CNT 4714 – Programming Assignment #1 – Summer 2014

Title: "Program Assignment 1: Event-Driven Programming"
Points: 100 points
Due Date: **Friday May 23rd by 11:59 pm (WebCourses time)**

Objectives: To practice event-driven programming using Java-based 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. This 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.

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 – Summer 2014
   Assignment title: Program 1 – Event-driven Programming
   Date: Friday May 23, 2014
/

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.

Deliverables:
   (1) Submit a working copy of your source code via WebCourses no later than 11:59pm Friday May 23rd .

(2) Include a screen shot of your "`inventory.txt`" file if you modify the one I've provided in any manner.

(3) Include your "`inventory.txt`" file fi you modify the one I've provided in any manner.

(4) Include a screen shot of your "`transactions.txt`" file showing at least the last few transactions.
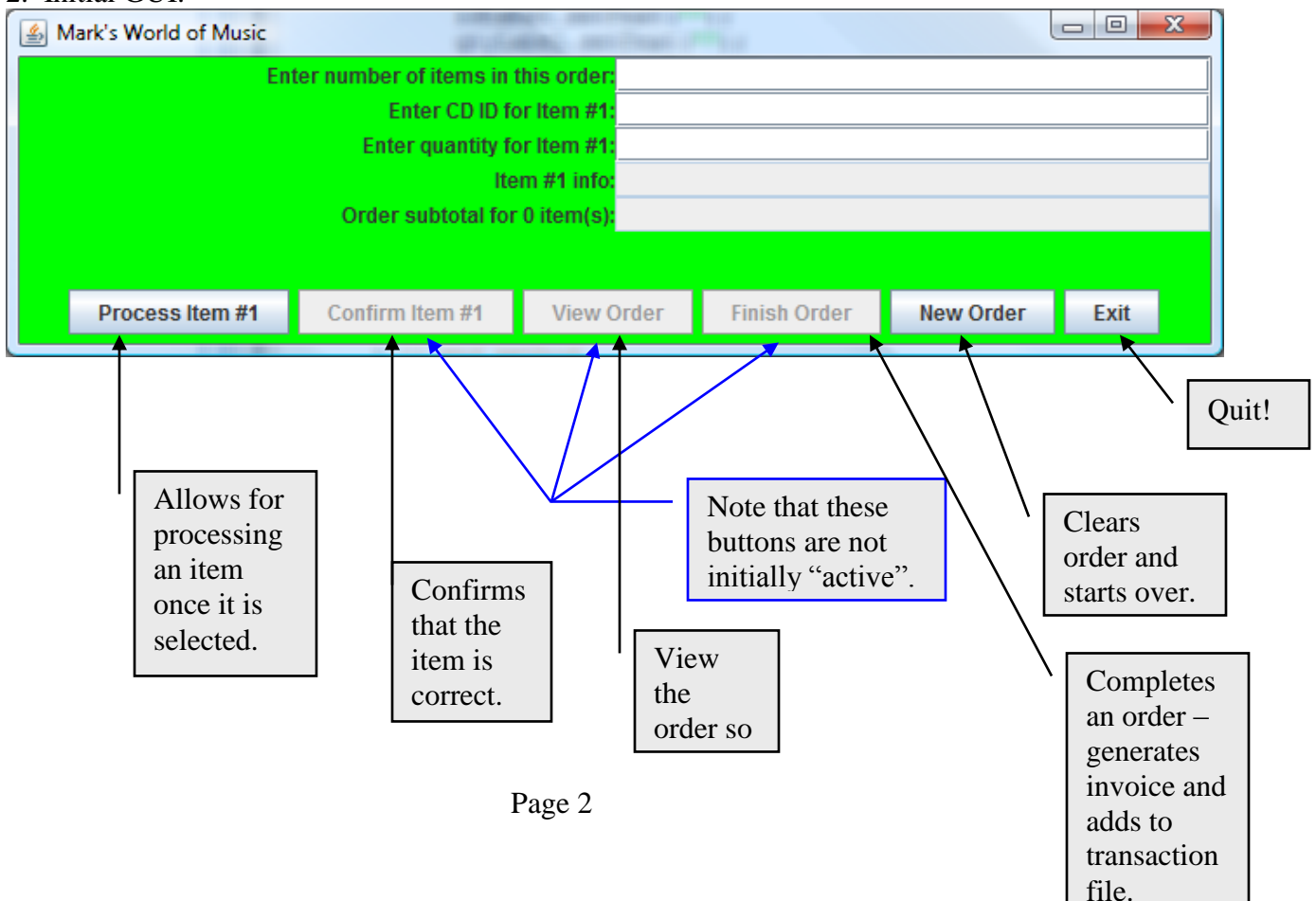
Additional Information:

