Development Exercises – L5.1

Goal: The target of these exercises is to enable the student to practice and master programming skills during the course.

Instructions: You are required to submit some programming assignments However, it is STRONGLY recommended that you complete all of them. More practice, more mastery. Required exercises are denoted with *.

For the sort method do not use any library.

Programming Exercise	Description
	Include unit test cases to have a good coverage >90% You can share insight and ideas for the algorithm implementation with other teams
	Create a class in python that Implements a method to sort large amount of data in lists (thousands and millions of items) The data comes into CSV files.
25*	Implement the method - set_input_data(file_path_name) This methods sets the information about the file that will be used to read the data Define custom exceptions or error codes for situations where the parameter is incorrect or the file can not be read
26*	Implement the method - set_output_data(file_path_name) This methods sets the information about the file that will be used to store the sorted data Define custom exceptions or error codes for situations where the parameter is incorrect or the file can not be created
27*	Implement the method - execute_merge_sort() This methods sorts the data contained in the file specified. Define custom exceptions or error codes for situations where there may be special errors
28	Implement the method

	- execute_heap_sort() This methods sorts the data contained in the file specified. Define custom exceptions or error codes for situations where there may be special errors
29 – Two weeks	Implement the method - execute_quick_sort() This methods sorts the data contained in the file specified. Define custom exceptions or error codes for situations where there may be special errors
30 – Two weeks	Implement the method - get_performance_data() This method returns the performance data associated to the last sorting execution [Number of Records Sorted, TimeConsumed, StartTime, EndTime]

Reference

https://en.wikipedia.org/wiki/Sorting_algorithm