

```

1  #include <iostream>
2  #include <winsock2.h>
3  #include <WS2tcpip.h>
4
5  bool esOpcion(std::string buffer);
6
7  int main() {
8      std::string ip;
9      int puerto;
10
11     std::cout << "Ingrese la dirección IP del servidor: ";
12     std::cin >> ip;
13     std::cout << "Ingrese el puerto del servidor: ";
14     std::cin >> puerto;
15     std::cin.ignore();
16
17     WSADATA wsData;
18     if (WSAStartup(MAKEWORD(2, 2), &wsData) != 0) {
19         std::cerr << "Error al inicializar Winsock" << std::endl;
20         return -1;
21     }
22
23     SOCKET clientSocket = socket(AF_INET, SOCK_STREAM, 0);
24     if (clientSocket == INVALID_SOCKET) {
25         std::cerr << "Error al crear el socket del cliente" << std::endl;
26         WSACleanup();
27         return -1;
28     }
29
30     sockaddr_in serverAddr;
31     serverAddr.sin_family = AF_INET;
32     serverAddr.sin_port = htons(puerto);
33     serverAddr.sin_addr.s_addr = inet_addr(ip.c_str());
34
35     if (connect(clientSocket, (sockaddr*)&serverAddr, sizeof(serverAddr)) ==
36     SOCKET_ERROR) {
37         std::cerr << "Error al conectar al servidor" << std::endl;
38         closesocket(clientSocket);
39         WSACleanup();
40         return -1;
41     }
42
43     std::cout << "Conectado al servidor! Ingrese Usuario|Contraseña" << std::endl;
44
45     char buffer[1024];
46     std::string rolUsuario;
47     bool menuMode = false;
48     int contador = 0;
49     while (true) {
50         std::cout << "Cliente: ";
51         std::cin.getline(buffer, sizeof(buffer));
52         send(clientSocket, buffer, strlen(buffer), 0);
53         std::string opcion = buffer;
54         if (contador > 0 && !esOpcion(opcion) && buffer[0] != '$'){
55             system("cls");
56         }
57         memset(buffer, 0, sizeof(buffer));
58         int bytesReceived = recv(clientSocket, buffer, sizeof(buffer), 0);
59         if (opcion == "b" && buffer[0] == 'N') {
60             system("cls");
61         }
62         if (bytesReceived == SOCKET_ERROR) {
63             std::cerr << "Error al recibir datos del servidor" << std::endl;
64             break;
65         } else if (bytesReceived == 0) {
66             std::cout << "Servidor desconectado" << std::endl;

```

```
66         break;
67     }
68     std::cout << "Servidor: " << buffer << std::endl;
69     contador++;
70 }
71
72
73 closesocket(clientSocket);
74 WSACleanup();
75
76 return 0;
77 }
78
79 bool esOpcion(std::string buffer){
80     bool retorno = false;
81     if(buffer == "1" || buffer == "2" || buffer == "3" || buffer == "4" ||
82 "a" || buffer == "b"){
83         retorno = true;
84     }
85     return retorno;
86 }
```