3.A user will input two strings, and we find if one of the strings is a sub sequence of the other. Program prints “yes” if either the first string is a sub sequence of the second string or the second string is a sub sequence of the first string.  
Assume that, the length of the first string is smaller than or equal to the length of the second string.

Input the first string  
tree  
Input the second string  
Computer science is awesome  
YES

#include <stdio.h>  
#include <string.h>

int check\_subsequence (char [], char[]);

int main () {  
  int flag;  
  char s1[1000], s2[1000];

  printf("Input first string**\n**");  
  gets(s1);

  printf("Input second string**\n**");  
  gets(s2);

  if (strlen(s1) < strlen(s2))  
    flag = check\_subsequence(s1, s2);  
  else  
    flag = check\_subsequence(s2, s1);

  if (flag)  
    printf("YES**\n**");  
  else  
    printf("NO**\n**");

  return 0;  
}

int check\_subsequence (char a[], char b[]) {  
  int c, d;

  c = d = 0;

  while (a[c] != '**\0**') {  
    while ((a[c] != b[d]) && b[d] != '**\0**') {  
      d++;  
    }  
    if (b[d] == '**\0**')  
      **break**;  
    d++;  
    c++;  
  }  
  if (a[c] == '**\0**')  
    return 1;  
  else  
    return 0;  
}

**output**

