CSCI 1011 – Lab 2

Learning Outcomes

- Use input, output, and assignment statements to write a Java program.
- Compute values using floating point numbers.
- Use named constants to represent values that do not change.
- Revise an existing program to modify its behavior.

Required Reading

Savitch - Section 2.1

Instructions

1. Start NetBeans.
2. Create a new project called `Lab2` with a main class called `YournameLab2` with your last name.
3. Write the following program in the editor window making sure to use your name instead of Bram Stoker:

```
package csci1011.lab2;

import java.util.Scanner;

/**
 * CSCI 1011 Lab 2
 * @author Bram Stoker
 * A program that calculates interest on a deposit
 */
public class BramStokerLab2 {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        Scanner keyboard = new Scanner(System.in);

        System.out.println("Welcome to Bram Stoker's interest calculator.");
        System.out.println();
        System.out.println("Please enter your initial deposit amount:");
        double balance = keyboard.nextDouble();
```

```
        balance = balance + (balance * 0.049);

        System.out.println("With a 4.9% APR your deposit will be worth $"
                + balance + " in one year.");
    }
}
```

4. Run the program and test it with sample input. Do this several times.
5. Modify the program so it uses a named constant in place of `0.049`.
6. Run the program and test it to see if it gives the same values.
7. Modify the interest rate to `0.059`.
8. Run the program again and test it to see the values it gives have changed.
9. Did you change the output so it now says `5.9%`? If not make that change and run the program again.
10. Since it would be easier not to have to change the program in two places, declare a new `double` variable called `percent` and set its value to 100 times the interest rate.
11. Modify your output statment so it uses the `percent` variable instead of `5.9`.
12. Run the program again and test it to make sure it still works properly.
13. Add some additional statements to compute what the balance will be after a second year of earning interest and display this result along with the original result.
14. Run the program again and test it to make sure that the new code works.
15. Upload the file `YournameLab2.java` to the drop box folder labeled **Lab Assignment 2**.