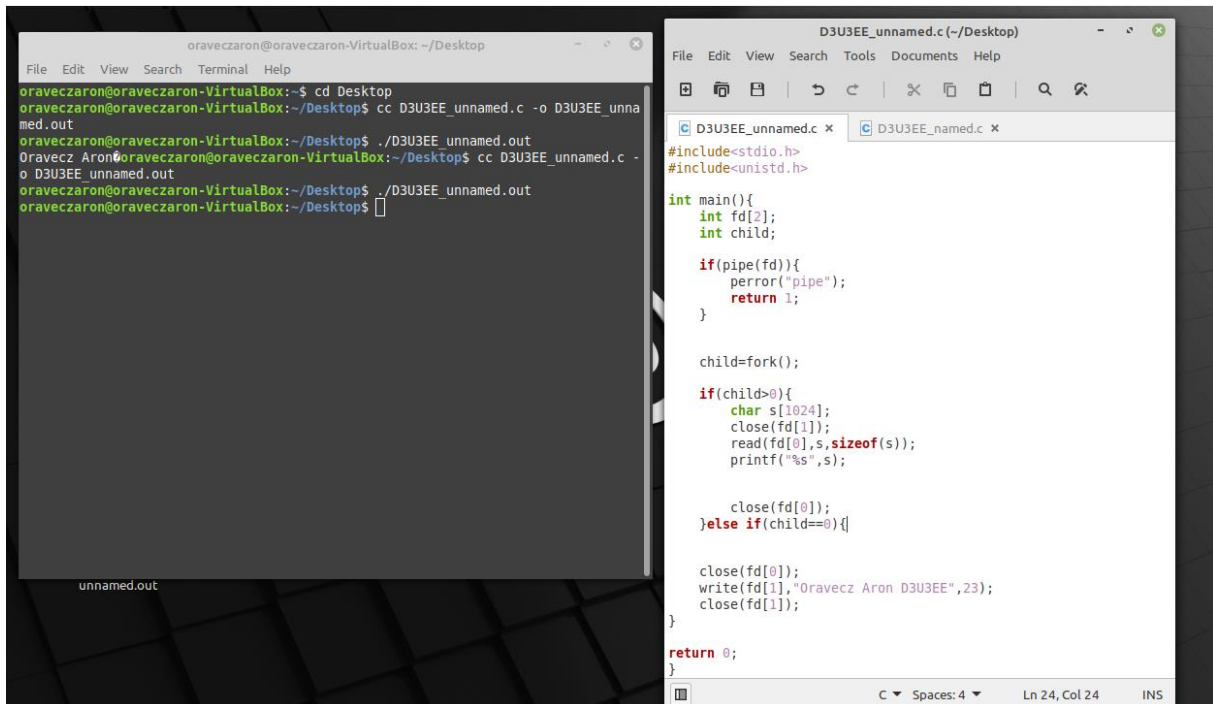


1es feladat



The screenshot shows a terminal window on the left and a code editor on the right. The terminal window displays the following commands and output:

```
oraveczaron@oraveczaron-VirtualBox: ~/Desktop
oraveczaron@oraveczaron-VirtualBox:~$ cd Desktop
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ cc D3U3EE_unnamed.c -o D3U3EE_unnamed.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ ./D3U3EE_unnamed.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ cc D3U3EE_unnamed.c -o D3U3EE_unnamed.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ ./D3U3EE_unnamed.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$
```

