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Character appears at 14

Character appears at -1

Character appears at 0

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D:\GoogleDrive\SchoolDocs\College\Fall 2016\CS252\program charPos\charPos.s

.global charpos

charpos:

stmfd sp!, {v1-v6, lr}

mov v1,#0 @position counter to zero just incase it had junk memory

main:

ldrb v3,[a1],#1 @load in the next char (only need one word increment)

cmp v3,#0 @compare current character to null to test for string end

moveq v1,#-1 @if current character is null set return value to -1

beq return @as well as branch to return & end

cmp v3,a2 @compare current char to what we're looking for

addne v1,v1,#1 @increment our counter if the comparison wasn't zero

bne main @loop back if the character hasn't been found yet

return:

mov a1,v1 @end & return either -1 or where the character is

ldmfd sp!, {v1-v6, pc}

.end

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#include <stdio.h>

extern int charpos( char \* str, char lookfor );

void main( int argc, char \* argv[] )

{

char str[] = "This is the string to search";

char lookfor = 'r';

int result;

result = charpos( str, lookfor );

printf( "Character appears at %d\n", result );

lookfor = 'q';

result = charpos( str, lookfor );

printf( "Character appears at %d\n", result );

lookfor = 'T';

result = charpos( str, lookfor );

printf( "Character appears at %d\n", result );

}