

CNT 4714 – Programming Assignment #1 – Fall 2012

Title: “Program Assignment 1: Event-Driven Programming”

Points: 100 points

Due Date: Sunday September 9th by 11:55 pm (WebCourses time)

Objectives: To practice event-driven programming using GUIs.

Description: Develop a Java program that creates a standalone GUI application (not an applet) that simulates an e-store which allows the user to add items (music CDs) to a shopping cart and once all items are included, total all costs (including tax) and produce an invoice.

Your program development must include the following steps:

1. Create a main GUI containing the following components:
 - a. An area that allows the user to input data into the application along with the descriptive text that describes each input area.
 - b. A total of six buttons as shown below with functionality as described below.
2. An input file named “inventory.txt”. This file contains the data that will be read by the application when the user makes a selection. A sample file is provided for you on the course website.
3. An output file named “transactions.txt” must be created that uniquely logs each user transaction with the e-store. The unique transaction id will be generated as a permutation of the date/time string (see below).

References:

Notes: Lecture Notes for GUIs.

Restrictions:

Your source file shall begin with comments containing the following information:

```
/* Name: <your name goes here>  
   Course: CNT 4714 – Fall 2012  
   Assignment title: Program 1 – Event-driven Programming  
   Date: September 9, 2012  
*/
```

Input Specification: The file “inventory.txt” as described above (see example below as well).

Output Specification: Output is to appear in the specified components of the GUI and various message boxes that appear, plus the contents of the “transactions.txt” log file that will be generated. Note (see top of page 4) that a discount is applied when the user purchases large quantities of a single disc.

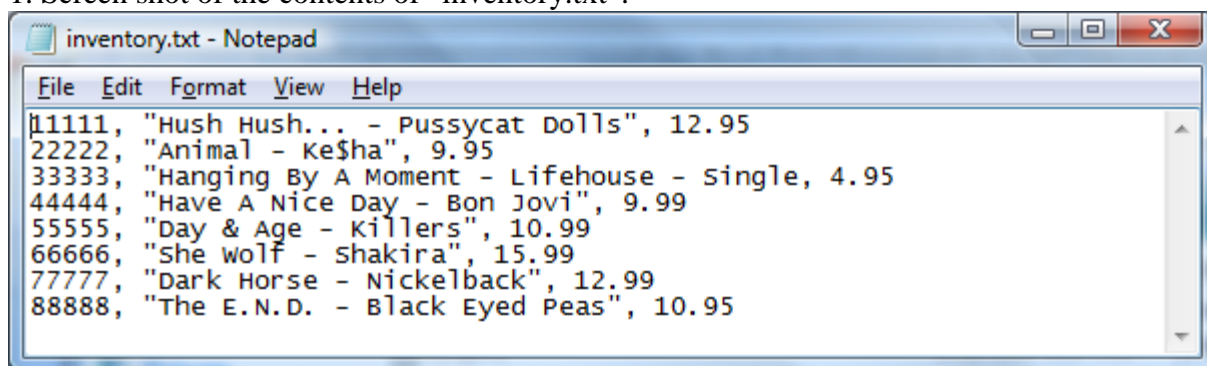
Deliverables:

- (1) Submit a working copy of your source code via WebCourses no later than 11:55pm Sunday September 9th.
- (2) Include screen shots, similar to those shown below, that illustrate the action of your application when a user is making purchases.
- (3) Include a screen shot of your "transactions.txt" file showing at least the last few transactions.

