User Story:

As a student I want to be able to write BasicML text files. So that I can get a better grasp of low level programming.

Use Cases:

Actor: BasicML Student

System: Write a text file that contains the command “30” and a specified memory location.

Add the value in the specified memory location with the accumulator.

If the addition results in a value > 9999 or value <-9999, handle the overflow.

Store the new value in the accumulator.

Goal: Add two numbers together.

Actor: BasicML Student

System: Write a text file that contains the command “31” and a specified memory location.

Subtract the value in the specified memory location from the accumulator.

If the subtraction results in a value > 9999 or value <-9999, handle the overflow.

Store the new value in the accumulator.

Goal: Subtract two numbers.

Actor: BasicML Student

System: Write a text file that contains the command “32” and a specified memory location.

Multiply the value in the specified memory location from the accumulator.

If the addition results in a value > 9999 or value <-9999, handle the overflow.

Store the new value in the accumulator.

Goal: Multiply two numbers.

Actor: BasicML Student

System: Write a text file that contains the command “33” and a specified memory location.

Divide the accumulator by the value in the specified memory location.

Store the quotient in the accumulator.

Goal: Multiply two numbers.

Actor: BasicML Student

System: Write a text file that contains the instruction “1050” to take a user input into location 50.

Add a line to the text file “1051” to take user input into location 51.

Add a line to the text file “1150” to print the number in location 50 to the screen.

Add a line to the text file “2150” to load the value in location 50 to the accumulator.

Add a line to the text file “3151” to subtract the value in location 51 from the accumulator.

Add a line to the text file “2150“ to store the value in the accumulator to location 50.

Add a line to the text file “4110” to jump to location 09 if the value in the accumulator is zero.

Add a line to the text file “4210” to jump to location 09 if the value in the accumulator is negative.

Add a line to the text file “4303” to jump to location 03 if the value in the accumulator is neither zero or negative.

Add a line to the text file “4300” to halt the program.

Goal: Write a basic for loop.