

Lab Exercise #6
Dialog Boxes
Computer Science 2334

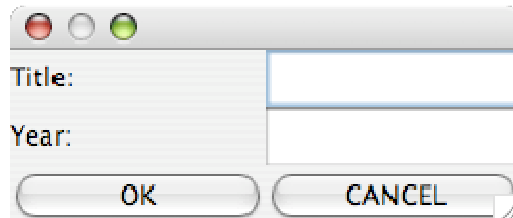
Group #: _____ Section #: _____

Members: _____

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 **Javadocs** 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 *JButtons* 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 *getCloseOperation()* 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.

```
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.