SRS Final

Functional Requirements

1. UVSim will be able to take input from user field and store it into a register using the read function.
2. UVSim will have a load function that stores a value from a register into the accumulator.
3. UVSim will have a store function that will store a value from the accumulator into a register.
4. UVSim will have an add operation.
5. UVSim will have a subtract operation.
6. UVSim will have a multiply operation.
7. UVSim will have a divide operation.
8. UVSim will have an output display box that shows data/output and register content if prompted.
9. UVSim will be able to branch to any register if prompted.
10. UVSim will be able to branch to location in memory if accumulator is negative.
11. UVSam will branch to a user desired register if accumulator is 0.
12. UVSim will be able to handle 6-digit numbers known as words.
13. UVSim will have a write operation which writes words from memory to the screen.
14. UVSim will allow the user to select an instruction file from any folder to process commands.
15. UVSim will allow the user to modify the instructions file within the GUI
16. UVSim will allow the user to save instruction files.
17. UVSim will include an enter button that submits input
18. UVSim’s enter button will execute the instruction file.
19. UVSim will give an error to the output screen if incorrect file is used.
20. UVSim will give an error to the output screen if incorrect data is used.
21. UVSim will have an operation that allows the user to configure the color scheme of the GUI.
22. UVSim will convert 4 digit words in old files to 6 digit words

Non-Functional Requirements

1. Each instruction file should be processed within 1 second.
2. UVSims GUI will have a color theme with the UVU colors.
3. UVSim’s GUI features will all be accessible on a single page.
4. UVSim will have 250 memory registers.
5. UVSim should allow more than one file to be open at a time.