The code editor shows the source code of `D3U3EE_unnamed.c`:

```
#include<stdio.h>
#include<unistd.h>

int main(){
    int fd[2];
    int child;

    if(pipe(fd)){
        perror("pipe");
        return 1;
    }

    child=fork();

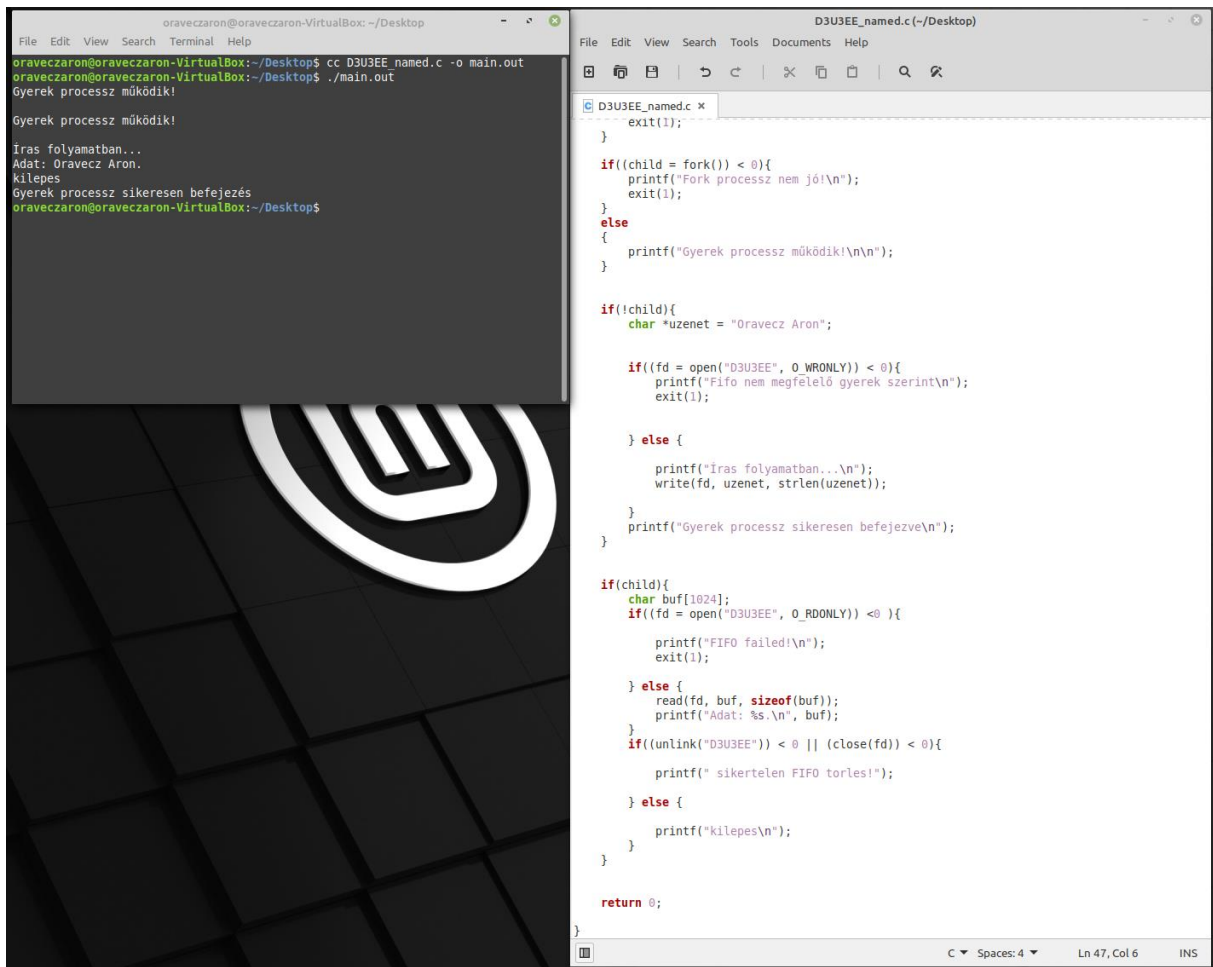
    if(child>0){
        char s[1024];
        close(fd[1]);
        read(fd[0],s,sizeof(s));
        printf("%s",s);

        close(fd[0]);
    }else if(child==0){

        close(fd[0]);
        write(fd[1],"Oravecz Aron D3U3EE",23);
        close(fd[1]);
    }

    return 0;
}
```

2es feladat



The screenshot shows a terminal window on the left and a code editor on the right. The terminal window displays the following commands and output:

```
oraveczaron@oraveczaron-VirtualBox: ~/Desktop
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ cc D3U3EE_named.c -o main.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ ./main.out
Gyerek processz működik!

Gyerek processz működik!

Iras folyamatban...
Adat: Oravecz Aron.
Kilepes
Gyerek processz sikeresen befejezes
oraveczaron@oraveczaron-VirtualBox:~/Desktop$
```

