Functional Requirements 1: Displays welcome message in the UVSim Prototype 1

Functional Requirements 2: Welcome message has basic instructions on how UVSim operates

Functional Requirements 3: Unless user input is not -99999, it allows user to input 4 digits current memory address

Functional Requirements 4: Once the user input current memory address, StoreValue() function is called to store values into the memory

Functional Requirements 5: Outputs “program loaded” once it finishes gathering user’s instruction

Functional Requirements 6: When RunProgram() is called, it outputs “\*\*\* Program execution begins \*\*\*”

Functional Requirements 7: RunProgram() Loads instructions from memory address

Functional Requirements 8: RunProgram() function reads first two digits of the four digits of user’s current memory address and compares it to instruction

Functional Requirements 9: If the operand number is 43, its outputs “Simpletron execution terminated” and stops looking at operand numbers

Functional Requirements 10: Allows client to input additional integers into the Memory by loading ReadtoMemory() function

Functional Requirements 11: DisplayAccumulator() function outputs Registers of: Accumulator, Instruction Counter, Instruction Register, Operation Code, and Operand

Functional Requirements 12: Memory Displays array of 1000 text fields, each representing a single memory element

Functional Requirements 13: Load Memory functions load memory from array of address

Functional Requirements 14: Load Instruction function split 4 digits into first half and second half

Functional Requirements 15: WriteToScreen function outputs “Contents of [operand] is [memory of operand]”