5. Data structure question. Consider the situation where a user has an array of words. The operation that is to be performed on this array of data is to sum all of the elements. The array starts at address 0xff000100 (and progresses to higher addresses). Create code that will calculate the sum of the first 600 values of this array. Assume that there will be no overflow because of the sum.

lib r 10, 0x FE 00

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ori r 10, r 10, 0x 0100 # pointer to array

fluz r 11, 0 (r 10) # load first value

the r 12, 600 # num of values

Mtctr. r 12' # load the counter with number of values

loop: addi r 10, r 10, 0x 4 # increment pointer to next word.

Lwz r 13, 0 (r 10) # load next value

add r 11, r 13, r 13 # Running Total is in r 11

b dnz loop # continue until all 600 values summed

look gain

look gain

Cot oopshee