Programming Project 0:
Calculating a Volume with User I/O

Due: February 26, 2021by 11:59 PM EST

Using Visual Studio with MASM, write an assembly language program to determine the volume of a solid rectangular container (rectangular prism). Your inputs are the width, height, and length of the container in feet and inches. Your output is the volume of the container in cubic feet and cubic inches. Example interaction would be:

Width > 0 8
Height > 1 2
Length > 2 0

Computing the volume:
(0*12 + 8) * (1*12 + 2) * (2 * 12 + 0) = 2688 cubic inches

A cubic foot is 12*12*12 = 1728 cubic inches

Sample user interaction:

Enter the length in feet and inches: ***2 0***
Enter the width in feet and inches: ***1 2***
Enter the height in feet and inches: ***0 6***

Your volume is 1 cu. ft. and 288 cu. Inches, which is 2016 cu. inches

Requirements:

1. Use a single procedure, with CALLs to functions, to output strings to the screen, receive numbers, and output numbers to the screen. You will need multiple CALLs to obtain the values of feet and inches for each of the three dimensions, and multiple CALLs to output the data.
2. You don't have to check for overflow.
3. You must output the total volume in cubic feet and cubic inches as well as total volume in cubic inches, as shown in the sample output.

You will have to define and use variables for calculating the length (in inches) of each side, finding total volume in cubic inches, and finding the volume in cubic feet and cubic inches.

Deliverables:

1. Submit your projects as a zip file named "eecs2110_spring_2021_initials1_initials2", where the initials1 and initials2 and the initials of the students working on the project. Submit the project no later than 11:59 PM on Friday February 26 at 11:59 PM EST.
2. Include a word file containging screen shots of sample interaction with the user and successful building of your project with Visual Studio.