```
/**
 * lstindxoffrm - Returns the last occurrence of character ch in the given Strin
g.
 *
 * This function searches for the last occurrence of the specified character ch
in the target
 * string starting from the specified index "fromIndex" and working backwards. Th
e function
 * returns the index of the last occurrence of the character ch in the target st
ring after
 * the specified index "fromIndex". The search starts from the index x2 in the ta
rget string,
 * where x2 is the specified index "fromIndex". The function returns -1 if the ch
aracter ch
 * is not found in the target string.
 *
 * @param x0: Address of the target string to search.
 * @param x1: Char to find in the target string
 * @param x2: Index to start the search at
 * @return x0: Index of the last occurrence of character ch in the target string
 after the
 *            specified index "fromIndex". If the character is not found, return
s -1.
 *
 * Registers used: x0, x1, x2, w3
 * Registers saved: none
 */

.text
.global lstindxoffrm
    lstindxoffrm:
        // Change the last index to a pointer
        add x2, x2, x0
        sub x2, x2, #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 charac
ter was not found
        b.lt error

        // Load the byte at the current index
        ldrb w3, [x2], #-1

        // Compare the byte with the search character
        cmp w3, w1

        // If the byte matches the search character, then the character was foun
d
        b.eq found

        // If the byte does not match the search character, then continue search
ing backwards
        b loop

    found:
        // Add 1 to the index of the found character to get the last occurrence
        add x2, x2, #1

        // Calculate the index of the last occurrence relative to the start of t
```

```
he string
        sub x0, x2, x0

        // Subtract 1 to convert from 1-based indexing to 0-based indexing
        sub x0, x0, #1

        ret

    error:
        // Character not found, return -1
        mov x0, #-1
        ret
```