

c tcp\_echo\_server.c ×

c tcp\_echo\_client.c

Users > moshika > Desktop > c tcp\_echo\_server.c

```
1 #include <stdio.h>
2 #include <string.h>
3 #include <stdlib.h>
4 #include <unistd.h>
5 #include <arpa/inet.h>
6
7 #define PORT 8080
8
9 int main() {
10     int server_fd, new_socket;
11     char buffer[1024];
12     struct sockaddr_in address;
13     socklen_t addrlen = sizeof(address);
14
15     server_fd = socket(AF_INET, SOCK_STREAM, 0);
16
17     address.sin_family = AF_INET;
18     address.sin_addr.s_addr = INADDR_ANY;
19     address.sin_port = htons(PORT);
20
21     bind(server_fd, (struct sockaddr*)&address, sizeof(address));
22     listen(server_fd, 5);
23
24     printf("TCP Echo Server started...\n");
25
26     while (1) {
27         new_socket = accept(server_fd, (struct sockaddr*)&address, &addrlen);
28         memset(buffer, 0, sizeof(buffer));
29
30         read(new_socket, buffer, 1024);
31         printf("Received: %s\n", buffer);
32
33         send(new_socket, buffer, strlen(buffer), 0);
34
35         close(new_socket);
36     }
37
38     return 0;
39 }
```

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c tcp\_echo\_client.c ●

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```
1 #include <stdio.h>
2 #include <string.h>
3 #include <unistd.h>
4 #include <arpa/inet.h>
5 #include <stdlib.h>
6
7 #define PORT 8080
8
9 int main() {
10     int sock = 0;
11     char message[1024], buffer[1024];
12     struct sockaddr_in serv_addr;
13
14     sock = socket(AF_INET, SOCK_STREAM, 0);
15
16     serv_addr.sin_family = AF_INET;
17     serv_addr.sin_port = htons(PORT);
18     serv_addr.sin_addr.s_addr = inet_addr("127.0.0.1");
19
20     connect(sock, (struct sockaddr*)&serv_addr, sizeof(serv_addr));
21
22     printf("Enter message: ");
23     fgets(message, sizeof(message), stdin);
24
25     send(sock, message, strlen(message), 0);
26
27     memset(buffer, 0, sizeof(buffer));
28     read(sock, buffer, 1024);
29
30     printf("Echo from server: %s\n", buffer);
31
32     close(sock);
33     return 0;
34 }
```



# Desktop — server — 80x24

```
Last login: Sat Dec  6 23:51:52 on ttys000
moshika@Moshikas-MacBook-Air ~ % cd desktop
moshika@Moshikas-MacBook-Air desktop % gcc tcp_echo_server.c -o server
gcc tcp_echo_client.c -o client

moshika@Moshikas-MacBook-Air desktop % ./server

TCP Echo Server started...
Received: Hello world
```

```
Last login: Sat Dec  6 23:57:32 on ttys009
moshika@Moshikas-MacBook-Air ~ % cd desktop
moshika@Moshikas-MacBook-Air desktop % ./client
```

```
Enter message: Hello world
Echo from server: Hello world
```

```
moshika@Moshikas-MacBook-Air desktop %
```