ReflectionLogs -MetricConversion[Mastery]

```java
public static void main(String[] args) {
    // TODO Auto-generated method stub

    //Preparing for user input
    Scanner input = new Scanner(System.in);

    //Declare variables
    int conversion;
```

So far I have just made user_input accessible, and declared the variable name for converting units.

```java
//Ask User which unit they want to convert their number to
System.out.println("Convert:");
System.out.println("1. Inches to Centimeter,          5. Centimeters to Inches");
System.out.println("2. Feet to Centimeter,           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.println("");
System.out.println("Enter your choice: ");
conversion = input.nextInt(); //Enter choice of conversion
```

Now I asked the user what units they want to convert from, and to. Next I am going to add methods which the user can call to for the conversion.

```java
public static void inchesToCenti() {

    //Preparing for user input
    Scanner input = new Scanner(System.in);

    System.out.print("Enter the value you want to convert from.");
    int user_input = input.nextInt();

    double Converted = user_input * 2.54;
    System.out.print("The value " + user_input + " inches is equal to about " + (int)Converted + " centimeters.");


}
```

Above the main method, I have created one out of the 8 methods for conversion. I added the ability to get user_input, and asked the user to enter their number. After that, the calculation is done for the conversion, in this case inches * 2.54 is equal to the amount of centimeters. Now I will create the other 7 methods by copy pasting and changing a bit of the calculations up, and displaying the values.

```java
  conversion = input.nextInt(); //Enter

  if (conversion == 1)
  {
      inchesToCenti();
  }
  if (conversion == 2)
  {
      feetToCenti();
  }
  if (conversion == 3)
  {
      yardsToMeters();
  }
  if (conversion == 4)
  {
      milesToKilometers();
  }
  if (conversion == 5)
  {
      centiToInches();
  }
  if (conversion == 6)
  {
      centiToFeet();
  }
  if (conversion == 7)
  {
      metersToYards();
  }
  if (conversion == 8)
  {
      kiloToMiles();
  }
```

To finish off the code, I created the other 7 methods and created an if statement. This if statement checks the value entered by the user, and calls a method based on that value.