**Software Requirement Specification**Functional

1. The system shall Validate text file can be read by UVSim
2. The system shall load text file into memory
3. The system shall iterate through memory and execute commands that are given
4. The system shall execute READ to location “XX” when line is “10XX”
5. The system shall execute WRITE from location “XX” when line is “11XX”
6. The system shall execute LOAD into accumulator from location “XX” when line is “20XX”
7. The system shall execute STORE from accumulator into location “XX” when line is “21XX”
8. The system shall execute ADD from location “XX” to the accumulator when line is “30XX”
9. The system shall execute SUBTRACT word in location “XX” from the accumulator when line is “31XX”
10. The system shall execute DIVIDE accumulator by word in location “XX” when line is “32XX”
11. The system shall execute MULTIPLY accumulator by word in location “XX” when line is “33XX”
12. The system shall execute BRANCH to location “XX” in memory when line is “40XX”
13. The system shall execute BRANCH to location “XX” in memory if accumulator is negative when line is “41XX”
14. The system shall execute BRANCH to location “XX” in memory if the accumulator is 0 when line is “42XX”
15. Stop the program when line is “43XX”

NonFunctional

1. The system shall keep separation of concerns while designing
2. The system shall use object oriented design principles
3. The system shall be scalable for larger text files