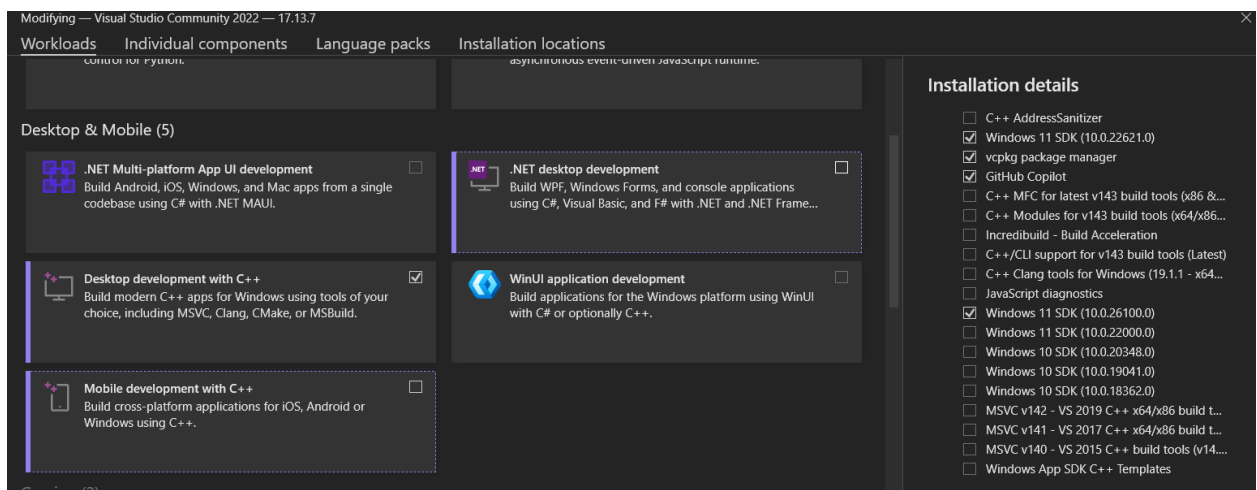
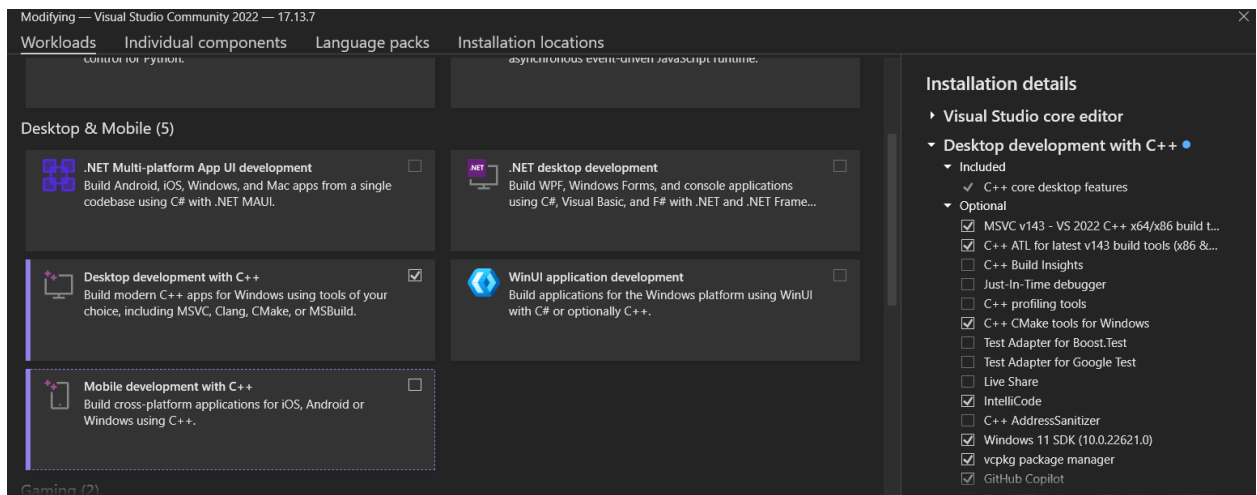


RSSOs Project Setup and Installation Guide (Windows)

This guide provides step-by-step instructions to set up, build, and run the RSSOs project in Visual Studio 2022. The project is written in C++14 and uses the Windows Sockets API (Winsock) for networking.

