Homework 2

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Content

Problem Understanding and Approach

This homework has some critical points to consider.

First of all, I check class materials and text book for SIGINT and multi processors.

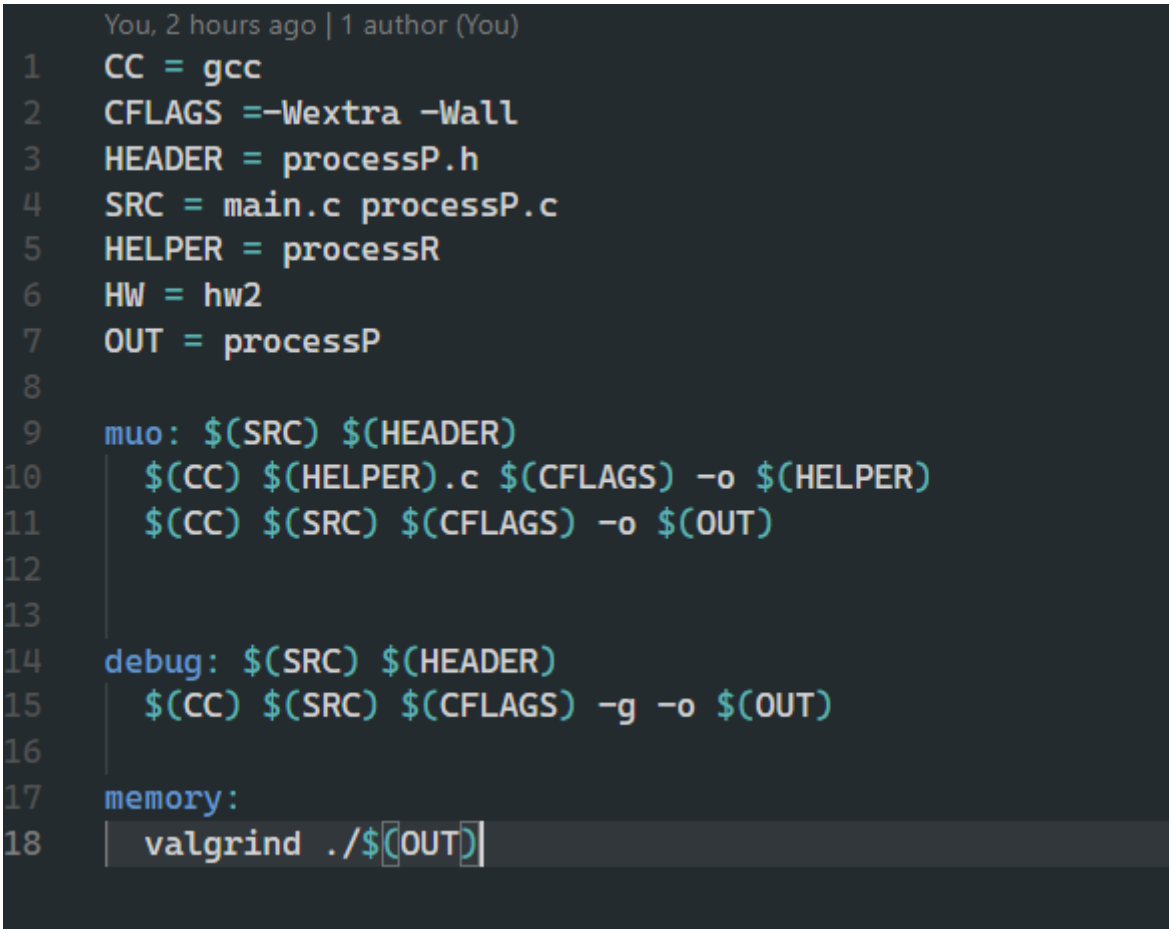
I wrote some test programs to recognize the basics. For every basic step, it should be avoided to make big mistake since it could be cause for computer crashes. (Which I encountered while doing this homework)

File Structure

`makefile`

I have the very same makefile from homework1.

I add some configurations to hanlde more easily.



debug: This option will compile program with `-g` flag. It will allows you to debug. For entering debug mode, you have to run your program with `gdb`.

memory: This option will call `valgrind`. But since, We have to provide arguments, It has no effect for this homework. For valgrind, you have to run command without makefile.

`processP.c` `processP.h`

Those files keeps parent process source code and declarations. I keep the functions as simple as since due to clean code.

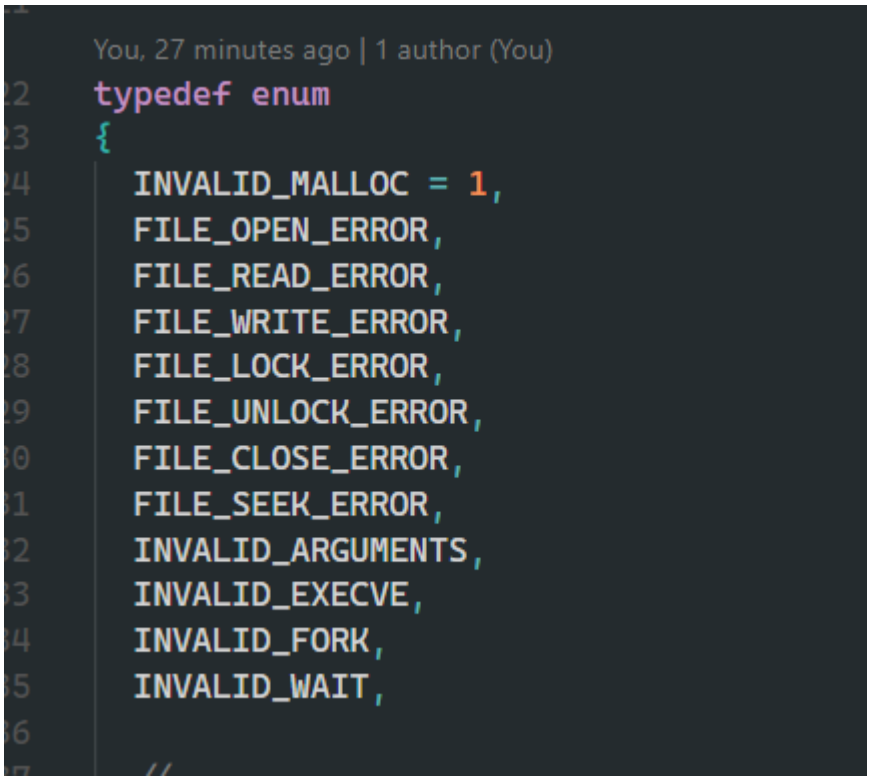
Also header file contains well documented explanations about functions.

`processR.c` `processR.h`

Those files contains child process source code. This program's executable file is calling from `procesP` and execute corespending.

It will append desired file to output and calculates the matrix.

Error Enum Type



This enum type holds those provided enums and have function to well formatted way print to screen with using `write()` function.

Also has a global variable to set and use it.

Coding Approach

Parse File

I created an ASCII file and check if I am able to read it without any strugling. It will convert any ascii char to their corresponding ascii number values.

With those approach, I was able to parse every ascii char to respective number for keeping coordinates.

Write file and reparse

After child processes calculate the matrixes, they will write to file and rereaded from parent and it will check for the closest matrixes.

Valgrind Result

Valgrind has a option to track child processes memory leaks. I checked with it too and it says eveything seems fine.

Missing Parts

Unfrotunaltly, program calculates matrix but not shows the difference value.

It sends env to process, process calculates but last difference does not shown