R•I•T	Rochester Institute of Technology Golisano College of Computing and Information Sciences Department of Information Sciences & Technology

Name: _____

ISTE-121
Lab 01: GUI Applications with I/O

Exercise 1 Simple GUI Application

This exercise must be completed during the lab period.

Overview

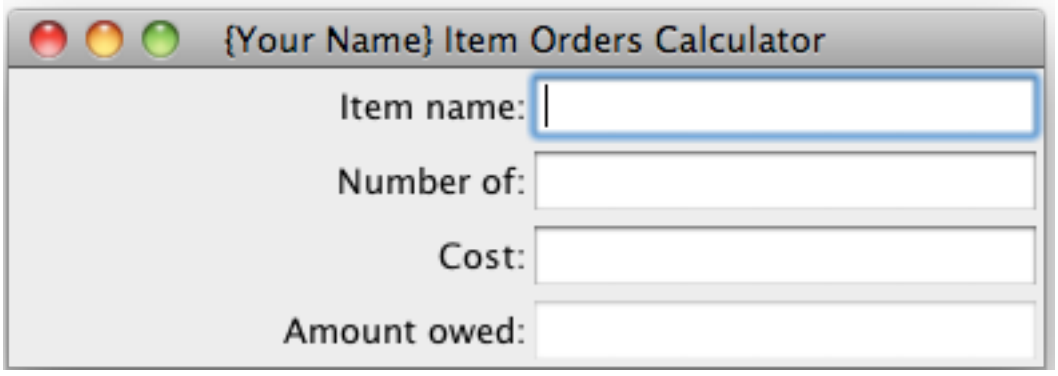
The purpose of this exercise is to practice writing Java GUI applications. Like most software, you will build this in stages starting with design then testing each stage before proceeding to the next.
This lab will provide a description of the application requirements. Some of the programming requires you to apply your learning of the concepts in different ways than presented. You may need to review the class slides or JavaDocs to complete this lab. Some suggestions will be provided. If you really get stuck, ask the instructor or TA, we may suggest a direction.

Part 1: Start simple labels and entry fields (2 Points)

Before creating the GUI shown below, answer these questions:

What layout manager will you use? _____

Create a GUI JFrame class called **Orders** that contains right aligned labels for text fields as shown. Label the object names in the code with the text labels. Place all of the components in a JPanel, then add the JPanel to the JFrame. This is a common practice, easily allowing moving of the JPanel to another part of the JFrame, should it be needed.



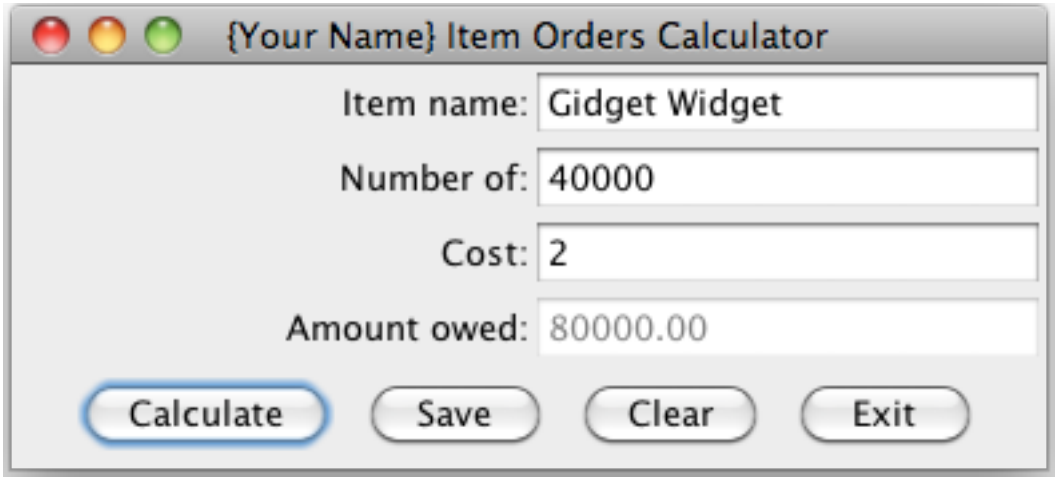
Write the full statement used to place the panel

_____

Part 2: Control Buttons (3 Points)

Add buttons to control the actions that will take place on the screen. Your screen should now look similar to this diagram.

- Change the "Amount owed" field to not allow input.
  Hint: Within Javadocs under JTextField, search for the setEnabled method.



Name all layout managers used: _____

In what area are the buttons placed? _____

In what class is setEnabled defined? _____

Part 3: Buttons control (5 Points)

Adding controls for the buttons should start with the easier ones first.

Exit	Exit the program
Clear	Clears the text fields. Can setText() to null or "" (blank).
Calculate	Multiply the "Number of" by the cost per item, place result in the Amount owed field. Format the amount owed result to have two decimal places. Hint: See String's "format" method, or slides from this week. Assume all valid numbers are entered.
Save	Open/append to a text file named **121Lab1.csv**. Write in comma-separated format, the item's name within quotes, the number of items, cost per item and the calculated amount owned. Each time the user clicks Save, first execute the Calculate code. The calculation code should only appear once in your program.

Open the CSV file before calling over the instructor / TA for signature.

Signature: _____ Date: _____
Have your instructor or TA sign here when lab 1 part 3 is finished.