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1  /* Gross Pay, Savings, and Investment Calculator using JOption for I/O.
2     This Programs purpose is to calculate gross pay, savings, and investment based
3     off of user input in a JOption panel, and be output in a JOption panel.
4     Zachary Stall
5     Program #3, CS 1050, Section 3
6     jGrasp, Custom PC, Windows 10
7     Feckless - ineffective; incompetent; futile
8     "Absence of evidence is not evidence of absence." -Carl Sagan (1934 - 1996)
9  */
10
11 import javax.swing.JOptionPane;      // Access the panel class
12 import java.text.DecimalFormat;      // Access the formatting class
13 import java.util.StringTokenizer;    // Access the tokenizer class
14
15
16 public class ZacharyStall_2_03 {
17     public static void main (String [] args) {
18
19         double grossPay = 0.0;        // Gross pay
20         double savingRate = 0.0;      // Saving rate as a percentage
21         double iraRate = 0.0;         // IRA investment rate as a percentage
22         double saveAmount = 0.0;      // Calculated savings amount
23         double iraAmount = 0.0;       // Calculated IRA amount
24         double saveIraCombined = 0.0; // saving plus ira accounts
25
26         String inputStr;               // Stores user input from the JOption pane
27         StringTokenizer eachVarEntered; // Stores inputs serperated by spaces
28
29         /*
30         dollarAmount and percenRate will be used to format the final values
31         input by the user to include decimals and commas.
32         */
33
34         DecimalFormat dollarAmountForm = new DecimalFormat("#,##0.00");
35         DecimalFormat percentRateForm = new DecimalFormat("0.0");
36
37         /*
38         JOptionPane.showInputDialog will print the message in a dialog box
39         and allow the user to input values.
40         StringTokenizer will take the input from the user and store the
41         values in eachVarEntered, where the nexToken will take the values
42         and store them into each double var below, and know that the
43         values are seperated by spaces.
44         */
45
46         inputStr = JOptionPane.showInputDialog(
47             "Enter gross pay, savings rate and IRA rate separated by spaces");
48         eachVarEntered = new StringTokenizer(inputStr);
49         grossPay = Double.parseDouble(eachVarEntered.nextToken());
50         savingRate = Double.parseDouble(eachVarEntered.nextToken());
51         iraRate = Double.parseDouble(eachVarEntered.nextToken());
52
53         /*
54         This section of code calculates the amount of savings, IRA
55         investment, and combined total of both accounts and assigns
56         them to new var to be used later.
57         */
58
59         saveAmount = (savingRate / 100.0) * grossPay;
60         iraAmount = (iraRate / 100.0) * grossPay;
61         saveIraCombined = saveAmount + iraAmount;
62
63         /*
64         JoptionPane.showMessgeDialog will print all the values in a
65         new pane for the user to see.
66         dollarAmountForm and percentRateForm will take the calculated
67         amounts and format them to numbers with commas decimals.
68

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69      */
70
71      JOptionPane.showMessageDialog(null, "Gross pay: $"
72          + dollarAmountForm.format(grossPay)
73          + "    savings percent: " + percentRateForm.format(savingRate) + "%"
74          + "    savings IRA: " + percentRateForm.format(iraRate) + "% \n"
75          + "Amount in Savings: $" + dollarAmountForm.format(saveAmount) + " \n"
76          + "Amount in IRA: $" + dollarAmountForm.format(iraAmount) + " \n"
77          + "Amount in both accounts: $" + dollarAmountForm.format(saveIraCombined)
78          + "\n" + "Zachary Stall");
79
80      System.exit(0);
81  }
82 }
```