

EXPLORER

OPEN EDITORS

- finalproject > **writeline.asm**
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HOMWORK

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- main
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```
finalproject > writeline.asm
1    global writeline
2    extern _write
3
4    section .text
5    ; rdi = address of null-terminated string
6    ; Writes a null-terminated string to stdout
7    writeline:           ; copy string pointer to rsi
8        mov rsi, rdi      ; rsi = pointer to string (needed for _write later)
9        xor rcx, rcx     ; rcx = counter for string length, start at 0
10
11    .calc_len:
12        cmp byte [rsi], 0 ; check if current byte is null terminator
13        je .send          ; if null terminator, jump to send
14        inc rsi            ; move to next character
15        inc rcx            ; increment length counter
16        jmp .calc_len      ; repeat loop
17
18    .send:
19        mov rdx, rcx      ; rdx = length of string (number of bytes to write)
20        mov rsi, rdi      ; rsi = pointer to string (restore original pointer for _write)
21        mov rdi, 1         ; rdi = file descriptor 1 (stdout)
22        call _write       ; call system _write to write string to stdout
23        ret               ; return to caller
```