

1. The `finder.c` implementation forks 4 times and opens 3 pipes. Therefore, the program creates 4 processes and the data flow between them is facilitated with said pipes. The program design consists of forking a process then using `'dup2'` and `'execl'` to perform the provided operations including the `find`, `xargs`, `sort`, and `head` commands.
2. Testing the `finder.c` implementation mainly consisted of compilation trial and error. Otherwise documentation references provided insight into proper use of the necessary system calls. The large part of the trouble came from formatting and executing each command correctly, the pipes and forks weren't as much of an issue.
3. Pipes are a very atomic piece of system code that provides a tight nit and concise implementation for inter process communication view standard input and output. Thereby, the pipe implementation and Doug McIlroy's statements are a trivial comparison namely because the pipe command was designed with Doug's word in mind. See <http://doc.cat-v.org/unix/pipes/>.