Error Log

```java
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
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                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 metersToYards = scanner.nextDouble();
                System.out.println(metersToYards + " meters = " + metersToYards(metersToYards) + " 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 kilometers = scanner.nextDouble();
                System.out.println(kilometers + " kilometers = " + kilometersToMiles(kilometers) + " miles");
                break;
            case 9:
                // Exit the program
                System.out.println("Exiting the program.");
                break;
            default:
                // Handle invalid menu choices
                System.out.println("Invalid choice. Please choose again.");
        }

        System.out.println(); // Print a blank line for readability

    } while (choice != 9); // Continue until the user chooses to exit

    scanner.close(); // Close the scanner to prevent resource leaks
}

// Conversion methods

// Converts inches to centimeters
public static double inchesToCentimeters(double inches) {
    return inches * 2.54;
}

// Converts centimeters to inches
public static double centimetersToInches(double centimeters) {
    return centimeters / 2.54;
}

// Converts feet to centimeters
public static double feetToCentimeters(double feet) {
    return feet * 30.48;
}

// Converts centimeters to feet
public static double centimetersToFeet(double centimeters) {
    return centimeters / 30.48;
}

// Converts yards to meters
public static double yardsToMeters(double yards) {
    return yards * 0.9144;
}

// Converts meters to yards
public static double metersToYards(double meters) {
    return meters / 0.9144;
}

// Converts miles to kilometers
public static double milesToKilometers(double miles) {
    return miles * 1.60934;
}

// Converts kilometers to miles
public static double kilometersToMiles(double kilometers) {
    return kilometers / 1.60934;
}
}
```

No Errors