**Stock Trading System**

**Contributors**

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**Introduction**

This project is written in **C++** and is designed to work on **Linux, macOS, and Windows**. It implements a stock trading system using a **client-server** model with local **SQLite** database integration.

**Setup Instructions**

**1. Clone the Repository**

git clone https://github.com/Landon7676/StockTradingSystem.git

cd StockTradingSystem

**2. Compile the Project**

You can compile the project using **Makefile** or manually.

**Using Makefile**

To compile both the **server** and **client**, simply run:

make

This will compile the SQLite object file and both the server and client programs.

**Manual Compilation**

If you prefer manual compilation, follow these steps:

**Compile SQLite separately**

gcc -c sqlite3.c -o sqlite3.o -lpthread -ldl

**Compile the Server**

g++ -o server server.cpp database.cpp sqlite3.o -lpthread -ldl

**Compile the Client**

g++ -o client client.cpp

**3. Run the Server**

./server

**4. Run the Client**

./client localhost

Replace localhost with the **server IP** if running on a separate machine.

**5. Clean Up**

To remove compiled files, use:

**Cleanup**

rm -f server client sqlite3.o

**Student Roles**

**Jackson Harwick**

* Implemented **BUY**, **SELL**, **SHUTDOWN**, and **QUIT** commands.
* Wrote the **README** file.
* Integrated these commands into both the **client** and **server**.

**Landon Johnson**

* Developed initial **client.cpp** and **server.cpp** files.
* Implemented **LIST** and **BALANCE** commands.
* Integrated these commands into the **client** and **server**.

**Bugs**

* Header file behaves as if it is not included but still functions when explicitly included.

**Demo**

* https://youtu.be/x7-BhXH6xHs