

Error Log

```
7 package Mastery;
8
9 import java.util.Scanner;
10
11 public class MetricConversion {
12
13     public static void main(String[] args) {
14         Scanner scanner = new Scanner(System.in); // Create a Scanner object for user input
15         int choice; // Variable to store user's menu choice
16
17         // Display the menu and prompt the user to choose a conversion option
18         do {
19             System.out.println("Metric Conversion Menu:");
20             System.out.println("1. Inches to Centimeters");
21             System.out.println("2. Centimeters to Inches");
22             System.out.println("3. Feet to Centimeters");
23             System.out.println("4. Centimeters to Feet");
24             System.out.println("5. Yards to Meters");
25             System.out.println("6. Meters to Yards");
26             System.out.println("7. Miles to Kilometers");
27             System.out.println("8. Kilometers to Miles");
28             System.out.println("9. Exit");
29             System.out.print("Choose an option (1-9): ");
30             choice = scanner.nextInt(); // Read the user's choice
31
32             // Switch statement to handle each conversion option
33             switch (choice) {
34                 case 1:
35                     // Inches to Centimeters conversion
36                     System.out.print("Enter inches: ");
37                     double inches = scanner.nextDouble();
38                     System.out.println(inches + " inches = " + inchesToCentimeters(inches) + " centimeters");
39                     break;
40                 case 2:
41                     // Centimeters to Inches conversion
42                     System.out.print("Enter centimeters: ");
43                     double cmToInches = scanner.nextDouble();
44                     System.out.println(cmToInches + " centimeters = " + centimetersToInches(cmToInches) + " inches");
45                     break;
46                 case 3:
47                     // Feet to Centimeters conversion
48                     System.out.print("Enter feet: ");
49                     double feet = scanner.nextDouble();
50                     System.out.println(feet + " feet = " + feetToCentimeters(feet) + " centimeters");
51                     break;
52                 case 4:
53                     // Centimeters to Feet conversion
54                     System.out.print("Enter centimeters: ");
55                     double cmToFeet = scanner.nextDouble();
56                     System.out.println(cmToFeet + " centimeters = " + centimetersToFeet(cmToFeet) + " feet");
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:
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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

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```
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 }
140
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No errors