

## EXPLORER


...

ASM hello\_world.asm X

## &gt; OPEN EDITORS

## ✓ LAB1

≡ a.out

 CED19I002\_code.png CED19I002\_terminal.png

ASM hello\_world.asm

≡ hello\_world.o

ASM hello\_world.asm

```
1  section .text
2      global _start                ;must be declared for linker (ld)
3      _start:                      ;tells linker entry point
4          mov edx, len              ;message length
5          mov ecx, msg              ;message to write
6          mov ebx, 1                ;file descriptor (stdout)
7          mov eax, 4                ;system call number (sys_write)
8          int 0x80                  ;call kernel
9
10         mov eax, 1                 ;system call number (sys_exit)
11         int 0x80                  ;call kernel
12
13  section .data
14
15  msg db  'Hello, world!',0xa       ;string
16  len equ $ - msg                  ;length of string
17
18
```

root@Kaiser: /home/School/Semester-4/Computer Organization and Design/labs/lab1

```
root@Kaiser:/home/School/Semester-4/Computer Organization and Design/labs/lab1# ls
```

hello\_world.asm

```
root@Kaiser:/home/School/Semester-4/Computer Organization and Design/labs/lab1# nasm -f elf hello_world.asm
```

```
root@Kaiser:/home/School/Semester-4/Computer Organization and Design/labs/lab1# ls
```

hello\_world.asm hello\_world.o

```
root@Kaiser:/home/School/Semester-4/Computer Organization and Design/labs/lab1# ld -m elf_i386 hello_world.o
```

```
root@Kaiser:/home/School/Semester-4/Computer Organization and Design/labs/lab1# ls
```

a.out hello\_world.asm hello\_world.o

```
root@Kaiser:/home/School/Semester-4/Computer Organization and Design/labs/lab1# ./a.out
```

Hello, world!

```
root@Kaiser:/home/School/Semester-4/Computer Organization and Design/labs/lab1# |
```