

# Cot 3011 Project 1

## Due:

Thursday January 13, before 5:00 PM. (Late submissions before 5:00 PM January 14.)

## Objective:

Write a C program that implements the following algorithm:

- Declare one variable to will store a single character (char).

- Declare two variables to store integers (int).

- Declare two variables to store real (floating point) numbers (double).

- Display appropriate prompts and get the five values from the user:

  - One character (upper case), two integers and two doubles.

- Display the following information with clear messages:

  - The character (displayed as a character)

  - The ASCII code for the character (display the character as an integer)

  - The character + 32 (add 32 to the character and display as a character)

  - The two integers

  - The average of the two integers (use integer arithmetic and display as an integer)

    - NOTE: if the two integers are 23 and 26 the average should be 24

  - The average of the two integers (use double arithmetic and display as a double)

    - NOTE: if the two integers are 23 and 26 the average should be 24.5

  - The two doubles

  - The average of the two doubles (use integer arithmetic and display as an integer)

  - The average of the two doubles (use double arithmetic and display as a double)

  - The average of all four numbers (use double arithmetic and display as a double)

    - NOTE: for this one display the result with exactly two decimal places,

field width of eight

## Specification:

Follow the style described in class. Comments at the beginning should include the filename, your name, the course, the date, the project number and the basic purpose of the program.

Opening and closing curly braces should line up vertically.

All lines inside a set of curly braces should be indented.

The user should always be given a clear prompt when asked to input data.

Any output should include a clear message indicating the meaning of the output.

## Project Submission:

Submit your project using the eLearning dropbox. Notice that there is a dropbox for late submissions.

For this first project simply submit the file containing your source code (.c).

## Demonstrating Projects:

You will be required to demonstrate this project for the instructor during lab.

You must be able to use TextEdit and the Terminal on the Macintosh to demo the program.