

Credit Name: CSE 2140 2nd Language Programming

Assignment Name: MetricConversion mastery

How has your program changed from planning to coding to now? Please explain?

I used a do-while loop, but i consider it unnecessary

My first code

```
import java.util.Scanner;
public class Si {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        double value;
        System.out.print("Enter the value to convert: ");
        value = input.nextDouble();
        int choice;
        do {
            System.out.println("\nMetric Conversion Menu:");
            System.out.println("1. Inches to Centimeters");
            System.out.println("2. Feet to Centimeters");
            System.out.println("3. Yards to Meters");
            System.out.println("4. Miles to Kilometers");
            System.out.println("5. Centimeters to Inches");
            System.out.println("6. Centimeters to Feet");
            System.out.println("7. Meters to Yards");
            System.out.println("8. Kilometers to Miles");
            System.out.println("0. Exit");
            System.out.print("Choose an option: ");

            choice = input.nextInt();
            switch (choice) {
                case 1:
                    System.out.println(value + " inches = " + inchesToCentimeters(value) + " centimeters");
                    break;
                case 2:
                    System.out.println(value + " feet = " + feetToCentimeters(value) + " centimeters");
                    break;
                case 3:
                    System.out.println(value + " yards = " + yardsToMeters(value) + " meters");
                    break;
                case 4:
                    System.out.println(value + " miles = " + milesToKilometers(value) + " kilometers");
                    break;
                case 5:
                    System.out.println(value + " centimeters = " + centimetersToInches(value) + " inches");
                    break;
                case 6:
```

```

        System.out.println(value + " centimeters = " + centimetersToFeet(value) + " feet");
        break;
    case 7:
        System.out.println(value + " meters = " + metersToYards(value) + " yards");
        break;
    case 8:
        System.out.println(value + " kilometers = " + kilometersToMiles(value) + " miles");
        break;
    case 0:
        System.out.println("Exiting the program.");
        break;
    default:
        System.out.println("Invalid choice. Please try again.");
    }
} while (choice != 0);                                     (the condition)

input.close();
}
// Conversion methods
public static double inchesToCentimeters(double inches) {
    return inches * 2.54;
}
public static double feetToCentimeters(double feet) {
    return feet * 30;
}
public static double yardsToMeters(double yards) {
    return yards * 0.91;
}
public static double milesToKilometers(double miles) {
    return miles * 1.6;
}
public static double centimetersToInches(double centimeters) {
    return centimeters / 2.54;
}
public static double centimetersToFeet(double centimeters) {
    return centimeters / 30;
}
public static double metersToYards(double meters) {
    return meters / 0.91;
}
public static double kilometersToMiles(double kilometers) {
    return kilometers / 1.6;
}
}

```