№4
:
: -02-23

# 1

1.
2.
3.
4.

# 2

, NASM.

# 3

1. NASM( .1).
mkdir .

```
[mdyanushkevich@fedora ~]$ mkdir -p ~/work/a
[mdyanushkevich@fedora ~]$ cd ~/work/arch-pc
```

2. hello.asm( .2).
touch gedit.

```
[mdyanushkevich@fedora lab04]$ touch hello.asm
[mdyanushkevich@fedora lab04]$ gedit hello.asm
```

```
SECTION .data
        hello:          DB 'Hello world!' ,10

        helloLen:       EQU $-hello

SECTION .text
        GLOBAL _start

_start:
        mov eax,4
        mov ebx,1
        mov ecx,hello
        mov edx,helloLen
        int 80h

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

3.                        ( .3).
            gedit           ,                .

4.                  ( .4). `[mdyanushkevich@fedora lab04]$ nasm -f elf hello.asm`
                    ,                              ,
    hello.o.

5.                ( .5.). `[mdyanushkevich@fedora lab04]$ nasm -o obj.o -f elf -g -l list.lst hello.asm`
                            .

```
[mdyanushkevich@fedora lab04]$ ls
hello.asm  hello.o  list.lst  obj.o
[mdyanushkevich@fedora lab04]$
```

6.                    ( .6).
        ls        ,                                .

```
[mdyanushkevich@fedora lab04]$ ld -m elf_i386 hello.o -o hello
[mdyanushkevich@fedora lab04]$ ls
hello  hello.asm  hello.o  list.lst  obj.o
[mdyanushkevich@fedora lab04]$
```

7.                ( .7).
                    ,                              ,                    ls
        ,                    .

8.                 (  .8).



9.                 (  .9).

## 4

1.       lab04         cp         hello.asm     lab4.asm(  .10).



          cp       lab4.asm,                   gedit.

```
SECTION .data
        hello:          DB 'Янушкевич Михаил!' ,1

        helloLen:       EQU $-hello

SECTION .text
        GLOBAL _start

_start:
        mov eax,4
        mov ebx,1
        mov ecx,hello
        mov edx,helloLen
        int 80h

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

2.      lab4.asm                    (  .11).
          ,       "Hello world!"       "        ".

3.                              ,                                  (  .12).

```
[mdyanushkevich@fedora lab04]$ nasm -f elf lab4.asm
[mdyanushkevich@fedora lab04]$ nasm -o obj.o -f elf -g -l list.lst lab4.asm
[mdyanushkevich@fedora lab04]$ ld -m elf_i386 lab4.o -o lab4
[mdyanushkevich@fedora lab04]$ ld -m elf_i386 obj.o -o main
[mdyanushkevich@fedora lab04]$ ./lab4
Янушкевич Михаил!
```

                    ,                       ,
    .

```
[mdyanushkevich@fedora lab04]$ cp hello.asm ~/work/study/2023-2024/"Архит
lab04/
[mdyanushkevich@fedora lab04]$ cp lab4.asm ~/work/study/2023-2024/"Архите
ab04/
[mdyanushkevich@fedora lab04]$ cd  ~/work/study/2023-2024/"Архитектура ко
[mdyanushkevich@fedora lab04]$ ls
hello.asm  lab4.asm  presentation  report
```

4.          hello.asm  lab4.asm                 (  .13).
          cp              hello.asm  lab4.asm

5.          Github(  .14).

```
[mdyanushkevich@fedora arch-pc]$ git push
```

          git push                           Github.

| Name | Last commit message | Last commi |
|---|---|---|
| .. | | |
| presentation | feat(main): make course structure | last m |
| report | feat(main): make course structure | last m |
| hello.asm | feat(main): make course structure | last |
| lab4.asm | feat(main): make course structure | last |

6. , Github( .15).

**5**

NASM,
Linux.