

Jonathan Kim 018432386

Duy Phung 027205371

Dr. Hailu Xu

CECS 326

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Project 1

Objective:

Create a code in C or python that uses pipes and forks to copy the contents of a text file to another text file.

Contributions:

Jonathan Kim:

- Researched pipe and fork methods in the os library
- Created the parent and child functions

Duy Phung:

- Researched how to include arguments from compiler using sys library
- Worked on the edge cases and error handling

Overall Design:

The function is developed in python, so in order to handle pipes and forks, we needed to use the os library. To use user defined arguments given when compiling, we had to use the sys library as well. The program initializes a pipe, with variable r being the “read” end of the pipe and “w” being the write end of the pipe. We then created a fork saved to the variable “pid”. After validating the fork to ensure its creation, we had an “if else” statement to determine whether it had entered the parent or child process. The parent process reads from the source file and writes

to the “write” end of the pipe. The child process reads from the “read” end of the pipe and writes to the destination file. Files and addresses are closed after use to ensure no memory leaks.

Video link:

<https://www.youtube.com/watch?v=5n2xBsRHmkg>