// First, we need to bring in a tool to let us take input from the user

import java.util.Scanner;

public class TemperatureConverter {

public static void main(String[] args) {

// This tool will allow us to take input from the user

Scanner scanner = new Scanner(System.in);

// Show the user the choices for conversion

System.out.println("Temperature Converter");

System.out.println("1. Convert Celsius to Fahrenheit");

System.out.println("2. Convert Fahrenheit to Celsius");

// Ask the user to choose one of the options

System.out.print("Please enter the option number (1 or 2): ");

int choice = scanner.nextInt(); // This gets the choice from the user

// If the user chooses option 1 (Celsius to Fahrenheit)

if (choice == 1) {

// Ask the user to enter a temperature in Celsius

System.out.print("Enter the temperature in Celsius: ");

double celsius = scanner.nextDouble();

// Use the formula to convert Celsius to Fahrenheit

double fahrenheit = (celsius \* 9 / 5) + 32;

// Show the result to the user

System.out.printf("%.2f Celsius is equal to %.2f Fahrenheit.%n", celsius, fahrenheit);

}

// If the user chooses option 2 (Fahrenheit to Celsius)

else if (choice == 2) {

// Ask the user to enter a temperature in Fahrenheit

System.out.print("Enter the temperature in Fahrenheit: ");

double fahrenheit = scanner.nextDouble();

// Use the formula to convert Fahrenheit to Celsius

double celsius = (fahrenheit - 32) \* 5 / 9;

// Show the result to the user

System.out.printf("%.2f Fahrenheit is equal to %.2f Celsius.%n", fahrenheit, celsius);

}

// If the user chooses something that isn't valid (neither 1 nor 2)

else {

System.out.println("Invalid choice. Please restart the program and enter either 1 or 2.");

}

// Close the scanner when we are done to keep the program clean

scanner.close();

}

}