

UDP OUTPUTS:

client.c :

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// 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,
```

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        &len);
    buffer[n] = '\0';
    printf("Server : %s\n", buffer);
    close(sockfd);
    return 0;
}

```

server.c :

```

// 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);
}

```

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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);

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;
}

```

```

stud_user@stud:~$ cd Desktop
stud_user@stud:~/Desktop$ gcc client.c -o client
stud_user@stud:~/Desktop$ ./client
Hello message sent.
Server : Hello from server
stud_user@stud:~/Desktop$

```

```

stud_user@stud:~$ cd Desktop
stud_user@stud:~/Desktop$ gcc server.c -o server
stud_user@stud:~/Desktop$ ./server
Client : Hello from client
Hello message sent.
stud_user@stud:~/Desktop$

```