The code editor shows the source code of `D3U3EE_named.c`:

```
exit(1);
}

if((child = fork()) < 0){
    printf("Fork processz nem jó!\n");
    exit(1);
}
else
{
    printf("Gyerek processz működik!\n\n");
}

if(!child){
    char *uzenet = "Oravecz Aron";

    if((fd = open("D3U3EE", O_WRONLY)) < 0){
        printf("Fifo nem megfelelő gyerek szerint\n");
        exit(1);
    }
    else {
        printf("Iras folyamatban...\n");
        write(fd, uzenet, strlen(uzenet));
    }
    printf("Gyerek processz sikeresen befejeze\n");
}

if(child){
    char buf[1024];
    if((fd = open("D3U3EE", O_RDONLY)) < 0){
        printf("FIFO failed!\n");
        exit(1);
    }
    else {
        read(fd, buf, sizeof(buf));
        printf("Adat: %s.\n", buf);
    }
    if((unlink("D3U3EE")) < 0 || (close(fd)) < 0){
        printf("sikertelen FIFO torles!");
    }
    else {
        printf("kilepes\n");
    }
}

return 0;
}
```

3

The screenshot shows a virtual machine environment with a terminal window and a code editor window. The terminal window displays the following commands and output:

```
oraveczaron@oraveczaron-VirtualBox: ~/Desktop
oraveczaron@oraveczaron-VirtualBox:~$ cd Desktop
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ cc D3U3EE_gyak9_3.c -o main.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ ./main.out
Hasznalat: ./D3U3EE_gyak9_3 PID
oraveczaron@oraveczaron-VirtualBox:~/Desktop$
```

The code editor window shows the source code of the program:

```
D3U3EE_gyak9_3.c (~/Desktop)
File Edit View Search Tools Documents Help

D3U3EE_gyak9_3.c x D3U3EE_gyak9_3_2.c x
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <signal.h>

//int kill(pid_t pid, int sig);

int main(int argc, char **argv)
{
    if(argc != 2)
    {
        printf("Hasznalat: ./D3U3EE_gyak9_3 PID\n");
        return 1;
    }

    pid_t pid = (pid_t)atoi(argv[1]);
    kill(pid, SIGALRM);
    return 0;
}
```

The screenshot shows a virtual machine environment with a terminal window and a code editor window. The terminal window displays the following commands and output:

```
oraveczaron@oraveczaron-VirtualBox: ~/Desktop
oraveczaron@oraveczaron-VirtualBox:~$ cd Desktop
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ cc D3U3EE_gyak9_3.c -o main.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ ./main.out
Hasznalat: ./D3U3EE_gyak9_3 PID
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ cc D3U3EE_gyak9_3_2.c -o main.out
cc: error: D3U3EE_gyak9_3_2.c: No such file or directory
cc: fatal error: no input files
compilation terminated.
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ cc D3U3EE_gyak9_3_2.c -o main2.out
cc: error: D3U3EE_gyak9_3_2.c: No such file or directory
cc: fatal error: no input files
compilation terminated.
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ ./main.out
Hasznalat: ./D3U3EE_gyak9_3 PID
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ ./main2.out
bash: ./main2.out: No such file or directory
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ cc D3U3EE_gyak9_3.c -o main.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ ./main.out
Hasznalat: ./D3U3EE_gyak9_3 PID
oraveczaron@oraveczaron-VirtualBox:~/Desktop$
```

