Hw - Stack (12 marks)

Copy all files to project "src" folder.

You are given all classes for coding a stack.
Class StackArray and StackLinkedList are given.

Write code for the following method in class StackUtility:

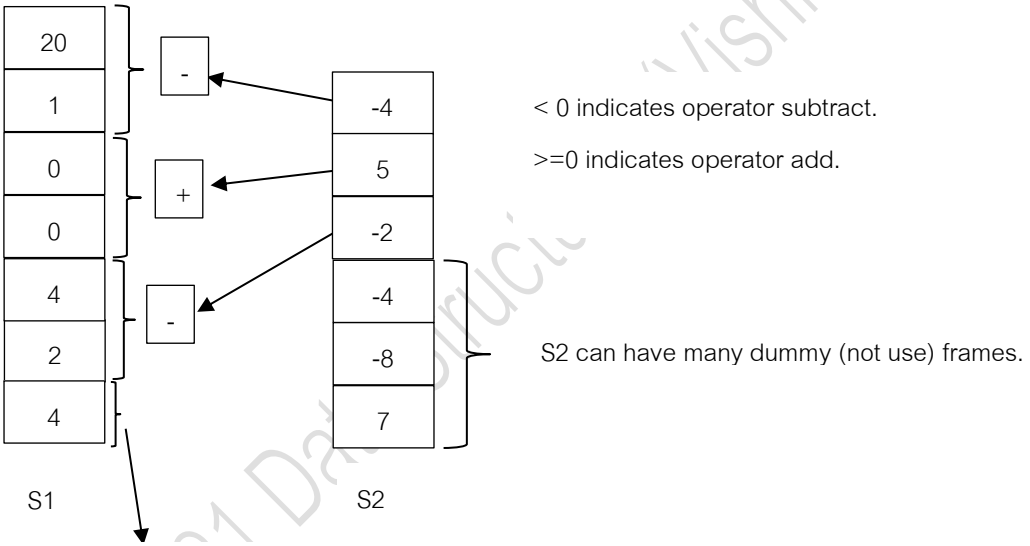
```
public static String operate(MyStack s1, MyStack s2) throws Exception {
```

This method uses 2 stacks to decode a secret word built from:

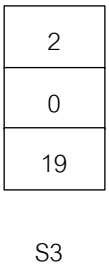
```
static String alphabets = "abcdefghijklmnopqrstuvwxyz";
```

s1 contains an incomplete representation of the word to decode. S2 contains the operations to be used on data of s1 to do the decoding. For example:

The following s1 and s2 will produce the word "cat":



By popping each 2 values from s1 and applying addition/subtraction (according to s2), we can store the result in another stack (say, s3). The above s1 and s2 will produce the following s3.



Each number in s3 indicates a position in alphabets. Hence we get character at 2nd position (c), 0th position (a), and 19th position (t). Thus "cat" will be the returned string from this example.

Name……ID……CR58……

- Your code must work on any implementation of Stack, or you will lose points.

JUnit is in StackUtilityTest.java

- testWordSimpleAdd() 1 mark
- testWordSimpleSubtract() 1 mark
- testWordSimpleSequence() 1 mark
- testWord01() 3 marks
- testWord02() 3 marks
- testWord03() 3 marks

How to submit!
Submit only StackUtility.java in your assignment.