# Postfix Calculator report

## 1: Program compilation

Command: **g++ Source.cpp Stack.cpp Utility.cpp -o Calculator.exe**

## 

## 2: Test case run

**Case level: 1 – 4: (prompt)**

Run command: **./Calculator.exe -p**

**Text

Description automatically generated**

**Case level: 5: (no prompt)**

Run command: **./Calculator.exe**

## 3: Aiming

I aim to achieve grade 5 from this project, I know there might be some weakness in my program, but I had tried my best to improve it as much as possible

## 4: Contact detail:

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## 5: Time consuming

Start date: 9/28/2021 at 13:00- 21:00 (8 hours): figure out the project requirements, draw diagram, algorithm to solve the problem

9/30/2021: 17:00-23:00 (6 hours) implement feature from level 1 2 3 4

10/1/2021: 10:00-18:00 (8 hours) start working with level 5

10/2/2021: 10:00-18:00 (8 hours) the program didn’t work as expectation, fix bugs

10/5/2021: 10:00-12:00 (2 hours) complete and add some small thing to program

* Total time consuming: 32 hours

## 6: Design solution:

Level 1 – 4: Almost the idea is get from the document:

We have :

function get\_command() type char return the operators of calculation (E.g: +, - , \*, / , …)

function do\_command(char , Stack&) type bool only return ‘false’ when user want to finish calculate by entering letter ‘q’ known as QUIT

+ in this function, it allow user to insert numbers which is pushed to a global Stack variable, and when it meets an operator (+, - , \*, /), Stack is asked to pop first 2 elements, these 2 element is calculator with the that operator, and the result is pushed again to the stack.

Level 5: Declare some other functions with specified role.

function isNumber(string ) type bool return false if parameter is an operator otherwise return true

function getSubString(string&) type String, the role of this function is to cut operators or numbers and erase space out of the original string and return them as the result string

**Diagram

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