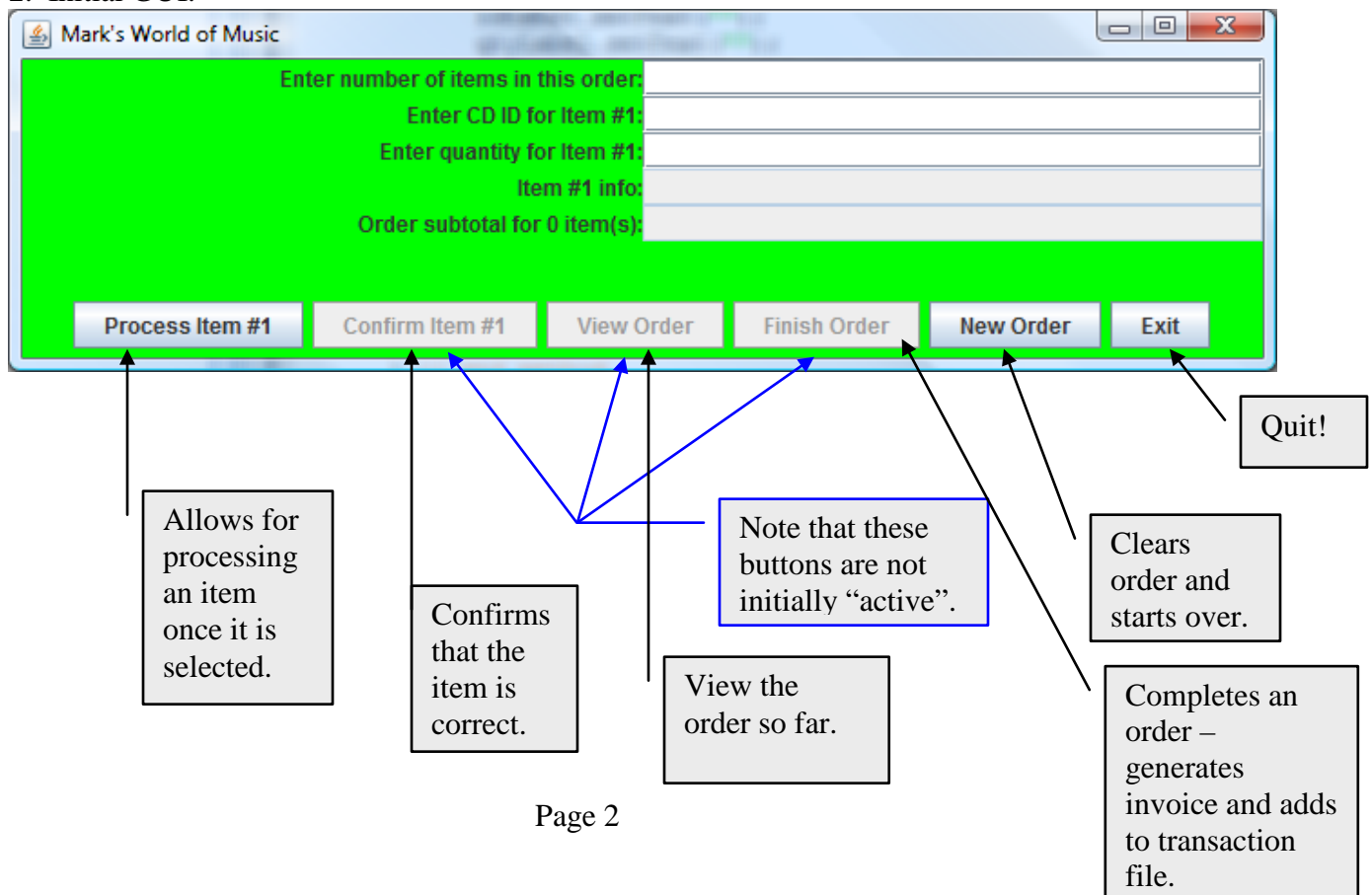
Additional Information:

Shown below are example screen shots of the GUI to help illustrate how your application is to operate.

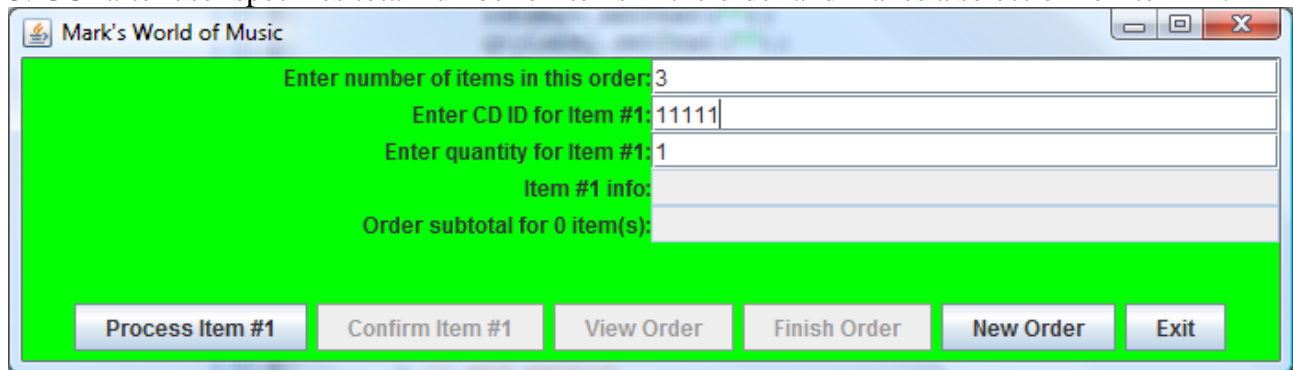
1. Screen shot of the contents of "inventory.txt".



