

Error Log

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package Mastery;

import java.util.Scanner;

public class MetricConversion {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in); // Create a Scanner object for user input
        int choice; // Variable to store user's menu choice

        // Display the menu and prompt the user to choose a conversion option
        do {
            System.out.println("Metric Conversion Menu:");
            System.out.println("1. Inches to Centimeters");
            System.out.println("2. Centimeters to Inches");
            System.out.println("3. Feet to Centimeters");
            System.out.println("4. Centimeters to Feet");
            System.out.println("5. Yards to Meters");
            System.out.println("6. Meters to Yards");
            System.out.println("7. Miles to Kilometers");
            System.out.println("8. Kilometers to Miles");
            System.out.println("9. Exit");
            System.out.print("Choose an option (1-9): ");
            choice = scanner.nextInt(); // Read the user's choice

            // Switch statement to handle each conversion option
            switch (choice) {
                case 1:
                    // Inches to Centimeters conversion
                    System.out.print("Enter inches: ");
                    double inches = scanner.nextDouble();
                    System.out.println(inches + " inches = " + inchesToCentimeters(inches) + " centimeters");
                    break;
                case 2:
                    // Centimeters to Inches conversion
                    System.out.print("Enter centimeters: ");
                    double cmToInches = scanner.nextDouble();
                    System.out.println(cmToInches + " centimeters = " + centimetersToInches(cmToInches) + " inches");
                    break;
                case 3:
                    // Feet to Centimeters conversion
                    System.out.print("Enter feet: ");
                    double feet = scanner.nextDouble();
                    System.out.println(feet + " feet = " + feetToCentimeters(feet) + " centimeters");
                    break;
                case 4:
                    // Centimeters to Feet conversion
                    System.out.print("Enter centimeters: ");
                    double cmToFeet = scanner.nextDouble();
                    System.out.println(cmToFeet + " centimeters = " + centimetersToFeet(cmToFeet) + " feet");
                    break;
                case 5:
                    // Yards to Meters conversion
                    System.out.print("Enter yards: ");
                    double yards = scanner.nextDouble();
                    System.out.println(yards + " yards = " + yardsToMeters(yards) + " meters");
                    break;
                case 6:
                    // Meters to Yards conversion
                    System.out.print("Enter meters: ");
                    double meters = scanner.nextDouble();
                    System.out.println(meters + " meters = " + metersToYards(meters) + " yards");
                    break;
                case 7:
                    // Miles to Kilometers conversion
                    System.out.print("Enter miles: ");
                    double miles = scanner.nextDouble();
                    System.out.println(miles + " miles = " + milesToKilometers(miles) + " kilometers");
                    break;
                case 8:
                    // Kilometers to Miles conversion
                    System.out.print("Enter kilometers: ");
                    double kmToMiles = scanner.nextDouble();
                    System.out.println(kmToMiles + " kilometers = " + kilometersToMiles(kmToMiles) + " miles");
                    break;
                case 9:
                    // Exit
                    System.out.println("Exiting program.");
                    break;
            }
        } while (choice != 9);
    }
}
```

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57         break;
58     case 5:
59         // Yards to Meters conversion
60         System.out.print("Enter yards: ");
61         double yards = scanner.nextDouble();
62         System.out.println(yards + " yards = " + yardsToMeters(yards) + " meters");
63         break;
64     case 6:
65         // Meters to Yards conversion
66         System.out.print("Enter meters: ");
67         double metersToYards = scanner.nextDouble();
68         System.out.println(metersToYards + " meters = " + metersToYards(metersToYards) + " yards");
69         break;
70     case 7:
71         // Miles to Kilometers conversion
72         System.out.print("Enter miles: ");
73         double miles = scanner.nextDouble();
74         System.out.println(miles + " miles = " + milesToKilometers(miles) + " kilometers");
75         break;
76     case 8:
77         // Kilometers to Miles conversion
78         System.out.print("Enter kilometers: ");
79         double kilometers = scanner.nextDouble();
80         System.out.println(kilometers + " kilometers = " + kilometersToMiles(kilometers) + " miles");
81         break;
82     case 9:
83         // Exit the program
84         System.out.println("Exiting the program.");
85         break;
86     default:
87         // Handle invalid menu choices
88         System.out.println("Invalid choice. Please choose again.");
89     }
90
91     System.out.println(); // Print a blank line for readability
92
93     } while (choice != 9); // Continue until the user chooses to exit
94
95     scanner.close(); // Close the scanner to prevent resource leaks
96 }
97
98 // Conversion methods
99
100 // Converts inches to centimeters
101 public static double inchesToCentimeters(double inches) {
102     return inches * 2.54;
103 }
104
105 // Converts centimeters to inches
106 public static double centimetersToInches(double centimeters) {
107     return centimeters / 2.54;
108 }
109
110 // Converts feet to centimeters
111 public static double feetToCentimeters(double feet) {
112     return feet * 30.48;
113 }
114
115 // Converts centimeters to feet
116 public static double centimetersToFeet(double centimeters) {
117     return centimeters / 30.48;
118 }
119
120 // Converts yards to meters
121 public static double yardsToMeters(double yards) {
122     return yards * 0.9144;
123 }
124
125 // Converts meters to yards
126 public static double metersToYards(double meters) {
127     return meters / 0.9144;
128 }
129
130 // Converts miles to kilometers
131 public static double milesToKilometers(double miles) {
132     return miles * 1.60934;
133 }
134
135 // Converts kilometers to miles
136 public static double kilometersToMiles(double kilometers) {
137     return kilometers / 1.60934;
138 }
139 }

```

No Errors