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| Project Capstone (1) |
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| 1st OCT 2020  NTUC LHUB  Authored by: ONG SIN SIANG |

# Prelude

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| Requirements/ Design Layout Our first main objective is creating a simple calculator functions with 4 basic operators. Additional requirements will be able to clear the results after one calculations, able to log in the calculations history. |
| *“*Adding functions to improve the calculator’s specifications, of course not just adding buttons will be the end of the design cycle.*”* |
| To get started, I will have to design a layout which is simple enough for the user interacting with the calculator. Adding functions to improve the calculator’s specifications, of course not just adding buttons will be the end of the design cycle. The functionality of the calculator will also serve to perform to the best of the capability of the calculator itself.  Having said so, here are my simple layouts of the Calculator:   1. Adding Buttons such as Decimal Points, memory store, memory minus/Plus. 2. Design Of the calculator interface to complement it. 3. Ensuring the transactions display, log history display & memory store display are separated. 4. Hopefully, functions such as the memory store and the rest of the specifications worked at the end of the day. 5. Adding a keyboard enabled functions to the calculator. |

Process

Getting a 4X4 table format accompanied by the added functionalities such as Clear transaction button, decimal point, memory store and memory Plus/Minus.

*Design:*

Graphical user interface

Description automatically generated

Process

*Snippets\_ Format Of the Table:*

Text

Description automatically generated

**Process**

Adding in the features of memory store and memory recall.

*Snippets\_Memory Store/Recall:*

Text

Description automatically generated

**Process**

The Keyboard-Enabled functionality & clear history logs.

*Snippets\_ KeyBoard functionality & clear history logs:*

Text

Description automatically generated

Tests

Multiplications: Worked for both keyboards and clicks, decimal points included.

2\*2 = 4

Division: Worked for both keyboards and clicks, decimal points included.

20/5 = 4

4/4 = 4 (Initial Bug noted)(Resolved)

Addition= Worked for both keyboards and clicks, decimal points included.

2+2 = 4

2++2 = (Bug Noted)

Subtractions: Worked for both keyboards and clicks, decimal points included.

20-4 = 16

MS: Memory was able to be stored.

Initial bug where the memory stored was not able to be display, managed to resolve the issue.

MR: Memory recall function was able to retrieve the stored values.

M+/MS/MC : Bugs were noted, was not able to make it work.

C : Function to clear the transaction display working fine, was not able to resolve the keyboard function issue.

History Log Display: Was able to display the history of calculations.

Enhancements To Note

1. Increase the size of the calculator and their displays
2. For the history Logs display can be improved by having the logs to be aligned.
3. Put in function to prevent user to key in extra operators and extra decimal points.
4. Function to prevent negative values.
5. Prevent using *event.key* for better maintenance for the program.

Review

1. Better understanding of the coding is needed.
2. Work on one issue at a time instead of trying to fix the whole chunk. Hence overlooked most pressing issues.
3. Better design for the interface, making it easier for the user to interact with it.
4. The flow of coding can be improved by planning my steps well, this can also prevent myself from overlooking bugging issues.

**End Of Report**