

Introduction

Over the past couple of years I have begun trading stocks online. I use Scottrade and have found that it works very well most of the time. However, it does not give me the ability to place an order to sell at a certain price and then as soon as it does immediately turn around and purchase something else for me or put in an order to have it buy at a certain price. In order to do this I have to be near my computer constantly checking to see if one sold so I would have enough cash to purchase the other. Because of this, I came up with a spreadsheet that would place an order to sell a stock and then watch for it to sell. Once it was sold it would go ahead and place an order to purchase a different stock that I wanted. This would allow me to get up and leave it running and do something else.

The program ends by adding what was bought and sold to a table with the stock purchased/sold, date, number of shares, price, and total cost or proceeds. This program also allows the user to set limit orders to only buy or sell.

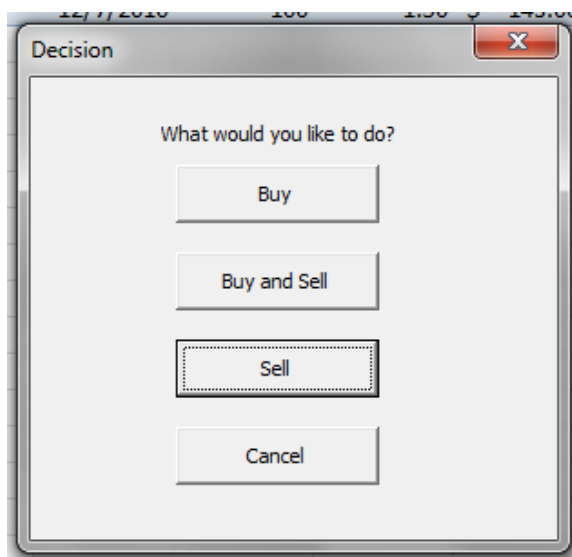
Project description

When the user opens up the document there are two tables. One contains a list of stocks purchased with dates, number of shares, prices, and total amount paid (including the cost of buying). The other table contains a list of stocks sold with the same information. There is also a button that says "Buy and Sell Form".

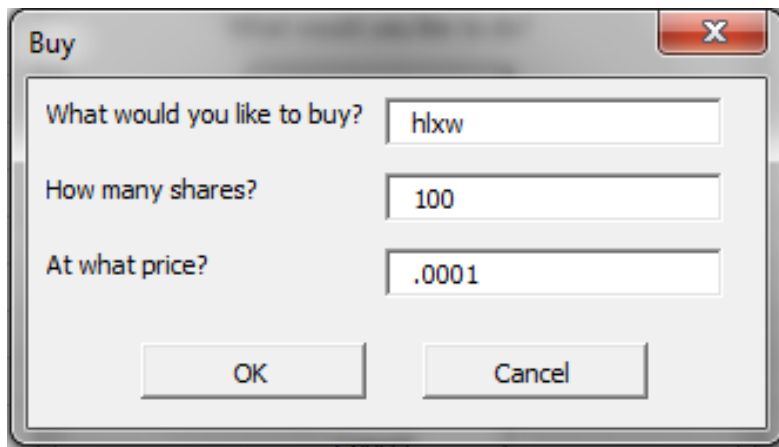
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Bought	Date	Shares	Price	Total		Sold	Date	Shares	Price	Total				
2	hlxw	12/7/2010	100	1E-04	\$ 7.01		siri	12/7/2010	100	1.50	\$ 143.00				
3															
4															
5															
6															

Buy and Sell Form

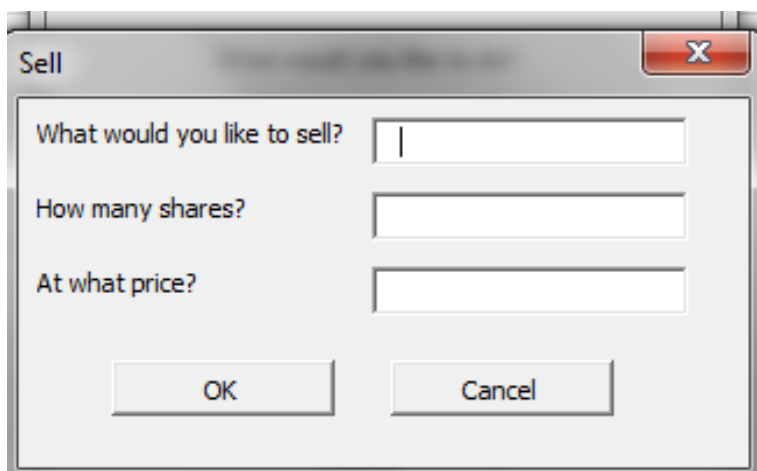
Clicking this button will take the user to a message box that allows the user to choose what they want to do. They can choose to buy stock, sell stock, or buy and sell stock.



