

Lab 6 Tasks

Q1. The first input in the program will be an integer ‘ n ’ ($0 < n < 11$). Next n separate strings will be taken as input from the user. Assume these n strings are part of a dictionary. Now take another string ‘ $searchString$ ’ as input. Finally print the longest string from the dictionary that can be created using the characters from $searchString$. A character might appear more than once in the $searchString$. Each character of the $searchString$ can only be used as many times as it appears in the string.

Input:	Output:
5 Ale Apple Monkey Plea Zoo abpcplea	apple

Q2. Apply the **insertion sort** on a sequence of numbers where the given sequence is a **Linked List** with each value being stored in a separate element of the linked list.

Q3. Given an array consisting of non-negative integers, your task is to print the of triplets chosen from the array that can make triangles if we take them as side lengths of a triangle.

Input:	Output:
2 3 2 4	2 3 4 2 3 4 2 2 3

Q4. Given n pairs of parentheses, write a function to generate all combinations of well-formed parentheses.

Input: 3 Output: ((())) (()()) (())() ()(()) ()()()	Input: 2 Output: ()() (())
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