SRS Round 2 Myles and Brandon

1. The system will detect overflow of +9999 and -9999 and handle it accordingly
2. The system shall validate each line of the text file for any syntax errors
3. The system will take in a 4 digit number and interpret by separating by opcode and operand
4. The system will store into memory first at 00 and store in order
5. The system will handle arithmetic operations (30,31,32,33) with the accumulator
6. The system will handle the halt operation (43)
7. The system will handle and display the write operation (11)
8. The system will handle and prompt the user with the read operation (10)
9. The system will handle branching operations (40, 41, 42)
10. The system will display the memory in a distinct section in the GUI as addresses and values
11. The system will store the memory in a 100 length array
12. The system will handle dividing by zero exceptions by halting the system
13. The system shall display the accumulator before and after execution
14. The system shall run through the loaded program when the play button is pressed
15. The system shall allow the location in memory to be reset to zero

Non-Functional Requirements

* The system will output the results within 2 seconds of the user running the program
* The system will use clean labeling and design for all GUI parts
* The system shall run on a machine with JDK 24 installed