LABORATORY 10

REQUIREMENT

Create a reusable module containing ***sorting*** and ***filtering*** functionality. Develop the functionality such that the code can be reused in other projects. The module should include test cases as well as the ***PyDoc*** documentation of methods in order to help others who would like to use the module.

Observations:

1. Update your ***Lab5-7*** program to use both functions from this module exclusively.

2. The sorting algorithm used must be one that was not studied within the lecture or seminar. Suggestions: *shell sort*, *comb sort*, *bingo sort*, *gnome sort*, *shake sort*. Determine the time complexity of the selected algorithm and ***prove that you understand it***.

3. The function for ***filter*** is similar to the one for ***sort***. The difference is that in that case, instead of a comparison function you will write an acceptance function (does the value pass the filter?), and the function will return the matched values.