



CIS 3270 Assignment #3: Java OOP Basics

Due Date: September 11th

Instructions:

1. Design a simple "Customer" class to model customer's credit activities. This class should have at least these properties: customer name, his/her city, credit line and outstanding balance (choose appropriate data types).
 - a. Create a "void pay(double amount)" method. This method accepts user payment and adjusts outstanding balance accordingly. This method has one parameter of payment amount.
 - b. Create a "void print()" method to print out all customer information on the screen.
 - c. In the "main" method, create a customer (object). Assign some value to this customer's properties (you can make use of constructor). Call the "pay" method at least once. Print out the customer information before and after the payment.
 - d. Optional: implement some business rules in the pay method, based on your understanding of the real case.

2. Refer to assignment 2 exercise 1. Let's enhance the program for electricity bill. You need to develop this program following some basic principles of object oriented programming.
 - a. Define a simple "ElectricityBill" class with these member variables:
 - Usage (int) in KWh
 - Statement period (char): 's' (for summer) or 'w' (for winter)
 - Total due (double)
 - Others are optional, depending on your understanding of the business and your design
 - b. Create a method to calculate the total due based on usage and statement period.
 - c. Create a method to print out all necessary information for a simple utility statement including usage, statement period, and total due.
 - d. In the "main" method, create two "ElectricityBill" objects: one with a usage of "500" KWh and in a winter month, and the other with a usage of "1600" KWh in summer month. Call the print method to display their bill information.

Submission: for each exercise,

- A screenshot of the JDeveloper environment (with running result);
- Complete source code, printed out separately (pasted in Word).

Note: screenshots need to be complete and original, no graphic editing. Clearly name and label all screenshots and source code.