The code editor window shows the source code of the program:

```
D3U3EE_gyak9_3.c (~/Desktop)
File Edit View Search Tools Documents Help

D3U3EE_gyak9_3.c x
#include <stdio.h>
#include <unistd.h>
#include <signal.h>

//int kill(pid_t pid, int sig);
void AlarmKezelo(int sig);

int main(int argc, char **argv)
{
    if(argc != 2)
    {
        printf("Hasznalat: ./D3U3EE_gyak9_3 PID\n");
        return 1;
    }

    pid_t pid = (pid_t)atoi(argv[1]);
    kill(pid, SIGALRM);

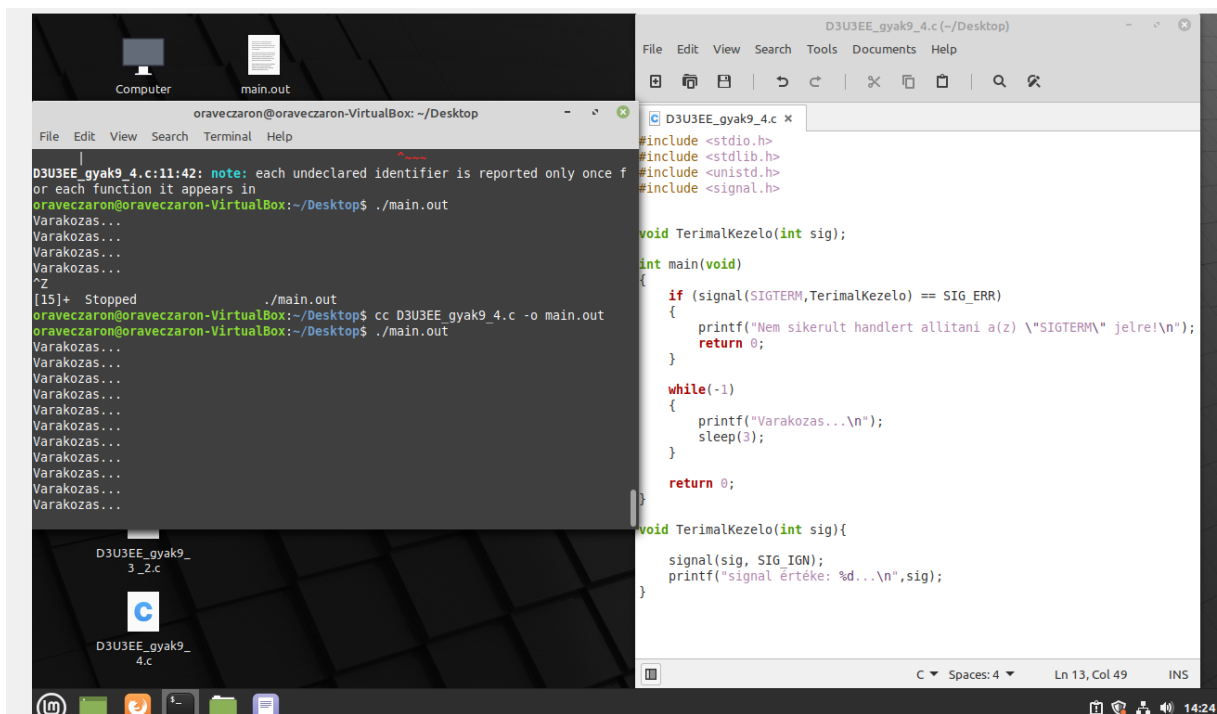
    if (signal(SIGALRM, AlarmKezelo) == SIG_ERR)
    {
        printf("Nem sikerult handlert allitani a(z) \"SIGALRM\" jelre!\n");
        return 1;
    }

    pause();
    return 0;
}

void AlarmKezelo(int sig)
{
    printf("D3U3EE\n Mostantol nem blokkolodok!\n");
    exit(1);
}
```

4.

