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/*--- Ex1.java ---*/
import javax.swing.*;

public class Ex1 {
    public static void main(String[] args) {
        HW1Frame F = new HW1Frame();

        F.setVisible(true);
    }
}

/*--- HW1Frame.java ---*/
import javax.swing.*;
import java.awt.*;

/**
 * This is the custom frame for this hw, HW19
 * @author MIDN Hanling, Mieke - 202430
 */
public class HW1Frame extends JFrame {
    /**
     * Constructor for this type of frame
     * Adds a button that monitors itself
     * The button will be the only thing (placed in NORTH)
     */
    public HW1Frame() {
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        CBn b = new CBn("click me");

        addWindowListener(b);
        add(b, BorderLayout.NORTH);
        pack();
    }
}

/*--- CBn.java ---*/
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;

/**
 * CBn is a button as well as an action listener for itself and is a
 * window listener for a frame
 * @author MIDN Hanling, Mike - 202430
 */
public class CBn extends JButton implements ActionListener, WindowListener {
    private int count = 0;

    /**
     * Constructor for a CBn
     * @param label The string label that will show on the button
     */
    public CBn(String label) {
        super(label);
        this.addActionListener(this);
    }

    /**
     * implementation of ActionListener
     * whenever the button is clicked, the private count is incremented
     */
    public void actionPerformed(ActionEvent e) {
        count++;
    }

    public void windowActivated(WindowEvent e){}
    public void windowClosed(WindowEvent e){}

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/**
 * Only part of the WindowListener interface needed
 * When the window is closed the number of times it was clicked is printed to
 * stdout
 */
public void windowClosing(WindowEvent e){
    System.out.println("Button clicked " + this.count + " times.");
}
public void windowDeactivated(WindowEvent e){}
public void windowDeiconified(WindowEvent e){}
public void windowIconified(WindowEvent e){}
public void windowOpened(WindowEvent e){}
}

```