

#### 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.

<pre>&lt;&lt;interface&gt;&gt; IUtilities</pre>
<pre>+ sumNumber(<b>number</b>: int): int + replaceString(<b>sentence</b>: String, <b>s1</b>:String, <b>s2</b>:String): String</pre>

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:

<pre>1. Test sumNumber 2. Test replaceString Enter Test Case No. (1/2): 1 Enter a number: 21 OUTPUT: 11</pre>	<pre>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</pre>
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