P1.c

1 //simplex communication

2 #include<stdio.h>

3 #include<fcntl.h>

4 #include<string.h>

5 main()

6 {

7 int fd;

8 char buf[20];

9 mkfifo("np1",0644);

10 perror("mkfifo");

11 printf("hello..\n");

12 fd=open("np1",O\_WRONLY);

13 if(fd<0)

14 {

15 perror("open");

16 return;

17 }

18 printf("enter data..\n");

19 while(1)

20 {

21 scanf("%s",buf);

22 write(fd,buf,strlen(buf)+1);

23 }

24 }

P2.c

1 #include<stdio.h>

2 #include<fcntl.h>

3 #include<string.h>

4 main()

5 {

6 int fd;

7 char buf[20];

8 mkfifo("np1",0644);

9 perror("mkfifo");

10 printf("hello..\n");

11 fd=open("np1",O\_RDONLY);

12 if(fd<0)

13 {

14 perror("open");

15 return;

16 }

17 while(1)

18 {

19 read(fd,buf,sizeof(buf));

20 printf("data:%s\n",buf);

21 }

22

23 }

P3.c

1 //half duplex communication using single named

2 //pipe(sender prog)

3 #include<stdio.h>

4 #include<fcntl.h>

5 #include<string.h>

6 main()

7 {

8 int fd;

9 char w\_buf[20];

10 char r\_buf[20];

11 mkfifo("np1",0644);

12 perror("mkfifo");

13 printf("hello..\n");

14 fd=open("np1",O\_RDWR);

15 if(fd<0)

16 {

17 perror("open");

18 return;

19 }

20 printf("enter data..\n");

21 while(1)

22 {

23 scanf("%s",w\_buf);

24 write(fd,w\_buf,strlen(w\_buf)+1);

25 sleep(1);

26 read(fd,r\_buf,sizeof(r\_buf));

27 printf("%s\n",r\_buf);

28 }

29

30 }

P4.c

b)receiver prog

1 #include<stdio.h>

2 #include<fcntl.h>

3 #include<string.h>

4 main()

5 {

6 int fd;

7 char w\_buf[20];

8 char r\_buf[20];

9 mkfifo("np1",0644);

10 perror("mkfifo");

11 printf("hello..\n");

12 fd=open("np1",O\_RDWR);

13 if(fd<0)

14 {

15 perror("open");

16 return;

17 }

18 while(1)

19 {

20 read(fd,r\_buf,sizeof(r\_buf));

21 printf("data:%s\n",r\_buf);

22 scanf("%s",w\_buf);

23 write(fd,w\_buf,strlen(w\_buf)+1);

24 sleep(1);

25 }

26

27 }

P5.c

a)prog1\_fullduplex

1 #include<stdio.h>

2 #include<fcntl.h>

3 #include<string.h>

4 main()

5 {

6 int fd1,fd2;

7 char wr\_buf[20];

8 char rd\_buf[20];

9 mkfifo("fifo1",0644);

10 mkfifo("fifo2",0644);

11 fd1=open("fifo1",O\_WRONLY);

12 fd2=open("fifo2",O\_RDONLY);

13 if(fork()==0)

14 {

15 while(1)

16 {

17 scanf("%s",wr\_buf);

18 write(fd1,wr\_buf,strlen(wr\_buf)+1);

19 }

20 }

21 else

22 {

23 while(1)

24 {

25 read(fd2,rd\_buf,sizeof(rd\_buf));

26 printf("%s\n",rd\_buf);

27 }

28 }

29 }

P6.c

//prog2\_fullduplex

1 #include<stdio.h>

2 #include<fcntl.h>

3 #include<string.h>

4 main()

5 {

6 int fd1,fd2;

7 char wr\_buf[20];

8 char rd\_buf[20];

9 mkfifo("fifo1",0644);

10 mkfifo("fifo2",0644);

11

12 fd1=open("fifo1",O\_RDONLY);

13 fd2=open("fifo2",O\_WRONLY);

14 if(fork()==0)

15 {

16 while(1)

17 {

18 read(fd1,rd\_buf,sizeof(rd\_buf));

19 printf("%s\n",rd\_buf);

20 }

21 }

22 else

23 {

24 while(1)

25 {

26 scanf("%s",wr\_buf);

27 write(fd2,wr\_buf,strlen(wr\_buf)+1);

28 }

29 }

30 }