Prerequisites

- **Visual Studio 2022** (with Desktop development with C++ workload)
- **Windows 11 SDK** (should be installed with Visual Studio)
- **C++14** support (enabled by default in Visual Studio 2022)



Project Structure

- `server.c` — Main server source file

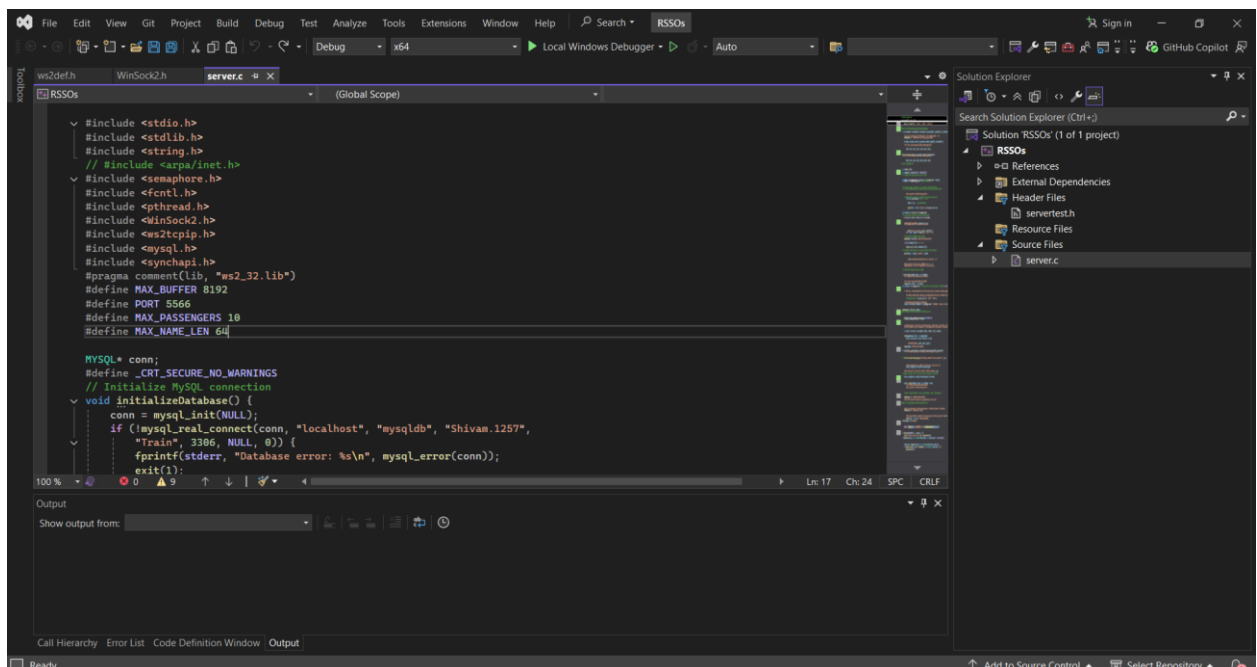
Installation and Setup

1. Clone or Download the Project

Clone the repository or copy the project files to your local machine or create a new project and add item `server.c`.

