```
//Display answer to user based on option picked
switch(option) {
case 1: System.out.println(number + " inches equals to " + df.format(InCm(number)) + " centimeters.");
    break;
case 2: System.out.println(number + " feet equals to " + df.format(FtCm(number)) + " centimeters.");
    break;
case 3: System.out.println(number + " yards equals to " + df.format(YdM(number)) + " meters.");
    break;
case 4: System.out.println(number + " miles equals to " + df.format(MiKm(number)) + " kilometers.");
    break;
case 5: System.out.println(number + " centimeters equals to " + df.format(CmIn(number)) + " inches.");
    break;
case 6: System.out.println(number + " centimeters equals to " + df.format(CmFt(number)) + " feet.");
    break;
case 7: System.out.println(number + " meters equals to " + df.format(MYd(number)) + " yards.");
    break;
case 8: System.out.println(number + " kilometers equals to " + df.format(KmMi(number)) + " miles.");
    break;
default: System.out.println("Invalid conversion.");
}
```

```
public static double YdM(double convert) {
    //Calculates yards in meters
    return(convert * 0.91);
}

//Converts miles into kilometers
public static double MiKm(double convert) {
    //Calculates miles in kilometers
    return(convert * 1.6);
}
```

```
public static double MYd(double convert) {
    //Calculates meters in yards
    return(convert / 0.91);
}

//Converts kilometers into miles
public static double KmMi(double convert) {
    //Calculates kilometers in miles
    return(convert / 1.6);
}
```

In the main method, I declared the variable type as integer for which conversion to use as decimals are not need and double for the other ones as there may be decimals used.

```
public static void main(String[] args) {
    // TODO Auto-generated method stub
    //Declaration area
    int option;
    double number, ans;
```

Prepared for user to input an answer.

```
//Prepare for user input and shorten answer to 2 decimal places
Scanner userInput = new Scanner(System.in);
DecimalFormat df = new DecimalFormat("#0.00");
```

Display the conversion options to user and prompt them to input a number that corresponds with the conversion.

```
//Display conversion options and prompt user to input an option and record it
System.out.print("Convert:"
        + "\n1. Inches to Centimeters         5. Centimeters to Inches"
        + "\n2. Feet to Centimeters           6. Centimeters to Feet"
        + "\n3. Yard to Meters                7. Meters to Yards"
        + "\n4. Miles to Kilometers           8. Kilometers to Miles"
        + "\n"
        + "\nPlease enter your choice: ");
option = userInput.nextInt();
```

Prompt user to input a number to convert.

```
//Prompt user to input a number to convert
System.out.print("Enter a number: ");
number = userInput.nextDouble();
```

Use switch case to compare which conversion to use based on the number they inputted. Display conversion with answer for the conversion they picked.

```
//Display answer to user based on option picked
switch(option) {
case 1: System.out.println(number + " inches equals to " + df.format(InCm(number)) + " centimeters.");
    break;
case 2: System.out.println(number + " feet equals to " + df.format(FtCm(number)) + " centimeters.");
    break;
case 3: System.out.println(number + " yards equals to " + df.format(YdM(number)) + " meters.");
    break;
case 4: System.out.println(number + " miles equals to " + df.format(MiKm(number)) + " kilometers.");
    break;
case 5: System.out.println(number + " centimeters equals to " + df.format(CmIn(number)) + " inches.");
    break;
```

```
    break;
case 6: System.out.println(number + " centimeters equals to " + df.format(CmFt(number)) + " feet.");
    break;
case 7: System.out.println(number + " meters equals to " + df.format(MYd(number)) + " yards.");
    break;
case 8: System.out.println(number + " kilometers equals to " + df.format(KmMi(number)) + " miles.");
    break;
default: System.out.println("Invalid conversion.");
}
```