

```

1: % Sample Server-Side Code in TCP Sockets Programming:
2:
3: % =====
4:
5: ... ..
6: #include <sys/types.h>
7: #include <sys/socket.h>
8: ... ..
9:
10: ... ..
11: struct sockaddr_in serveraddr, clientaddr;
12: ... ..
13: int sersock, consock;
14: int len = sizeof(clientaddr);
15: char IP_ADDRESS = "129.186.23.166";
16: ... ..
17:
18: ... ..
19:
20: if ( (sersock = socket(PF_INET, SOCK_STREAM, 0)) < 0 ){
21:     perror("socket() error:\n");
22:     exit(1);
23: }
24:
25: ... ..
26: serveraddr.sin_family = PF_INET;
27: serveraddr.sin_port = htons(80);
28: serveraddr.sin_addr.s_addr = inet_addr(IP_ADDRESS);
29: %% OR: serveraddr.sin_addr.s_addr = htonl(INADDR_ANY);
30: ... ..
31:
32: ... ..
33: bind(sersock, (sockaddr *) &serveraddr, sizeof(serveraddr));
34: listen(sersock, 10);
35: ... ..
36:
37: ... ..
38: while(1){
39:     ... ..
40:     consock = accept(sersock, (sockaddr *) &clientaddr, &len);
41:
42:     %% communication between server and client starts here
43:     ... ..
44:     read(consock, ..., ...);
45:     ... ..
46:     write(consock, ..., ...);
47:     ... ..
48:     %% communication between server and client ends here
49:
50:     close(consock);
51: }
52: close(sersock);
53: ... ..
54:
55:
56:

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57: % Sample Client-Side Code in TCP Sockets Programming:
58:
59: % =====
60:
61: ... ..
62: #include <sys/types.h>
63: #include <sys/socket.h>
64: ... ..
65:
66: ... ..
67: struct sockaddr_in remoteaddr;
68: ... ..
69: int clisock;
70: char SERVER_IP = "129.186.23.166";
71: ... ..
72:
73: ... ..
74:
75: if ( (clisock = socket(PF_INET, SOCK_STREAM, 0)) < 0 ){
76:     perror("socket() error:\n");
77:     exit(1);
78: }
79:
80: ... ..
81: remoteaddr.sin_family = PF_INET;
82: remoteaddr.sin_port = htons(80);
83: remoteaddr.sin_addr.s_addr = inet_addr(SERVER_IP);
84: ... ..
85:
86: ... ..
87: connect(clisock, (sockaddr *) &remoteaddr, sizeof(remoteaddr));
88: ... ..
89:
90: %% communication between client and server starts here
91: ... ..
92: read(clisock, ..., ...);
93: ... ..
94: write(clisock, ..., ...);
95: ... ..
96: %% communication between client and server ends here
97:
98: close(clisock);
99: ... ..
100:

```