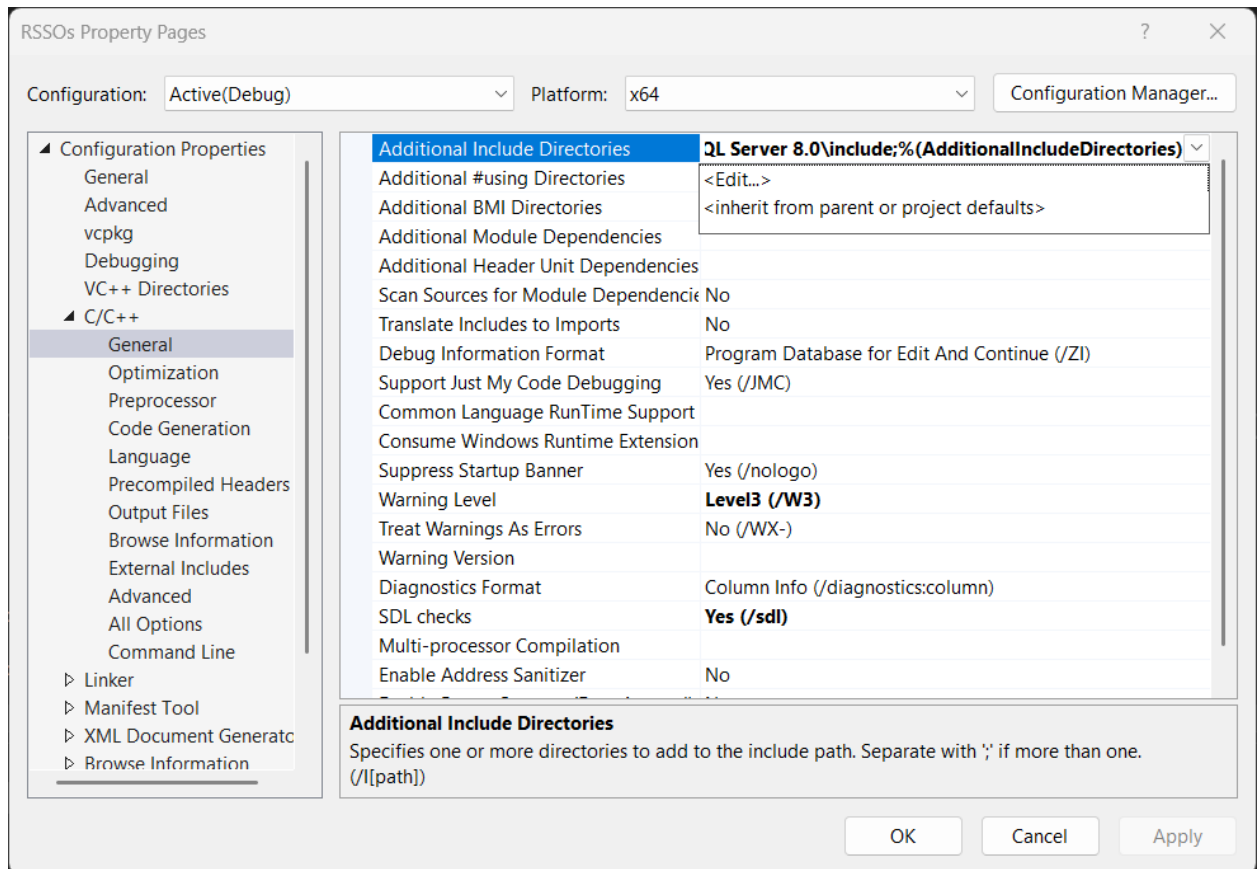
2. Open the Project in Visual Studio

1. Launch Visual Studio 2022.
2. Open the solution or project file (`RSSOs.vcxproj`).

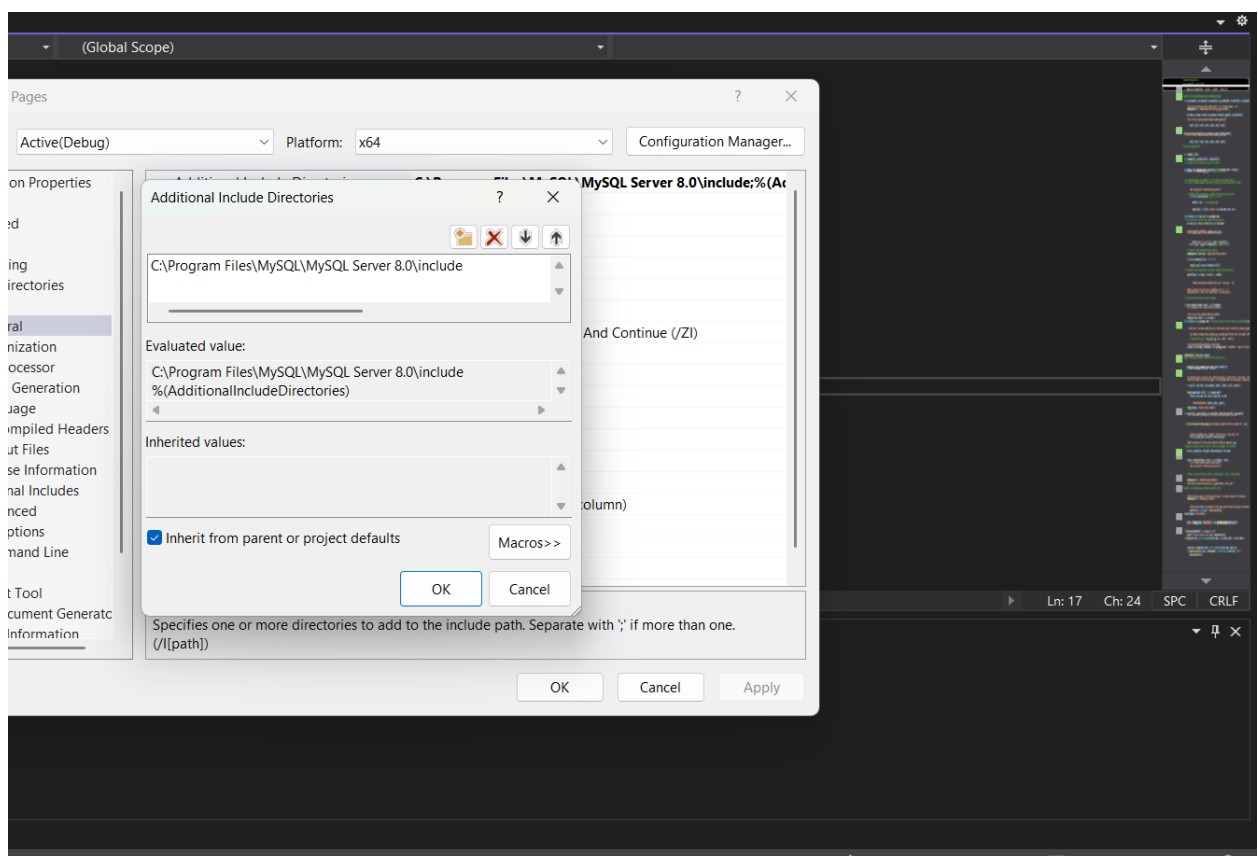