Shown below are example screen shots of the GUI to help illustrate how your application is to operate.
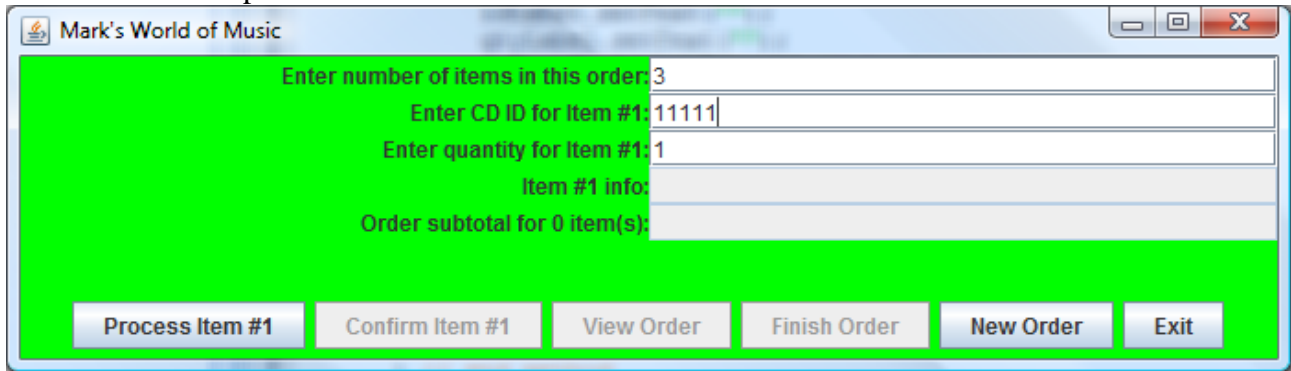
