The simulator will be able to:

1. Read
2. Write
3. Load
4. Store
5. Add
6. Subtract
7. Divide
8. Multiply
9. Branch
10. Branch Neg
11. Branch Zero
12. Halt

The GUI will display the following:

1. Memory
2. Accumulator
3. Program counter
4. User input
5. Errors
6. Results

The GUI will let the user modify the following:

1. Memory
2. User Input

Misc requirements:

* The application will run on Windows
* The application will not crash 99% of the time
* The application will give the same result if the same program is typed in