SIGTERM



```
D3U3EE_gyak9_4.c:11:42: note: each undeclared identifier is reported only once for each function it appears in
oraveczaron@oraveczaron-VirtualBox: ~/Desktop$ ./main.out
Varakozas...
Varakozas...
Varakozas...
Varakozas...
^Z
[15]+  Stopped                  ./main.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ cc D3U3EE_gyak9_4.c -o main.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ ./main.out
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
D3U3EE_gyak9_3_2.c
D3U3EE_gyak9_4.c
```

```
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <signal.h>

void TerimalKezelo(int sig);

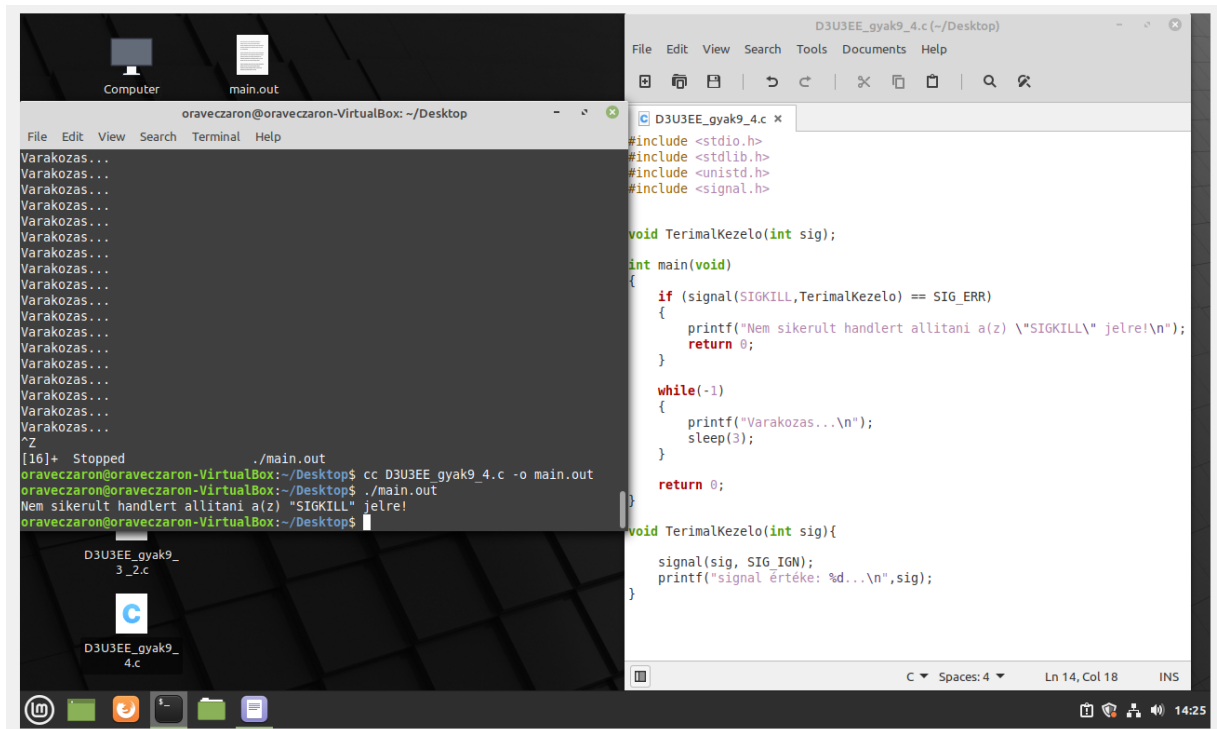
int main(void)
{
    if (signal(SIGTERM, TerimalKezelo) == SIG_ERR)
    {
        printf("Nem sikerult handlert allitani a(z) \"SIGTERM\" jelre!\n");
        return 0;
    }

    while(-1)
    {
        printf("Varakozas...\n");
        sleep(3);
    }

    return 0;
}

void TerimalKezelo(int sig){
    signal(sig, SIG_IGN);
    printf("signal erteke: %d...\n", sig);
}
```

SIGKILL



```
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
Varakozas...
^Z
[16]+  Stopped                  ./main.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ cc D3U3EE_gyak9_4.c -o main.out
oraveczaron@oraveczaron-VirtualBox:~/Desktop$ ./main.out
Nem sikerult handlert allitani a(z) "SIGKILL" jelre!
oraveczaron@oraveczaron-VirtualBox:~/Desktop$
```

```
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <signal.h>

void TerimalKezelo(int sig);

int main(void)
{
    if (signal(SIGKILL, TerimalKezelo) == SIG_ERR)
    {
        printf("Nem sikerult handlert allitani a(z) \"SIGKILL\" jelre!\n");
        return 0;
    }

    while(-1)
    {
        printf("Varakozas...\n");
        sleep(3);
    }

    return 0;
}

void TerimalKezelo(int sig){
    signal(sig, SIG_IGN);
    printf("signal erteke: %d...\n", sig);
}
```