

C Language Programming: Homework #4
Assigned on 11/03/2015(Tuesday), Due on 11/10/2015(Tuesday)

This program allows you to practice quick sort.

You have to do the following:

1. Randomly generate N integer or floating point numbers, where N can be input by command line and also use command line to decide generate integer or floating point numbers.
2. Use the codes provided by the book to sort these N numbers and output the results.
3. Do the same by calling the qsort() function from C library.
(Independent practice, not included in score)

※NOTE: Please generate random number within 0 ~ 10000. Sort the number in descending order.

Command line

`./hw4 (N) (Data type, 0 means integer, 1 means floating point numbers)`

Score

recursion	20%
logic	30%
correctness	30%
report	20%

Appendix

The properties of a *structure* are different from those of an array.

- The elements of a structure (its *members*) aren't required to have the same type.
- The members of a structure have names; to select a particular member, we specify its name, not its position.

- A declaration of two structure variables that store information about parts in a warehouse:

```
struct {  
int number;  
char name[NAME_LEN+1];  
int on_hand;  
} part1, part2;
```