Lakeland Community College

Department of Electronic Engineering Technology

CPET 1120 – C Programming for Engineering Technology

LAB 4

Write a program that will calculate and display a range of temperatures in both degrees Fahrenheit and degrees Celsius in a table. The program user determines the range and resolution of the conversion and whether to convert Fahrenheit to Celsius or Celsius to Fahrenheit.

The conversion equations are: $F = (9/5)C + 32$ and $C = (5/9)F - 17.78$

There are 5 functions:

main()	The user selects which conversion they want to implement via a program menu and then inputs the lowest and highest temperature (range) as well as the incremental change (resolution) in degrees Celsius or Fahrenheit. The menu selection calls the corresponding display function or ends the program.
calc_FtoC()	Converts degrees Fahrenheit into Celsius and returns the conversion result to the calling function.
display_FtoC()	Uses a for() loop structure to display a table of temperatures in both degrees Fahrenheit and degrees Celsius. Display calls calc_FtoC().
calc_CtoF()	Converts degrees Celsius into Fahrenheit and returns the conversion result to the calling function.
display_CtoF()	Uses a while() loop structure to display a table of temperatures in both degrees Fahrenheit and degrees Celsius. Display calls calc_CtoF().

LAB REQUIREMENTS

- *Print the user inputted text to computer screen*
- *Print the program output/results to screen*
- *Mark the beginning of main, and each of the user generated function definitions, with the format described and used in your previous labs*
- *Attach a copy of the Source Code with the Program results to this page and turn it in.*