General questions

1) What basic information do you need to obtain from the user?
   - For this program, I would need inputs like current temperature, the temperature unit (°C, °F, or K), and the desired temperature unit for conversion.

2) What sort of data types do you think you'd be working with?
   - I'd be using floating point numbers for the temperature values and strings for the temperature units.

3) What type of programming structures do you think would aid you? How so? (Loops, functions, conditions, etc.)
   - Function would obviously be very handy to develop this program because it would allow the code to run multiple times without duplicating the code. Loops will also help in the repetitive process of inputting and converting temperatures. Conditions, on the other hand, would be used to determine which conversion formula to use based on the current and desired temperature units.

4) What sort of math and output would you need?
   - The math required would include the conversion formulas between temperature units.
     E.g.: Kelvin = Celsius + 273.15 for converting Celsius to Kelvin. For the output, we would need the converted temperature along with the desired unit.

5) What sort of error checking may need to happen? (Don't worry if you don't know C++ constraints.)
   - Error checking may include ensuring that the temperature input is a valid number, and that the input temperature unit and desired temperature unit are valid options. Additionally, input validation can be done to check if the user entered a valid temperature.

Detailed questions

1) How would you allow the user to repeat a (theoretically) infinite amount of times, until they'd like to quit?
   - To allow the user to repeat the program an infinite number of times, I would use a while loop that continues until the user inputs a specific command to exit the program. E.g.: the user could be prompted to enter 'quit/close' or even a number to quit the program.

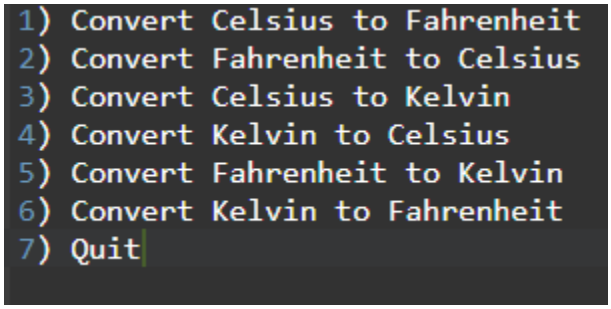
2) Assume you have a menu – what would the menu options be? How would you exit the program?

   a. Create a mock menu for this question!

   b. How would they choose menu options?

   c. What sort of error checking may need to happen in your menu-ing?

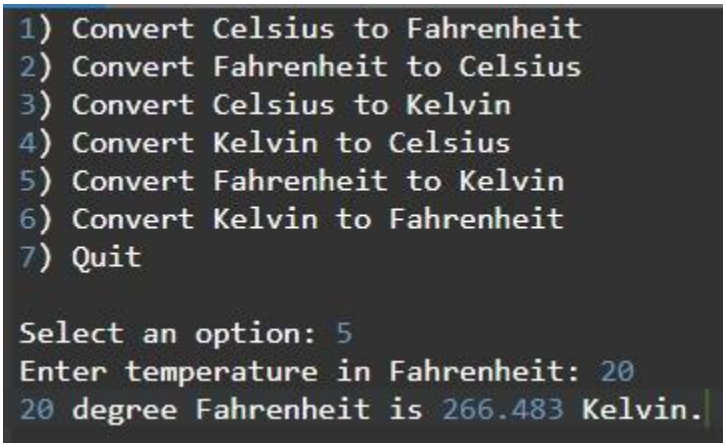
   - The menu options would include options to convert between Celsius, Fahrenheit, and Kelvin. I would also include an option to quit the program when the user enters a specified quit command (the number '7' in this case). My sample menu would be:



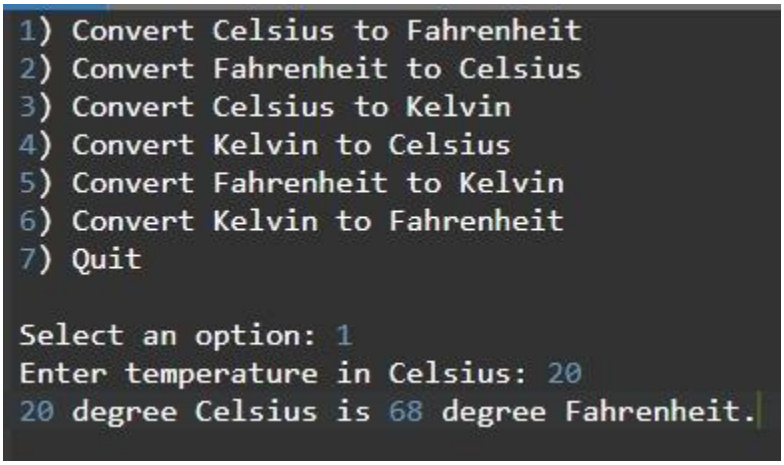
   b) The user will be able to choose menu options by entering the corresponding number for the desired options. E.g.: if the user wants to convert Kelvin to Fahrenheit, they will enter '5' and press enter.

   c) Error checking in the menu-ing would include checking to make sure the user inputs a valid menu option (i.e., a number between 1 and 7) and handling any invalid inputs by displaying an error message and prompting the user to enter a valid option.

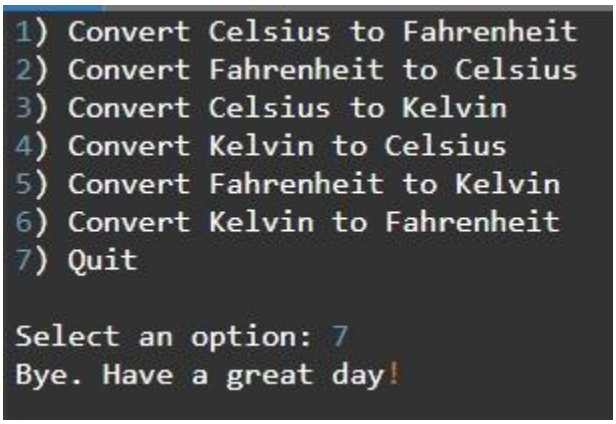
1st menu option:



2nd menu option:



When trying to exit the program:



When entering a out-of-range option number: