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lstindxof.s

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/**
 * lstindxof - Returns the last index of a given substring in a target string.
 *
 * This function finds the last occurrence of the given substring in the target
string
 * using the lstindxoffrm function, which searches for the last occurrence of a
single
 * character in the target string. The function then returns the index of the la
st
 * occurrence of the substring in the target string, or -1 if the substring is n
ot found.
 *
 * @param x0: Address of the target string to search.
 * @param x1: Address of the substring to find in the target string.
 * @return x0: Integer index of the last occurrence of the substring in the targ
et string,
 *             or -1 if the substring is not found.
 *
 * Registers used: x0, x1, x2, lr
 * Registers saved: none
 */

.text
.global lstindxof
lstindxof:
    // Save the return address on the stack
    str lr, [sp, #-16]!
    // Save the parameters on the stack
    stp x0, x1, [sp, #-16]!
    // Call the length function to get the length of the target string
    bl length
    // Save the length of the target string in x2
    mov x2, x0
    // Restore the parameters from the stack
    ldp x0, x1, [sp], #16
    // Call the lstindxoffrm function to find the last occurrence of the sub
string in the target string
    bl lstindxoffrm
    // Restore the return address from the stack
    ldr lr, [sp], #16
    // Return the index of the last occurrence of the substring in the targ
et string
    ret

```