Assignment 1

Design: Temperature Conversion

Linhao Chen
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1 Introduction

This program can directly print the table, which converts the Celsius to other temperature scales such as Kelvin, Fahrenheit, Rankine, Delisle, etc. The range will be from 0 to 190 Celsius in increments of 10. Program will use while loop to achieve the goal.

2 Program

This program includes the standard I/O package.

Program Runs:

- Declare the **float** variables TmpC, TmpK, TmpF, TmpRa, TmpD, TmpRe, TmpRo to represent each temperature scale
- Declare three **int** variables Min; Max and Inc and assign these variables as 0, 190, 10
- Print the structure of tables, which shows the name of each temperature scales (Format: Include 3 spaces between each column)
- Print the dash lines below (Format: Include 3 spaces between each column)
- Assign the value of TmpC (Celsius) equals to the value of Min (0)
- While TmpC smaller or equal than the upper (190), then do:
  TmpK = TmpC + 273.15
  TmpF = (9.00/5.00) * TmpC + 32
  TmpRa = (9.00/5.00) * TmpC + 491.67
  TmpD = (3.00/2.00) * (100 – TmpC)
  TmpRe = (4.00/5.00) * TmpC
  TmpRo = (21.00/4.00) * TmpC + 7.5

  Print TmpC, TmpK, TmpF, TmpRa, TmpD, TmpRe, TmpRo (Format: Include 3 spaces between each column && All date keeps 2 decimals and Align to the right)

TmpC = TmpC + Inc

- return zero

Program Ends