

Tomer Levy & Neil Malu (tl455 & nmm182)

Asst0 Description

pointersorter.c is a program that takes in a string input on the terminal. This string input is given for example as "Input1and5Output". The input string should be given as whatever you wish to enter, separated by a non-character such as 1 or . or -. It will first check if there was an improper input or no input at all. The program then separates the inputted string and sorts them in ascending order. This is done using a dynamically growing data structure; we used a linked list. When the program encounters a non-alphabetic character, it takes the previous string and inserts it into a node (a.k.a the linked list). However, before it inserts the node, the program will check if the node already exists and will determine the position of the new node by comparing strings before adding it to the linked list. This process repeats until the end of the inputted string is met, where the sorted linked list of strings is then outputted. Our method of determining the position of the next string makes the program less susceptible to errors and odd test cases. We also use the ctype library to check if the character is an alphabet or not. It ignores white spaces, and multiple inputs.