

次世代無線網路概論

2022/11/16

Term Project 2

By TA Group





INSTRUCTIONS

In this homework, you need to

- Write server and client programs to practice socket programming
- Zip your source code
- Name the zip file “**studentID_hw2.zip**” and upload it to the Moodle system
- Demo your homework to TA group
- Example video link : [hw2_example](#)
- Mail to network6459@gmail.com if you have any question about this homework

REQUIREMENTS

- In this program, you should write a simple calculator that
 - Includes mathematical operators “+ - * / % ^ ()” .
 - Accurate to **second decimal place**.
 - If the formula is invalid, e.g. divided by zero.. , then output “ **invalid input** ” .
- Only one client and one server are needed

The following is the introduction to the six operators:

- Ex : $2+1=3$, $5-2=3$, $3*7=21$, $45/5=9$, $2^3=8$, $5+8\%3=7$, $5*2^2\%3=5$, $2*9\%5+2*8/4=7$ → Order of operations
- The client inputs their formulas to the server for the calculation service (either by manual input or a .txt file input), gets the answers from the server, and prints results out on the console and write them to a file



REQUIREMENTS

Client :

- Mode 1 (single-line process)
 - Input formulas manually and send the inputs one by one to the server
 - Print the resulting answers on the screen
- Mode 2 (batch process)
 - Pack all formulas into one single text file and send the text file to the server for further data processing
 - Write the resulting answers to the “Ans.txt” file



REQUIREMENTS

Server :

- Confirm requests from clients
- Compute the formulas
- Print the answers on the screen
- Write the answer to the file



HAND IN

- **Source Code** in .c/.cpp/.py
 - C/ C++/ Python
- Plagiarism is prohibited and will get a minus score if you do so
- In this project, we'll use source code plagiarism detection tool for plagiarism detection



CHECK POINTS

- **Code : 70%**
 - TCP connection : 10%
 - Operator function : 10%
 - Mode1 : 10%
 - Mode2 : 15%
 - Correctness : 25%
- **Demo : 30%**

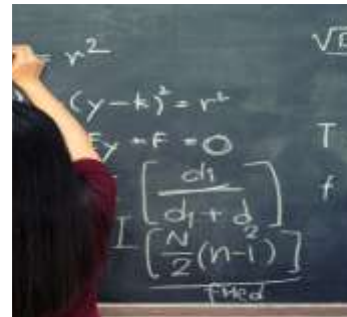
TIMELINE



Finish homework in time



Deadline : 2022/11/27



Demo time : 2022/12/7



DEMO

- Please fill the demo order sheet below before 11/25(Wen.) 11:59 p.m.
- [Demo List](#)