2. Including libraries.

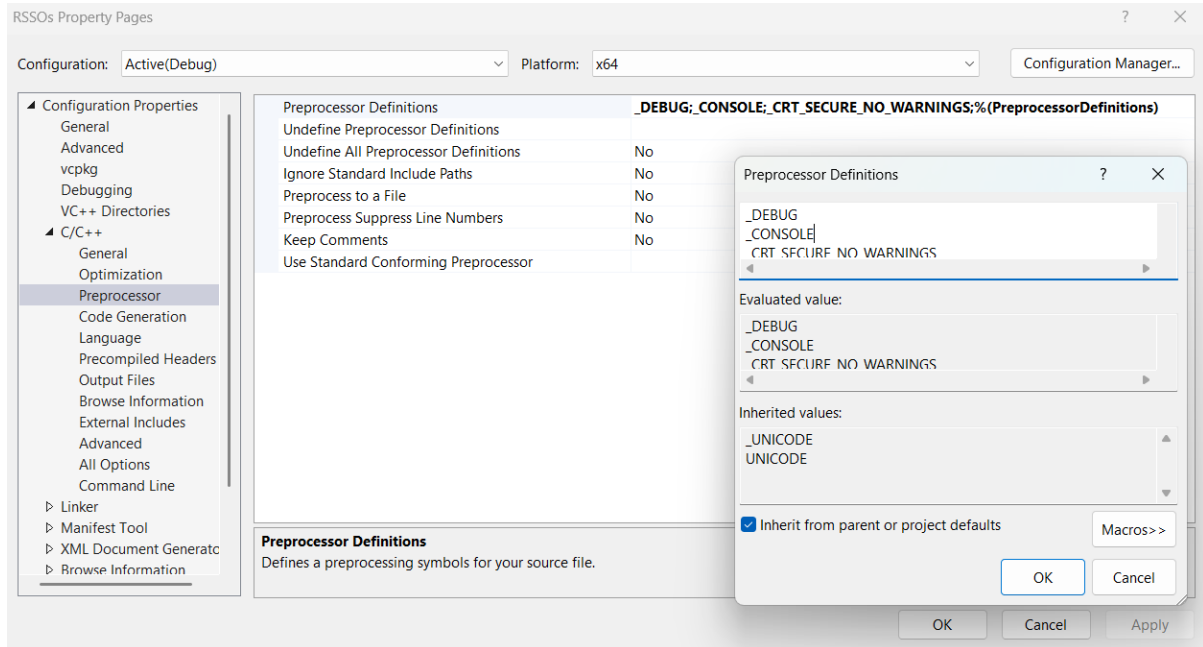
- Click on Project – RSSOs properties – Choose Configuration Active (Debug) and Platform x64 – In C/C++ General – in Additional Include Directories



