

### **Background**

This in-class lab assignment demonstrates the notion and use of C++ Functions. Your boss comes to you and says, “You need to start using more functions in your programs. We want a structured programming environment.” You reply, “No problem, sir, how does this look?”

### **Objective for this Lab**

You are going to create a small C++ program that uses functions for nearly everything. It will also make a function for the Dev C++ pause command. The program will have functions for adding, subtracting and multiplying numbers as well as prompting for the user input values. The program will continue to prompt for values until the user enters zero for both input values.

### **Required Functions**

Your C++ program needs the following functions.

Addition Function: takes two numbers as input integer arguments and adds them together. It will return the result as an integer.

Multiply Function: takes two numbers as input integer arguments and multiplies them. It will return the result as an integer

Subtraction Function: takes two numbers as input integer arguments and subtracts them. It will return the result as an integer

Get Input Function: This function takes no arguments and returns no values. It works strictly with global variables. It will prompt for two integer numbers.

Pause Function: This function simply calls the systems command for “pause”. It optionally has an integer input argument that controls how many end-lines to display before the “press any key ...” string.

### **Prototypes**

```
int addition (int a, int b);
int multiply (int a, int b);
int subtraction (int a , int b);
void getInput();
void pause (int count);
```

### **Development Environment**

In the classroom we use Microsoft .NET C++ compiler.

### **Deliverables**

Turn in the source code from the programs plus the generated.

## CIS162 and CSC100 In-Class Lab Assignment – Function Usage Lab

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### **Hint**

Here is the main body of the program. You need to supply all the functions that it calls.

```
int main()
{
    do
    {
        getInput();

        result = addition(a,b);
        cout << "Result of Add is: " << result << endl;

        result = multiply(a,b);
        cout << "Result of Add is: " << result << endl;

        result = subtraction(a,b);
        cout << "Result of Subtract is: " << result << endl;
    } while (a != 0 && b != 0);

    pause(8);
} // end of main
```