## Lab 8

## **Problem Description:**

Given three strings str1, str2 and str3. Write a program that checks whether str3 is an interleaving output of str1 and str2. Str3 is said to be interleaving str1 and str2, if it contains all characters of str1 and str2 and order of all characters in individual strings is preserved.

For example: str1 = "XXY", str2 = "XXZ" and str3 = "XXXXZY" then str3 is an interleaving output of str1 and str2.

Hint: This problem's focus is not on the data structure but on one of the problem solving techniques

**Input:** The input will comprise of three strings str1, str2 and str3, one each on a separate line.

**Output:** The out will comprise of just one word Yes or No.

Test Case	Input	Output
1	qetuo wryip qwertyuiop	Yes
2	fgfghh jkfhjkl fgfjkhfghhjkl	No
3	aabcc dbbca aadbbcbcac	Yes