CIS 611
Spring 2017
Individual Programming Assignment: PA01 – Elementary Programming

Due**:** Friday Feb 3, 2017 11:59pm

Total Points: 20

Elementary Programming

The purpose of this programming assignment is to:

- Make sure your home installation of the JDK and IDE work
- Learn how to use the basic functions of an IDE (Eclipse)
- Write a simple Java program
- Import packages
- Use some basic arithmetic expressions
- Use some basic type casting
- Use several display options (console, scanner, JOptionPane)
- Use appropriate naming conventions
- Follow programming style guidelines
- Make sure the submission process works from your environment

Question 1: (10 Points)

Write a Java program to calculate merchandise bill. The program must prompt the user to enter their bill amount. The program must then display the summarized bill which includes the bill amount, store discount, sales tax and Total bill.
For example if the user enters 38.65 as the bill amount, store discount is 15 percent and sales tax is 7.4 percent,

Bill amount:	38.65
Store Discount:	5.79
Sub Total:	32.86
Sales Tax:	3.28
Total:	36.14

Output Format:

Bill amount:	**$38.65**
Store Discount:	**$5.79**
Sales Tax:	**$3.28**
Total:	**$36.14**

Use **Scanner class** for input and **JOptionPane** for output. Ensure no more than 2 decimal places are displayed in any of the dollar amounts

Question 2: (10 Points)

Write a Java program that reads 2 data items in 2 separate JOptionPane. The first input dialog box prompts message: What is your Name?
The second dialog box prompts: What is your Mobile Number? (Enter 10 consecutive digits)
Store these 2 inputs in a String variable.

Now display the output in JOptionPane as shown below:

Output format
> **Your Name is: Jim Brown**
> **Your Mobile Number is: (111) 111-1010**

Mobile number must be formatted as displayed above

Evaluation Criteria:

1. Program must contain a beginning comment block, refer the Class template provided
2. Follow the proper class name conventions
3. Program must adhere to all style rules and programming practices discussed in class.
4. Use comments, where it is required.
5. Program must not have any compilation or run time errors
6. Program must perform all the requirements correctly, including read and output data.
7. All tasks must be completed to receive a complete credit for this assignment
8. Correct submission format must be followed, refer the submission section below

Submission

1. Zip the two java source files into one file that must be named following the provided naming format in this course, and then upload the zip file under this assignment answer in Canvas.

    > **Folder Name**: *FFLLPA01.zip (where FF = your First Name, LL = your Last Name)*

    > **Java Source File Name**: *FFLLPA01XX.java (where FF = your First Name, LL = your Last Name, XX = 01 for Question 1 and 02 for Question 2)*

    If your name is Jim Brown, then the first program must be saved in a file named JimBrownPA0101.java and the second program must be saved in a file named JimBrownPA0102.java, copy to a folder named JimBrownPA01, zip and upload this folder, under the corresponding assignment submission in canvas.

Summary for naming conventions for this assignment:

Name: Jim Brown
Question 1: JimBrownPA0101.java
Question 2: JimBrownPA0102.java
Zipped Folder Name: JimBrownPA01.zip

Class Template

Following is the general class template to be used in all the Java programs that you will write in this course. All the individual assignments and the projects are expected to follow a template as shown below. This template is for the first question of this assignments. The students will use this template and modify the name of the assignment, file name etc. The date created could be very well the very first time you created the file. This is because, you are expected to continue changing the file. If you need to create more than one Java file (for Individual Programming Assignment, or for the Team Project) then all the files will have the same name under the Programming Assignment. This is a general guideline on the class template. The template shows how we name a file, how we indent the code, how to write comment (single line, or multi-line which may have a need for). You are not asked to write comment for each and every line of code. But if you need to explain what a method/function is doing, or if a variable has a specific purpose, then feel free to add comment. Programmers typically add comment to improve the readability of the code. Comment used in the code is not expected to be an "essay" that you will write, but a few sentences in the code to explain what the purpose is. Any reasonable modification of this template that improves the understanding of the code will not result in any deduction. This is just a general guideline.

```
//********************************************************************
//*                                                                  *
//*      CIS611              Spring 2017              Jim Brown       *
//*                                                                  *
//*                   Program Assignment PA01                        *
//*                                                                  *
//*             Program to Calculate Merchandise Bill                *
//*                                                                  *
//*                   Date Created: mm.dd.yyyy                       *
//*                   Saved in:  JimBrownPA0101.java                 *
//*                                                                  *
//********************************************************************
//
//   import packages here (if needed - be sure to delete the //)
//
public class JimBrownPA0101 {
      public static void main(String[] args) {

            //Enter bill amount
            //Enter store discount
            //Enter sales tax
            //Calculate the Total Bill Amount

      }
}
```

Name: _____

Question 1

Requirements	Any comment provided by grader	Max Points Allowed	Points Earned
General Code Structure: Proper naming convention used for file, Comments used in the code to explain the purpose of the code, Indentation of the code for better readability, Good choice of variable names		5	
Input, Output, User Interface: Proper coding implementation of the logic to read the data and display the expected value, proper coding implementation of dialog box/boxes, general aesthetics of user interface. Input Bill Amount using Scanner with clear prompt, Store Discount Calculation, Sales Tax Calculation, Outputs Total Correctly using JOptionPane with only 2 decimal places		5	
		10	

Question 2

Requirements	Any comment provided by grader	Max Points Allowed	Points Earned
General Code Structure: Proper naming convention used for file, Comments used in the code to explain the purpose of the code, Indentation of the code for better readability, Good choice of variable names		5	
Input, Output, User Interface: Proper coding implementation of the logic to read the data and display the expected value, proper coding implementation of dialog box/boxes, general aesthetics of user interface. Input name and mobile number, proper display of the name and the mobile number in the expected format, use of JOptionPane.		5	
		10	

Total ____/20