Gebze Technical University
Computer Engineering

System Programming

CSE344 – 2021

HW2-REPORT

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Note: I used some code from internet for lagrange interpolation. Some of them include c++ code. But rest of HW is in c and belongs to me. I hadn't enough time for converting c++ to c.

Compile and Run

1- write "make" in terminal to compile HW.
2- write "./main <path>" to run program.
3- Sample: "./main /home/yusuf/Desktop/System/HW2/example"

What I have done

1 I managed synchronization with SIGUSR1 and SIGUSR2 signals.
2 I did not use file lock. It wasn't obligatory in the HW.
3 No additional file created.
4 No memory leak. No zombie.
5 CTRL-C terminate the program. But does not kill all child processes.

Design Decisions

I did not use file lock mechanism. I used SIGUSR1 and SIGUSR2 signals synchronization. SIGUSR1 signal used for sending signal from parent to child. SIGUSR2 used for sending signal from child to parent.

Screen Soot

I run the program with the example file which is given us. Here is ss:

```
==8843== Command: ./main /home/yusuf/Desktop/System/HW2/example
==8843==
Error of polynomial of degree 5: 21.700001
Polynomial 4: -109.8,211.1,-134.7,40.1,-6.0,0.4,-0.0,
Polynomial 2: 16.6,-8.4,-1.7,2.0,-0.4,0.0,-0.0,
Polynomial 7: 70.6,-113.3,69.4,-20.6,3.2,-0.3,0.0,
Polynomial 3: 799.0,-1125.8,615.2,-167.8,24.3,-1.8,0.1,
Polynomial 0: -491.0,917.6,-547.1,153.0,-22.2,1.6,-0.0,
Polynomial 6: -1836.3,1791.2,-688.6,134.7,-14.2,0.8,-0.0,
Polynomial 1: -13.0,37.5,-26.5,9.9,-2.0,0.2,-0.0,
Polynomial 5: -51.7,89.3,-48.3,12.1,-1.5,0.1,-0.0,
Error of polynomial of degree 6: -7.587501
```