**Requirements:**

**High Level Requirements:**

|  |  |
| --- | --- |
| **ID** | **Description** |
| **HL\_01** | **A calculator that should perform basic operations to Addition, Subtraction, Multiplication, Division & Modulus.** |
| **HL\_02** | **The application should be developed using standard C language and should run on all machines supporting the Gcc compiler.** |
| **HL\_03** | **Should display the following menu to users like Addition, Subtraction, Multiplication, division & modulus.** |
| **HL\_04** | **The calculator has to produce a correct result defined by the arithmetic rules.** |

**Table 1: High Level Requirements for simple calculator.**

### **Low Level Requirements:**

|  |  |
| --- | --- |
| **ID** | **Description** |
| **LL\_01** | **The input function shall accept input from the user via the terminal, validate the input, and then send that input to the calculate function.** |
| **LL\_02** | **If an illegal sequence is detected, an error message is to be printed.** |
| **LL\_03** | **To end the calculator program, the control shall be returned to the operating system.** |
| **LL\_04** | **Performs a calculation defined by the Expression string according to arithmetic rules, when encountering operator keys (+, -, \*, /) as well as the Equals key.** |

**DESIGN**

**Low level requirements:**

**Structural diagram:**

**User**

SUBTRACT -ION

ADDITION

DIVISION

MULTIPLI-CATION

DISPLAY

1

2

CALCULATOR

MAIN FUNCTION

OPERATOR

OPERANDS

**Use case diagram:**

**user**