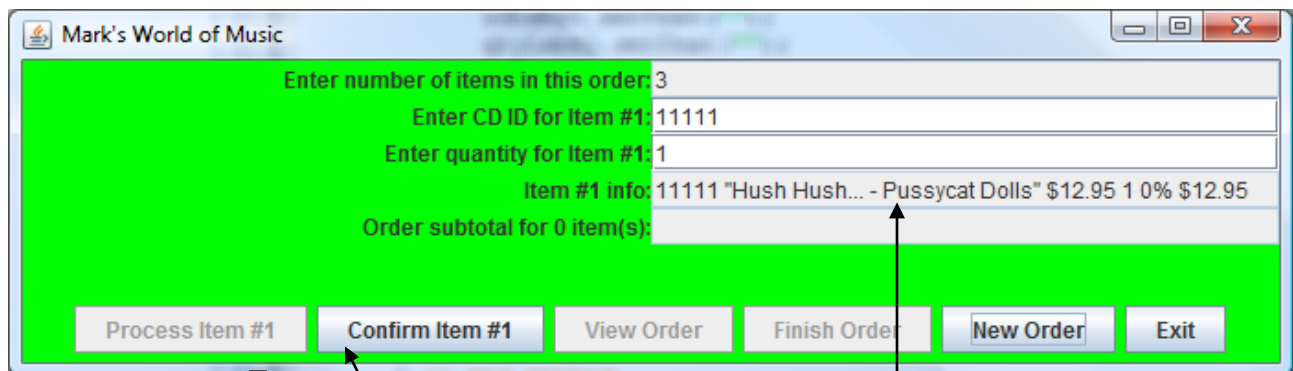
2. Initial GUI:



3. GUI after user specifies total number of items in the order and makes a selection for item #1.



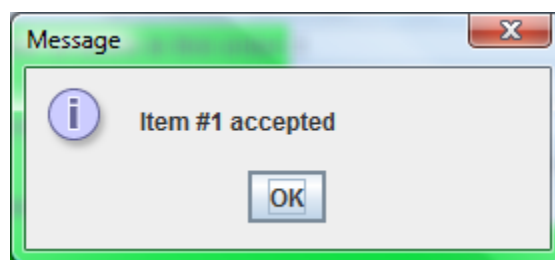
4. GUI after user has selected the first item and clicked the “Process Item #1” button.



