**Functional requirements:**

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. “Once a file has been loaded via the GUI, the program will open the file.”
4. “The user will be able to start the BasicML program running from the GUI.”
5. “The GUI will display any output required from the BasicML program.”
6. “The GUI will request any input required for the BasicML program.”
7. “Once the BasicML program has finished running, the GUI will display the current value in the accumulator.”
8. “The user will be able to stop the BasicML program from running while the BasicML program is running.”
9. “The user will be able to clear the accumulator after the BasicML program has finished running.”
10. “The user will be able to clear the file being run, restoring the contents of each register to 0.”
11. “The program will function using the BasicML vocabulary outlined.”
12. “The program will function as outlined in the use cases.”
13. “The program will contain 100 usable registers.”
14. “Each register will be able to contain a 4 digit value.”
15. “The GUI will close, and the program will stop when a close button is selected.”

**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. “Input and output fields will be labeled with a one to two word description of their function.”