

1.asm - week-4 - Visual Studio Code

1.asm

function.asm

3.asm

5.asm

1.asm

WEEK-4

1

1.asm

1.o

2.asm

3.asm

4.asm

5.asm

function.asm

1.asm

4 mov eax,[num]

5 mov ebx,[num]

6 dec bx

7 is\_prime: ;divide from num to 2

8 xor edx,edx

9 push eax

10 div ebx

11 pop eax

12 cmp edx,0

13 je fin ;if perfectly divisible print not prime

14 dec ebx

15 cmp ebx,1

16 jne is\_prime

17 write\_message p,lenp

18 exit

19 fin:

20 write\_message np,lennp

21 exit

22

23

24 section .data

25 p db 'The number is a prime',0xA

26 lenp equ \$-p

27 np db 'The number is not prime',0xA

28 lennp equ \$-np

29 num dd 23

TERMINAL

PROBLEMS

OUTPUT

DEBUG CONSOLE

1: wsl

manas@LAPTOP-U09MU8FI:/mnt/d/assembly\_code/week-4\$ nasm -f elf 5.asm && ld -m elf\_i386 -s -o 5 5.o && ./5

5.asm:68: warning: macro `exit' exists, but not taking 1 parameters [-w+macro-params]

5.asm:73: error: label `res' inconsistently redefined

function.asm:84: note: label `res' originally defined here

manas@LAPTOP-U09MU8FI:/mnt/d/assembly\_code/week-4\$ nasm -f elf 2.asm && ld -m elf\_i386 -s -o 2 2.o && ./2

^C

manas@LAPTOP-U09MU8FI:/mnt/d/assembly\_code/week-4\$ nasm -f elf 1.asm && ld -m elf\_i386 -s -o 1 1.o && ./1

The number is a prime

manas@LAPTOP-U09MU8FI:/mnt/d/assembly\_code/week-4\$

> OUTLINE

0 0 0

Live Share

Ln 13, Col 57

Spaces: 4

UTF-8

CRLF

ARM

Go Live

14:43

18-03-2021

Visual Studio Code interface showing the assembly code for 5.asm and the terminal output.

**EXPLORER**

- WEEK-4
  - 1
  - 1.asm
  - 1.o
  - 2.asm
  - 2.o
  - 3
  - 3.asm
  - 3.o
  - 4
  - 4.asm
  - 4.o
  - 5
  - 5.asm
  - 5.o
  - function.asm

**5.asm**

```
60     jmp exit
61
62 no:
63     mov eax,4
64     mov ebx,1
65     mov ecx,msg2
66     mov edx,len2
67     int 0x80
68
69 exit:
70     mov eax,1      ;exit
71     int 0x80
72
73 section .data
74 res db '000000',0xa
75 rlen equ $ - res
76 msg1 db "Given Number is an Armstrong Number"
77 len1 equ $ - msg1
78 msg2 db "Given Number is not an Armstrong Number"
79 len2 equ $ - msg2
80 num db 153
```

**TERMINAL**

```
manas@LAPTOP-U09MU8FI:/mnt/d/assembly_code/week-4$ nasm -f elf 5.asm && ld -m elf_i386 -s -o 5 5.o && ./5
Given Number is an Armstrong Numbermanas@LAPTOP-U09MU8FI:/mnt/d/assembly_code/week-4$
```

**STATUS BAR**

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF ARM Go Live

14:48 18-03-2021

File Edit Selection View Go Run Terminal Help

3.asm - week-4 - Visual Studio Code

EXPLORER

WEEK-4

- 1
- 1.asm
- 1.o
- 2.asm
- 3
- 3.asm
- 3.o
- 4.asm
- 5.asm
- function.asm

function.asm

3.asm

5.asm

1.asm

```
17      dec esi                ;al register index moves left
18      inc edi                ;bl register index moves right
19      cmp al,bl              ;compare that digit in symmetrical position
20      jne finish             ;if not equal , jump to finish
21      loop palindrome
22
23      write_message msg1,len1 ;is pallindrome
24      new_line
25      exit
26      finish:
27      write_message msg2,len2 ;not pallindrome
28      new_line
29      exit
30
31      section .data
32      x db '333'
33      len equ $-x
34      msg1 db " is Palindrome"
35      len1 equ $ - msg1
36      msg2 db " is not Palindrome",
37      len2 db $ - msg2
```

TERMINAL

PROBLEMS

OUTPUT

DEBUG CONSOLE

1: wsl

5.asm:73: error: label `res` inconsistently redefined  
function.asm:84: note: label `res` originally defined here  
manas@LAPTOP-U09MU8FI:/mnt/d/assembly\_code/week-4\$ nasm -f elf 2.asm && ld -m elf\_i386 -s -o 2 2.o && ./2  
^C  
manas@LAPTOP-U09MU8FI:/mnt/d/assembly\_code/week-4\$ nasm -f elf 1.asm && ld -m elf\_i386 -s -o 1 1.o && ./1  
The number is a prime  
manas@LAPTOP-U09MU8FI:/mnt/d/assembly\_code/week-4\$ nasm -f elf 3.asm && ld -m elf\_i386 -s -o 3 3.o && ./3  
333 is Palindrome  
manas@LAPTOP-U09MU8FI:/mnt/d/assembly\_code/week-4\$

Ln 27, Col 45 Spaces: 4 UTF-8 CRLF ARM Go Live

Type here to search

14:44 18-03-2021

Visual Studio Code interface showing assembly code for 4.asm.

**EXPLORER**

- WEEK-4
  - 1
  - 1.asm
  - 1.o
  - 2.asm
  - 3
  - 3.asm
  - 3.o
  - 4
  - 4.asm
  - 4.o
  - 5.asm
  - function.asm

**4.asm**

```
72
73
74
75 section .data
76 msg1 db 'Number of words:'
77 len1 equ $-msg1
78 msg2 db 'Number of vowels:'
79 len2 equ $-msg2
80 msg3 db 'Number of characters:'
81 len3 equ $-msg3
82 msg4 db 'Number of consonants:'
83 len4 equ $-msg4
84 msg5 db 'what is your name'
85 len5 equ $-msg5
86
87 ccount dd 0
88 vcount db 0
89 wcount db 1
90
```

**TERMINAL**

```
manas@LAPTOP-U09MU8FI:/mnt/d/assembly_code/week-4$ nasm -f elf 4.asm && ld -m elf_i386 -s -o 4 4.o && ./4
Number of words:4
Number of vowels:6
Number of characters:17
Number of consonants:8
manas@LAPTOP-U09MU8FI:/mnt/d/assembly_code/week-4$
```

**STATUS BAR**

Ln 30, Col 9 Spaces: 4 UTF-8 CRLF ARM Go Live

Windows taskbar: Type here to search, 14:45, 18-03-2021