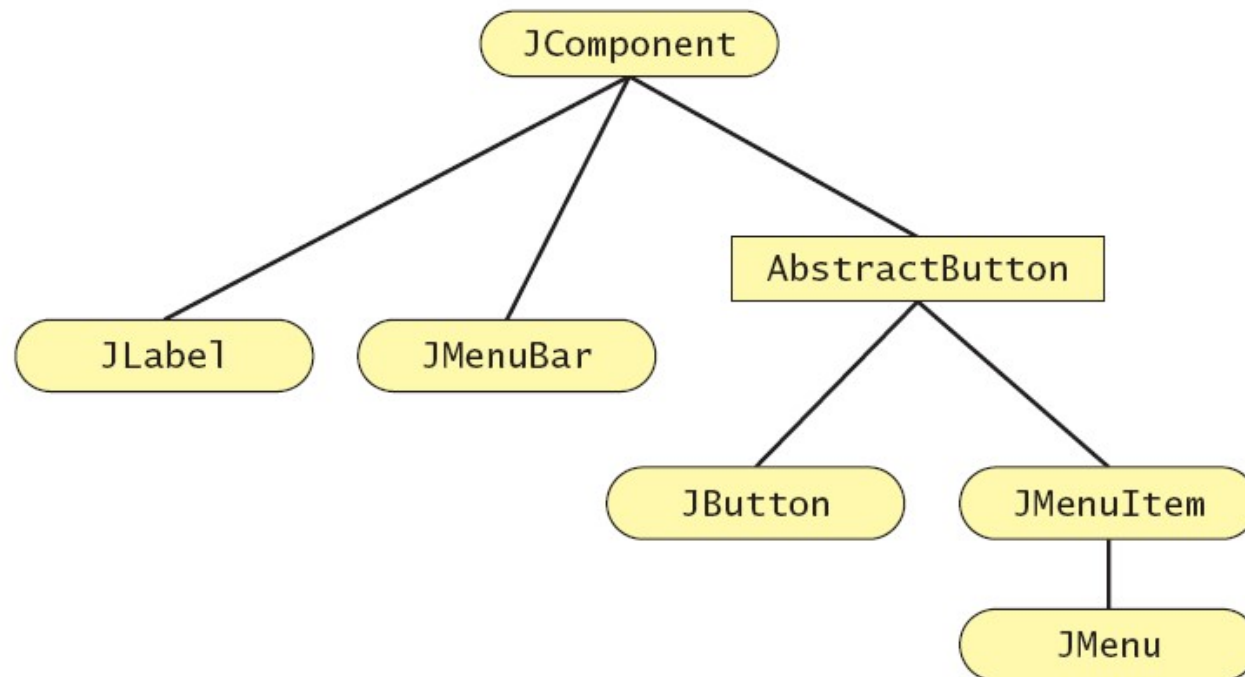
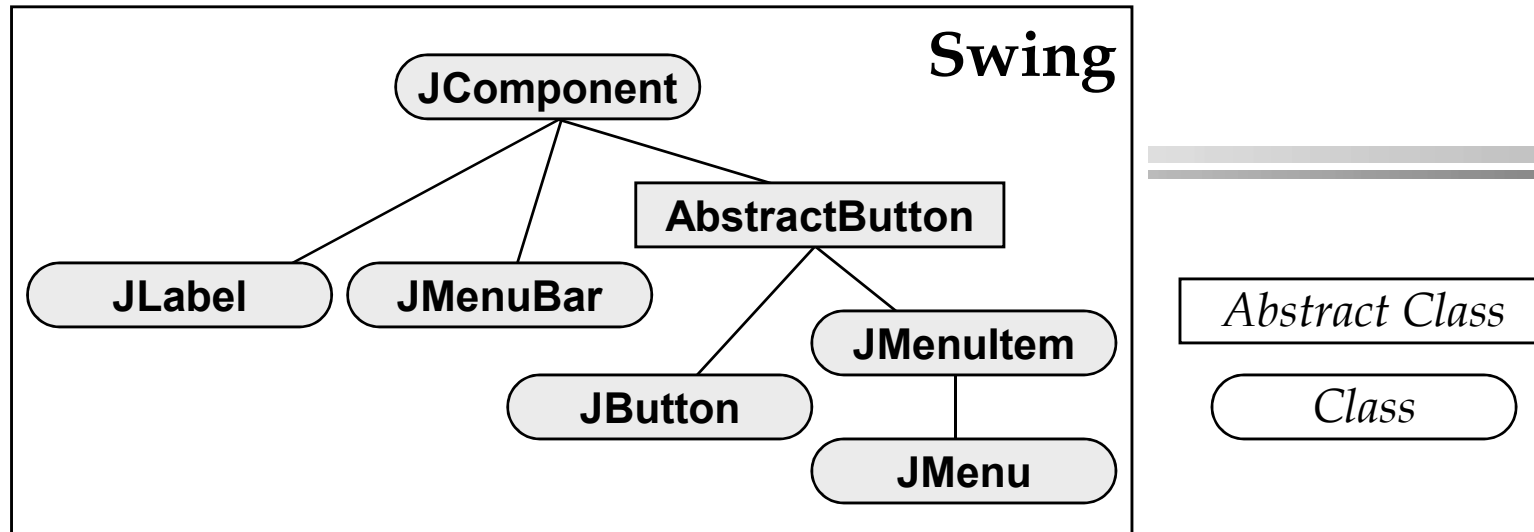


