CMSY 156 - Lab 5
60 Points

Create a program with the following functions (remember to define the functions before calling them):

1. Celsius to Fahrenheit function:
    a. Function name and parameter name: **to_fahr(ctemp)**
    b. Parameter – temperature in Celsius
    c. Return value – temperature in Fahrenheit

    Formula: (9/5) * Celsius temp + 32.

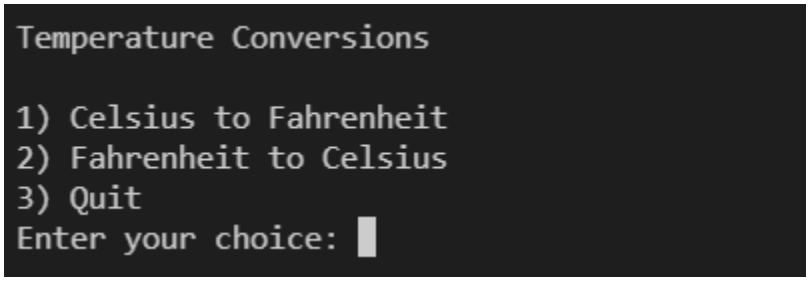
    Note: the function must be passed the temperature to convert and must return the converted temperature. The function must not perform any input or output operations.

2. Fahrenheit to Celsius function:
    a. Function name and parameter name: **to_cels(ftemp)**
    b. Parameter – temperature in Fahrenheit
    c. Return value – temperature in Celsius

    Formula: (Fahrenheit – 32) * 5 / 9

    Note: the function must be passed the temperature to convert and must return the converted temperature. The function must not perform any input or output operations.

3. Menu function:
    a. Function name: display_menu()
    b. Parameter: None
    c. Return value: None
    d. The appropriate temperature conversion function should be called for options 1 and 2, and the program should terminate for option 3.



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4. Main function: Use for temperature input, function calls, and temperature output.

   Note: Make sure to place the main function definition before the other function definitions.

   a. Call the display_menu function to display the menu.
   b. Prompt the user to make a menu choice. The menu should redisplay after each temperature conversion. The program should only terminate if the user selects option 3 to quit.

      Note: See the screen shot below for examples of program input and output

      i. For menu choice 1, Celsius to Fahrenheit:
         1. Prompt the user to input the Celsius temperature to convert.
         2. Call the **to_fahr** function passing as an argument the Celsius temperature entered by the user.
         3. Use the input temperature and the returned temperature from the function to display the output like the screenshots below. The Celsius temperature and the Fahrenheit temperature must be formatted with two decimal places using F-strings.

      ii. For menu choice 2: Fahrenheit to Celsius
         1. Prompt the user to input the Fahrenheit temperature to convert.
         2. Call the **to_cels** function passing as an argument the Fahrenheit temperature entered by the user.
         3. Use the input temperature and the returned temperature from the function to display the output like the screenshots below. The Celsius temperature and the Fahrenheit temperature must be formatted with two decimal places using F-strings.

      iii. For menu choice 3: Terminate the program

5. Once you have defined the required functions, the last statement (last line) of your program should be a call to the main menu function.

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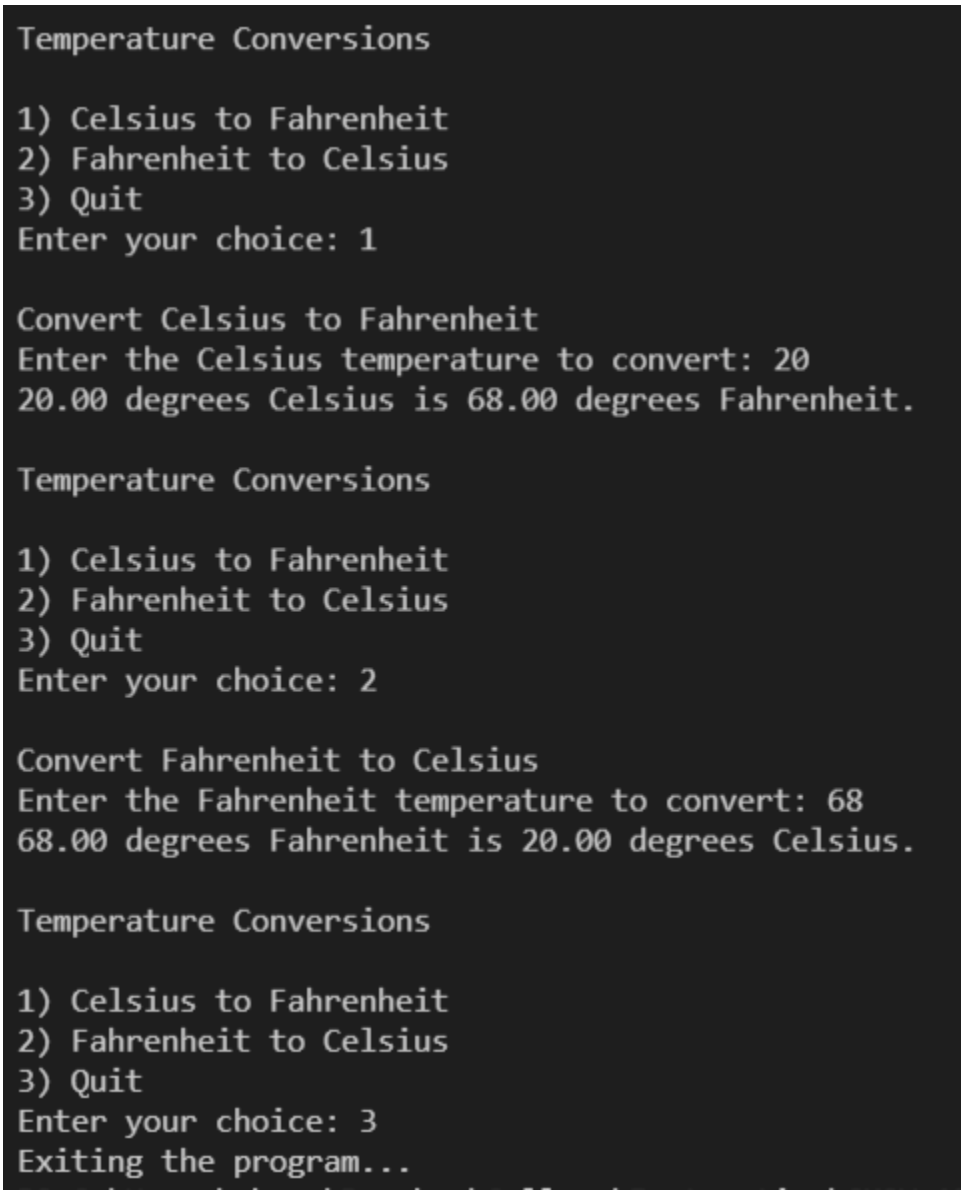

Rubric: The rubric is located on the assignment page in Canvas. Please review the rubric to make sure you meet all of the requirements for this lab.