PROGRAM CODE

CLIENT:

```
#include<stdio.h>
#include<sys/types.h>
#include<sys/socket.h>
#include<netinet/in.h>
#include<stdlib.h>
#include<string.h>
#include<unistd.h>
#include<arpa/inet.h>
#include<sys/types.h>
#include <fcntl.h>

int main(int argc,char **argv)
{
struct sockaddr_in server;
char buff[1024];
char str[1000];

int sfd=socket(AF_INET,SOCK_STREAM,0);
if(sfd<0)
{
  perror("Cannot create socket");
  exit(1);
}
bzero(&server,sizeof(server));
server.sin_family=AF_INET;
server.sin_port=htons(3000);
server.sin_addr.s_addr=inet_addr(argv[1]);

int cn=connect(sfd,(struct
sockaddr*)&server,sizeof(server));
if(cn<0)
{
 perror("Connect error");
 exit(1);
}
else
 printf("Connected to the server..\n");
printf("\nEnter the path of the file: ");
gets(buff);
write(sfd,buff,sizeof(buff));
printf("\nFile transferred");
read(sfd,buff,sizeof(buff));
printf("\nEnter the path in which the file is to be saved:
");
scanf("%s",str);
int fd=creat(str,O_RDWR);
```

```
write(fd,buff,strlen(buff));
close(sfd);
close(fd);
return 0;
}
```

SERVER:

```
#include<stdio.h>
#include<sys/types.h>
#include<sys/socket.h>
#include<netinet/in.h>
#include<stdlib.h>
#include<string.h>
#include<unistd.h>
#include<arpa/inet.h>
#include<sys/stat.h>
#include <fcntl.h>

int main()
{
struct sockaddr_in server,client;
char fname[300];
char buff[1024];
char str[100]="\0",ch[2]="\0";
int newfd1,i,j;
int sfd=socket(AF_INET,SOCK_STREAM,0);
if(sfd<0)
{
  perror("Cannot create socket");
  exit(1);
}
bzero(&server,sizeof(server));
server.sin_family=AF_INET;
server.sin_port=htons(3000);
server.sin_addr.s_addr=htonl(INADDR_ANY);
int bs=bind(sfd,(struct sockaddr*)&server,sizeof(server));
if(bs<0)
{
 perror("Bind error");
 exit(1);
}
int ls=listen(sfd,2);
if(ls<0)
{
 perror("listen error");
 exit(1);
}
int clientlen=sizeof(client);
newfd1=accept(sfd,(struct sockaddr*)&client,&clientlen);
```

```
if(newfd1<0)
{
 perror("accept error");
 exit(0);
}
printf("\nWaiting for client...");
read(newfd1,fname,sizeof(fname));
printf("\nFile to be transferred is : %s\n",fname);
int fd=open(fname,O_RDONLY);
if(fd==-1)  printf("\nNo such file exists\n");
int n=read(fd,ch,1);
while(n!=0)
{
 strcat(str,ch);
 n=read(fd,ch,1);
}
write(newfd1,str,sizeof(str));
printf("\nFile transferred\n");
close(newfd1);
close(sfd);
close(fd);
return 0;
}
```

OUTPUT:

```
csec86@CCL-06:~/nwlab$ ./fs

Waiting for client...
File to be transferred is : /home/csec86/sample.txt

File transferred
csec86@CCL-06:~/nwlab$
```

```
csec86@CCL-06:~/nwlab$ cat new.txt
csec86@CCL-06:~/nwlab$ ./fc 127.0.0.1
Connected to the server..

Enter the path of the file: /home/csec86/sample.txt

File transferred
Enter the path in which the file is to be saved: /home/csec86/nwlab/new.txt
csec86@CCL-06:~/nwlab$ cat new.txt
hi
hello
how are you
csec86@CCL-06:~/nwlab$
```