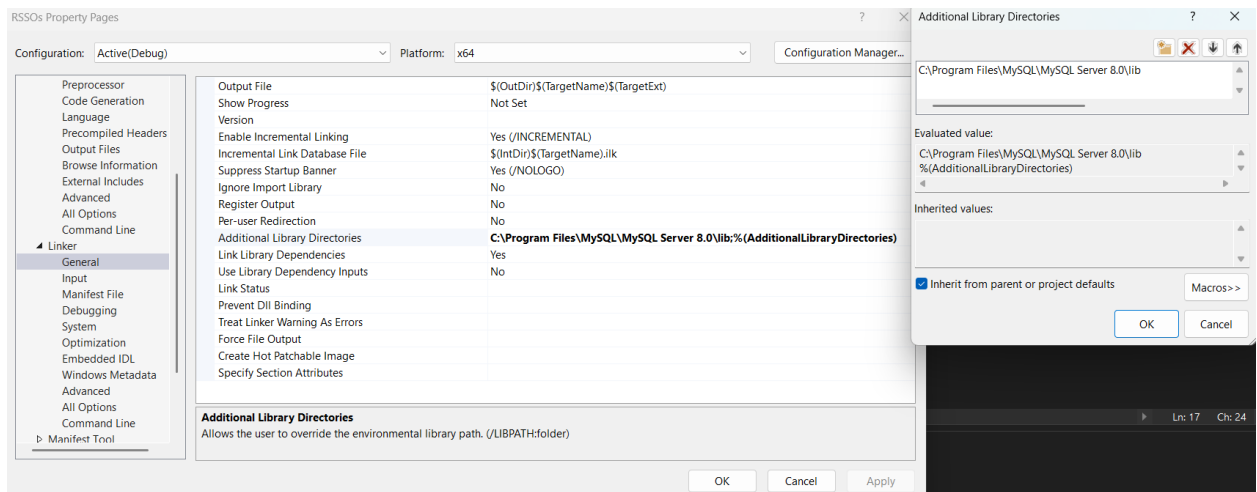
- Browse the path where MYSQL server is located and add the path of it's include folder



