C Language Programming: Homework #8
Assigned on 12/18/2018(Tuesday), Due on 01/02/2019(Wednesday)

Description:

This assignment allows you to practice implementing linked list. Use Command Line to input numbers including **n** for the number of elements, **m** for indicating the input integers must be in the range of 0 to **m – 1**, and **s** is a seed of *srand()*, which is used for *rand()* to generate **n** random numbers. All of three numbers are in the range of 1 to 100. You are required to do:

1. (30%) Use the following node structure to create a singly linked list (SLL), and print its values of each node from head to tail on the screen.

```
struct node {
    int value;              /* data stored in the node  */
    struct node *next;      /* pointer to the next node */
};
```

2. (60%) Then, use **quicksort** algorithm to sort this singly linked list, and print its values of each node from head to tail on the screen.

In this assignment, you **may** need the following functions for example: SLL_build(...), SLL_insert(...), SLL_concat(...), etc.

3. (10%) Moreover, you should print your report and hand it in at 資訊系館 65502 before 6:00 PM, 01/02/2019.

(NOTE: You are not allow to declare or to use any **array** in this program, or you will get 0 point.)

Command Line:

./hw8 n m s

Example Output

Original SLL: 5 6 2 0 4 3 1 2 0

Sorted SLL: 0 0 1 2 2 3 4 5 6