By clicking on any one of these buttons the user is taken to a form depending on what button they click. If they click on the buy button they are taken to a form that asks which stock they would like to buy, the number of shares, and the price they would like to purchase at.

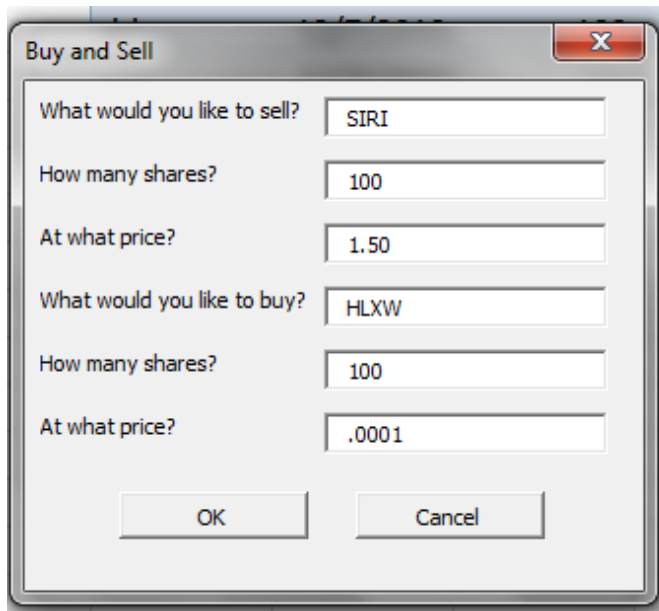
A screenshot of a 'Buy' dialog box. The title bar says 'Buy' and has a red close button with an 'X'. The dialog contains three text input fields: 'What would you like to buy?' with the text 'hlxw', 'How many shares?' with the text '100', and 'At what price?' with the text '.0001'. At the bottom are two buttons: 'OK' and 'Cancel'.

Clicking the sell button will take them to a form very similar to the buy button but one that asks what they would like to sell.

A screenshot of a 'Sell' dialog box. The title bar says 'Sell' and has a red close button with an 'X'. The dialog contains three text input fields: 'What would you like to sell?' which is empty, 'How many shares?' which is empty, and 'At what price?' which is empty. At the bottom are two buttons: 'OK' and 'Cancel'.

Clicking on the “Buy and Sell” button takes them to a form that combines the two boxes. It allows them to input what they want to sell, number of shares and price as well as that of what they want to buy. This allows the user to completely walk away and not have to worry about inputting the data once the sell order has completed.

The cancel button on each form allows the user to terminate the process at any time.



