Homework 7

Objective :

Learning how to use *loop, function call, File I/O* and *random number.*

Exercise :

7.1

Please input an integer N(1≦N≦26). The integer N means the English words. For example, N=1 represent A. Use *function call* to print parallelogram and diamond like the following picture(you need to insert a blank line between two picture). You also need to determine whether N is reasonable. If N is out of range, you should print the error message and let user reinput N.

※Except the main function, your code should include additional three function:

1. *int check_range(int input)*: check N is reasonable or not.

2. *void draw_parallelogram(int input)*: draw the parallelogram.

3. *void draw_diamond(int input)*: draw the diamond.

Input:

30

5

Output:

```
Please input the number N: 30
The number N is out of range. Please input angin!!

Please input the number N: 5

A B C D E D C B A
 A B C D E D C B A
  A B C D E D C B A
   A B C D E D C B A
    A B C D E D C B A

         A
       A B A
     A B C B A
   A B C D C B A
 A B C D E D C B A
   A B C D C B A
     A B C B A
       A B A
         A
```
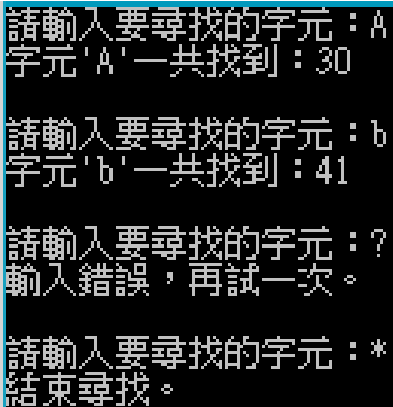
7.2

Design a program, first, you need to generate a new file named input.txt which has 1000 random-generated English words with upper or lower case. You need to srand(1) for random seed especially. Then save the file. Second, open the input.txt then let user input a word and use the word to search how many times the word appears in the file. Upper and lower case should be considered as the same word. Program should accept repeated input. When the input is '*', stop the program.

Example:

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 **2018.11.15** (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