**Question 04: (03 marks)**

The interface **IUtilities** below is already given in Java code format, thus you can use it without creating an IUtilities .java file.

|  |  |  |
| --- | --- | --- |
| <<interface>>  IUtilities |  |  |
| + sumNumber(**number**: int): int  + replaceString(**sentence**: String, **s1**:String, **s2:**String): String |

Write a class named MyUtilities, which implements the interface IUtilities. The class MyUtilities implements all methods in IUtilities as below:

* sumNumber (**number**: int): int – return the sum of all divisors from 1 to number/2
* replaceString (**sentence**: String, String, **str:** String): int – return a new string after replacing the words equal to the string s1 in the string **sentence** with the string s2. Suppose that the sentence consists of words separated by a space, string comparisons are not case-sensitive

**Hints**: You can refer to the methods: split() and join() of the String class

The program output might look something like this:

***Do not format the result*.**

The program output might look something like this:

|  |  |
| --- | --- |
| 1. Test sumNumber  2. Test replaceString  Enter Test Case No. (1/2): 1  Enter a number: 21  OUTPUT:  11 | 1. Test sumNumber  2. Test replaceString  Enter Test Case No. (1/2): 2  Enter a sentence: PRO192 lap trinh pro192  Enter s1: pro192  Enter s2: OOP  OUTPUT:  OOP lap trinh OOP |