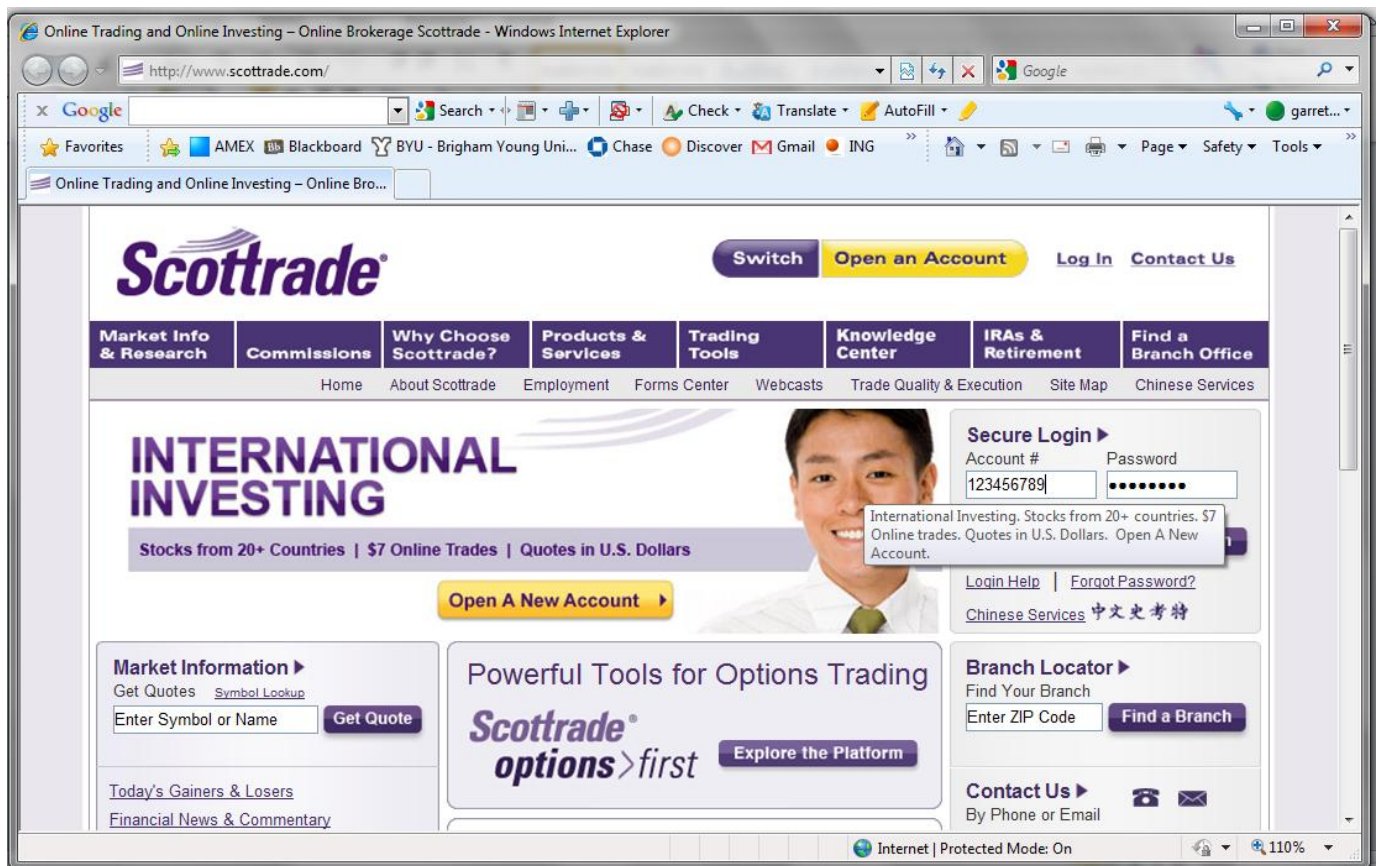
A dialog box titled "Buy and Sell" with a close button (X) in the top right corner. It contains two sections for entering trade details. The first section is for selling SURI stock: "What would you like to sell?" (SURI), "How many shares?" (100), and "At what price?" (1.50). The second section is for buying HLXW stock: "What would you like to buy?" (HLXW), "How many shares?" (100), and "At what price?" (.0001). At the bottom are "OK" and "Cancel" buttons.

What would you like to sell?	SURI
How many shares?	100
At what price?	1.50
What would you like to buy?	HLXW
How many shares?	100
At what price?	.0001

OK Cancel

The Buying Process

When the user decides to buy and finishes filling out the form he clicks "OK". This then begins the process to buy a stock. The form then begins to log into Scottrade.com using the username and password in the code.



A screenshot of the Scottrade website in a Windows Internet Explorer browser. The address bar shows "http://www.scottrade.com/". The page features the Scottrade logo, navigation links (Switch, Open an Account, Log In, Contact Us), and a menu with categories like Market Info & Research, Commissions, Why Choose Scottrade?, Products & Services, Trading Tools, Knowledge Center, IRAs & Retirement, and Find a Branch Office. The main banner promotes "INTERNATIONAL INVESTING" with text: "Stocks from 20+ Countries | \$7 Online Trades | Quotes in U.S. Dollars". A "Secure Login" section includes fields for Account # (123456789) and Password (*****). A "Branch Locator" section has a "Find Your Branch" link and a "Find a Branch" button. The footer shows "Internet | Protected Mode: On" and a zoom level of 110%.

