

Users > moshika > Desktop > c chat_server.c

```
1  #include <stdio.h>
2  #include <string.h>
3  #include <unistd.h>
4  #include <arpa/inet.h>
5
6  int main() {
7      int server_fd, client_fd;
8      char buffer[1024];
9      struct sockaddr_in server, client;
10     socklen_t client_len = sizeof(client);
11
12     server_fd = socket(AF_INET, SOCK_STREAM, 0);
13
14     server.sin_family = AF_INET;
15     server.sin_addr.s_addr = INADDR_ANY;
16     server.sin_port = htons(8080);
17
18     bind(server_fd, (struct sockaddr*)&server, sizeof(server));
19     listen(server_fd, 1);
20
21     printf("Chat Server started...\n");
22     printf("Waiting for a client to connect...\n");
23
24     client_fd = accept(server_fd, (struct sockaddr*)&client, &client_len);
25     printf("Client connected!\n");
26
27     // Receive only one message
28     recv(client_fd, buffer, sizeof(buffer), 0);
29     printf("Client: %s\n", buffer);
30
31     // Send one reply
32     char reply[] = "Hello Client, welcome to the chat!";
33     send(client_fd, reply, strlen(reply), 0);
34     printf("Server: %s\n", reply);
35
36     close(client_fd);
37     close(server_fd);
38     return 0;
39 }
```

Users > moshika > Desktop > c chat_client.c

```
1  #include <stdio.h>
2  #include <string.h>
3  #include <unistd.h>
4  #include <arpa/inet.h>
5
6  int main() {
7      int sockfd;
8      char buffer[1024];
9      struct sockaddr_in server;
10
11      sockfd = socket(AF_INET, SOCK_STREAM, 0);
12
13      server.sin_family = AF_INET;
14      server.sin_addr.s_addr = inet_addr("127.0.0.1");
15      server.sin_port = htons(8080);
16
17      connect(sockfd, (struct sockaddr*)&server, sizeof(server));
18      printf("Connected to Chat Server!\n");
19
20      // Send only one message
21      char msg[] = "Hi Server!";
22      send(sockfd, msg, strlen(msg), 0);
23      printf("You: %s\n", msg);
24
25      // Receive only one reply
26      recv(sockfd, buffer, sizeof(buffer), 0);
27      printf("Server: %s\n", buffer);
28
29      close(sockfd);
30      return 0;
31 }
```

```
Last login: Sun Dec  7 00:18:27 on ttys009
[moshika@Moshikas-MacBook-Air ~ % cd desktop
[moshika@Moshikas-MacBook-Air desktop % gcc chat_server.c -o server
[moshika@Moshikas-MacBook-Air desktop % gcc chat_client.c -o client
moshika@Moshikas-MacBook-Air desktop % ./server
```

```
Chat Server started...
Waiting for a client to connect...
Client connected!
Client: Hi Server!
Server: Hello Client, welcome to the chat!
moshika@Moshikas-MacBook-Air desktop % █
```

Last login: Sun Dec 7 00:23:02 on ttys000

[moshika@Moshikas-MacBook-Air ~ % cd desktop

[moshika@Moshikas-MacBook-Air desktop % ./client

Connected to Chat Server!

You: Hi Server!

Server: Hello Client, welcome to the chat!q

moshika@Moshikas-MacBook-Air desktop % █