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<pre> /**  * lstindxofstr - Returns the index of the last occurrence of string str in a given String.  *  * This function searches for the last occurrence of the specified string str in the target string,  * starting from the specified index "fromIndex" and working backwards. The function returns the  * index of the last occurrence of the string str in the target string after the specified index  * "fromIndex". The search starts from the index x2 in the target string, where x2 is the specified  * index "fromIndex". The function returns -1 if the string str is not found in the target string.  *  * @param x0: Address of the target string to search.  * @param x1: Address of the string to find in the target string.  * @param x2: Index to start the search at.  * @return x0: Integer index of the last occurrence of string str in the target string after the  *             specified index "fromIndex". If the string is not found, returns -1.  *  * Registers used: x0, x1, x2, x3, w4, w5, w6, lr  * Registers saved: none  */ .text .global lstindxofstr lstindxofstr:     // Save the return address and the input parameters     str lr, [sp, #-16]!     stp x0, x1, [sp, #-16]!      // Get the length of the target string     bl length     mov x2, x0      // Set the last index of the target string     sub x2, x2, #1     ldp x1, x0, [sp], #16     add x2, x2, x1      // Get the length of the string to find     bl length     mov x3, x0      // Set the last index of the string to find     sub x3, x3, #1     ldp x0, x1, [sp], #16     add x3, x3, x1      // Load the last character of the string to find     ldrb w4, [x3], #-1  loop:     // Compare the current index with the starting index     cmp x2, x0      // If the current index is less than the starting index, then the string was not found     b.lt cherror </pre>		

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<pre>     // Load the byte at the current index     ldrb w5, [x2], #-1      // Compare the byte with the last character of the string to find     cmp w4, w5      // If the byte matches the last character of the string to find, then the string was found     b.eq chfound      // If the byte does not match the last character of the string to find, then continue searching backwards     b loop  chfound:     // Save the last index of the target string and the last index of the string to find     stp x2, x3, [sp, #-16]! loop:     // Compare the current index of the string to find with the starting index of the string to find     cmp x3, x1      // If the current index of the string to find is less than the starting index of the string to find,     // then the string was found     b.lt strfound     cmp x2, x0     b.lt strerror     ldrb w5, [x2], #-1     ldrb w6, [x3], #-1     cmp w5, w6     b.eq sloop     ldp x2, x3, [sp], #16     b loop strfound:     // Free the stack space used for storing the pointers to the strings     add sp, sp, #16      // Add 1 to the index of the found string to get the last occurrence     add x2, x2, #1      // Calculate the index of the last occurrence relative to the start of the string     sub x0, x2, x0      // Subtract 1 to convert from 1-based indexing to 0-based indexing     sub x0, x0, #1      // Return the index of the last occurrence     ret  // Handle the case where the search character is not found strerror:     // Free the stack space used for storing the pointers to the strings     add sp, sp, #16  // Handle the case where the search character is not a valid ASCII character cherror:     // Set the return value to -1     mov x0, #-1 </pre>		

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// Return the value -1
ret
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