Contents

[Algorithm 1](#_Toc536185522)

[Approach 1](#_Toc536185523)

[Limitation of code 1](#_Toc536185524)

[Execution Instructions 1](#_Toc536185525)

# Algorithm

Merge sort is a divide and conquer approach with complexity of O(n \* log(n)). It is one of the best comparison-sort algorithms and hence this sorting approach has been used in the Name-Sort application.

# Approach

The text file is read into a name string array.

The merge sort in this sample, sorts by just the first word of a given line. Hence to sort by last name, the last name needs to be placed in LHS of the complete name, for the entire name string array.

Then merge sort is applied to sort the list by last name.

The name string array is again reversed to sort by given name.

# Limitation of code

The code does not check if the number of given names exceed 3.

# Execution Instructions

Save unsorted-names-list in ~ \Namesorter\NameSorter\bin\Debug path

From command prompt navigate to ~ \Namesorter\NameSorter\bin\Debug

To execute code type name-sorter ./unsorted-names-list.txt