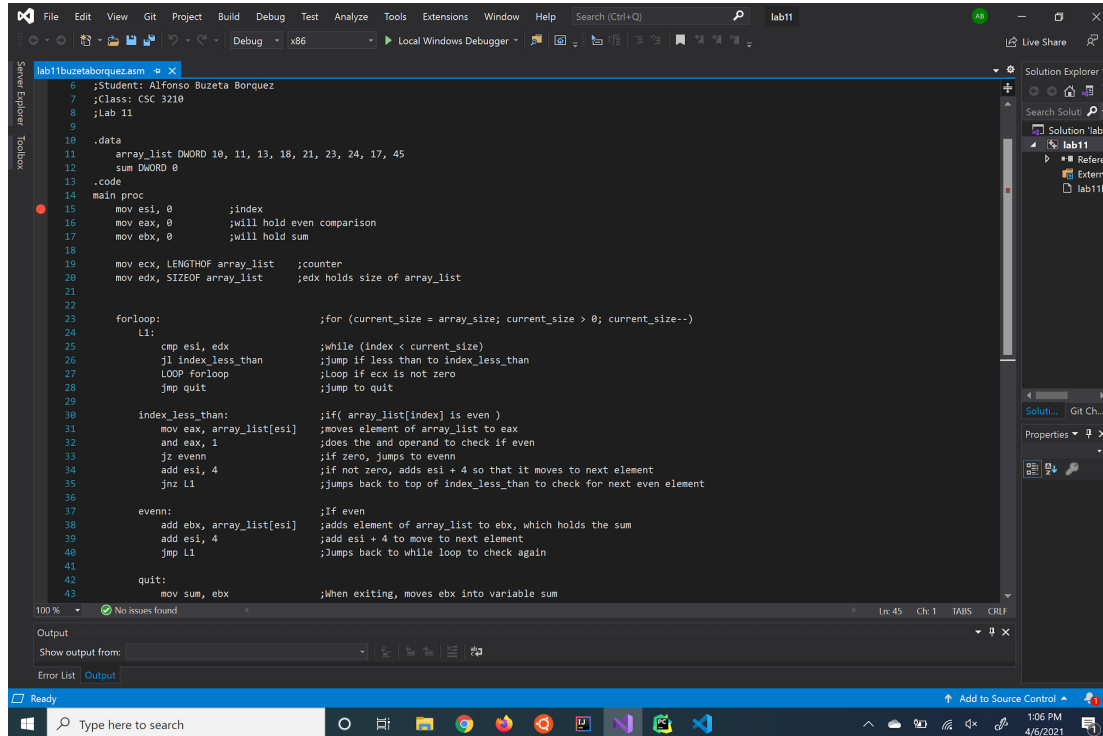


Alfonso Buzeta Borquez

Lab 11

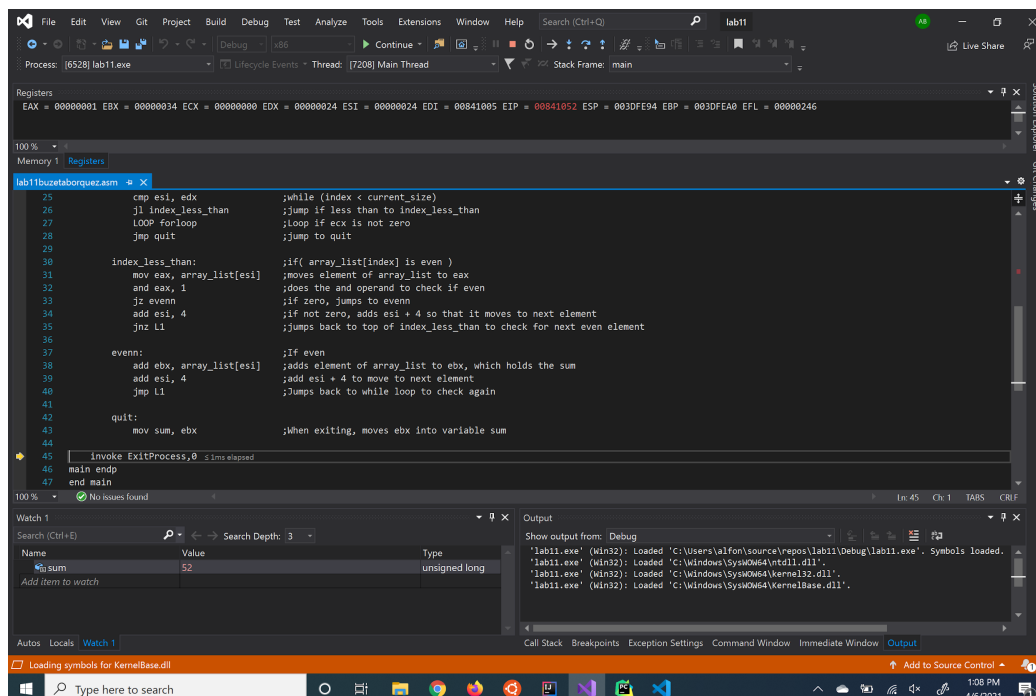
CSC 3210

Code screenshot



```
lab11buzetaborquez.asm
6 ;Student: Alfonso Buzeta Borquez
7 ;Class: CSC 3210
8 ;Lab 11
9
10 .data
11 array_list DWORD 10, 11, 13, 18, 21, 23, 24, 17, 45
12 sum DWORD 0
13 .code
14 main proc
15     mov esi, 0 ;index
16     mov eax, 0 ;will hold even comparison
17     mov ebx, 0 ;will hold sum
18
19     mov ecx, LENGTHOF array_list ;counter
20     mov edx, SIZEOF array_list ;edx holds size of array_list
21
22     forloops: ;for (current_size = array_size; current_size > 0; current_size--)
23     L1: ;while (index < current_size)
24         cmp esi, edx ;jump if less than to index_less_than
25         jl index_less_than ;jump if ecx is not zero
26         LOOP forloops ;jump to quit
27         jmp quit ;jump to quit
28
29     index_less_than: ;if( array_list[index] is even )
30         mov eax, array_list[esi] ;moves element of array_list to eax
31         and eax, 1 ;does the and operand to check if even
32         jz evenn ;if zero, jumps to evenn
33         add esi, 4 ;if not zero, adds esi + 4 so that it moves to next element
34         jmp L1 ;jumps back to top of index_less_than to check for next even element
35
36     evenn: ;if even
37         add ebx, array_list[esi] ;adds element of array_list to ebx, which holds the sum
38         add esi, 4 ;adds esi + 4 to move to next element
39         jmp L1 ;jumps back to while loop to check again
40