15.6. Another Look at the Swing Class Hierarchy

- Buttons, Menus, Abstract Buttons
 - » Figure 15.7 A portion of the Swing Class Hierarchy

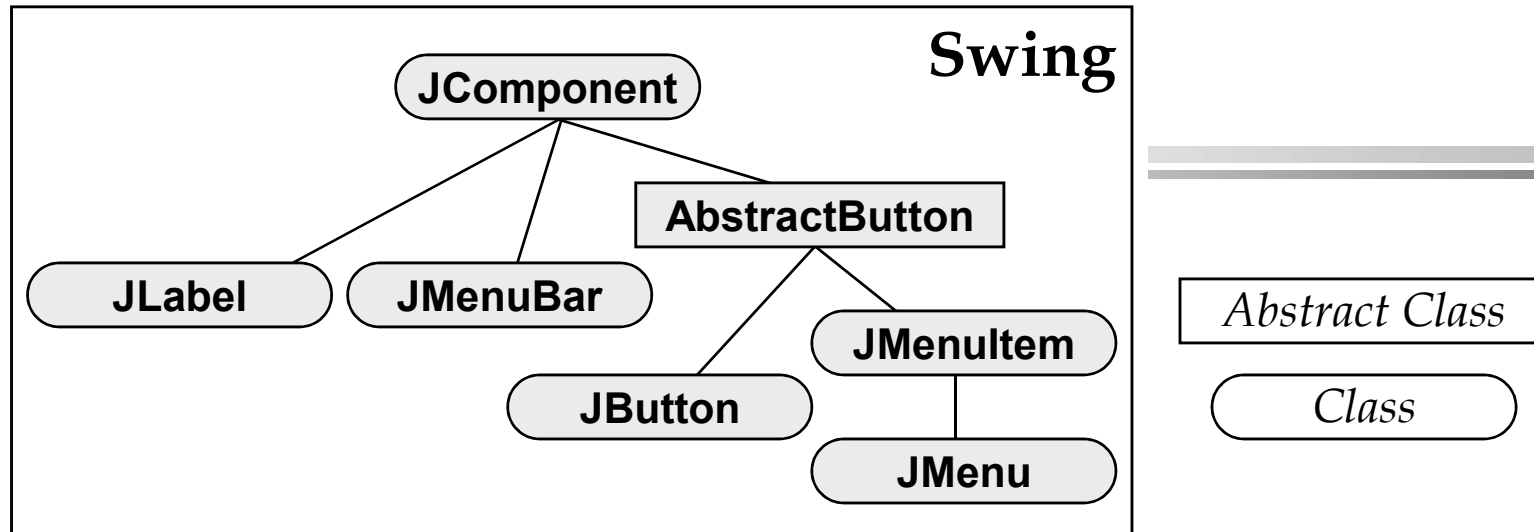


Another Look at the Swing Class Hierarchy



- All of the basic properties of `JButton` and `JMenuItem` are inherited from `AbstractButton`.
- `JButton` and `JMenuItem` are similar because they are derived from the same abstract class.
- Since `AbstractButton` is an abstract class, no objects of that class can be made.
- The purpose of the `AbstractButton` class is to provide a place for code that is common to `JButton` and `JMenuItem` and avoid repeated code.

Another Look at the Swing Class Hierarchy



- `JLabel` and `JButton` inherit from a common ancestor, namely `JComponent`, so they have some similarities.
- Notice, however, that `JLabel` and `JButton` are not derived from the same class, even though they have a common ancestor.
- The hierarchy reflects the fact that `JButton` and `JMenuItem` are more similar than `JLabel` and `JButton`.
- Also notice that `JMenu` inherits from `JMenuItem`, so it can be used anywhere a `JMenuItem` can. This allows nested menus.

Buttons, Menus, Abstract Buttons

- Figure 15.8 Some methods inherited from **AbstractButton** by class **JButton** and **JMenuItem**

```
public void addActionListener(ActionListener listener)
public void removeActionListener(ActionListener listener)
    Adds/removes the specified action listener from the button or menu item.
```

```
public String getActionCommand()
public void setActionCommand(String actionCommand)
    Gets/sets the action command for the button or menu item.
```

```
public Icon getIcon()
public void setIcon(Icon anIcon)
    Gets/sets the icon on the button or menu item.
```

```
public String getText()
public void setText(String text)
    Gets/sets the text on the button or menu item.
```

Buttons, Menus, Abstract Buttons

- Figure 15.9 Some constructors of classes `JButton` and `JMenuItem`

```
public JButton()  
public JMenuItem()  
    Creates a button (menu item) that has no text or icon.
```

```
public JButton(Icon anIcon)  
public JMenuItem(Icon anIcon)  
    Creates a button (menu item) that has the given icon.
```

```
public JButton(String text)  
public JMenuItem(String text)  
    Creates a button (menu item) that has the given text.
```

```
public JButton(Icon anIcon, String text)  
public JMenuItem(Icon anIcon, String text)  
    Creates a button (menu item) that has the given icon and text.
```

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