

## SRS:

- 1) "The user will be able to interact with the program through a graphical user interface (GUI)."
- 2) "Through the GUI, the user will be able to load a file."
- 3) "The system shall handle overflow caused by addition or subtraction by ignoring all but the first 4 digits of the result."
- 4) "The system shall handle overflow caused by multiplication and division by ignoring all but the four least significant digits of the result."
- 5) "The user will be able to start the BasicML program running from the GUI."
- 6) "The system shall have exactly 100 usable memory registers."
- 7) "The user will be able to clear the accumulator after the BasicML program has finished running."
- 8) "The user will be able to clear the file being run, restoring the contents of each register to 0."
- 9) "The system shall have the capability to save the current accumulator value in a specified memory location."
- 10) "The system shall have the capability to load a saved value within a memory location to the accumulator, replacing the current accumulator value."
- 11) "The system shall dedicate the first 80 memory locations to the execution of the provided program."
- 12) "The system shall dedicate the final 20 memory locations to the storage of program variables."
- 13) "The program will function as outlined in the use cases."
- 14) "Once the BasicML program has finished running, the GUI will display the current value in the accumulator."
- 15) "The system shall have a single register named the accumulator, used for operations stored in the registers."
- 16) "The system shall have the capability to read input from the user and store this value in a specified memory location."
- 17) "The system shall have the capability to output to the console a saved value from a specified memory address."

## Non-functional Requirements:

- 1) "All functions will individually run in no more than 1 second."
- 2) "All buttons will be labeled with a one to two word description of their function."
- 3) "The system shall take less than 5ms to display results, not including wait time for user input."