Programming Project 1 - Nathan Tucker (njtucker@iastate.edu)

This programming project was one that I had heard about from older peers and was looking forward to immensely. It is a cool idea and taught me more than I could have thought. The parts I struggled on the most were the parts that taught me the most as well. I particularly got to learn about all of the C builtins that I had no idea existed. Changing directory , getting pid and ppid, etc are all just C builtins which seems incredibly helpful for programming threaded programs and was particularly helpful when backgrounding tasks.

Beyond that it was just applying the conceptual knowledge of user input and exec'ing commands either in the shell or as a child process that I found fascinating. **I did elect to do the extra credit assignment of `jobs`.** It was a pretty simple thing to do as well, if a process is backgrounded, just add that process' info (name and pid) to a data structure. I chose a linked list. Then, once I detect that the program has finished execution, remove that item from the list (based on pid). The list code can be found in `list.c` and is a fairly straightforward list.