41     quit:
42         mov sum, ebx ;when exiting, moves ebx into variable sum
43
100% No issues found
```

Final value of Sum screenshot



```
lab11buzetaborquez.asm
25     cmp esi, edx ;while (index < current_size)
26     jl index_less_than ;jump if less than to index_less_than
27     LOOP forloops ;loop if ecx is not zero
28     jmp quit ;jump to quit
29
30     index_less_than: ;if( array_list[index] is even )
31         mov eax, array_list[esi] ;moves element of array_list to eax
32         and eax, 1 ;does the and operand to check if even
33         jz evenn ;if zero, jumps to evenn
34         add esi, 4 ;if not zero, adds esi + 4 so that it moves to next element
35         jmp L1 ;jumps back to top of index_less_than to check for next even element
36
37     evenn: ;if even
38         add ebx, array_list[esi] ;adds element of array_list to ebx, which holds the sum
39         add esi, 4 ;adds esi + 4 to move to next element
40         jmp L1 ;jumps back to while loop to check again
41
42     quit:
43         mov sum, ebx ;when exiting, moves ebx into variable sum
44
45     invoke ExitProcess, 0 ;1ms elapsed
46 main endp
47 end main
```

Name	Value	Type
sum	52	unsigned long

Output

```
Show output from: Debug
'lab11.exe' (Win32): Loaded 'C:\Users\alfen\source\repos\lab11\Debug\lab11.exe'. Symbols loaded.
'lab11.exe' (Win32): Loaded 'C:\Windows\System32\ntdll.dll'.
'lab11.exe' (Win32): Loaded 'C:\Windows\System32\kernel32.dll'.
'lab11.exe' (Win32): Loaded 'C:\Windows\System32\user32.dll'.
```