## Dialogs in Java Swing: JOptionPane

Documentation: <http://docs.oracle.com/javase/7/docs/api/javax/swing/JOptionPane.html>

Dialog:

* use to show an error message or a warning to the end user
* can contain images, buttons, text, etc.
* Swing classes that can create and display dialogs:
  + JOptionPane (for standard dialogs)
  + ProgressMonitor (shows progress of an operation)
  + JColorChooser (allows user to select a color)
  + JFileChooser (allows user to select a file)
  + JDialog (create a custom dialog)
* Dialogs are dependent on a Frame component:
  + when a frame is closed , its dialogs are also closed.
  + when a frame is minimized, its dialogs are also minimized.
* Can be modal or non-modal:
  + modal dialogs prevent the user from interacting with ALL other windows

## Creating Standard Dialogs with JOptionPane:

All of these dialogs are MODAL.

Methods:

* showMessageDialog (display a message to the user)
* showConfirmDialog (ask the user to confirm something --i.e. by selecting yes, no, or cancel)
* showInputDialog (prompt the user to enter some input)
* showOptionDialog (combine all three of the above)

If the show\_\_\_Dialog method returns an integer, the constants representing the integer are:

* YES\_OPTION
* NO\_OPTION
* CANCEL\_OPTION
* OK\_OPTION
* CLOSED\_OPTION

**Parameters for the show methods:**

|  |  |
| --- | --- |
| parent | frame that contains the dialog. If null, the default frame is the parent |
| message | String |
| messageType | ERROR\_MESSAGE The Java look and feel icon for error dialogs |
| INFORMATION\_MESSAGE The Java look and feel icon for informational dialogs |
| WARNING\_MESSAGE The Java look and feel icon for warning dialogs |
| QUESTION\_MESSAGE The Java look and feel icon for dialogs that ask questions |
| PLAIN\_MESSAGE |
| optionType | Buttons that appear at the bottom of the dialog : DEFAULT\_OPTION YES\_NO\_OPTION  YES\_NO\_CANCEL\_OPTION OK\_CANCEL\_OPTION |
| Icon | A decorative image—default value is defined by the messageType parameter |
| Title | Message displayed in the title bar of the dialog window |
| initialValue | Default selection |

**Examples: showMessageDialog**



|  |  |
| --- | --- |
| JOptionPane.showMessageDialog(null,"Good Job"); |  |
| JOptionPane.showMessageDialog( null,  "Please enter numbers only",  "Input Error",  JOptionPane.ERROR\_MESSAGE); |  |
| **final** ImageIcon icon = **new** ImageIcon("C:\\Users\\ficek\\Desktop\\numbers.jpg");  JOptionPane.*showMessageDialog*(  **null**,  "Please enter numbers only",  "Input Error",  JOptionPane.*ERROR\_MESSAGE*,  icon); |  |