SmartStore.com
Graphical User Interface
150 points

Purpose: This problem emphasizes the design and coding of an object-oriented application using a graphical user interface. Java graphical swing classes and event handling are used to design and implement a user friendly interface.

Problem: This project extends your previous work by using a graphical user interface. All user dialog with your program will occur using your graphical interface – the console will not be used in this application.

Graphical User Interface

Your program must accept input and display output using a Java graphical user interface of your own design but must include at least ten different classes of graphical objects from the list shown below. Note the "J" designation indicates a Swing class.

List of possible swing classes (must select at least 10):

1. JButton
2. JCheckBox
3. JComboBox
4. JDialog
5. JFrame
6. JLabel
7. JList
8. JMenu
9. JPanel
10. JRadioButton

11. JScrollPane
12. JSlider
13. JSpinner
14. JSplitPane
15. JTabbedPane
16. JTextArea
17. JTextField
18. JToolBar
19. JToolTip
20. JWindow

Possible objects may include list boxes, text areas, buttons, check boxes, radio/option buttons, labels, scrollbars, tooltips, and objects used for grouping such as frames and panels.

Creative Nature of Design

Note that each student's user interface should be a unique and therefore original creation. Hence, while common features (e.g., menus) may occur, no two user interface designs should be the same. For example, the selection of graphical components, form layout, text displayed, and behavior (e.g., drop down/popup menus) should be a unique for each project submitted.

One part of the grade for this assignment is design creativity. In this regard, simply adding controls to a form gets no additional credit for this category. To earn creative credit requires going beyond mere functional aspects and using Java controls in a richer, more meaningful way. For example, adding a button to a form gets no credit for creativity, but adding a button with a label that changes color to show the current selection will. Likewise, using the Java Metal look and feel gets no creative credit, but allowing the user to switch to the Windows look and feel and back to Java Metal does.

Test Data and Calculations

The same test data from Project1 continue to apply. However, the results must be obtained from your Project 2 work. Do NOT simply reuse prior results. As before, test your program for each of the following cases, including one additional case of your own choosing. In the last column, indicate Yes or No, as to whether or not your program's output agrees with your expectations. *Include two additional tests of your video selections*

Test Table

Test No.	Trans Date	Item	Type	Action	Result	Correct (Y/N)
1	6/21/12	Harry Potter and the Deathly Hallows	Book HPDH	Add	OK Reduce qty on hand	
2	6/21/11	The Complete Sherlock Holmes	Book CSH	Add	OK Reduce qty on hand	
3	6/21/11	Pirate Latitudes	Book PL	Add	OK Reduce qty on hand	
4	6/32/11				Invalid date	
5	6/21/11	Tales of Beedle the Bard	Book TBB	Remove	Invalid item	
6	6/21/11	Pirate Latitudes	Book PL	Add	Out of stock	
7	6/21/11	Pirate Latitudes	Book PL	Remove	OK Increase qty on hand	
8	6/21/11	Here We Go Again	Music HWGA	Add	OK Reduce qty on hand	
9	6/30/11	Here We Go Again	Music HWGA	Remove	OK Increase qty on hand	
10	1/24/13	The King's Speech	Video KS	Add	OK Reduce qty on hand	

Submit:

1. Completed test table as a separate document.
2. Input/output dialog for a complete set of test results. Be sure to include one screen print for each test case required. Include labels for each test case and a brief description and/or caption of what is being shown.
3. Program code with appropriate formatting and comments.

All of the above must be contained in a zip file named XYZProject2.zip, where XYZ are your initials, and submitted through Blackboard by the due date.

Grading

	Percent	Points
– Test table	10 %	15
– Dialog	10 %	15
– Program code:		
GUI creativity	10 %	15
Functionality	70 %	105
Total	100 %	150

Extra Credit #1 (10 points)

Add the ability to view an image associated with the item whenever the item's examine method is used. The image name must be part of the objects properties. Add "Includes image extra credit" in the Blackboard comments section when your project is submitted. The total size of all image files is limited to 5 MB.

Extra Credit #2 (10 points)

Add the ability to listen to sound associated with a music item whenever the item's examine method is used. The sound file name must be part of the objects properties. Add "Includes sound extra credit" in the Blackboard comments section when your project is submitted. The total size of all sound files is limited to 5 MB.