**Functional Requirements – Final**

1. Error handling log, Run-time error handling with pop-up messages.

2. users will only be able to input into one window, and when execution is done, they will no

longer be able to access that window.

3. The system should be able to handle positive and negative words.

4. Programs will not be able to be edited, any incorrect input will result in an error.

5. PC and memory should be updated continuously.

6. Memory should consist of a main memory with 100 elements, a PC, and an accumulator.

7. program will execute in its entirety when a -99999 command is inputted in the user input

window

8. Instructions are entered as a 4-digit value, where the first two digits are the opcode and the last two digits are the operand.

9. Help manual should be displayed to user.

10. 6-digit numbers from -999999 to +999999 can be entered after “ZZZZZ” command.

11. Implemented GUI should have views into the memory, and the user inputs.

12. Program needs commands to add/subtract/multiply/divide 2-digit integers (largest number can be 99).

13. Program needs commands that allow the PC to branch to specified locations, whether

accumulator is 0/negative/always (range of 0 - 99).

14. Program needs commands that allow keyboard input of words to memory and console

output of memory. Console output has a range of 0 - 99, keyboard input is limited to signed 4-digit values.

15. Program will have commands to load the accumulator into memory, and load memory

into the accumulator