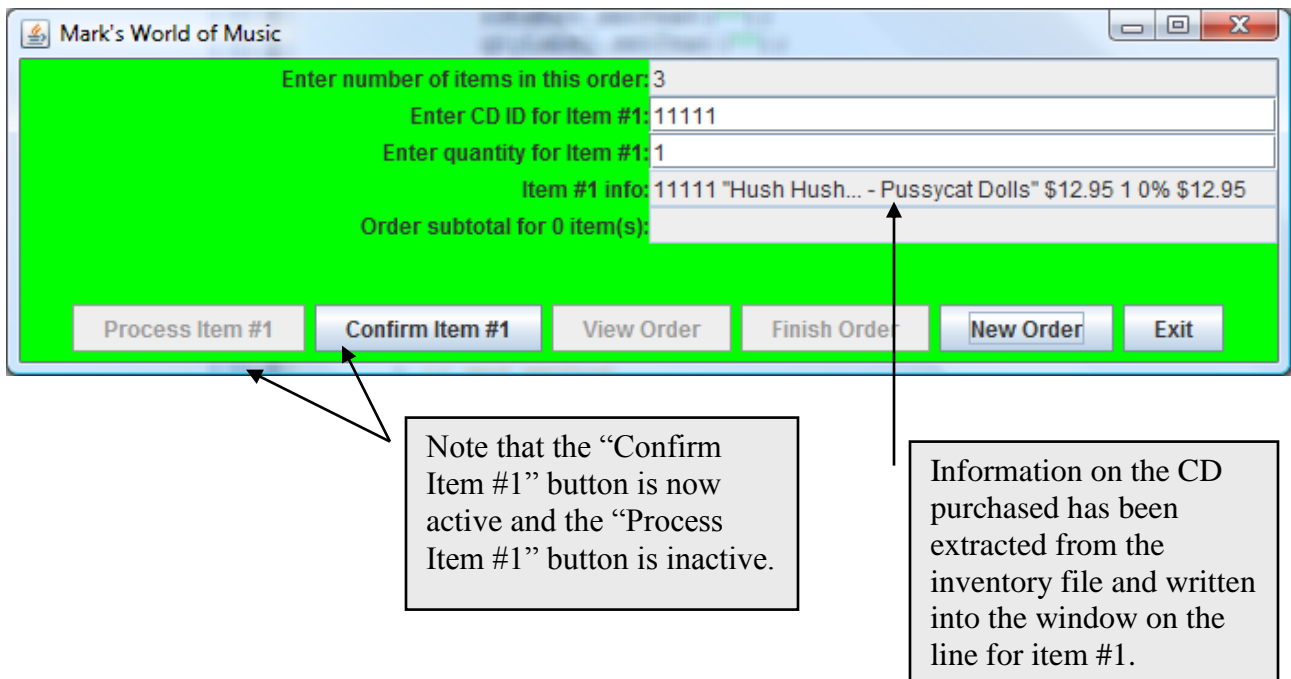1. Screen shot of the contents of "inventory.txt".
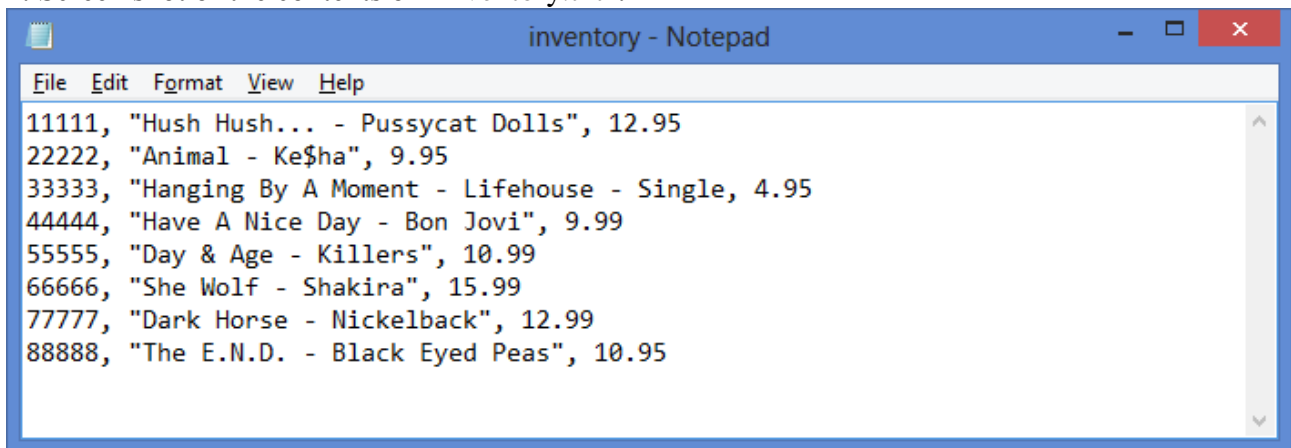
2. Initial GUI:

