Della's House of Bagels

Purpose: To explore and understand how a Swing GUI works

Learning Objectives:
- Be able to explain in reasonable detail how a Swing application works
- Utilize your Java design skills to criticize a particular implementation of Swing
- Practice building a Swing GUI

Instuctions:

1. Download the code for Della's Bagel House at http://jackmyers.info/oopda/src/Lesson-07B/bagelHouse/
   This code was slightly modified from a UI example in *Starting Out With Java* by Tony Gaddis.

2. Prepare a Word document that describes how the Bagel House operates

   Your explanation needs to demonstrate that you understand:
   i. The purpose of each class;
   ii. Which controls are utilized and which options have been set;
   iii. How the layout managers are working: i.e., what is the purpose of each layout decision;
   iv. Any special techniques that were used inside of a layout and why they were used;
       (i.e., what was the visual result of these techniques);
   v. The use of panels and frames;
   vi. Which components have listeners, and the sequence of steps that occurs in Java when controls
       with listeners are activated.

   Please write this document in good Java-speak – in other words, try to use the formal Java / OO vocabulary as
   much as possible.

3. In the same document, I want you to critically analyze this application. While it is a good example of listeners and
   layouts, it is a poor example of OO design. Identify as many design issues as you can. Remember to use the
   following design principles in your analysis: (See Lesson 03 notes.)
   - The DRY principle
   - The Open/Closed principle
   - The Single Responsibility principle

4. Update Della's House of Bagels to add a Donut panel.

   Turn in the Word document and the new Della's House of Bagels code.

5. Finally, know how to implement **from scratch** a GUI that "does something." I am not interested in a large project
   here, rather that you can make a simple GUI that has a listener which responds to an event. You have a wide
   degree of freedom in what type of GUI to make, or what the GUI will do. The intent is get a bit of practice with
   making a GUI.