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 1  /*
 2     Chapter 4:   Programming Assignment 1
 3     Programmer:  Mike Brown
 4     Date:        March 27, 2009
 5     Filename:    Commision.Java
 6     Purpose:     This program calculates sales commision using five
        methods:
 7                  getSales(), getCode(), getComm(), output(), and finish().
 8  */
 9
10  import javax.swing.JOptionPane;
11  import java.text.DecimalFormat;
12
13  public class Commission
14  {
15      public static void main (String [] args)
16      {
17          //declare class variables
18          double dollars, answer;
19          int empCode;
20
21          //call methods
22          dollars = getSales();
23          empCode = getCode();
24          answer = getComm(dollars,empCode);
25          output(answer, dollars);
26          finish();
27      }
28
29      //The getSales() method asks the user to input a dollar amount and
        validates it.
30      public static double getSales()
31      {
32          //declare method variables
33          double sales = 0.0;
34          boolean done = false;
35
36          //loop while not done
37          while(!done)
38          {
39              String answer = JOptionPane.showInputDialog(null,"Enter the
                sales amount\n(do not use commas or dollar signs)\n or click
                Canel to exit: ");
40
41              if (answer == null) finish();
42
43              try
44              {
45                  sales = Double.parseDouble(answer);
46                  if (sales <= 0) throw new NumberFormatException();
47                  else done = true;
48              }
49              catch(NumberFormatException e)
50              {
51                  JOptionPane.showMessageDialog(null, "Your entry was not
                    in the proper format.", "Error", JOptionPane.
                    INFORMATION_MESSAGE);
52              }
53
54          }
55              return sales;
56      }
57
58      //The getCode() method retrieves a code from the user and validates
        it.
59      public static int getCode()
60      {
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 61          //declare method variables
 62          int code = 0;
 63          boolean done = false;
 64
 65          //loop while not done
 66          while(!done)
 67          {
 68              try
 69              {
 70                  String message = "Enter the commision code:" + "\n\n1)
                    Telephone Sales\n2) In-Store Sales\n3) Outside
                    Sales\n\n";
 71
 72                  code = Integer.parseInt(JOptionPane.showInputDialog(null,
                    message));
 73
 74                  //test for valis codes 1,2, or 3
 75                  if (code <1 || code > 3) throw new NumberFormatException
                    ();
 76                  else done = true;
 77              }
 78              catch(NumberFormatException e)
 79              {
 80                  JOptionPane.showMessageDialog(null, "Please enter a 1, 2,
                    or 3.", "Error" , JOptionPane.INFORMATION_MESSAGE);
 81              }
 82          }
 83          return code;
 84      }
 85
 86      //The getComm() method accepts the dollars and code and returns
         commision.
 87      public static double getComm(double employeeSales, int employeeCode)
 88      {
 89          double commission = 0.0;
 90
 91          switch(employeeCode)
 92          {
 93              case 1:
 94                  commission = .10 * employeeSales;
 95                  break;
 96              case 2:
 97                  commission = .14 * employeeSales;
 98                  break;
 99              case 3:
100                  commission = .18 * employeeSales;
101                  break;
102          }
103          return commission;
104      }
105
106      //The output() methos displays the commision and sales.
107      public static void output(double commission, double sales)
108      {
109          DecimalFormat twoDigits = new DecimalFormat("$#,000.00");
110
111          JOptionPane.showMessageDialog(null,"Your commission on sales of "
             + twoDigits.format(sales) + "" + " is " + twoDigits.format(
             commission), "Commission Totals",
             JOptionPane.INFORMATION_MESSAGE);
112      }
113
114      //The finish() method ends the program.
115      public static void finish()
116      {
117          System.exit(0);
118      }
```

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119  }
```