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

Mark's World of Music

Enter number of items in this order:	3
Enter CD ID for Item #1:	11111
Enter quantity for Item #1:	1
Item #1 info:	
Order subtotal for 0 item(s):	

Process Item #1 | Confirm Item #1 | View Order | Finish Order | New Order | Exit

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

Mark's World of Music

Enter number of items in this order:	3
Enter CD ID for Item #1:	11111
Enter quantity for Item #1:	1
Item #1 info:	11111 "Hush Hush... - Pussycat Dolls" $12.95 1 0% $12.95
Order subtotal for 0 item(s):	

Process Item #1 | Confirm Item #1 | View Order | Finish Order | New Order | Exit

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.

Message

(i) Item #1 accepted

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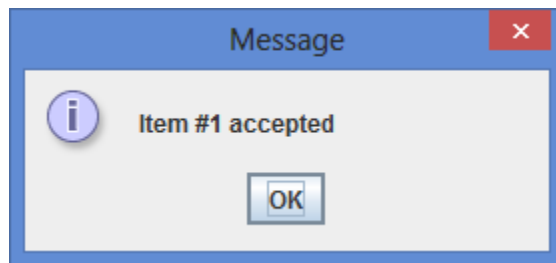
6. The main GUI after the user has confirmed the first item.

Discount is
1-4 = 0%
5-9 = 10%
10-14 = 15%
>=15 = 20%

Note that the button changes number.

Note that the text areas for entering the second item information are cleared and ready for input.

Subtotal should reflect current total of all confirmed items.

Information for previous item remains on display.

Mark's World of Music

Enter number of items in this order: 3
Enter CD ID for Item #2:
Enter quantity for Item #2:
Item #1 info: 11111 "Hush Hush... - Pussycat Dolls" $12.95 1 0% $12.95
Order subtotal for 1 item(s): $12.95

Process Item #2 | Confirm Item #2 | View Order | Finish Order | New Order | Exit

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

Mark's World of Music

Number of items in this order: 3

Item #3 info: 88888 "The E.N.D. - Black Eyed Peas" $10.95 2 0% $21.90
Order subtotal for 3 item(s): $98.81

Process Item | Confirm Item | View Order | Finish Order | New Order | Exit

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

Message

1. 11111 "Hush Hush... - Pussycat Dolls" $12.95 1 0% $12.95
2. 66666 "She Wolf - Shakira" $15.99 4 0% $63.96
3. 88888 "The E.N.D. - Black Eyed Peas" $10.95 2 0% $21.90

OK

9. When the user clicks the "Finish Order" button, the invoice message should be generated and displayed.
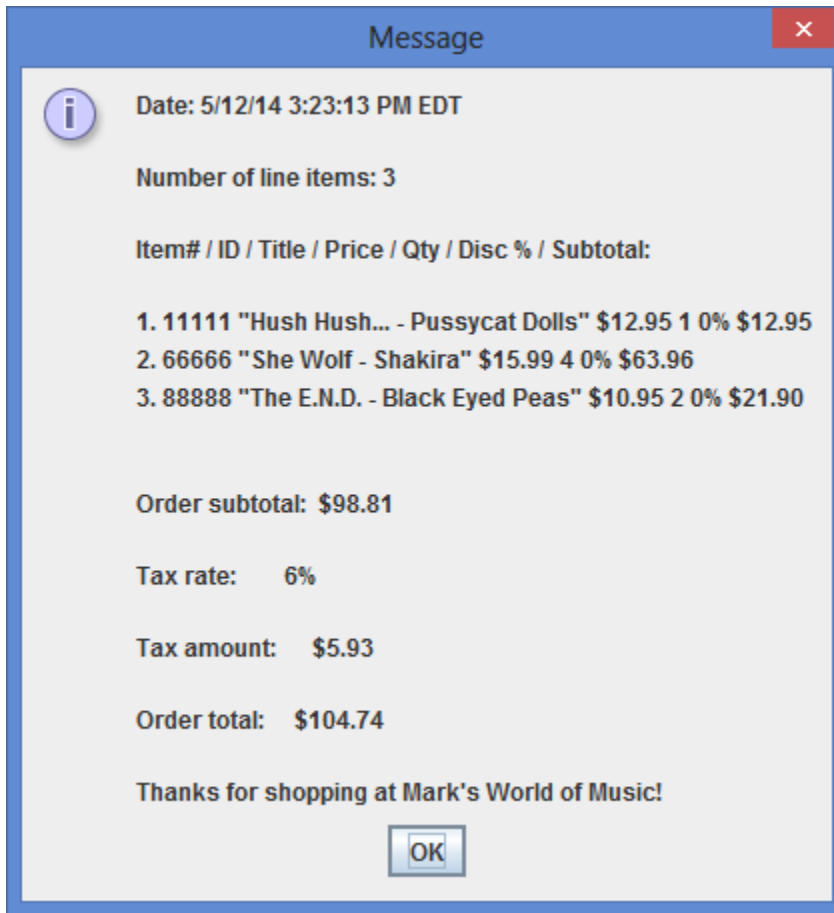
The date and time are used to create the unique transaction id in the "transactions.txt" file. Format is "DD/MM/YY HH:MM:SS TMZ"

