```
// Server side implementation of UDP client-server model


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

#define PORT     8080
#define MAXLINE 1024

// Driver code
int main() {
        int sockfd;
        char buffer[MAXLINE];
        char *hello = "Hello from server";
        struct sockaddr_in servaddr, cliaddr;

        // Creating socket file descriptor
        if ( (sockfd = socket(AF_INET, SOCK_DGRAM, 0)) < 0 ) {
                perror("socket creation failed");
                exit(EXIT_FAILURE);
        }

        memset(&servaddr, 0, sizeof(servaddr));
        memset(&cliaddr, 0, sizeof(cliaddr));

        // Filling server information
        servaddr.sin_family = AF_INET; // IPv4
        servaddr.sin_addr.s_addr = INADDR_ANY;
        servaddr.sin_port = htons(PORT);

        // Bind the socket with the server address
        if ( bind(sockfd, (const struct sockaddr *)&servaddr,
                        sizeof(servaddr)) < 0 )
        {
                perror("bind failed");
                exit(EXIT_FAILURE);
        }

        int len, n;

        len = sizeof(cliaddr); //len is value/result

        n = recvfrom(sockfd, (char *)buffer, MAXLINE,MSG_WAITALL, ( struct sockaddr
*) &cliaddr,&len);
```

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        buffer[n] = '\0';
        printf("Client : %s\n", buffer);
        sendto(sockfd, (const char *)hello, strlen(hello),MSG_CONFIRM, (const
struct sockaddr *) &cliaddr,len);
        printf("Hello message sent.\n");
        return 0;
}
```

```
// Client side implementation of UDP client-server model
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <string.h>
#include <sys/types.h>
#include <sys/socket.h>
#include <arpa/inet.h>
#include <netinet/in.h>

#define PORT     8080
#define MAXLINE 1024

// Driver code
int main() {
        int sockfd;
        char buffer[MAXLINE];
        char *hello = "Hello from client";
        struct sockaddr_in       servaddr;

        // Creating socket file descriptor
        if ( (sockfd = socket(AF_INET, SOCK_DGRAM, 0)) < 0 ) {
                perror("socket creation failed");
                exit(EXIT_FAILURE);
        }

        memset(&servaddr, 0, sizeof(servaddr));

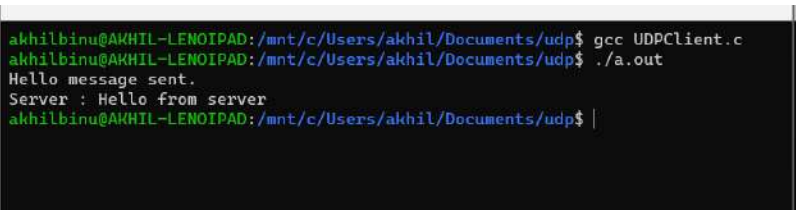
        // Filling server information
        servaddr.sin_family = AF_INET;
        servaddr.sin_port = htons(PORT);
        servaddr.sin_addr.s_addr = INADDR_ANY;

        int n, len;

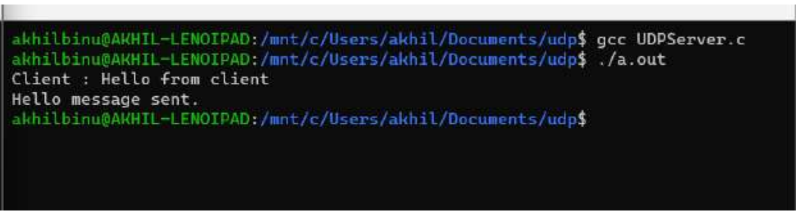
        sendto(sockfd, (const char *)hello, strlen(hello),MSG_CONFIRM, (const
struct sockaddr *) &servaddr,sizeof(servaddr));
        printf("Hello message sent.\n");

        n = recvfrom(sockfd, (char *)buffer, MAXLINE,MSG_WAITALL, (struct sockaddr
*) &servaddr,&len);
        buffer[n] = '\0';
        printf("Server : %s\n", buffer);

        close(sockfd);
        return 0;
}
```



```
akhilbinu@AKHIL-LENOIPAD:/mnt/c/Users/akhil/Documents/udp$ gcc UDPClient.c
akhilbinu@AKHIL-LENOIPAD:/mnt/c/Users/akhil/Documents/udp$ ./a.out
Hello message sent.
Server : Hello from server
akhilbinu@AKHIL-LENOIPAD:/mnt/c/Users/akhil/Documents/udp$
```



```
akhilbinu@AKHIL-LENOIPAD:/mnt/c/Users/akhil/Documents/udp$ gcc UDPServer.c
akhilbinu@AKHIL-LENOIPAD:/mnt/c/Users/akhil/Documents/udp$ ./a.out
Client : Hello from client
Hello message sent.
akhilbinu@AKHIL-LENOIPAD:/mnt/c/Users/akhil/Documents/udp$
```