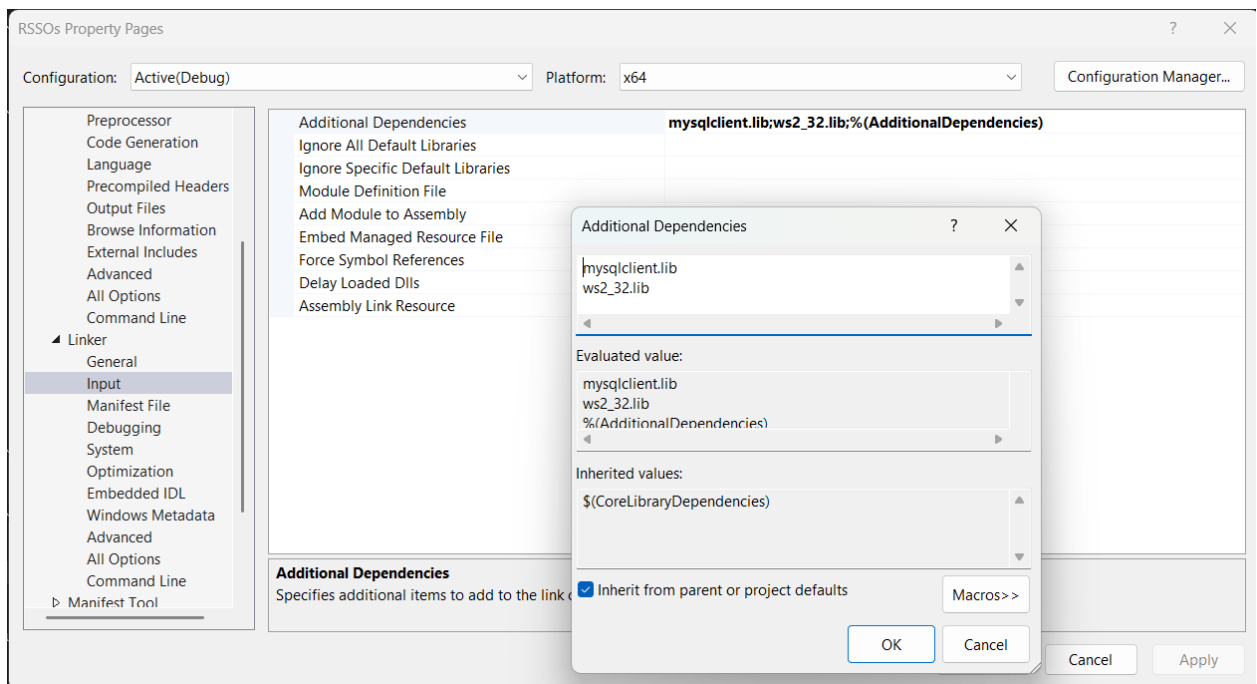
- Write this preprocessor directive in Preprocessor Definitions
_DEBUG _CONSOLE _CRT_SECURE_NO_WARNINGS



- In linker General - add the path to MYSQL Server 8.0\lib



- In Linker input – in additional dependencies – write as shown

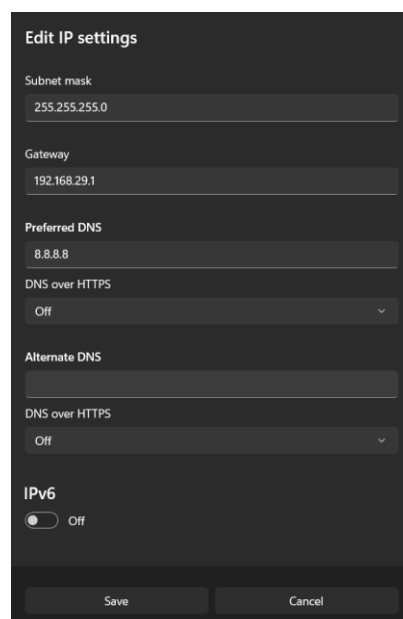
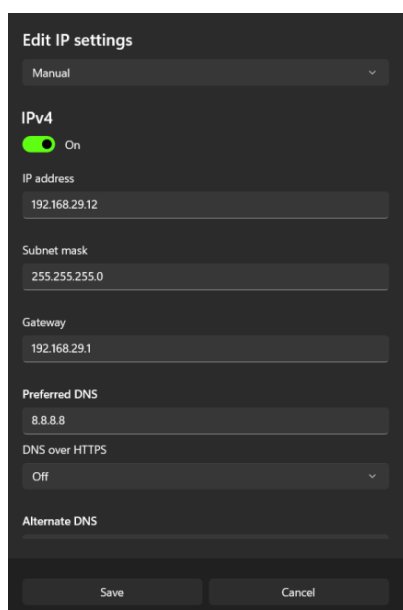


- No need to install MSVC in client machine only requires Mingw.

