

Assignment 1
COMPUTING SUPPLIES
Due Wednesday, September 19, 2011

In this assignment, you will design a GUI and code in Java to implement an application to calculate how much it would cost to order supplies for your desk and computer from a supplies web site. The web site offers the following three items:

1. USB memory sticks in either a 4G or 8G size. The price of a 4G memory stick is \$15.00 and the price of an 8G memory stick is \$25.00, except that if you buy 3 or more memory sticks of any size, then you get \$5 off of each one.
2. Blank CDs: Each blank CD costs \$1.00, except that if you buy 10 or more, each one costs \$.75.
3. Power cords: Each power cord costs \$15.00.

The web site also offers a discount: If you order both memory sticks and power cords, then you get an additional 5% off your bill.

After taking this possible discount, the total bill will include New York State sales tax at 8%.

Write a program that performs the following operations:

- Allow the user to type in how many of 4G memory sticks, 8G memory sticks, blank CDs and power cords that he or she is going to order. (Use a JTextField for each item.)
- Compute the charges for each of the three types of items to get a subtotal amount.
- If the user qualifies for the discount, compute the discount and the subtotal with discount.
- Add in the NY state sales tax to the subtotal with discount to get the total.
- Display a bill showing the bill results: it should include the subtotal of the bill of all three items, the discount (if the order qualified for it), the total with discount, the tax and the final total.
- Allow the user to clear the items and totals in order to start over.

When you develop the program, follow these steps:

- Design the user interface:
 - Design the layout of the form
 - Decide what each button will do
- Write the program
 - Decide on the names and types of variables and where to declare them
 - Write comments on the top of the program, including **your name** and what the program is for
 - Write comments before each button actionPerformed function with the description of what it does
 - Write other comments on statements as necessary
 - Test your program to make sure that it works correctly

Grading

All programs should have comments that contain the name of the programmer and that explain the role of each button function. Additional comments must be added as necessary to explain the actions of the program.

The following additional items will be included in the grading. The program must

- Run!
- Correctly compute the subtotal, discount, total with discount, tax and the final total of the bill and display them
- The form must have a Clear button to allow the user to start over
- The form must present a good appearance and have clear instructions for the user.

How to Submit your Homework:

In your project directory, create a **zip file** of the sub-directory that has your homework project in it. For example, if you name your project “Supplies”, there will be a folder named “Supplies” under your projects folder – zip the entire Supplies folder. Go to the blackboard assignment page and submit the zipped file for assignment 1.