**Laborator 11.**

Clientul ii transmite serverului un nume de fisier si un numar octal. Serverul va verifica daca fisierul respectiv are drepturi de acces diferite de numarul indicat. Daca drepturile coincid, va transmite mesajul "Totul e OK!" daca nu va seta drepturile conform numarului indicat si va transmite mesajul "Drepturile au fost modificate".

#include<stdlib.h>

#include<unistd.h>

#include<stdio.h>

#include<string.h>

#include<wait.h>

#include<dirent.h>

#include<sys/wait.h>

#include<stdio.h>

#include<sys/types.h>

#include<sys/stat.h>

#include<errno.h>

#include<fcntl.h>

int main()

{

int f1,f2;

int pid;

char sir[40];

char sir2[100];

if(mkfifo("fifo1",0666)==-1)

{

if(errno==17)

{

fprintf(stdout,"Note:fifo %s exista deja!\n","fifo1");

exit(0);

}

else

{

fprintf(stderr,"Error:crearea fifo imposibila,errno=%d\n",errno);

perror(0);

exit(2);

}

}

if(mkfifo("fifo2",0666)==-1)

{

if(errno==17)

{

fprintf(stdout,"Note:fifo %s exista deja!\n","fifo2");

exit(0);

}

else

{

fprintf(stderr,"Error:crearea fifo imposibila,errno=%d\n",errno);

perror(0);

exit(2);

}

}

if((pid=fork())<0)

{

printf("eroare la fork\n");

exit(1);

}

if (pid==0)

{//Suntem in procesul fiu=serverul

f1=open("fifo1",O\_RDONLY);

char nr[5];

read(f1,sir,40);

read(f1,nr,4);

printf("SERVERUL:\nAm primit de la client:%s,%s\n",sir,nr);

char \*cmd=(char\*)malloc(sizeof(char)\*30);

strcpy(cmd,"./fifo.sh ");

strcat(cmd,sir);

strcat(cmd," ");

strcat(cmd,nr);

FILE\* f=popen(cmd,"r");

char sir3[100];

int c, i;

do

{

c=fgetc(f);

if(c=='\n')

{

sir3[i]=',';

i++;

}

else

{

sir3[i]=c;

i++;

}

}while(c!=EOF);

sir3[i-2]='\0';

pclose(f);

f2=open("fifo2",O\_WRONLY);

write(f2,sir3,100);

close(f1);

close(f2);

exit(0);

}

else

{

f1=open("fifo1",O\_WRONLY);

printf("CLIENTUL:\nDati un nume de fisier:");

scanf("%s",sir);

write(f1,sir,(strlen(sir)+1));

char nr[5];

printf("Dati un numar octal:");

scanf("%s",nr);

write(f1,nr,(strlen(nr)+1));

f2=open("fifo2",O\_RDONLY);

read(f2,sir2,100);

printf("CLIENTUL:\nRaspunsul primit este:%s\n",sir2);

close(f1);

close(f2);

unlink("fifo1");

unlink("fifo2");

}

return 0;

}

fifo.sh

a=`ls -l $1|awk '{print $1}'`

a2=`echo $a| sed "s/.//"`

b=`echo $a2| sed "s/[rwx]/1/g"`

c=`echo $b| sed "s/-/0/g"`

d=`echo $c| sed "s/\(...\)\(...\)\(...\)/\1 \2 \3/"`

nr[1]=`echo $d| awk '{print $1}'`

nr[2]=`echo $d| awk '{print $2}'`

nr[3]=`echo $d| awk '{print $3}'`

for j in {1,2,3};do

p=4

s=0

for ((i=0;i<${#nr[$j]};i++));do

x=`expr $p \\* ${nr[$j]:$i:1}`

s=`expr $s + $x`

p=`expr $p / 2`

done

r[$j]=$s

done

rasp=`echo ${r[1]}${r[2]}${r[3]}`

if [ $2 -eq $rasp ];then

echo "Totul e ok!"

else

`chmod $2 $1`

echo "Drepturile au fost modificate!"

fi