

CSCI 1015 – Programming Assignment 1

Writing a Simple Program

Learning Outcomes

- Declare variables.
- Use arithmetic operators.
- Write assignment statements.
- Read input from the console using `Scanner` and `System.in`.
- Display output to the console using `System.out`.

Required Reading

Savitch - Sections 1.1-1.3, 2.1 (pp. 50-64)

Instructions

Note: Some data input to this program and some program output depends on your name. If you do not use your name as required, points will be deducted for this assignment.

1. Start NetBeans.
2. Follow the instructions in Lab 1 to create a new project called `Program1` with a main class called `YourlastnameProgram1` except with your last name.
3. Write a program that will calculate the total monetary value of a collection of various denominations of dollar bills. The program will perform the following tasks:
 - Display “Welcome to (your name)’s money calculator.”
 - Ask the user to enter the number of one-dollar bills.
 - Ask the user to enter the number of five-dollar bills.
 - Ask the user to enter the number of ten-dollar bills.
 - Ask the user to enter the number of twenty-dollar bills.
 - Calculate the total amount of money.
 - Display to the console the amount of money in dollars (do not use a decimal point and do not display the amount of cents.)

Example Input and Output

When you test your program the output should look like the following examples, except that your name should be used in place of mine.

Example Run 1:

```
Welcome to Nicholas Coleman's money calculator.  
Enter the number of one-dollar bills:  
6  
Enter the number of five-dollar bills:  
3  
Enter the number of ten-dollar bills:  
0  
Enter the number of twenty-dollar bills:  
1  
You have a total of $41
```

Note that the 6, 3, 0, and 1 are user input, and the total is calculated by multiplying 6 by 1 to get 6, multiplying 3 by 5 to get 15, multiplying 0 by 10 to get 0, multiplying 1 by 20 to get 20, and adding these results to get 41.

Example Run 2:

```
Welcome to Nicholas Coleman's money calculator.  
Enter the number of one-dollar bills:  
0  
Enter the number of five-dollar bills:  
0  
Enter the number of ten-dollar bills:  
5  
Enter the number of twenty-dollar bills:  
0  
You have a total of $50
```

In this case the user has entered 0, 0, 5, and 0 as input, and 50 is calculated by multiplying 0 by 1 to get 0, multiplying 0 by 5 to get 0, multiplying 5 by 10 to get 50, multiplying 0 by 20 to get 0, and adding these results to get 50.

Notes and Comments

Upload your Java source file to the dropbox named **Program 1**. The name of the source file must be your last name followed by Program1 with the extension .java. For example, mine would be ColemanProgram1.java.

The prompts for the numbers of each denomination must be in the order shown above. **Do not switch the order of these four questions.**

Make sure to include comments with your name, a description of what the program does, the course (CSCI 1015), and the assignment name (Program 1) at the beginning of your source file.

Make sure you only hand in the source file for your assignment, not the class file, or any other files that NetBeans creates.

Your programs must compile without errors in order to be graded. Once your program compiles make sure to test it using at least **two different test cases** to see if it meets the requirements of the assignment.