EX:4 **FILE TRANSFER PROTOCOL**

**SERVER:**

#include<stdio.h>

#include<sys/types.h>

#include<netinet/in.h>

#include<stdio.h>

#include<sys/types.h>

#include<netinet/in.h>

#include<string.h>

#include<stdlib.h>

int main()

{

FILE \*fp;

int sd,newsd,ser,n,a,cli,pid,bd,port,clilen;

char name[100],fileread[100],fname[100],ch,file[100],rcv[100];

struct sockaddr\_inservaddr,cliaddr;

printf("Enter the port address\n");

scanf("%d",&port);

sd=socket(AF\_INET,SOCK\_STREAM,0);

if(sd<0)

printf("Cant create\n");

else

printf("Socket is created\n");

servaddr.sin\_family=AF\_INET;

servaddr.sin\_addr.s\_addr=htonl(INADDR\_ANY);

servaddr.sin\_port=htons(port);

a=sizeof(servaddr);

bd=bind(sd,(struct sockaddr \*)&servaddr,a);

if(bd<0)

printf("Cant bind\n");

else

printf("Binded\n");

listen(sd,5);

clilen=sizeof(cliaddr);

newsd=accept(sd,(struct sockaddr \*)&cliaddr,&clilen);

if(newsd<0)

{

printf("Cant accept\n");

}

else

printf("Accepted\n");

n=recv(newsd,rcv,100,0);

rcv[n]='\0';

fp=fopen(rcv,"r");

if(fp==NULL)

{

send(newsd,"error",5,0);

close(newsd);

}

else

{

while(fgets(fileread,sizeof(fileread),fp))

{

if(send(newsd,fileread,sizeof(fileread),0)<0)

{

printf("Cant send\n");

}

}

if(!fgets(fileread,sizeof(fileread),fp))

{

send(newsd,"completed",999999999,0);

}

return(0);

}

}

**OUTPUT:**

[211716205051@Putty ~]$ vi FTPserver.c

[211716205051@Putty ~]$gccFTPserver.c

[211716205051@Putty ~]$ ./a.out

Enter the port address

9654

Socket is created

Binded

Accepted

**CLIENT:**

#include<stdio.h>

#include<stdlib.h>

#include<sys/socket.h>

#include<netinet/in.h>

int main()

{

FILE \*fp;

int csd,n,ser,s,cli,cport,newsd;

char name[100],rcvmsg[100],rcvg[100],fname[100];

struct sockaddr\_inservaddr;

printf("Enter the port");

scanf("%d",&cport);

csd=socket(AF\_INET,SOCK\_STREAM,0);

if(csd<0)

{

printf("Error....\n");

}

else

printf("Socket is created\n");

servaddr.sin\_family=AF\_INET;

servaddr.sin\_addr.s\_addr=htonl(INADDR\_ANY);

servaddr.sin\_port=htons(cport);

if(connect(csd,(struct sockaddr \*)&servaddr,sizeof(servaddr))<0)

printf("Error in connection\n");

else

printf("connected\n");

printf("Enter the existing file name\t");

scanf("%s",name);

printf("Enter the new file name\t");

scanf("%s",fname);

fp=fopen(fname,"w");

send(csd,name,sizeof(name),0);

while(1)

{

s=recv(csd,rcvg,100,0);

rcvg[s]='\0';

if(strcmp(rcvg,"error")==0)

printf("File is not available\n");

if(strcmp(rcvg,"completed")==0)

{

printf("File is transferred........\n");

fclose(fp);

close(csd);

break;

}

else

fputs(rcvg,stdout);

fprintf(fp,"%s",rcvg);

}

}

**OUTPUT:**

[211716205051@Putty ~]$ vi FTPclient.c

[211716205051@Putty ~]$ vi shiva.txt

[211716205051@Putty ~]$gccFTPclient.c

[211716205051@Putty ~]$ ./a.out

Enter the port 9654

socket is created

connected

Enter the existing file name shiva.txt

Enter the new file name abc.txt

Good morning

File is transferred........