Functional Specification

(CMD Calculator)

Overview

This document is to provide the details of functioning of CMD Calculator.

CMD Calculator is a calculator which performs basic mathematical calculations (addition, subtraction, multiplication, division) between two numbers.

It displays a menu asking the user which operation is to be performed.

Functioning

- Addition- Adds the two numbers provided by the user.

- Subtraction- Subtracts the two numbers provided by the user.

```
                Welcome to command line Calculator !!!
        1. Addition
        2. Subtraction
        3. Multiplication
        4. Division

   Enter your choice : 2


                Welcome to subtraction window ......!

   Enter 1st number: 8

   Enter 2nd number: 9.4

   The result of above operation is: -1.4
Do you want to continue Y/N :
```

- Multiplication- Multiplies the two numbers provided by the user.

```
                Welcome to command line Calculator !!!
        1. Addition
        2. Subtraction
        3. Multiplication
        4. Division

   Enter your choice : 3


                Welcome to multiplication window ......!

   Enter 1st number: 3

   Enter 2nd number: 4

   The result of above operation is: 12
Do you want to continue Y/N :
```

- Division- Divides the two numbers provided by the user.

```
                Welcome to command line Calculator !!!
        1. Addition
        2. Subtraction
        3. Multiplication
        4. Division

   Enter your choice : 4


                Welcome to division window ......!

   Enter 1st number: 8

   Enter 2nd number: 3

   The result of above operation is: 2.66667
Do you want to continue Y/N :
```

Requirements

- C++ Compiler: GCC 4.3.2
- Platform: Linux 2.6.3
- Git

How to Run

- git clone https://github.com/captashish/calculator_myelin.git
- Change directory to calculator_myelin
- Compile calcMain.cpp code
  g++ calcMain.cpp –o calcMain
- Execute calcMain
  ./calcMain

Processing

- **calC()** : Function which calls the other function required for the calculation.
- **askOption()** : Function which displays the menu before the user and accepts the choice.
- **performCalc()** : Function which calls the specific operation functions in a switch case.
- **showResult()** : Functions which displays the result calculated.

Class Functions

- **Calculator()** : Constructor of the Class Calculator which initialises the variable as 0 during the object creation.
- **add()** : Performs Addition.
- **subtract()** : Performs subtraction.
- **multiply()** : Performs Multiplication.
- **divide()** : Performs division.

Components

File Name	File Type	Description
Calculator.h	Header File	Contains declaration of Calculator class
Functions.h	Header File	Contains the prototype of the functions used
Calculator.cpp	C++ File	Contains the definitions of the class functions
Functions.cpp	C++ File	Contains the definitions of the functions used.
calcMain.cpp	C++ File	Contains main function.

Un-Implemented Features

- Can use **makefile**.
- Directory structure can be done to store the header files, .cpp files and binary files separately.