

## 26. Implementation of date and time display from client to server using TCP sockets in java/C.

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <winsock2.h>
#include <ws2tcpip.h>

#pragma comment(lib, "ws2_32.lib") // Link Winsock library

#define PORT 8080
#define BUFFER_SIZE 1024

int main() {
    WSADATA wsa;
    SOCKET sock;
    struct sockaddr_in server_address;
    char buffer[BUFFER_SIZE] = {0};

    // Initialize Winsock
    if (WSAStartup(MAKEWORD(2, 2), &wsa) != 0) {
        printf("WSAStartup failed. Error Code: %d\n", WSAGetLastError());
        return 1;
    }

    // Create socket
    if ((sock = socket(AF_INET, SOCK_STREAM, 0)) == INVALID_SOCKET) {
        printf("Socket creation error. Error Code: %d\n", WSAGetLastError());
        return 1;
    }

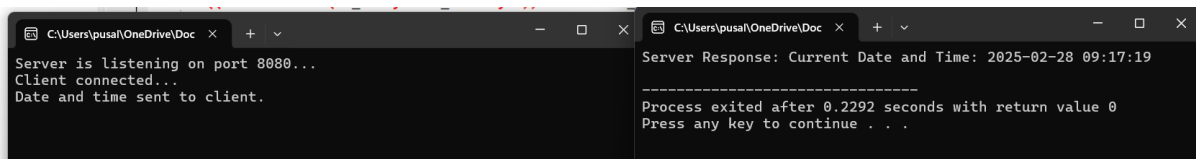
    // Configure server address
    server_address.sin_family = AF_INET;
    server_address.sin_port = htons(PORT);
    server_address.sin_addr.s_addr = inet_addr("127.0.0.1");

    // Connect to server
    if (connect(sock, (struct sockaddr*)&server_address, sizeof(server_address)) == SOCKET_ERROR) {
        printf("Connection failed. Error Code: %d\n", WSAGetLastError());
        return 1;
    }

    // Receive data from server
    recv(sock, buffer, BUFFER_SIZE, 0);
    printf("Server Response: %s\n", buffer);

    closesocket(sock);
    WSACleanup();
}
```

```
    return 0;  
}
```



The image shows two side-by-side terminal windows. The left window displays the server's output: 'Server is listening on port 8080...', 'Client connected...', and 'Date and time sent to client.'. The right window displays the client's output: 'Server Response: Current Date and Time: 2025-02-28 09:17:19', followed by a separator line, and then 'Process exited after 0.2292 seconds with return value 0' and 'Press any key to continue . . .'. Both windows have a title bar indicating the file path 'C:\Users\pusal\OneDrive\Doc'.

```
C:\Users\pusal\OneDrive\Doc x + v - □ × Server is listening on port 8080... Client connected... Date and time sent to client.  
C:\Users\pusal\OneDrive\Doc x + v - □ × Server Response: Current Date and Time: 2025-02-28 09:17:19  
-----  
Process exited after 0.2292 seconds with return value 0  
Press any key to continue . . .
```