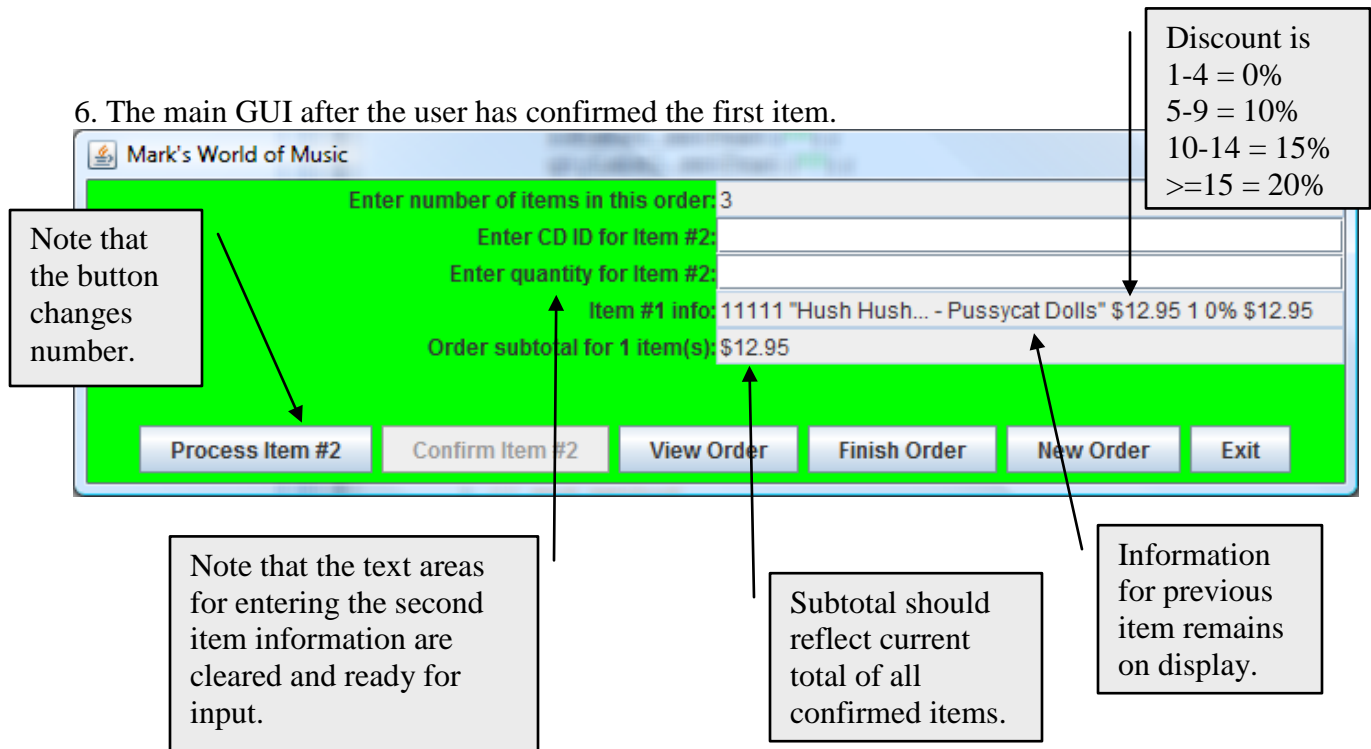
Note that the “Confirm Item #1” button is now active and the “Process Item #1” button is inactive.

Information on the CD purchased has been extracted from the inventory file and written into the window on the line for item #1.

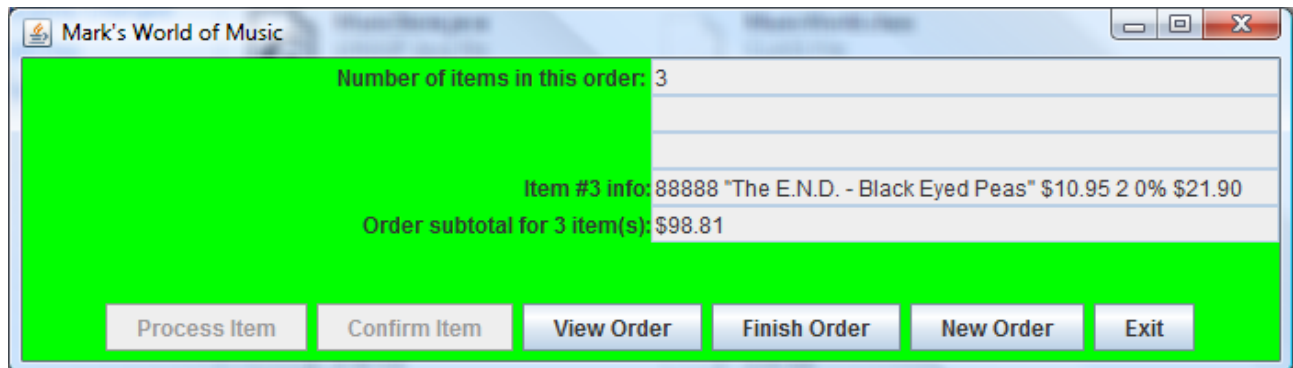
5. When the user clicks on the “Confirm Item #1” button, a confirmation information message appears on the screen.



