Question 1

By: Rahman Ahmed

Start

↓

Load a pointer to String

↓

Load a pointer to new empty string

↓

Load first 5 characters from string

↓

Does the pattern the(space) occur in the first 4 characters

—Yes→ Move character 4 to r1 and character 5 to r2

↓

reload register 3-5 with new characters

No ↓

Is the first character EoS? —Yes→ **END**

Reload registers 2-5 with new characters ←— Move the 2nd space (r5) to r1

No ↓

Does the patten (space)the(space/EoS) occur in the current 5 characters

Store the first space (r1) in the empty string ←— Store the first space (r1) in the empty string

No ↓

Store the first character in the empty string

↓

Shift all characters down one register (r2 to r1, r3 to r2, etc)

↓

Load the next character in string to the last register (r5)
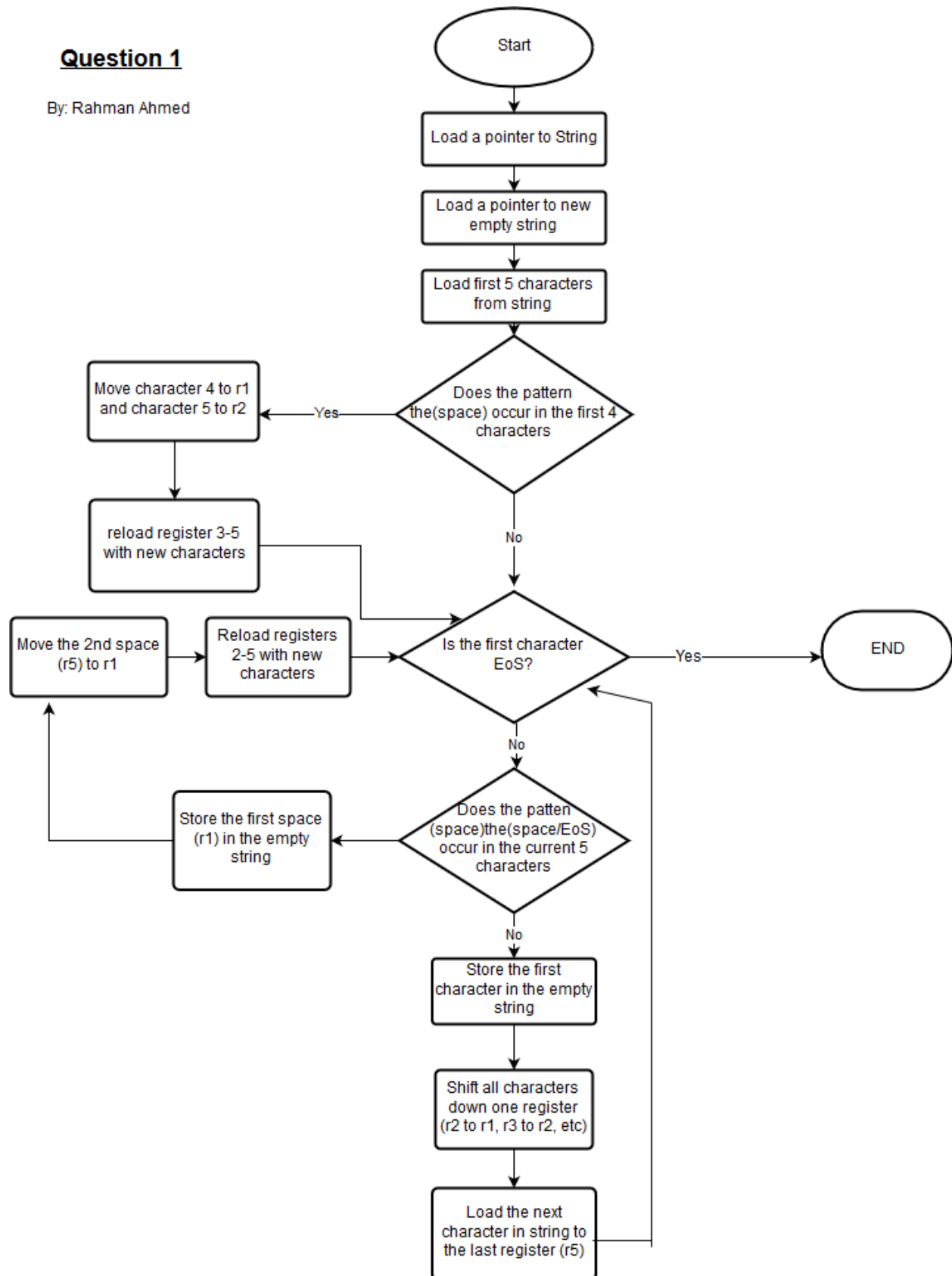
Program Documentation

By: Rahman Ahmed

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Question 1: A program that copies a given string into an empty string without any occurrences of the word "the" (case sensitive).

Question 2: A program that calculates via a subroutine $y=ax^2+bx+c$ for a given values a, b,c, and x, and compares it to a given value d, returning the lesser of the two numbers. The returned number is doubled and stored in r1.