CSS 2100 Project #1
Array Sorting

Introduction:

Sorting an array consists on rearranging the elements of an array in an increasing or decreasing order. The order could be numerical, alphabetical or some other order. We will suppose the array is one dimensional and it contains numerical values only. The elements of the array are not in order and we will sort them in a decreasing or increasing order. The most used sorting algorithms are the following:

a) Insert sort
b) Selection sort
c) Bubble sort
d) Quick sort
e) Merge sort

Program Tasks:

The program will do the following tasks:

1) Ask the user to enter the length of the array.
2) Ask the user about the method to enter data. If it is manual, the user will enter manually the elements of the array else if it is automatic, random values will be assigned to the elements of the array. You will use the function **rand**() and you will need the header file **cstdlib**. To randomize the results of rand(), you will need the functions **time**() and **srand**().(check the **Random Numbers section** page 129)
3) Ask the user about the sorting algorithm that he wants to use.

4) Display the original order of the elements, execute the sorting algorithm and display the new order of the array's elements.

What you have to do:

1) You will implement the tasks described above.
2) You will choose **two sorting algorithms** from the list above and implement them.
3) You will write a report (**doc file**) to explain the sorting algorithms that you chose and the functions that you implemented.
4) You will submit a **compressed file** containing your code and your report.
5) The due date is **Sunday, October 12,2014, 11:59 pm**.