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1  /*Written by A Student for CS1301
2  On: Month, Day, Year
3  Purpose: Program passing input sales amount to determine
4  if buyer has earned free tshirts that bookstore owner
5  is trying to get rid of. Produces receipt for sale and
6  informs user of number of free tshirts earned, if applicable.
7
8  Problem :
9
10 Book store manager ordered a boatload of
11 Finals are fun t-shirts.
12 Funny thing is , no one wants them.  Imagine that.
13 She cannot return them.  The t-shirt company thought she was insane,
14 so they made that a condition before they fulfilled the order.
15 She decided to try Free give away if you buy at least $10 in merchandise
16 if they order $30 in merchandise give them two.
17
18 Requirements:
19
20 1.  Write a main class named ...BookstoreOrder
21
22 2.  Input sales amount from the command line (args[0]). As double
23
24 3.  Make sure more that the sale is more than 0
25
26 4.  If the sale greater than or equal to $10 , then 1 free t-shirt
27
28 5.  If the sale greater than or equal to $17.50 , then 2 free t-shirts
29
30 6  Output. Sales amount and How many free t-shirts
31
32 7.  output shall resemble (depending on sales input).
33
34     ****  Campus Bookstore  ****
35
36     Sale:  $5.99
37
38 or
39
40     ****  Campus Bookstore  ****
41
42     Sale:  $15.99
43     1 Free Finals are Fun T-Shirt
44
45 or
46
47     ****  Campus Bookstore  ****
48
49     Sale:  $35.99
50     2 Free Finals are Fun T-Shirt
51 */
52
53 import CSCI.*;
54 import java.util.*;
55 public class BookstoreOrder //begin JCarpenterBookStoreOrder
56 {
57     final static double ERROR = 5.59; //error constant, input will default to $5.59 if
    cannot be parsed
58     final static String FORMAT = "          %5s =  $%7.2f"; //format for receipt
59     //final static int SALESTAX = 7; //declare constant sales tax of 7%. unused in this
    homework assignment
60     public static int FreeTShirtNumber = 2; //declare freetshirtnumber integer value,
    default to 2 free shirts
61
62     public static void main(String[] args) //begin main
63     {
64         double salesAmount = CSCICConvert.Parse(args[0], ERROR); //record input arguments
        as double
65         testInput(salesAmount); //check if sales amount is valid

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66     checkForFreeTshirts(salesAmount); //call method to determine if buyer earns free
        shirts
67     printOutput("Sale: ",salesAmount,FreeTShirtNumber); //print final receipt out
68 }//end main
69
70 //begin methods
71 public static void testInput(double salesAmount) //testInput method to determine if
    input is valid for program
72 {
73     if(salesAmount <= 0) //check if sales amount is 0 or negative, which is invalid
74     {
75         System.out.println("SALE CANNOT BE NEGATIVE"); //error message given to user
76         System.exit(0); //end program in event of error
77     }
78 } //end testInput method
79
80 public static int checkForFreeTshirts(double salesAmount) //method to check how
    many free shirts buyer has earned
81 {
82     if(salesAmount < 10) //if sales amount is less than ten dollars, no free tshirt
83     {
84         FreeTShirtNumber = 0; //set free tshirt value to 0, no free tshirt
85     }
86     else if(10 < salesAmount && salesAmount < 17.50) //if salesAmount is greater
        than 10 but less than 17.50, 1 free shirt
87     {
88         FreeTShirtNumber = 1; //set freetshirt to 1 in accordance with conditions
89     }
90     return FreeTShirtNumber; //return integer value of free tshirts, will be 2 if
        sales was greater than 17.50
91 } //end freeshirts method
92
93 public static void printOutput(String salesstring, double salesAmount, int
    FreeTShirtNumber)//method for printing output for user
94 {
95     String receipt = String.format(FORMAT,salesstring,salesAmount); //format
        everything nice and tidy
96     System.out.println(receipt); //use java println to print out
97     if(FreeTShirtNumber > 0) //check to see if any free tshirts were earned
98     {
99         System.out.println("        "+FreeTShirtNumber+" Free Finals are Fun
            T-Shirt"); //inform user of how many tshirts
100
101 //were earned if applicable
102     }
103 } //end printout method
104 //end methods
105 } //end JCarpenterBookStoreOrder

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