Lab Exercise #6
Dialog Boxes
Computer Science 2334

Learning Objectives:
- Understand how to create a dialog box based on the JDialog class.
- Understand the interface provided by the dialog class that allows the class using the dialog to know what operations a user performed.
- Understand how a data model is used to transfer information between the dialog and the main program.

The program you will work with implements a simple inventory system for a movie collection. The user can add and remove movies from the collection. For this exercise, you will complete the functionality of adding a new movie to the collection by completing the implementation of a dialog box.

Instructions:
This lab exercise requires a laptop with an Internet connection. Once you have completed the exercises in this document, your group will submit it for grading. All group members should legibly write their names at the top of this lab handout.

Make sure you read this handout and look at all of the source code posted on Desire2Learn for this lab exercise before you begin working.

1. Review the Javadoc for the source code posted on the class website. Pay close attention to the MovieGUI and MovieDialog classes. The Movie class is the data model for the dialog and you will use methods provided in this class to complete the MovieDialog class.

2. Read through the source code of the MovieDialog class and note the comments provided in the source code that give hints as to what needs to be done in the program.
3. Create JLabels and JTextFields for all of the information stored in the Movie class. These components should be added to the contentPane of the MovieDialog by calling add on the contentPane of the dialog as shown in the constructor of MovieDialog. I suggest you modify the content pane of the dialog to use a GridLayout that has two columns.

Which components will be referenced to by variables local to the constructor instead of class variables and why?

4. Create two JButton s for the dialog; one for OK and one for CANCEL. Add these buttons to the contentPane of the dialog box. Be sure to add an register the MovieDialog class as an action listener for these buttons.

5. Add a class variable to the MovieDialog class and initialize it inside of the constructor. This variable is used to indicate if the user clicked on OK or CANCEL. Modify the getCloseOption() method to return the value of this class variable. Constants are provided in the class for OK_OPTION and CANCEL_OPTION that should be used to set and check the value of the class variable.

6. Complete the actionPerformed() method of the MovieDialog class. If the user clicks on the OK button, this method should save all of the data they entered into the data model of the dialog by using mutator methods provided by the data model. The data entered for the year of the movie should be a integer, so you will need to use the parseInt() method of Integer to convert the value input by the user from a String to a int.

Additionally, if the user clicks on OK or CANCEL the method should save the user's choice in the class variable created in Step #5, that indicates how they closed the dialog. Finally, the method should call the dispose() method of JDialog.

7. Compile the lab assignment with your modified MovieDialog class. You will not need to modify any class other than the MovieDialog class. Make sure that you can enter and remove movies from the inventory using your code.

8. Submit this lab electronically by transferring all of the required Java files to codd.cs.ou.edu and saving them in a folder named lab6. Then ssh into codd.cs.ou.edu and use the following commands to submit your lab.
   ```bash
cd lab6
```
/opt/cs2334/bin/submit cs2334-<section #> lab6 *.java

where <section #> is replaced by the section number for your lab section (011, 012).

9. Turn in this lab handout to your lab instructor.