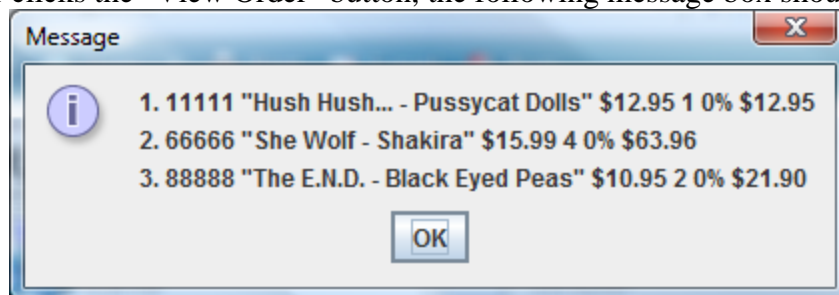
6. The main GUI after the user has confirmed the first item.



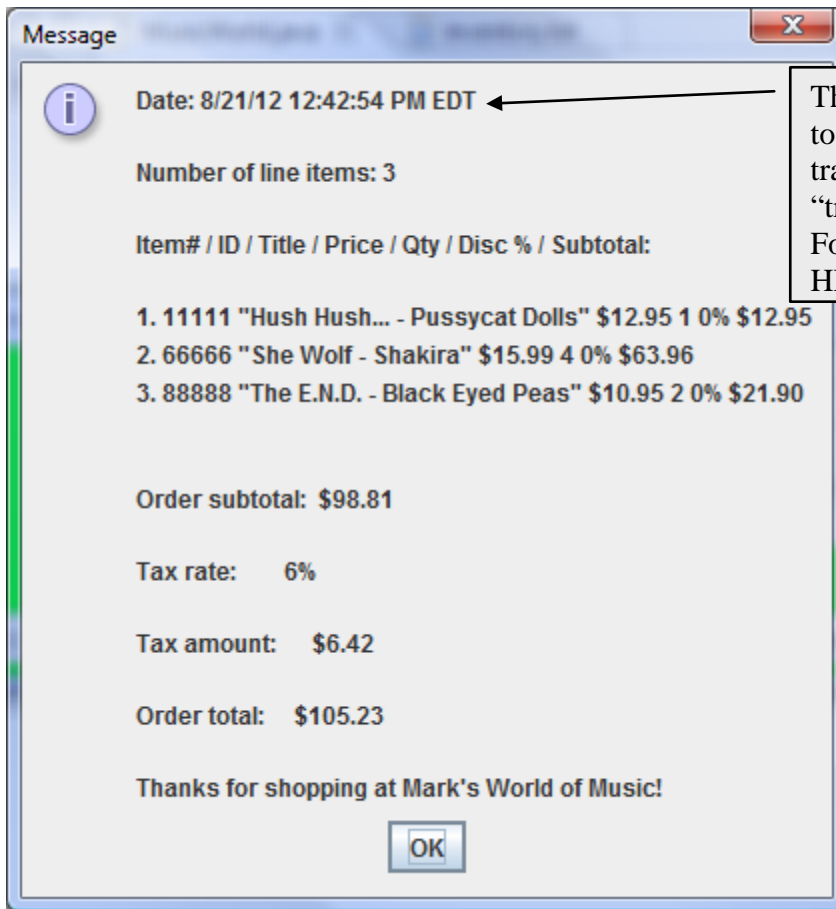
7. The GUI after the user has entered the information for all the items and confirmed the last item.



