

## Half Duplex Chat using UDP

EX-8

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### Client Code:

```
#include<stdio.h>
#include<string.h>
#include<stdlib.h>
#include<sys/socket.h>
#include<sys/types.h>
#include<arpa/inet.h>
#include<netinet/in.h>
#include<netinet/ip.h>
#include<unistd.h>
int main(){
int sendfd=socket(AF_INET,SOCK_DGRAM,IPPROTO_UDP);
if(sendfd==-1){
perror("Socket creation failed\n");
exit(0);
}
struct sockaddr_in server,client;
server.sin_family=AF_INET;
server.sin_port=htons(5000);
server.sin_addr.s_addr=INADDR_ANY;
char snd[1000],rcv[1000];while(1){
printf("Enter the msg to receiver: ");
scanf("%s",snd);
int size=sizeof(client);
sendto(sendfd,snd,strlen(snd),0,(struct sockaddr*)&server,sizeof(server)); int
len=recvfrom(sendfd,rcv,sizeof(rcv),0,(struct sockaddr*)&client,&size); rcv[len]='\0';
printf("Msg from receiver: %s\n",rcv);
}
close(sendfd);
}
```

### Server Code:

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

```

#include<netinet/ip.h>
#include<unistd.h>
int main() {
int recevfd=socket(AF_INET,SOCK_DGRAM,IPPROTO_UDP); if(recevfd==-1){
perror("Socket creation failed\n");
exit(0);
}
struct sockaddr_in client,server; server.sin_family=AF_INET;server.sin_port=htons(5000);
server.sin_addr.s_addr=INADDR_ANY;
int b=bind(recevfd,(struct sockaddr*)&server,sizeof(server));
if(b== -1)
{
perror("bind failure\n");
exit(0);
}
char rcv[1000],snd[1000];
while(1){
int size=sizeof(server);
int len=recvfrom(recevfd,rcv,sizeof(rcv),0,(struct sockaddr*)&client, &size); rcv[len]='\0';
printf("Msg received fromt the sender is: %s\n",rcv);
printf("Enter msg to send to sender: ");
scanf("%s",snd);
sendto(recevfd,snd,strlen(snd),0,(struct sockaddr*)&client,sizeof(client));
}
close(recevfd);
}

```

## Screenshot:

