/\*\*

This program incorrectly uses the == operator to compare

two String objects. The comparison does not work.

\*/

public class BadStringCompare

{

public static void main(String [] args)

{

String name1 = "Mark",

name2 = "Mark";

if (name1 == name2) // ERROR!

{

System.out.println(name1 + " and " + name2 +

" are the same.");

}

else

{

System.out.println(name1 + " and " + name2 +

" are the NOT the same.");

}

}

}

/\*\*

This program demonstrates the conditional operator.

\*/

import javax.swing.JOptionPane; // Needed for JOptionPane

public class ConsultantCharges

{

public static void main(String [] args)

{

double hours, // To hold the hours worked

charges; // To hold the charges

String input; // To hold user input

// Get the number of hours worked.

input = JOptionPane.showInputDialog("How many hours were worked? ");

hours = Double.parseDouble(input);

// Make sure hours is at least 5.

// In the following statement, if the value in hours is less

// than 5, then 5 is stored in hours. Otherwise hours is assigned

// the value it already has.

hours = hours < 5 ? 5 : hours;

// Calculate and display the charges. The variable hours will not

// have a value less than 5 because of the previous statement.

charges = 50.0 \* hours;

JOptionPane.showMessageDialog(null, "The charges are $" + charges);

System.exit(0);

}

}

import javax.swing.JOptionPane;

/\*\*

This program demonstrates how to use the String.format

method to format a number as currency.

\*/

public class CurrencyFormat3

{

public static void main(String[] args)

{

double monthlyPay = 5000.0;

double annualPay = monthlyPay \* 12;

JOptionPane.showMessageDialog(null,

String.format("Your annual pay is $%,.2f\n", annualPay));

}

}

import java.util.Scanner;

/\*

This program demonstrates the logical && operator.

\*/

public class LogicalAnd

{

public static void main(String[] args)

{

double salary; // Annual salary

double yearsOnJob; // Years at current job

// Create a Scanner object for keyboard input.

Scanner keyboard = new Scanner(System.in);

// Get the user's annual salary.

System.out.print("Enter your annual salary: ");

salary = keyboard.nextDouble();

// Get the number of years at the current job.

System.out.print("Enter the number of years " +

"at your current job: ");

yearsOnJob = keyboard.nextDouble();

// Determine whether the user qualifies for the loan.

if (salary >= 50000 && yearsOnJob >= 2)

{

System.out.println("You qualify for the loan.");

}

else

{

System.out.println("You do not qualify.");

}

}

}

import javax.swing.JOptionPane; // Needed for JOptionPane

/\*\*

This program asks the user to enter a numeric test

score and displays a letter grade for the score. The

program displays uses nested decision structures

to determine the grade.

\*/

public class NestedDecision

{

public static void main(String[] args)

{

int testScore; // Numeric test score

String input; // To hold the user's input

// Get the numeric test score.

input = JOptionPane.showInputDialog("Enter your numeric " +

"test score and I will tell you the grade: ");

testScore = Integer.parseInt(input);

// Display the grade.

if (testScore < 60)

{

JOptionPane.showMessageDialog(null, "Your grade is F.");

}

else

{

if (testScore < 70)

{

JOptionPane.showMessageDialog(null, "Your grade is D.");

}

else

{

if (testScore < 80)

{

JOptionPane.showMessageDialog(null, "Your grade is C.");

}

else

{

if (testScore < 90)

{

JOptionPane.showMessageDialog(null, "Your grade is B.");

}

else

{

JOptionPane.showMessageDialog(null, "Your grade is A.");

}

}

}

}

System.exit(0);

}

}

import java.util.Scanner; // Needed for the Scanner class

/\*\*

This program demonstrates a case insensitive string comparison.

\*/

public class SecretWord

{

public static void main(String[] args)

{

String input; // To hold the user's input

// Create a Scanner object for keyboard input.

Scanner keyboard = new Scanner(System.in);

// Prompt the user to enter the secret word.

System.out.print("Enter the secret word: ");

input = keyboard.nextLine();

// Determine whether the user entered the secret word.

if (input.equalsIgnoreCase("PROSPERO"))

{

System.out.println("Congratulations! You know the " +

"secret word!");

}

else

{

System.out.println("Sorry, that is NOT the " +

"secret word!");

}

}

}

/\*\*

This program compares two String objects using

the compareTo method.

\*/

public class StringCompareTo

{

public static void main(String [] args)

{

String name1 = "Mary",

name2 = "Mark";

// Compare "Mary" and "Mark"

if (name1.compareTo(name2) < 0)

{

System.out.println(name1 + " is less than " + name2);

}

else if (name1.compareTo(name2) == 0)

{

System.out.println(name1 + " is equal to " + name2);

}

else if (name1.compareTo(name2) > 0)

{

System.out.println(name1 + " is greater than " + name2);

}

}

}

import java.util.Scanner; // Needed for Scanner class

/\*\*

This program demonstrates the switch statement.

\*/

public class SwitchDemo

{

public static void main(String[] args)

{

int number; // A number entered by the user

// Create a Scanner object for keyboard input.

Scanner keyboard = new Scanner(System.in);

// Get one of the numbers 1, 2, or 3 from the user.

System.out.print("Enter 1, 2, or 3: ");

number = keyboard.nextInt();

// Determine the number entered.

switch (number)

{

case 1:

System.out.println("You entered 1.");

break;

case 2:

System.out.println("You entered 2.");

break;

case 3:

System.out.println("You entered 3.");

break;

default:

System.out.println("That's not 1, 2, or 3!");

}

}

}

import java.util.Scanner;

/\*

This program demonstrates how variables may be declared

in various locations throughout a program.

\*/

public class VariableScope

{

public static void main(String[] args)

{

// Create a Scanner object for keyboard input.

Scanner keyboard = new Scanner(System.in);

// Get the user's first name.

System.out.print("Enter your first name: ");

String firstName;

firstName = keyboard.nextLine();

// Get the user's last name.

System.out.print("Enter your last name: ");

String lastName;

lastName = keyboard.nextLine();

// Display a message.

System.out.println("Hello " + firstName + " " + lastName);

}

}