Online Trading and Online Investing – Online Brokerage Scottrade - Windows Internet Explorer

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INTERNATIONAL INVESTING

Stocks from 20+ Countries | \$7 Online Trades | Quotes in U.S. Dollars

Open A New Account

Secure Login

Account # Password

123456789 *****

International Investing. Stocks from 20+ countries. \$7 Online trades. Quotes in U.S. Dollars. Open A New Account.

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By Phone or Email

Internet | Protected Mode: On 110%

If the user requests to buy more stock then they have money to purchase they will receive a message telling them to order something different or purchase fewer shares. The code then pulls up a window and fills out the appropriate lines with information taken from the form. It also marks the “buy/sell” line as buy and then clicks the “Review Order” button and finally submits the order.

Scottrade - Stock Order Entry - Windows Internet Explorer

https://trading.scottrade.com/trade/StockOrderEntry.aspx

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Hello, GARRETT STEPHEN WILLIAMS

Stock Order Entry

Buy/Sell: Buy [Calculator](#)

Shares: 100 ☐ AON

Symbol: hlxw [Find Symbol](#)

Order Type: Limit

Limit Price: \$0.0001

Duration: Today (Good until 4:00 PM ET)

[Review Order](#)

Account Balance Summary

Total Account Value:	\$4,634.26
Total Funds Avail. for Trading:	\$6.45
Settled Funds Avail. for Trading:	\$6.45
Restricted Funds*:	\$0.00

[Open Orders](#) [Positions](#) [Alerts](#)

Advanced Help: Stocks & ETFs

- What is a trailing stop
- Stop and Stop Limit Order Requirements
- Good until Cancelled Order Cancellation Schedule
- Selecting an order type

Quick Quote:

Symbol or Name [Go](#)

[Find Symbol](#)

[Build Option Symbol](#)

DJIA	11,370.06	-2.42
NASDAQ	2,616.67	7.51
S&P 500	1,233.00	4.72

Done

Internet | Protected Mode: On

Scottrade - Stock Order Entry - Windows Internet Explorer

https://trading.scottrade.com/trade/StockOrderEntry.aspx

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Hello, GARRETT STEPHEN WILLIAMS

Stock Order Review

Buy 100 Shares of HLXW (HELIX WIND CORPORATION) at Limit Price of \$0.0001. Duration of order is Today (Good until 4:00 PM ET).

HELIX WIND CORPORATION

Price	*Change	% Change	Bid	Ask	B/A Size	Open
0.001	-0.0002	-16.67%	0.001	0.0011	5000x5000	0.0013

* Calculations (Change and % Change) based on previous day's close

Estimated Commission: \$7.0001

Estimated Order Cost: \$7.0101

[Place Order](#) [Change Order](#) [Cancel Order](#)

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[Open Orders](#) [Positions](#) [Alerts](#)

Advanced Help: Stocks & ETFs

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Quick Quote:

