

# Exercise: Temperature Conversion

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Start a new console application project for this exercise.

In this exercise, we want you to query the user for a starting and ending temperature unit as well as a double amount. Then, it should print the result, converting one temperature to another.

The three possible units are: Celcius, Kelvin, and Fahrenheit.

The program execution should look like the following:

```
welcome to Temperature Conversion!
=====
Available units are (C)elcius, (F)ahrenheit, and (K)elvin.

Enter Temperature: 16
Enter Unit: C
Enter Conversion Unit: K

A temperature of 16C is 289.15K.
```

## Special Cases

- Be sure to print an invalid message if any of the units picked are not valid (C, F, or K).
- If the same unit is picked for both the starting unit and the conversion unit, let the user know there is no conversion to be done.

For convenience, here are the temperature conversion formulas:

- Celsius to Kelvin:  $K = C + 273.15$
- Kelvin to Celcius:  $C = K - 273.15$
- Fahrenheit to Celcius:  $C = (F-32) (5/9)$
- Celsius to Fahrenheit:  $F = C(9/5) + 32$
- Fahrenheit to Kelvin:  $K = (F-32) (5/9) + 273.15$
- Kelvin to Fahrenheit:  $F = (K-273.15) (9/5) + 32$

All output should be rounded to 2 decimal places. *Hint, see `Math.Round()`*