10. The transaction file after order shown above was finished. Note the unique transaction ids based on the date and time.
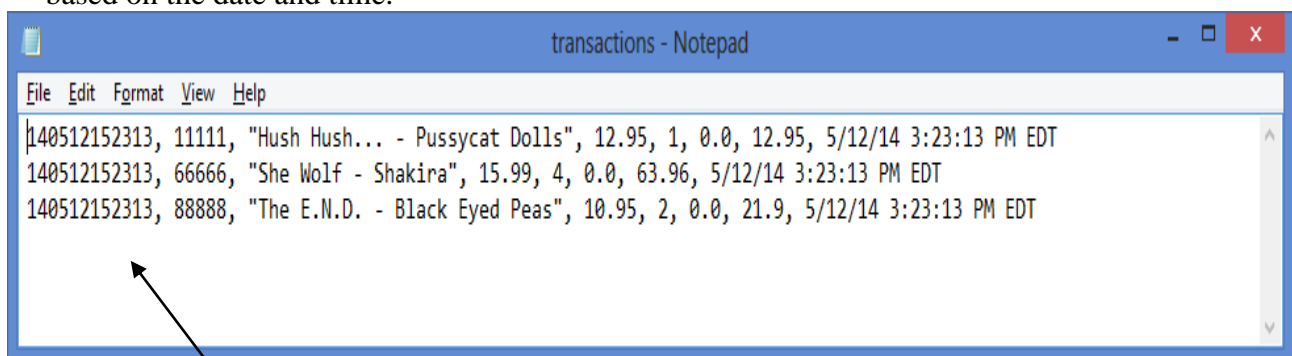
The last transaction occurred on 5/12/2014 at 3:23:13 pm. See the invoice message above. Permutation is: YYMMDDHHMMSS.

11. The transaction file after seve[...] he unique transaction ids based on the date and time for every separate transaction.

```
transactions - Notepad

File  Edit  Format  View  Help

1405121523l3, 11111, "Hush Hush... - Pussycat Dolls", 12.95, 1, 0.0, 12.95, 5/12/14 3:23:13 PM EDT
1405121523l3, 66666, "She Wolf - Shakira", 15.99, 4, 0.0, 63.96, 5/12/14 3:23:13 PM EDT
1405121523l3, 88888, "The E.N.D. - Black Eyed Peas", 10.95, 2, 0.0, 21.9, 5/12/14 3:23:13 PM EDT
1405121527l9, 33333, "Hanging By A Moment - Lifehouse - Single, 4.95, 1, 0.0, 4.95, 5/12/14 3:27:39 PM EDT
1405121527l9, 55555, "Day & Age - Killers", 10.99, 2, 0.0, 21.98, 5/12/14 3:27:39 PM EDT
1405121528l3, 88888, "The E.N.D. - Black Eyed Peas", 10.95, 5, 0.1, 49.275, 5/12/14 3:28:03 PM EDT
1405121529l6, 11111, "Hush Hush... - Pussycat Dolls", 12.95, 1, 0.0, 12.95, 5/12/14 3:29:06 PM EDT
1405121529l6, 55555, "Day & Age - Killers", 10.99, 1, 0.0, 10.99, 5/12/14 3:29:06 PM EDT
1405121529l6, 66666, "She Wolf - Shakira", 15.99, 2, 0.0, 31.98, 5/12/14 3:29:06 PM EDT
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