

## SRS Document

### Functional Requirements

1. The program will execute BasicML codes.
2. The program will have a GUI for users to navigate the functions.
3. The simulator's GUI will have buttons to clear memory and reset the VM.
4. The program will be able to store 100 words at once.
5. The program will have an accumulator that will hold info for operations.
6. The program will take a file of instructions to execute.
7. The program will handle errors well and inform the user what went wrong.
8. The program will show the results through a GUI to the user.
9. The simulator will let users search through memory.
10. The program's GUI will allow users to see what is stored in memory.
11. The program will let users step through each instruction one at a time.
12. The program will allow for users to execute ADD, SUBTRACT, MULTIPLY, and DIVIDE
13. The simulator will display a history of executed commands.
14. The program will stop when a HALT code is executed.
15. The program will display what is currently in the accumulator as it executes.

### Non Functional Requirements

1. The program will have an intuitive design
2. The program will run quickly
3. The program will look nice.