

Assignment name: MetricConversion Mastery Project.

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Reflection Log

Planning & Coding: While planning and writing this code, I had the same idea. I would have one user input for the user to choose which units they would like to convert between, and 8 if statements to account for each unit conversion.

Now: I added comments for each new segment of code to explain my thought process, and I added an else statement at the end to output an error if the user doesn't enter a number 1-8

Created a method named conversions() that will be called upon when the code needs to be printed (Shown below)

```
static void conversions() {
```

Prompt user with many conversions to choose from, each option has a corresponding number 1-8 for the user to enter, and this number will be stored as a variable named conversionChoice (Shown below)

```
System.out.println("Convert:"); // Prompt user for conversion choice and store it as conversionChoice
System.out.println("1. Inches to Centimeters      5. Centimeters to Inches");
System.out.println("2. Feet to Centimeters        6. Centimeters to Feet");
System.out.println("3. Yards to Meters            7. Meters to Yards");
System.out.println("4. Miles to Kilometers        8. Kilometers to Miles");
System.out.print("Enter your choice: ");
int conversionChoice = userInput.nextInt();
```

Created 8 if statements to account for the 1-8 unit conversion that the user can enter, each with different calculations for the different units. (Only 1 shown below)

```
if (conversionChoice == 1) { // Accounts for if user entered 1 for their conversion choice
    System.out.print("How many inches? ");
    double inches = userInput.nextDouble();
    double centimeters = inches * 2.54;
    System.out.print(inches + " inches equals " + centimeters + " centimeters.");
}
```

Else statement to end the if statements, that will account for all characters that are not 1-8 and will return an error (Shown below)

```
else { // Accounts for if user enters a character that is not 1-8
    System.out.print("Invalid input | Please choose a number 1-8");
}
```