Data Structures and Algorithms

Lab 2: Sorting

Exercise 1

Sort integer array with even numbers in ascending order and odd numbers in descending order. Notes that, positions of even and odd parts are no change. For example:

1 2 4 7 15 18 8 9 11

After sorting: 15 2 4 11 9 8 18 7 1

Exercise 2

Read the data from the 'employee.txt' file and sort on age in descending order using Heap sort, Merge sort, Quick sort and write the sorted data to another file 'sortedemponage.txt'. If age is equal, using names in alphabetical order.

Exercise 3

Sort an arbitrary two-dimensional array in spiral order as following image: