**TCP-SERVER:**

#include<stdio.h>

#include<stdlib.h>

#include<string.h>

#include<unistd.h>

#include<arpa/inet.h>

#include<sys/socket.h>

#include<sys/types.h>

#include<netdb.h>

int main()

{

int server\_socket,comm\_fd;

char recvline[100];

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

struct sockaddr\_in servaddr;

bzero(&servaddr,sizeof(servaddr));

servaddr.sin\_family = AF\_INET;

servaddr.sin\_port = htons(9002);

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

bind(server\_socket,(struct sockaddr\*)&servaddr,sizeof(servaddr));

listen(server\_socket,10);

while(1){

comm\_fd = accept(server\_socket,(struct sockaddr\*)NULL, NULL);

bzero(recvline,100);

recv(comm\_fd,recvline,100,0);

printf("CLIENT MESSAGE : %s",recvline);

close(comm\_fd);

}

return 0;

}

**Tcp-client:**

#include<stdio.h>

#include<stdlib.h>

#include<string.h>

#include<unistd.h>

#include<arpa/inet.h>

#include<sys/socket.h>

#include<sys/types.h>

#include<netdb.h>

int main()

{

int server\_socket;

char sendline[100];

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

struct sockaddr\_in servaddr;

bzero(&servaddr,sizeof(servaddr));

servaddr.sin\_family = AF\_INET;

servaddr.sin\_port = htons(9002);

servaddr.sin\_addr.s\_addr = inet\_addr("127.0.0.1");

connect(server\_socket,(struct sockaddr\*)&servaddr,sizeof(servaddr));

while(1){

bzero(sendline,100);

fgets(sendline,100,stdin);

send(server\_socket,sendline,100,0);

}

return 0;

}

**UDP-SERVER:**

#include<stdio.h>

#include<stdlib.h>

#include<string.h>

#include<unistd.h>

#include<arpa/inet.h>

#include<sys/socket.h>

#include<sys/types.h>

#include<netdb.h>

int main()

{

int server\_socket;

char recvline[100];

server\_socket = socket(AF\_INET,SOCK\_DGRAM,0);

struct sockaddr\_in servaddr;

bzero(&servaddr,sizeof(servaddr));

servaddr.sin\_family = AF\_INET;

servaddr.sin\_port = htons(10000);

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

bind(server\_socket,(struct sockaddr\*)&servaddr,sizeof(servaddr));

while(1){

bzero(recvline,100);

recvfrom(server\_socket,recvline,100,0,(struct sockaddr\*)&servaddr,sizeof(servaddr));

printf("CLIENT MESSAGE : %s",recvline);

}

return 0;

}

**UDP-client:**

#include<stdio.h>

#include<stdlib.h>

#include<string.h>

#include<unistd.h>

#include<arpa/inet.h>

#include<sys/socket.h>

#include<sys/types.h>

#include<netdb.h>

int main()

{

int server\_socket;

char sendline[100];

server\_socket = socket(AF\_INET,SOCK\_DGRAM,0);

struct sockaddr\_in servaddr;

bzero(&servaddr,sizeof(servaddr));

servaddr.sin\_family = AF\_INET;

servaddr.sin\_port = htons(10000);

servaddr.sin\_addr.s\_addr = inet\_addr("127.0.0.1");

while(1){

bzero(sendline,100);

fgets(sendline,100,stdin);

sendto(server\_socket,sendline,100,0,(struct sockaddr\*)&servaddr,sizeof(servaddr));

}

return 0;

}