

c server.c X c client.c

Users > moshika > Desktop > c server.c

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <unistd.h>
5 #include <time.h>
6 #include <arpa/inet.h>
7
8 #define PORT 8080
9
10 int main() {
11     int server_fd, new_socket;
12     struct sockaddr_in address;
13     int addrlen = sizeof(address);
14     char buffer[1024] = {0};
15     time_t now;
16     char *dt;
17
18     server_fd = socket(AF_INET, SOCK_STREAM, 0);
19     if (server_fd < 0) { perror("Socket failed"); exit(1); }
20
21     address.sin_family = AF_INET;
22     address.sin_addr.s_addr = INADDR_ANY;
23     address.sin_port = htons(PORT);
24
25     bind(server_fd, (struct sockaddr*)&address, sizeof(address));
26     listen(server_fd, 3);
27
28     printf("Server running... waiting for client.\n");
29
30     new_socket = accept(server_fd, (struct sockaddr*)&address, (socklen_t*)&addrlen);
31     read(new_socket, buffer, 1024);
32
33     if (strcmp(buffer, "TIME") == 0) {
34         time(&now);
35         dt = ctime(&now);
36         send(new_socket, dt, strlen(dt), 0);
37     }
38
39     close(new_socket);
40     close(server_fd);
41     return 0;
42 }
```

c server.c

c client.c X

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```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4 #include <unistd.h>
5 #include <arpa/inet.h>
6
7 #define PORT 8080
8
9 int main() {
10     int sock = 0;
11     struct sockaddr_in serv_addr;
12     char buffer[1024] = {0};
13
14     sock = socket(AF_INET, SOCK_STREAM, 0);
15     if (sock < 0) {
16         printf("Socket creation error\n");
17         return 1;
18     }
19
20     serv_addr.sin_family = AF_INET;
21     serv_addr.sin_port = htons(PORT);
22
23     if (inet_pton(AF_INET, "127.0.0.1", &serv_addr.sin_addr) <= 0) {
24         printf("Invalid address\n");
25         return 1;
26     }
27
28     if (connect(sock, (struct sockaddr *)&serv_addr, sizeof(serv_addr)) < 0) {
29         printf("Connection failed\n");
30         return 1;
31     }
32
33     send(sock, "TIME", strlen("TIME"), 0);
34
35     read(sock, buffer, 1024);
36     printf("Server Date & Time: %s\n", buffer);
37
38     close(sock);
39
40     return 0;
41 }
```

 Desktop --zsh-- 80x24

```
Last login: Sat Dec  6 23:30:43 on ttys009
moshika@Moshikas-MacBook-Air ~ % cd desktop
moshika@Moshikas-MacBook-Air desktop % gcc server.c -o server

moshika@Moshikas-MacBook-Air desktop % gcc client.c -o client

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

Server running... waiting for client.
moshika@Moshikas-MacBook-Air desktop % █
```

 Desktop — -zsh — 80x24

```
Last login: Sat Dec  6 23:31:53 on ttys000
[moshika@Moshikas-MacBook-Air ~ % cd desktop
[moshika@Moshikas-MacBook-Air desktop % ./client
Server Date & Time: Sat Dec  6 23:33:41 2025

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