IS 380: Object-Oriented Programming
Spring 2017

Individual Assignment 4-2

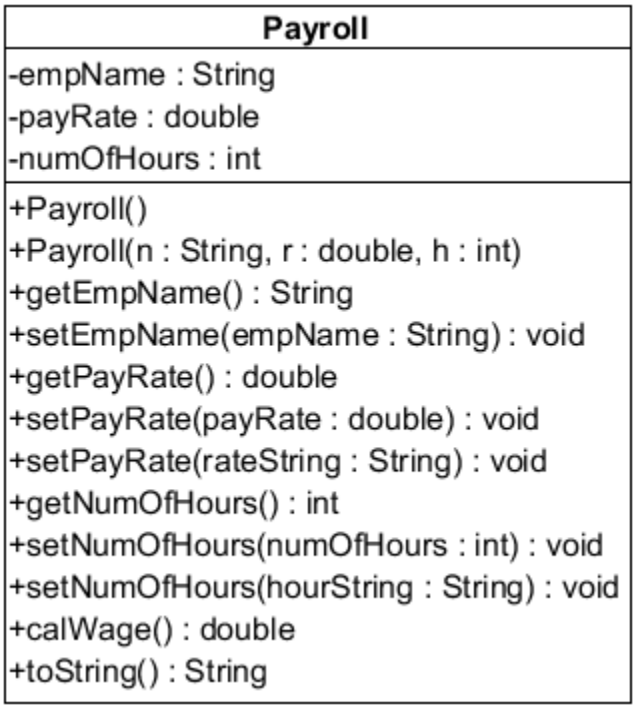
Due Date: **3:59 PM, March 29, 2017** (Submit via WebCampus).
Weights: 2.5 % of total grades.

NOTE:

1. Please zip the **.java** files and upload the zip file to WebCampus for submission.
2. Please provide proper comments to document your code, including the following:
   a. Author's name;
   b. Purpose of the program;
   c. In-line comments for the statements.

QUESTION 1: PayRoll Calculation (60 points)

The **Payroll** Class contains three fields and methods to calculate the wage of an employee.



Please write an application that would allow the user to enter employees' name, pay rate, and number of hours he/she worked last week. Use the information to instantiate objects of **Payroll** class, and add each object into an **ArrayList**. The user can enter any number of employees.

After the user finishes entering the payroll information, (1) print all the payroll information and (2) use a loop to get the total wage the employer needs to pay this week.

```
<terminated> PayrollApp [Java Application] C:\Program Files\Java\jre1.
Please enter the name of the employee: Adrian
Please enter the pay rate: 9
Please enter the number of hours worked: 20
Enter payroll information? (Y/N)Y

Please enter the name of the employee: Blake
Please enter the pay rate: 11
Please enter the number of hours worked: -3
Enter payroll information? (Y/N)Y

Please enter the name of the employee: Clay
Please enter the pay rate: 15
Please enter the number of hours worked: 45
Enter payroll information? (Y/N)Y

Please enter the name of the employee: Drew
Please enter the pay rate: 10.45
Please enter the number of hours worked: 18
Enter payroll information? (Y/N)n

The payroll information entered:
[Adrian worked 20 hour(s) at $10.25 per hour.
, Blake worked 0 hour(s) at $11.0 per hour.
, Clay worked 45 hour(s) at $15.0 per hour.
, Drew worked 18 hour(s) at $10.45 per hour.
]
The total wage to pay is $1105.6
```

Grading criteria:

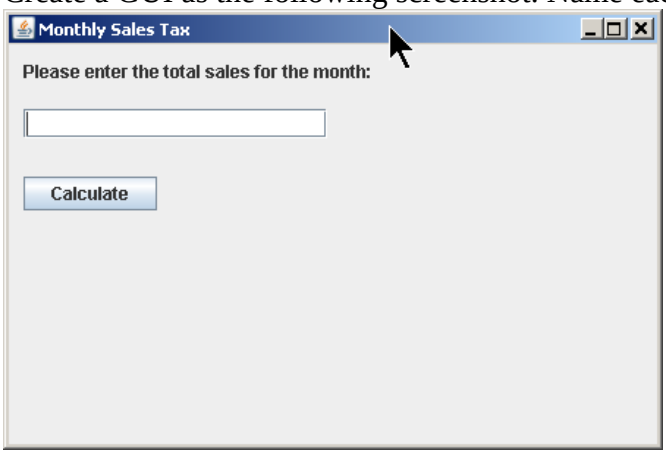
(1) Correctness (30 points):
   (a) The code can be compiled without any syntax error.
   (b) Variables and named constants are used.
   (c) The code can generate the requested results.
   (d) The program is properly documented using comments (/**…..*/ and //.)

(2) Technique used (30 points):
   (a) **ArrayList** class is used to store the payroll information.
   (b) **Payroll** class is used in the program.
   (c) Repetition structure (loop) is used.

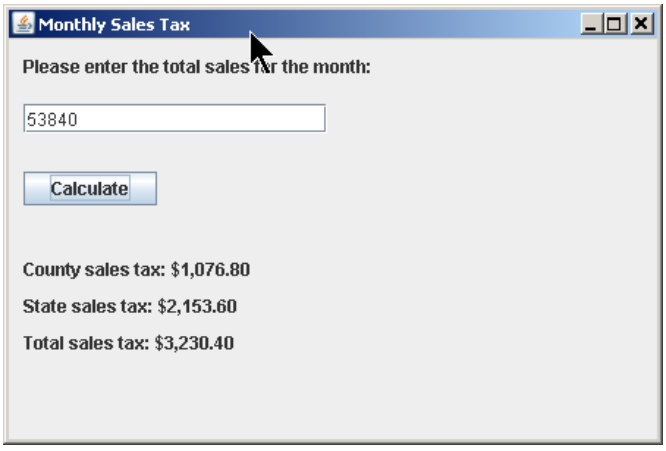
QUESTIONS 2: Monthly Sales Tax (40 points)

Create a GUI application where the user enters the total sales for the month into a text field. The application should have a button that displays the amount of sales taxes when it is clicked. The county sales tax rate is 2% and the state sales tax rate is 4%.

(1) Create a GUI as the following screenshot. Name each of the components properly.



(2) Implement the Action Listener of the button (i.e., an inner class). When the button is clicked, the amount of each sales tax is shown. The amount should be displayed with the format **$###,###,###,##0.00**.



Grading criteria:

(3) Correctness (25 points):
  (a) The code can be compiled without any syntax error.
  (b) Variables and named constants are used.
  (c) The code can generate the requested results.
  (d) The program is properly documented using comments (/**…..*/ and //.)

(4) Technique used (15 points):
  (a) **JFrame**, **JLabel**, **JTextField**, and **JButton** are used, and named properly; i.e., the names of the objects should be descriptive.
  (b) The Action Listener **(Inner Class)** is implemented.
  (c) The **DecimalFormat** class is used to format the result.