Code Assignment 2
While Loop & Case Switch

ECE 131 – Programming Fundamentals
Instructor: M. Wolverton

Items Due

- **Menu Calculator (main.c)**

Instructions

Complete the coding directive in your C language IDE of choice (Eclipse, NetBeans) or by command line compiling. Once you have verified that the program works as intended, login to the file server at *cec-code-lab.aps.edu* and create a folder with the assignment name (e.g. Code 2). Locate all **.c** and **.h** source files written by you (e.g. main.c) and upload them to into the assignment folder. Code will be downloaded and archived for grading on the assignment due date.

Menu-Calculator

Write a calculator program that uses the text terminal and repeats until the user selects a quit option. The user selects an operation, then gives two inputs. Then reports the result. After each use, the user is presented with same menu until they select a quit option.

- Print program title or welcome message identifying the program and what it is.
- Present a menu of options. Options can be input as either numbers, characters or words. The menu options should include
    *add   *subtract   *multiply   *divide   *quit
- If the user selects something besides quit, prompt the user for both values. Store them as double type.
- Use a case `switch` to determine the selection.
- Print an output message containing both inputs, the operation and the result.
- Repeat the menu until quit is selected using a `while` loop.
- Detect invalid menu selections, and print an error message followed by the menu again.

Sample Output

```
This program is a four-function calculator.
What would you like to do?
[1] add    [2] subtract    [3] multiply    [4] divide    [0] quit
3
Input the first value.
25
Input the Second value.
-.5
25.0 * -0.5 = -12.5
What would you like to do?
[1] add    [2] subtract    [3] multiply    [4] divide    [0] quit
0
Goodbye.
```