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/*--- CBN.java ---*/
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
/**
Class Cbn that adds functionality to JButton and adds some ActionListener function
ality.
@author Thompson, Joshua 206360
*/
public class Cbn extends JButton implements ActionListener, WindowListener {
    /**
    count datafield that is used to count how many times the user has
    clicked the button
    */
    private int count = 0;

    /**
    Constructor for Cbn.
    @param label The desired label for the button
    @param j Takes a JFrame object in order to add WindowListening
    */
    public Cbn(String label, JFrame j)
    {
        super(label);
        this.addActionListener(this);
        j.addWindowListener(this);
    }

    /**
    When this method is called, the count datafield is incremented. Called when
    the user clicks the button.
    @param e ActionEvent parameter
    */
    public void actionPerformed(ActionEvent e)
    {
        count++;
    }

    /**
    Method that listens for when the window is closing. When this is called, the
    count value is printed to the screen and the program is exited.
    @param e WindowEvent parameter
    */
    public void windowClosing(WindowEvent e)
    {
        System.out.println("Button clicked " + count + " times.");
        System.exit(0);
    }

    public void windowActivated(WindowEvent e)
    {}

    public void windowClosed(WindowEvent e)
    {}

    public void windowDeactivated(WindowEvent e)
    {}

    public void windowDeiconified(WindowEvent e)
    {}

    public void windowIconified(WindowEvent e)
    {}

    public void windowOpened(WindowEvent e)
    {}
}

/*--- Ex1.java ---*/
import javax.swing.*;
/**
Class Ex1 where the HWlFrame is created and made visible to the user. Not much
else is going on here.
@author Thompson, Joshua 206360

```

```

*/
public class Ex1 {
    /**
    Main method for Ex1. Does the main stuff already stated above.
    @param args Doesnt do anything to put parameters
    */
    public static void main(String[] args) {
        JFrame F = new HWlFrame();

        F.setVisible(true);
    }

    /**--- HWlFrame.java ---*/
    import javax.swing.*;
    import java.awt.*;

    /**
    Class HWlFrame that extends JFrame. Uses a Cbn object that
    adds some characteristics to button presses and window closing actions.
    @author Thompson, Joshua 206360
    */
    public class HWlFrame extends JFrame {
        /**
        Constructor for HWlFrame
        */
        public HWlFrame() {
            Cbn b = new Cbn("click me", this);
            add(b, BorderLayout.NORTH);
            pack();
        }
    }
}

```