Assignment 4

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NOTE: I have used and included .ini files to help for debugging, as I have 14 instructions for both questions

1 Question 1

Question 1 is a language parsing program to remove all full word instances of the word "the" and store this new sentance in another array.

1.1 Flow Chart

While Flow Charts are taught in class, they are next to useless in practical applications.

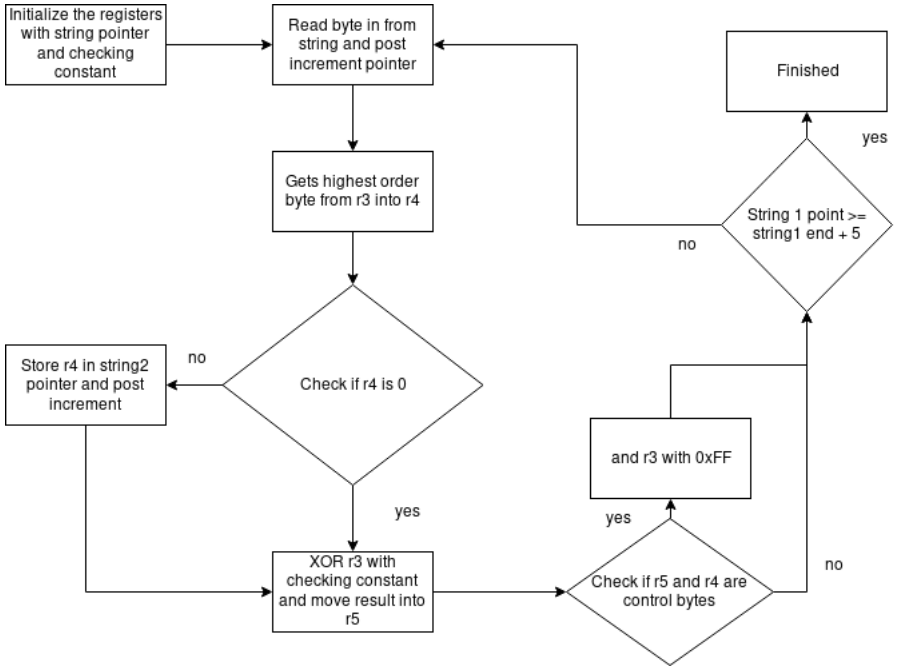

Figure 1: Flow chart for assignment 4

1.2 Program Documentation/Explanation

Again like the previous assignment, this is not true optimization. However since I went into a rant last time about how it is not I will refrain from doing so again. The program works in a very simplistic manner as we see from the above flow chart diagram. I just shift the newest characters into a register. I compare this with the equivalent string to the word "the" with a null terminator at the end. This will be my xor value, if the lowest order byte and the byte that just left the array are under 0x20 we know they are control characters, this makes them possible characters for isolating the word the from other words. If this is the case we just move the xored version of the string into the register we shift in and out of. We need to add a few zeros at the end of the string, this is to make it have 14 instructions instead of 15 instructions.

2 Question 2

Question 2 is a very simple program which I will not go into too much detail just due to the fact we are highly limited in our approach of the problem.

2.1 Flow Chart

While Flow Charts are taught in class, they are next to useless in practical applications.

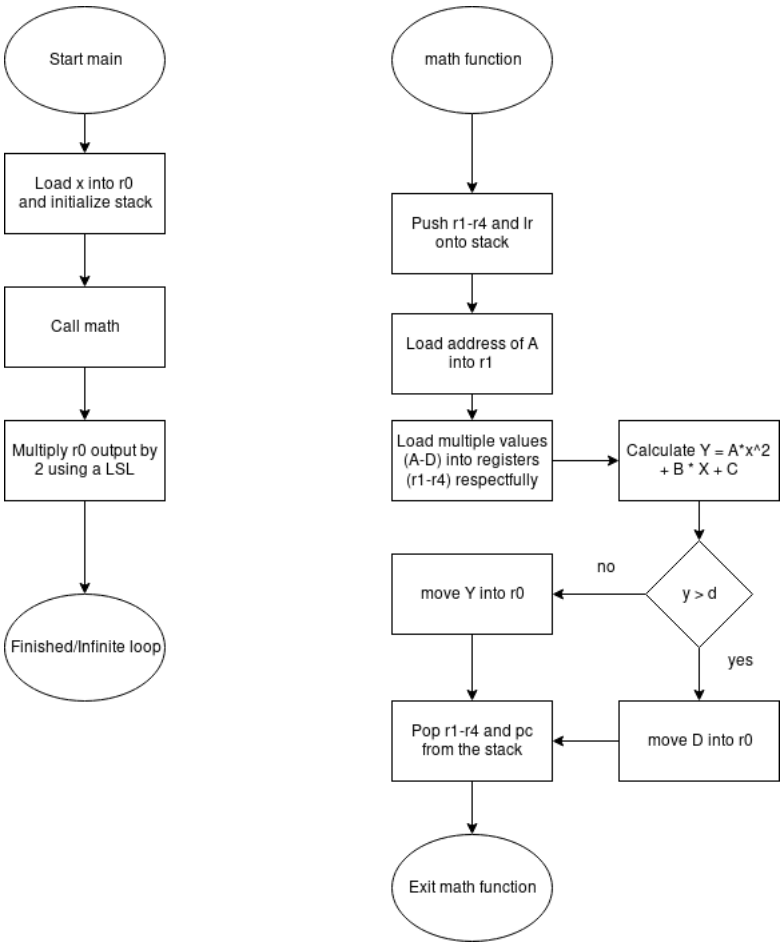

Figure 2: Flow chart for question 2

2.2 Program Documentation/Explanation

This program is too simple to really have proper documentation for, as this is just 1 function and 1 call to that function. No sophisticated design choices for this function either.