Week 13- Day 4 : Coding Challenge

(Maximum marks -15)

Q-1)   Is Subsequence

(7.5 marks)

(Easy)

Given two strings s and t, return true *if s is a subsequence of* t*, or* false *otherwise*.

A subsequence of a string is a new string that is formed from the original string by deleting some (can be none) of the characters without disturbing the relative positions of the remaining characters. (i.e., "ace" is a subsequence of "abcde" while "aec" is not).

Example 1:

Input: s = "abc", t = "ahbgdc"

Output: true

Example 2:

Input: s = "axc", t = "ahbgdc"

Output: false

Q-2) Count Unique Characters of All Substrings of a Given String   (7.5 marks)
(Easy-since we solved it in recursion topic)
https://leetcode.com/problems/count-unique-characters-of-all-substrings-of-a-given-string/
Let's define a function countUniqueChars(s) that returns the number of unique characters on s.

- For example if s = "LEETCODE" then "L", "T", "C", "O", "D" are the unique characters since they appear only once in s, therefore countUniqueChars(s) = 5.

Given a string s, return the sum of countUniqueChars(t) where t is a substring of s.

Notice that some substrings can be repeated so in this case you have to count the repeated ones too.

Example 1:

Input: s = "ABC"
Output: 10
Explanation: All possible substrings are: "A","B","C","AB","BC" and "ABC".
Evey substring is composed with only unique letters.
Sum of lengths of all substring is 1 + 1 + 1 + 2 + 2 + 3 = 10

Marks distribution:
Question 1 and 2 carry 7.5 marks each.