8. When the user clicks the "View Order" button, the following message box should appear.

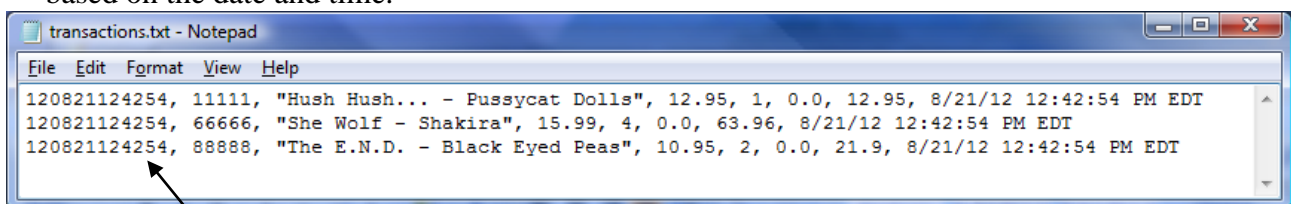


9. When the user clicks the “Finish Order” button, the invoice message should be generated and displayed.



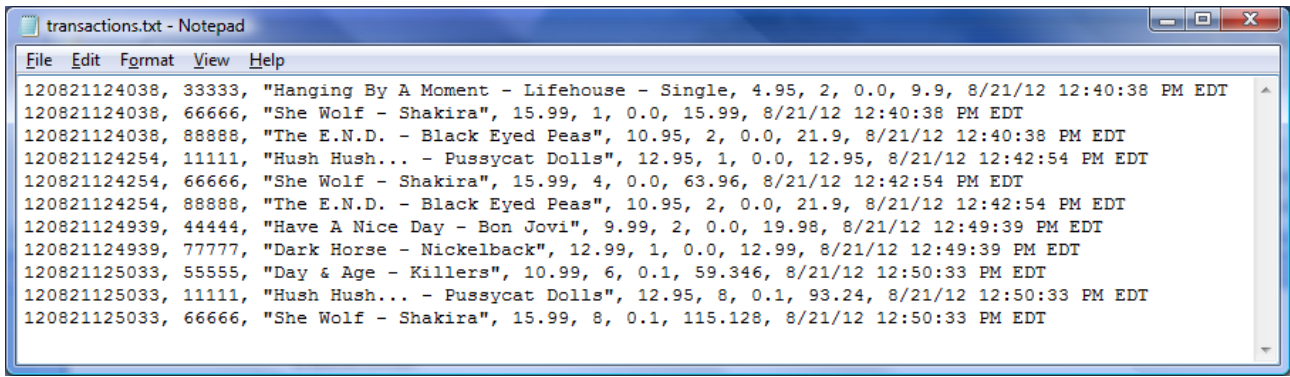
The date and time are used to create the unique transaction id in the “transactions.txt” file. Format is “DD/MM/YY HH:MM:SS TMZ”

10. The transaction file after order shown above was finished. Note the unique transaction ids based on the date and time.



The last transaction occurred on 8/21/2012 at 12:42:54pm. See the invoice message above. Permutation is: YYMMDDHHMMSS.

11. The transaction file after several orders have been completed. Note the unique transaction ids based on the date and time for every separate transaction.



```
File Edit Format View Help
120821124038, 33333, "Hanging By A Moment - Lifehouse - Single, 4.95, 2, 0.0, 9.9, 8/21/12 12:40:38 PM EDT
120821124038, 66666, "She Wolf - Shakira", 15.99, 1, 0.0, 15.99, 8/21/12 12:40:38 PM EDT
120821124038, 88888, "The E.N.D. - Black Eyed Peas", 10.95, 2, 0.0, 21.9, 8/21/12 12:40:38 PM EDT
120821124254, 11111, "Hush Hush... - Pussycat Dolls", 12.95, 1, 0.0, 12.95, 8/21/12 12:42:54 PM EDT
120821124254, 66666, "She Wolf - Shakira", 15.99, 4, 0.0, 63.96, 8/21/12 12:42:54 PM EDT
120821124254, 88888, "The E.N.D. - Black Eyed Peas", 10.95, 2, 0.0, 21.9, 8/21/12 12:42:54 PM EDT
120821124939, 44444, "Have A Nice Day - Bon Jovi", 9.99, 2, 0.0, 19.98, 8/21/12 12:49:39 PM EDT
120821124939, 77777, "Dark Horse - Nickelback", 12.99, 1, 0.0, 12.99, 8/21/12 12:49:39 PM EDT
120821125033, 55555, "Day & Age - Killers", 10.99, 6, 0.1, 59.346, 8/21/12 12:50:33 PM EDT
120821125033, 11111, "Hush Hush... - Pussycat Dolls", 12.95, 8, 0.1, 93.24, 8/21/12 12:50:33 PM EDT
120821125033, 66666, "She Wolf - Shakira", 15.99, 8, 0.1, 115.128, 8/21/12 12:50:33 PM EDT
```