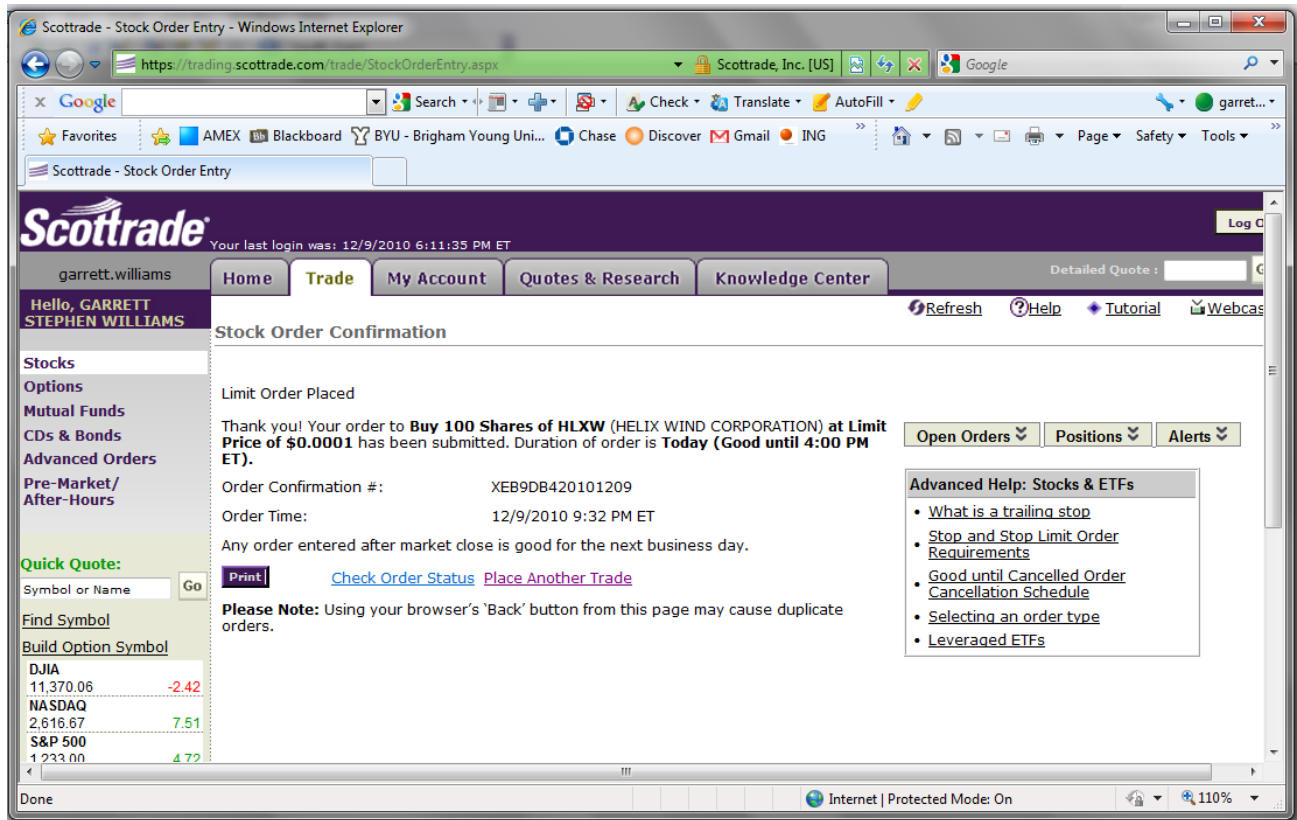
Symbol or Name [Go](#)

[Find Symbol](#)

[Build Option Symbol](#)

DJIA	11,370.06	-2.42
NASDAQ	2,616.67	7.51
S&P 500	1,233.00	4.72

Internet | Protected Mode: On



Once the program has finished submitting the order it goes to the “Bought” table on the opening worksheet and inputs the information onto the table. The sub procedure goes to cell A1 and begins to look for the first empty cell. Once it finds this cell it inputs the stock bought and then offsets once column and puts in the current date. It then offsets one column each for the number of shares and price. The next column over multiplies the number of shares and price and then adds the price of buying to get the total amount paid.

When selling a stock the program goes through the exact same process but does everything necessary to sell a stock. If the user attempts to sell a stock they do not own they will get an error message requesting them to sell a different stock.

The program then closes out the Internet Explorer window (it is visible the whole time) and clears all of the forms of any information put into them.

Buy and Sell Process

After the user fills out the form telling the program what to sell and buy the program goes through the same sell process as previously outlined. When it finishes the sell process it goes into the users email account and downloads it to Excel in a different sheet. The program then checks the email to see if an email from Scottrade has arrived to informing the user that the stocks have been sold. If the email from Scottrade has not yet arrived the program loops the process of downloading the email and checking it until it has found the email.

Conclusion

The biggest difficulty I faced was getting the program to check my email for the email from Scottrade saying the order had been completed. This was because of the way Gmail is configured in the advanced settings. When I had Excel go into the basic version of Gmail, it brought everything back very well.

Other difficulties included executing Javascript and setting up the loop for the email check.

Possible opportunities for expansion include setting up the program to buy options as well. Another opportunity could be to set certain parameters for when to buy and sell stocks. The program could then be constantly downloading information on stocks and checking them against those parameters. When one is met on a stock the program could then go in and purchase it without having the user tell it to do so. Parameters could also be set for when to sell stock (after a certain overall percentage gain, when it goes up by a certain amount in one day, etc).