

Mar 26, 23 20:23

indxof.s

Page 1/1

```

/**
 * indxof - Returns the index of the first occurrence of character ch in a given
 * String.
 *
 * This function searches for the first occurrence of the specified character ch
 * in the target
 * string and returns the index of the first occurrence of the character ch in t
 * he target string.
 * The search starts from the beginning of the target string. If the character c
 * h is not found
 * in the target string, the function returns -1.
 *
 * @param x0: address of the target string to search.
 * @param x1: Character to find in the target string.
 * @return x0: Integer index of the first occurrence of character ch in the targ
 * et string.
 *             If the character is not found, returns -1.
 *
 * Registers used: x0, x1, x2, lr
 * Registers saved: none
 */
.text
.global indxof
indxof:
    // Save the return address on the stack
    str lr, [sp, #-16]!

    // Set the search starting index to -1
    mov x2, #-1

    // Call the 'indxoform' subroutine to find the index of the first occur
    // the character
    // starting from index 0.
    bl indxoform

    // Restore the return address and return the result in x0
    ldr lr, [sp], #16
    ret

```