

Due Date:	11th January 2025
Topics covered:	Winsock programming template and environment self-checking
Deliverable:	Moodle submission: screenshot of whole desktop after the program execution. Naming convention: CS260_A0_Name.png

## 1 Template Introduction

The provided template design (`server_template.cpp` and `client_template.cpp` in `src.zip`) demonstrate how to establish a connection between a server and a client by WinSock programming.

When a port ID is specified on the server program, while the server IP address and the specified server port ID are input on the client program, a connection would be established.

## 2 Execution Procedures

1. Unzip the provided design, i.e., `src.zip`, and you should be able to find `server_template.cpp` and `client_template.cpp` C++ files.
2. Create a new project [named as `Server_Project`] by Microsoft Visual Studio or other Windows based C++ compilers for the server.

Note:

- Project type: Empty Project.
  - Do not create the project directly on your Windows Desktop.
3. Include the provided `server_template.cpp` into the project
  4. Build the `Server_Project`
  5. Create a new project [named as `Client_Project`] by Microsoft Visual Studio or other Windows based C++ compilers for the client.
  6. Include the provided `client_template.cpp` into the project
  7. Build the `Client_Project`
  8. Check your Server program execution computer's IP address and available ports:
    - (a) Open **Command Prompt** on your computer which runs the `Server_Project`
    - (b) Type `ipconfig` in **Command Prompt** to find the server's IP address
    - (c) Type `netstat` in **Command Prompt** to find occupied port IDs
  9. Execute the `Server_Project`, and type a port ID which hasn't been occupied

10. Execute the `Client_Project`, and type the server's ID and the port ID specified on the server
11. Observe the print out on the two execution terminal windows, and screenshot the whole desktop.
12. Press 'Enter' on the both server and client sides to quit.

### **3 Submission Requirements**

1. Screenshot the both terminal windows from the `Server_Project` and from the `Client_Project` with the whole desktop (and the computer time should be visible).
2. Save the screenshot as PNG format and name as `CS260_A0_Name.png`
3. Submit to Moodle.