

[2019 Network System Programming Homework5]

Upload:

1. Please compress your homework into zip or tar archive.
2. Naming rules: "StudentID_SP_HW5.zip". For example: M053040086_SP_HW5.zip
3. Upload your homework to National Sun Yat-sen Cyber University.
4. Deadline: 2019/10/22 23:59.

Note:

1. Please use C language in this homework and run your program on Ubuntu 18.04.
2. Please provide Makefile to compile your homework; otherwise, you will get ZERO.
3. Do not copy homework of others. If it happened, you will get ZERO whether you are either the owner of the homework or the copypast.
4. If you have any question, please send email to sp_ta@net.nsysu.edu.tw or come to EC5018, but TA does not help to debug.
5. If you do not submit your assignment on time, you will not hand in the delayed homework and get ZERO as well. If you have trouble, please advise in advance by email. Moreover, time and place for demo will be announced later.

Section 22.10 stated that accepting signals using ***sigwaitinfo()*** is faster than the use of a signal handler plus ***sigsuspend()***. The program ***signals/sig_speed_sigsuspend.c***, supplied in the source code distribution for this book, uses ***sigsuspend()*** to alternately send signals back and forward between a parent and a child process. Time the operation of this program to exchange one million signals between the two processes. (The number of signals to exchange is provided as a command-line argument to the program.) Create a modified version of the program that instead uses ***sigwaitinfo()***, and time that version. What is the speed difference between the two programs?