Homework 9

Objective :

Learning how to use *function call* and *recursive*.

Exercise :

9

Design a program that let user input two integers *a, b*, use *function call* and *recursive* to implement the summation of a+(a+1)+(a+2)+...+b. Because the input *a* might be larger than input *b*, you need to use *myswap()* to swap this two integers. And you also need to implement the infinity loop that user can keep input until the user input EOF then the program stop. Your program should include the following two *function*:

1. void myswap(int,int*):*

This function is used to change the two integers in *main()*.

2. int mysubtotal(int,int):

This function is used to calculate the summation of the two input number a, b with a+(a+1)+(a+2)+...+b. After calculate, return the value. And you can only use *recursive* to calculate.

In this homework, you can only use one loop for the infinity loop that user can keep input. You can't use it in any *function* or *main*. You can't use build-in *swap()* as well. If you want to test EOF, in linux, type *ctrl+d*; in windows, tpye *ctrl+z*.

Input:

2 10
95 4
5 6
9 1
EOF

Output:

```
2 10
The summation 2 to 10 is: 54
95 4
The summation 4 to 95 is: 4554
5 6
The summation 5 to 6 is: 11
9 1
The summation 1 to 9 is: 45
^Z

--------------------------------
Process exited after 7.644 seconds with return value 0
請按任意鍵繼續 . . .
```

Rule and Format：

Comment in your program will get addition point in consider.

Please hand in .c file and name your .c file with your student number.

Compress all the .c file and name with your student number.

Upload the compressed file finally.

Example:

If your student number is B073040055, the file name will be B073040055.c.

Compressed file is B073040055.rar/.zip.

Deadline is **2018.11.29** (Thur.) before class.

No input/output will get 0 point.

Please upload homework to Cyber University:

1. Go to NSYSU Cyber University http://cu.nsysu.edu.tw/
2. Sign in and select C program design(I)
3. Click “Assessment Center”

4. Click “Do assignment”

5. Click ”Start”

6. Click ”選擇檔案” -> upload file .cpp -> submit