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Stock Market Simulation

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Abstract

The objective of this Interactive Qualifying Project was to use stock market simulation as a tool to compare the effectiveness of different trading strategies and get experiences in stock investments. A 5-week stock market simulation was performed with 4 different trading strategies: Swing trading, Position trading, Day trading, and a combination of Momentum and Position trading. Each strategy used \$100,000 cash without any limitations for trading. The returns of the four strategies are as follows: 10.23% for Swing strategy, 6.508% for Position Trading, 26.9% for Day Trading, and 5.33% for Momentum and Position trading. This project provided participants with a real hands-on experience of how the stock market trading and investing works.

Acknowledgments

For the success of this Interactive Qualifying Project (IQP), we would like to thank our professor Dalin Tang, for sharing his knowledge and experience with us and guiding us towards a successful result. In addition, we would like to thank each other for the cooperation and the work each of us put in. Finally, we would like to thank our school, Worcester Polytechnic Institute (WPI) for giving us the opportunity to part to this project.

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Chapter 1: Introduction

During this IQP we are going to familiarize ourselves with the stock market and learn how to efficiently trade stocks to become a sufficient investor. The project will consist of a brief history of the stock market, as well as the different companies and indices. Each of the group members will run their own simulation, using Investopedia Simulator, and follow their own investment strategy. The strategies that will be used are: Swing trading, Position trading, Momentum trading, and Day trading. Each simulation will have the initial balance of \$100,000.00. The simulation will run for 5 weeks, where data will be collected from each member and described in a weekly report. After the simulation period is over, we will analyze our results and compare them to each other and determine which strategy was more profitable. At the end of this project, we hope we will be able to provide a useful insight to stock trading and also gain the tools necessary to become successful investors in the future.

1.1 History of The Stock Market (Nikolas K)

The first stock market was created in Antwerp, Belgium in the late 1400s. To this first version of the stock market wasn't actually the exchange material, but the infrastructure and institutions are similar to today's stock market. The markets were dealing with the affairs of government, businesses, and individual debt and they would trade promissory notes and bonds.

The first publicly traded company was East India Company. The exchange was based on the risk of the sea voyages. When the East Indies were firstly discovered they came to be a place of riches and trade opportunities. Therefore, many voyages were made to recover such riches but only few of them were successfully came back. Pirates, dangerous weather, and poor navigation were some of the factors that deemed some of those voyages a failure and increased the risks. Investors realized that investing on a single trip was a huge risk as the chances of the ship returning

were really slim, thus by investing on a company and multiple voyages, they would still get a profit even if a ship or two were lost. This tactic seemed to be a success and within the decade other businesses throughout Europe had been granted similar charters.

The first early stocks were actually handwritten on sheets of paper. There was not a place, a stock market, for these deals to happen and reportedly investors were meeting in coffee shops to discuss and make trades. In other words, we can say that coffee shops were the first stock markets, before someone realized that business would be more efficient in a dedicated marketplace.

In 1801 the London Stock Exchange (LSE) was officially formed. The exchange was extremely limited due to companies not allowed to issue shares until 1825. 16 years later, in 1817, the New York Stock Exchange (NYSE) was created. Unlike the LSE, NYSE had traded stocks since the first day and that's what made it a global superpower. The LSE was the main stock market for Europe and NYSE for America but also the world.

Today, every country has its own stock market with most of them emerging in the 19th and 2nd centuries, after the LSE and NYSE. Stock markets have great importance in today's global economy, with trillions of dollars been traded in the stock markets every day.

1.2 Stock Market Index (Joan M)

Stock market indexes around the world are very good indicators for global and country-specific economies. There are different ways in categorizing the indices and this categorization is based on geographical region or industrialization. A wider stock index are global stock indexes which include stock from multiple regions, while a regional market index includes stocks only from companies specific region. Some global indices are MSCI world, S&P Global 100, and BBC Global 30 and some regional market indices are S&P 500 for US, British FTSE 100, and Japanese Nikkei 225.

Living in the US and being familiar with the companies that operate in North America we will focus more on the US indexes. Three of the most widely followed indexes in the United States are the S&P 500, Dow Jones Industrial Average, and Nasdaq Composite. All three of them are followed by both the media and investors. In addition, there are approximately 5,000 other indices that make up the U.S. equity market. An index is a statistical way of calculating a change in the economy or a specific market. Apart from the US indices it is of high importance to look also to other indices such as the Morgan Stanley Capital International Europe, Australasia, Far East Index which includes developed countries from all over the world and this gives a closer perception to the global market and how its performing.