Now Setting up the WIFI LAN to communicate between two machines.

- First ensure that both machines connected to the same WIFI, then on both machine – go to that WIFI settings/properties - properties or change ip settings for all networks – edit - then

In machine running server side:



In machine running client program:

Edit network IP settings

Manual

IPv4

On

IP address

192.168.29.13

Subnet mask

255.255.255.0

Gateway

192.168.29.1

Preferred DNS

8.8.8.8

DNS over HTTPS

Off

Alternate DNS

Save Cancel

Edit network IP settings

Manual

IPv4

On

IP address

192.168.29.13

Subnet mask

255.255.255.0

Gateway

192.168.29.1

Preferred DNS

8.8.8.8

DNS over HTTPS

Off

Alternate DNS

Save Cancel

Now running the program.

- First start the MYSQL server.

```
svsk@ShivamShubham:/mnt/c/Users/shiva$ mysql -u mysql -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.41-0ubuntu0.22.04.1 (Ubuntu)

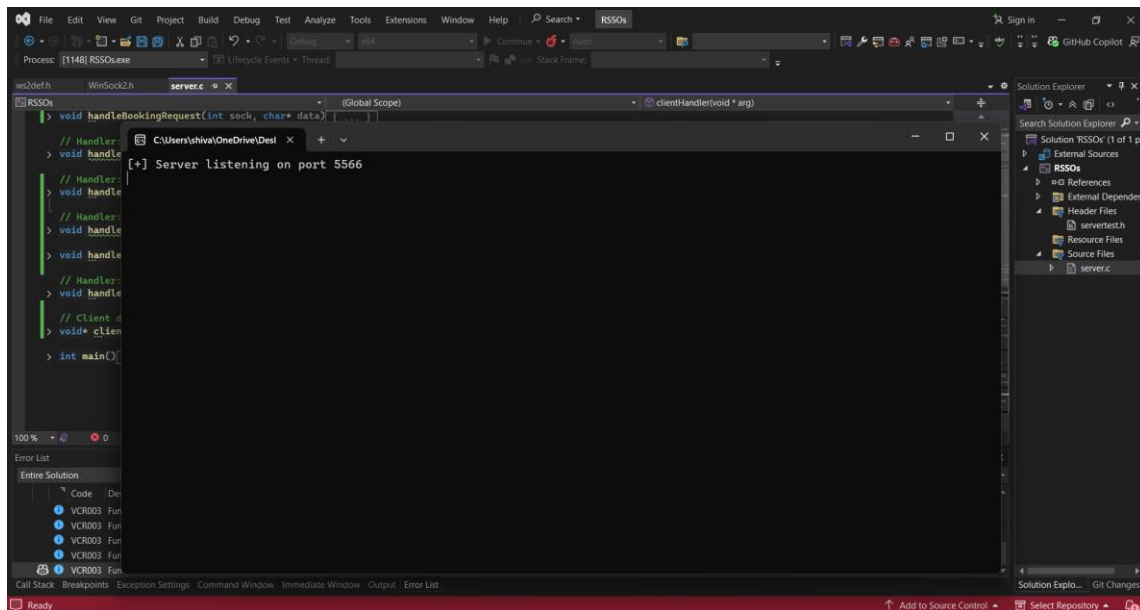
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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> |
```

- in Visual Studio, click on Local Windows Debuggers – click yes if asked would like to build it?



- Run the client program in another machine connected to the same WIFI to which server is connected to.
- Compile and run using (in cmd)

```
g++ client.cpp -o client -lws2_32 -lpthread
./client
```

```

===== Railway Reservation System =====
1. Register
2. Login
3. Exit
Enter choice: |

```

- To install ws2_32 and pthread libraries (for windows) – open mingw installation manager – select posix thread for win32 and mingw-w32api as shown – installation – apply changes.

