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<div align="center">Project 1</div>

  Over the course of this project, I learned a lot about processes as a whole and how shared memory is needed for lots of parts of computer applications and operating systems. I also learned the difficulties of running background processes, as I found them to be very finicky in the project, and I didn't get all of the aspects of them to work properly all the time. Being more specific, I learned a lot about the usages of shared memory when it comes to storing and replacing string data to get the name of the process from the child to the parent. I also learned a lot about C string parsing and its relation to pointers, as this was needed for the arguments. This really helped my understanding of what is happening when calling a command in the terminal or bash.

  This was also a good C relearning experience, as I found that a lot of my skill with the language has become rusty and it took me a while to get back into the pointer mindset, I did so eventually. I didn't know how commands like cd and ls are built into C as individual commands chdir and pwd, which would have come in handy in previous projects. I also learned a lot more about malloc and threads in this project, as if a process has a memory leak, it will normally have other problems that will become apparently quickly in the future. In all, I enjoyed this project and it has really enhanced my knowledge of C, operating systems, and processes.