in gRPC, you need to make a proto file, convert many things into gRPC objects, and call the utility functions, and it takes much longer to implement. You can even tell by comparing the number of lines between each file.

When looking at the timings, there is a larger difference. After running both RPC methods 3 times each, we found the median XML-RPC time to be 15.53 seconds and the median gRPC time to be 7.07 seconds. This shows that the XML-RPC methods consistently took roughly twice as long to run as the gRPC methods. This is because XML-RPC has much more overhead taking place when executing. All things considered, gRPC is much more efficient than XML-RPC, but takes longer to implement. If making a commercial application we would rather use gRPC, because while it may be more work upfront, the server will run much faster.