*LAB # 08*

named pipes

# ***OBJECTIVE:***

*Study the features of named pipes.*

*LAB task*

EXAMPLE PROGRAMS:

**Program 1**

#include<fcntl.h>

#include<stdio.h>

#define MSGSIZ 63

main( )

{ int

fd;

char msgbuf[MSGSIZ+1];

if((fd=open(“testfile”,O\_RDWR))<0)

perror(“pipe open failed”);

for(;;)

{

if(read(fd,msgbuf,MSGSIZ+1)>0)

printf(“message received:%s \n”,msgbuf);

} }

**Program 2**

#include<fcntl.h>

#include<stdio.h>

#include<errno.h>

#define MSGSIZ 63

main(argc,argv)

int argc; char

\*argv[ ];

{

int fd,j,nwrite;

char msgbuf[MSGSIZ];

if(argc<2)

{

printf(“Usage:<filename><message><message>…\n”);

}

if((fd=open(“testfile”,O\_WRONLY))<0)

perror(“fifo open failed”); for(j=1;j<argc;j++)

{

strcpy(msgbuf,argv[j]);

if((nwrite=write(fd,msgbuf,MSGSIZ+1))<=0)

perror(“message write failed”);

} }

**Program 3**

#include<fcntl.h>

#include<stdio.h>

#define MSGSIZ 63

main( ) {

int fd;

char msgbuf[MSGSIZ+1];

if(mknod(“myfifo”,010666,0)<0)

perror(“myfifo failed”);

if((fd=open(“myfifo”,O\_RDWR))<0)

perror(“fifo open failed”);

for(;;)

{

if(read(fd,msgbuf,MSGSIZ+1)>0)

printf(“message received:%s \n”,msgbuf);

}

}

***Exercises:***

1. *What did you learn after running the above Program 1 and Program 2?*

***Output:***

*In Program 1, the same named pipe we had created at the command line. The file is being opened in the read write mode. In the never ending for loop, a read() is activated. The moment a message is read from the pipe it is printed by the printf() function. In Program2, when it is run, must be passed a message or messages. It is this message that will be read and printed by the receiving program.*

1. *What did you learn after running the Program 3?*

***Output:***

*Program3, also shows the never ending for loop.*