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DATE- 26-04-2021

CSE1004-UDP TASK

SERVER CODE

```
// UDP client and UDP server
// Server Side
#include<stdio.h>
#include<sys/socket.h>
#include<netinet/in.h>
#include<string.h>

int main(){
    int port,sock,binding;
    struct sockaddr_in server,client;
    char buffersent[100],bufferrecv[100];
    socklen_t clientlen;
    sock=socket(AF_INET,SOCK_DGRAM,0);
    printf("Enter the port Number\n");
    scanf("%d",&port);
    server.sin_family=AF_INET;
    server.sin_addr.s_addr=htonl(INADDR_ANY);
    server.sin_port=htons(port);
    binding=bind(sock,(struct sockaddr*)&server,sizeof(server));
    clientlen=sizeof(client);
    recvfrom(sock,bufferrecv,sizeof(bufferrecv),0,
              (struct sockaddr*)&client,&clientlen);
    printf("The message received\n%s\n",bufferrecv);
    strcpy(buffersent,bufferrecv);
    sendto(sock,buffersent,sizeof(buffersent),0,(struct sockaddr*)
    &client,sizeof(client));
}
```

THE CLIENT CODE

```
// UDP client and UDP server
// Client Side
#include<stdio.h>
#include<sys/socket.h>
#include<netinet/in.h>
#include<string.h>

int main(){
    int port,sock,binding;
    struct sockaddr_in server,client;
    char buffersent[100],bufferrecv[100];
    socklen_t serverlen;
    serverlen=sizeof(server);
    sock=socket(AF_INET,SOCK_DGRAM,0);
    printf("Enter the message\n");
    scanf("%s",buffersent);
    printf("Enter the port number\n");
    scanf("%d",&port);
    server.sin_family=AF_INET;
    server.sin_addr.s_addr=htonl(INADDR_ANY);
    server.sin_port=htons(port);
    sendto(sock,buffersent,sizeof(buffersent),0,(struct sockaddr*)
        &server,sizeof(server));
    recvfrom(sock,bufferrecv,sizeof(bufferrecv),0,(struct sockaddr*)
        &server,&serverlen);
    printf("The message received\n%s\n",bufferrecv);
}
```

