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<pre> /** * indxofstr - Returns the index of string str in a particular String. * * This function searches for the first occurrence of the specified string str i n the target * string and returns the index of the first occurrence of the string str in the * target string. * The search starts from the beginning of the target string. If the string str * is not found * in the target string, the function returns -1. * * @param x0: Address of the target string to search. * @param x1: String to find in the target string. * * Registers used: x0, x1, x2, x3, x4 * Registers saved: x0, x1 */ .text .global indxofstr indxofstr: str x0, [sp, #-16]! // Save the address of the target string on the s tack ldrb w3, [x1], #1 // Load the first character of the string to sear ch and move the pointer loop: ldrb w2, [x0], #1 // Load the next character of the target string a nd move the pointer cmp w2, #0 // Check if the end of the target string has been reached b.eq cherror // If so, the character to search was not found i n the target string, so return -1 cmp w2, w3 // Compare the current character of the target st ring with the first character of the string to search b.eq chfound // If they match, start searching for the rest of the string to search b loop // If they don't match, keep searching for the ch aracter to search in the target string chfound: stp x0, x1, [sp, #-16]! // Save the current target string and string to search pointers on the stack sloop: ldrb w2, [x0], #1 // Load the next character of the target string a nd move the pointer ldrb w4, [x1], #1 // Load the next character of the string to searc h and move the pointer cmp w4, #0 // Check if the end of the string to search has b een reached b.eq strfound // If so, the entire string to search was found i n the target string, so return the index cmp w2, #0 // Check if the end of the target string has been reached b.eq strerror // If so, the string to search was not found in t he target string, so return -1 cmp w2, w4 // Compare the current character of the target st ring with the current character of the string to search b.eq sloop // If they match, continue searching for the rest of the string to search </pre>		

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<pre> ldp x0, x1, [sp], #16 // If they don't match, pop the saved target stri ng and string to search pointers off the stack b loop // and continue searching for the character to se arch in the target string strfound: // Pop the stack frame to restore the saved registers ldp x0, x1, [sp], #16 // Calculate the index of the found string in the target string ldr x1, [sp], #16 sub x0, x0, x1 sub x0, x0, #1 // Return the index ret cherror: // No string match found, so pop the stack frame to restore the saved re gisters add sp, sp, #16 // Return -1 mov x0, #-1 ret strerror: // No string match found, so pop the stack frame to restore the saved re gisters add sp, sp, #16 // Return -1 mov x0, #-1 ret </pre>		