

Создал lab5-1.asm

```
Файл Правка Вид Поиск Терминал Справка
mc [sabegin@sabegin-Lenovo-Rescuer-1515K]:~/work/arch-pc/lab05
SECTION .data
msg: DB "initial",10

msgLen: EQU $-msg

SECTION .bss
buf1: RESB 80

SECTION .text
GLOBAL _start

_start:
    mov eax,4
    mov ebx,1
    mov ecx,msg
    mov edx,msgLen
    int 80h

    mov eax,3
    mov ebx,0
    mov ecx,buf1
    mov edx,80
    int 80h

    mov eax,1
    mov ebx,0
    int 80h
```

Написал lab5-1.asm

```
Файл Правка Вид Поиск Терминал Справка
sudo apt install live-build
sudo apt install open-infraestructure-system-build

sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ lb lab5-1.o -o lab5-1rm lab5-1.o

Command 'lb' not found, but can be installed with:

sudo apt install live-build
sudo apt install open-infraestructure-system-build

sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ rm lab5-1.o
rm: не удается удалить 'lab5-1.o': Нет такого файла или каталога
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ls
lab5-1.asm lab5-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ rm lab5-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ nano lab5-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ nasm -f elf64 lab5-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ nasm -o lab5-1.o lab5-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ld lab5-1.o -o lab5-1
lab5-1.o: file not recognized: Формат файла не распознан
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ls
lab5-1.asm lab5-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ld -m elf64 lab5-1.o -o lab5-1
ld: unrecognized emulation mode: elf64
Supported emulations: elf_x86_64 elf32_x86_64 elf_1386 elf_i386 elf_i386linux elf_lion elf_kiom i386pep i386pe
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ld -m elf_1386 lab5-1.o -o lab5-1
ld: unrecognized emulation mode: elf_1386
Supported emulations: elf_x86_64 elf32_x86_64 elf_1386 elf_i386 elf_i386linux elf_lion elf_kiom i386pep i386pe
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ld lab5-1.o -o lab5-1
lab5-1.o: file not recognized: Формат файла не распознан
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ nasm lab5-1.o -o lab5-1.asm
lab5-1.o:1: error: parser: instruction expected
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ls
lab5-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ gedit lab5-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ rm lab5-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ touch lab5-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ gedit lab5-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ nano lab5-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ cp lab5-1.asm lab.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ls
lab5-1.asm lab.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ nasm -f elf64 lab.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ls
lab5-1.asm lab.asm lab.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ld lab.o -o lab
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ./lab
Будьте строки:
#####
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ./lab
Будьте строки:
asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ./lab
Будьте строки:
Begin Stanislav
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$
```

Вывод:

Научился на базовом уровне пользоваться мс, и использовать внешние файлы(пишеш include "", в файле пишеш function: после-функция. В новом файле пишешь call function. файл должен находится и том же каталоге)

Лабораторная работа

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Файл Правка Вид Поиск Терминал Справка
sabegin@sabegin-Lenovo-Rescuer-1515K: ~/work/arch-pc/lab05

in_out.asm:91: error: instruction not supported in 64-bit mode
in_out.asm:99: error: instruction not supported in 64-bit mode
in_out.asm:101: error: instruction not supported in 64-bit mode
in_out.asm:104: error: instruction not supported in 64-bit mode
in_out.asm:105: error: instruction not supported in 64-bit mode
in_out.asm:110: error: instruction not supported in 64-bit mode
in_out.asm:111: error: instruction not supported in 64-bit mode
in_out.asm:112: error: instruction not supported in 64-bit mode
in_out.asm:113: error: instruction not supported in 64-bit mode
in_out.asm:140: error: instruction not supported in 64-bit mode
in_out.asm:141: error: instruction not supported in 64-bit mode
in_out.asm:142: error: instruction not supported in 64-bit mode
in_out.asm:143: error: instruction not supported in 64-bit mode
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ gedit in_out.asm
^C
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ -f elf32 lab2.asm
-f: команда не найдена
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ qemu -f elf32 lab2.asm
(qemu) команда не найдена
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ nasm -f elf32 lab2.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ gcc -m32 lab2.o -o lab2
/usr/bin/ld: cannot find crt1.o: Нет такого файла или каталога
/usr/bin/ld: cannot find crt1.o: Нет такого файла или каталога
/usr/bin/ld: skipping incompatible /usr/lib/gcc/x86_64-linux-gnu/7/libgcc.a when searching for -lgcc
/usr/bin/ld: cannot find -lgcc
/usr/bin/ld: skipping incompatible /usr/lib/gcc/x86_64-linux-gnu/7/libgcc.a when searching for -lgcc
/usr/bin/ld: cannot find -lgcc
collect2: error: ld returned 1 exit status
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ls
in_out.asm lab2.o lab5.1.asm lab5.2.asm lab.asm lab.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ld lab2.o -o lab2
ld: 1386 architecture of input file 'lab2.o' is incompatible with 1386-x86_64 output
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ touch lab3.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ gedit lab3.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ nasm -f elf64 lab3.asm
lab3.asm:1: warning: macro 'segment' exists, but not taking 0 parameters [-Wmacro-params]
lab3.asm:1: error: parser: instruction expected
lab3.asm:4: warning: label alone on a line without a colon might be in error [-Worphan-labels]
lab3.asm:6: warning: macro 'segment' exists, but not taking 0 parameters [-Wmacro-params]
lab3.asm:6: error: parser: instruction expected
lab3.asm:7: error: comma expected after operand 1
lab3.asm:8: warning: label alone on a line without a colon might be in error [-Worphan-labels]
lab3.asm:8: error: symbol 'ends' redefined
lab3.asm:10: warning: macro 'segment' exists, but not taking 0 parameters [-Wmacro-params]
lab3.asm:10: error: parser: instruction expected
lab3.asm:39: warning: label alone on a line without a colon might be in error [-Worphan-labels]
lab3.asm:39: error: symbol 'ends' redefined
lab3.asm:41: error: parser: instruction expected
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ gedit lab3.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ nasm -f elf64 lab3.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ld lab3.o -o lab3
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ./lab3
bad: ./lab: Нет такого файла или каталога
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$ ./lab3
!!!
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/arch-pc/lab05$
```

Файл in_out не подошел(у меня 64х процессор, а файл использует 32х), поэтому код нашел в интернете

Вывод:

Научился вводить текст с консоли и выводить его же