THE OUTPUT

**ENTERING THE MESSAGE TO BE SENT
ON THE CLIENT SIDE**

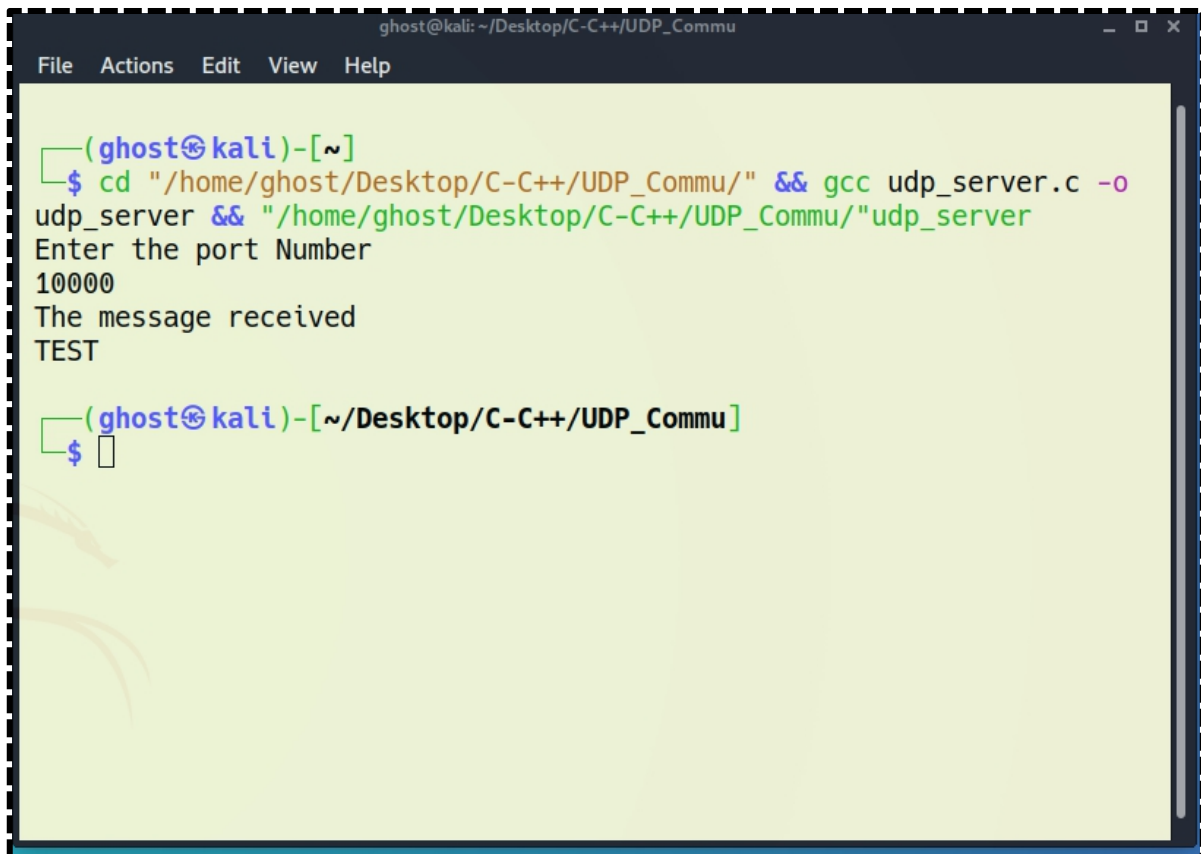


```
ghost@kali: ~  
File Actions Edit View Help  
  
(ghost@kali)-[~]  
$ cd "/home/ghost/Desktop/C-C++/UDP_Comm/" && gcc udp_client.c -o  
udp_client && "/home/ghost/Desktop/C-C++/UDP_Comm/"udp_client  
Enter the message  
TEST  
Enter the port number  
█
```

**CREATING A SOCKET FOR THE SERVER
AND
BINDING THE SERVER TO THE SOCKET
ENTERING THE PORT NUMBER**

```
ghost@kali: ~  
File Actions Edit View Help  
  
(ghost@kali)-[~]  
$ cd "/home/ghost/Desktop/C-C++/UDP_Comm/" && gcc udp_server.c -o  
udp_server && "/home/ghost/Desktop/C-C++/UDP_Comm/"udp_server  
Enter the port Number  
10000█
```

**AFTER ENTERING THE PORT ON THE CLIENT SIDE
THE SERVER SIDE IMMEDIATELY RECEIVES THE MESSAGE
FROM THE CLIENT
NOW THE SERVER ECHOES THE MESSAGE BACK TO THE CLIENT**



```
ghost@kali: ~/Desktop/C-C++/UDP_Comm
File Actions Edit View Help

(ghost@kali)-[~]
$ cd "/home/ghost/Desktop/C-C++/UDP_Comm/" && gcc udp_server.c -o
udp_server && "/home/ghost/Desktop/C-C++/UDP_Comm/"udp_server
Enter the port Number
10000
The message received
TEST

(ghost@kali)-[~/Desktop/C-C++/UDP_Comm]
$
```

NOW THE CLIENT RECEIVES THE ECHOED MESSAGE



```
ghost@kali: ~/Desktop/C-C++/UDP_Comm
File Actions Edit View Help

(ghost@kali)-[~]
$ cd "/home/ghost/Desktop/C-C++/UDP_Comm/" && gcc udp_client.c -o
udp_client && "/home/ghost/Desktop/C-C++/UDP_Comm/"udp_client
Enter the message
TEST
Enter the port number
10000
The message received
TEST

(ghost@kali)-[~/Desktop/C-C++/UDP_Comm]
$
```