We are given 3 strings: str1, str2, and str3. Str3 is said to be a shuffle of str1 and str2 if it can be formed by interleaving the characters of str1 and str2 in a way that maintains the left to right ordering of the characters from each string. For example, given str1="abc" and str2="def", str3="dabecf" is a valid shuffle since it preserves the character ordering of the two strings. So, given these 3 strings write a function that detects whether str3 is a valid shuffle of str1 and str2.

```
import java.util.*;
public classfindShortestSubString{
       public static void main(String[] args)
       Scanner \underline{s} = \mathbf{new} \; \mathsf{Scanner}(\mathsf{System.} \mathbf{in});
       System.out.println("Enter the String1 : ");
       String str1=s.next();
       System.out.println("Enter the String2 : ");
       String str2=s.next();
       System.out.println("Enter the String1 : ");
       String str3=s.next();
       intj=0,k=0;
       for(inti=0;i<str3.length();i++)</pre>
       if(j<str1.length() &&str3.charAt(i)==str1.charAt(j))</pre>
       {
       j++;
       elseif(k<str2.length() &&str3.charAt(i)==str2.charAt(k))</pre>
       {
       k++;
       }
       else
       break;
       if(j==str1.length() &&k==str2.length())
       System.out.println("Valid Shuffle");
       }
       else
       System.out.println("Invalid Shuffle");
       }
       }
```

## **OUTPUT:**