

c++ Stock application

USER MANUAL



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**Requirement**

* MinGW (mingw32/mingw64): MinGW is a development environment for Windows that includes compilers, libraries, and other tools needed for building applications.
* Visual Studio Code (VSCode) or any other IDE: An integrated development environment can help users view the code in more efficient ways.
* Windows Command Prompt (cmd) or Unix Command Line: Users need a command line interface to run executable files and execute commands.

**Compilation**

**Example for server.cpp:** g++ server.cpp -o server -lws2\_32

**Example for client.cpp:** g++ client.cpp -o client -lws2\_32

***Format:*** *g++ <c++ source code> -o <exe name> -lws2\_32*

**Steps Before Going into the Application:**

**1. Run the Server Application (server.exe):**

Open a command prompt (Windows cmd or Unix shell).

Navigate to the directory where the server.exe file is located using the cd command.

Execute the server.exe file by entering its name and pressing Enter. For example:

**cd path\to\server\directory**

**server**

**2. Run the Client Application (client.exe):**

Open another command prompt (if necessary).

Navigate to the directory where the client.exe file is located using the cd command.

Execute the client.exe file by entering its name and pressing Enter. For example:

**cd path\to\client\directory**

**client**

**Step 1 - User Authentication:**

* When users launch the application, they are prompted to enter their username.
* Username will display use for buy/selling pending stocks in option 4.

**Step 2 - Main Menu Selection:**

After entering their username, users are presented with a main menu containing various options:

|  |  |
| --- | --- |
| **Action** | **Description** |
| 1. View Stock | Users can select this option to see a list of stocks that are currently available in the market. The application displays stock names, prices, and quantities. |
| 1. Sell Stock | This option allows users to sell stocks from their portfolio. Users will specify the stock to sell, the quantity, and other relevant details. |
| 1. Buy Stock | Users can choose this option to purchase stocks. They will provide the stock name, quantity, and other purchase details. |
| 1. View Pending List | User can view all the current pending buy or sell stocks |
| 1. View Holding Inventory | Selecting this option lets users view their current portfolio of stocks, including the stock names, quantities, and their overall value. |
| Quit | Users can choose this option to exit the application and return to the main login screen or close the application entirely. |

**Step 3.1 – View Availability Stock**

* Users will be presented with the stock's symbol, name, volume, and price as part of the information shown on the screen.

**Step 3.2 – Sell/Buy Stock**

* Users are prompted to specify the stock symbol they wish to sell or buy, along with the desired quantity and price.
* If the provided stock symbol is incorrect or not available, the server will reject the request.
* When a user's stock symbol matches a pending order on the server, the server will notify the user with messages such as "SELL: ALL Stock sold" or "Buy: ALL Stock purchased.

**Step 3.3 - View Pending List**

* The program will send a request to the server to iterate through the buy and sell pending lists, and subsequently, the server will send the results back to the client window.

**Step 3.4 – View Holding Inventory**

* Users can view they purchased or sold stock in the inventory.

**Step 3.5**

* Exit from the program.