

## Assignment 3

### While Loop

## CEC – Computer Science

Instructor: M. Wolverton

### Items Due

- Source Code for Menu-Calculator

### Instructions

Complete the coding directive in an IntelliJ IDEA project with the assignment name (e.g. Menu-Calculator) and package name ceccs. Login to the file server at cec-code-lab.aps.edu and create a folder with the assignment name (e.g. Assignment 3). Locate the `fileName.java` (e.g. `Main.java`) files of your source code, then upload them to into the assignment folder. Code will be downloaded and archived for grading on the assignment due date.

**Be careful to look at the specific requirements for each program!**

### 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.
- Create a String variable to hold the output message.
- Print the output message.
- Repeat the menu until quit is selected.
- 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.
```