Lab Quiz 2

Selection Statements

In chemistry class, we have temperature readings that can be taken in one of three different scales. Fahrenheit, Celsius and Kelvin.

We would like to write a small Python program to convert from any one unit to any other unit. Your program should ask the user for an input scale and an output *scale* (both single letters) and then ask for the input *value* (a float). The program will then convert the value to the specified output scale and print out the result to the screen.

Note: While not required, try to minimize the number of conditional statements that you write in your code.

For reference:

$F = {}^9/_5\, C^o + 32$

$C = {}^5/_9\, (F^o - 32)$

$K = {}^oC + 273$

(Other conversions can be derived from these, if needed)

Here are a few sample runs of the program, though your format need not look exactly the same:

```
Enter an input scale (C / K / F): C
Enter an output scale (C / K / F): F
Enter an input temperature value: 100
100.0 C is 212.0 F
```

```
Enter an input scale (C / K / F): F
Enter an output scale (C / K / F): K
Enter an input temperature value: 90
90.0 F is 305.22222222222223 K
```

```
Enter an input scale (C / K / F): C
Enter an output scale (C / K / F): K
Enter an input temperature value: 0
0.0 C is 273.0 K
```

You can assume that the user will always enter valid input (i.e. will always enter the characters C, K, and F for the scales, and a numerical value for the temperature value). You can also assume that the input scale and the output scales will always be different.