

ICS 103: Programming in C, Term 171

Homework 1 for Sections 11 and 12 only

Write a program that does conversion of Length Units. The program should start by displaying a menu of Length Units as follows:

Converter Program written by *Your Name*

Convert From:

- a) Kilometers
- b) Meters
- c) Centimeters
- d) Miles
- e) Feet
- f) Inches

Enter Your Choice (a to f):

The user should enter his choice as a character. The choice is restricted to characters **a** to **f**. If the user enters any other input character (for example, **g**), the program should terminate with an error message as follows:

Error: choice g is not valid! Program terminated.

Suppose the user enters **b**, then the program should ask the user to enter his input in **Meters** as follows:

Enter the value in Meters:

Suppose the user enters **12.5**, then the program should display a menu of units to convert to:

Convert To:

- a) Kilometers
- b) Meters
- c) Centimeters
- d) Miles
- e) Feet
- f) Inches

Enter Your Choice (a to f):

Again, the choice is restricted to characters **a** to **f**. If the user enters any other character input, the program should terminate with an error message, as shown above.

Suppose the user enters **e**, then the program should display the following output showing numbers with two digits after the decimal point:

12.50 Meters = 41.01 Feet

Submission Guidelines

Submit your source file on Blackboard. The name of the source file should be:

HW1_9digitID_Section.c

PLEASE DO NOT INCLUDE .EXE FILES IN YOUR SUBMISSION

Submission should be made through your ICS 103 Lecture section Blackboard course page under the **HW1 Assignment** submission link.

Important Notes

- **EACH STUDENT IS REQUIRED TO DO THE HOMEWORK ALONE.** COPYING FROM ANY SOURCE IS REGARDED AS CHEATING.
- **Cheating is taken seriously.** Any cheating attempt will result in 0 in this homework and a warning is sent to the student. Repeated cheating cases will result in zeros in all homeworks.
- **Submissions via email is not accepted and will be simply ignored.**
- **You must use proper indentation, meaningful identifiers, and proper documentation (comments) in your program to get a full mark.**