CS101 Homework 5: String Operations

Deadline April 20 2016, Wednesday 23:55 p.m.

You will write a **ConsoleProgram** called **StringOperations.java**, which displays a menu providing three actions:

1. Calculate a mathematical expression
2. Converting date format
3. Exit

If the user chooses the first action, the program will ask the user to enter a simple mathematical expression. A mathematical expression can include one of the following basic operators: +, -, / and * and two integer operands. You can find some sample mathematical expressions below:

- 12 + 3
- 2 * 3
- 10 / 2

Format for input: String operand *space* operator *space* operand (e.g. 1 + 3).

The output will be a real number, which is the result of the given mathematical operation. For example, if the expression is 1 + 3, then the output will be 4.

Your program will process the given string and perform the mathematical operation. The program will output the result. Hint: You may use String methods such as trim() and StringTokenizer class.

To convert a String into an integer, you can use the following method: *Integer.parseInt(String)*

- E.g. int number1=Integer.parseInt("3");

When the user chooses the second action, the program will ask the user to enter a date in format dd/mm/yyyy. Your program will process this date format and convert into the following format, dd Month, yyyy.

E.g. 02/04/2014 → 2 June, 2014

11/03/2001 → 11 March, 2001

The use of "**switch case**" is mandatory for this part.

When the user chooses the third action, the program will terminate. This program will continue until the user chooses the third option.

Coding Instructions:

- Submit a file named **StringOperations.java** to the LMS **submissions with different names will be disregarded!**
- Make sure your program **compiles and runs before submitting otherwise you will get 0 from your homework (no exceptions).**
- The first lines of your code must include your name, surname, student number, and department as a comment. An example comment is as follows:

```
/* John Smith S0001 Department of Computer Science */
```

- Submit .java files only. Do NOT submit .rar, .zip, .doc, .class, etc. files.

- **IMPORTANT : Add comments to your code that briefly explains what your code does such as :**

```
int n;   // n holds the number of square
if ( n > 0)  // test whether the value of n is greater than zero
```