A stock market index is a collection or basket of stocks that represents the performance of a segment or the whole of the stock market. It can show how investors feel about an economy, industry, or business trend. A stock market index can also be used as a benchmark for other investments, such as mutual funds, index funds, or ETFs. It is a tracker that collects data from a variety of companies and compares current prices with past prices.

Overall, an understanding of how market indexes are constructed and utilized can help to add meaning and clarity for a wide variety of investing possibilities and tactics.

Below are shown the current values and performances over the years (of some of the most followed indices on the US) and also worldwide.

1.2.1 Standard & Poor's 500 index (S&P 500)

The Standard and Poor's 500, or simply the S&P 500, is a stock market index that tracks the stock performance of 500 of the largest companies listed on stock exchanges in the United States. It is one of the most commonly followed equity indices. As of December 31, 2020, more than \$5.4 trillion was invested in assets tied to the performance of the index.

The S&P 500 index is a free-float weighted/capitalization-weighted index. As of August 31, 2022, the nine largest companies on the list of S&P 500 companies accounted for 27.8% of the market capitalization of the index and were, in order of highest to lowest weighting: Apple, Microsoft, Alphabet (including both class A & C shares), Amazon.com, Tesla, Berkshire Hathaway, UnitedHealth Group, Johnson & Johnson and ExxonMobil. The components that have increased their dividends in 25 consecutive years are known as the S&P 500 Dividend Aristocrats.

The S&P 500 is maintained by S&P Dow Jones Indices, a joint venture majority-owned by S&P Global, and its components are selected by a committee. The average annualized return since its inception in 1928 through December 31, 2021, is 11.82%. The average annualized return since adopting 500 stocks into the index in 1957 through December 31, 2021, is 11.88%. Figure 1.1 gave the price chart of S&P 500 from 1983 to 2023.

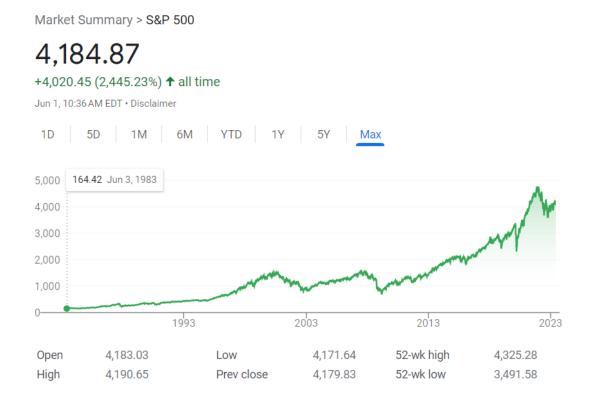


Figure 1.1 S&P 500 Market Summary from 1983 to 2023

1.2.2 Dow Jones Industrial Average index (DJIA)

The Dow Jones Industrial Average (DJIA) is a stock market index that tracks 30 large, publicly owned blue-chip companies trading on the New York Stock Exchange (NYSE) and Nasdaq. The Dow Jones is named after Charles Dow, who created the index in 1896 along with his business partner, Edward Jones. Also referred to as the Dow 30, the index is considered to be a gauge of the broader U.S. economy. The DJIA is the second-oldest U.S. market index after the Dow Jones Transportation Average (DJTA). The DJIA was designed to serve as a proxy for the health of the broader U.S. economy and it is one of the most-watched stock market indexes in the world. Dow Jones includes a range of companies, all of them with consistently stable earnings.

In the early 20th century, the performance of industrial companies was typically tied to the overall growth rate in the economy. That cemented the relationship between the Dow's performance and the overall economy. Even today, for many investors, a strong-performing Dow equals a strong economy while a weak-performing Dow indicates a slowing economy.

As the economy changes over time, also its composition changes. When a company becomes less relevant to current trends of the economy, it is dropped to be replaced by a new company that better reflects the economy. For instance, a company may be removed from the index when its market capitalization drops because of financial distress.

1.2.2.1 Dow Jones Index Components (Some history)

The DJIA was launched in 1896 including only 12 companies, primarily in the industrial sector. They included railroads, cotton, gas, sugar, tobacco, and oil. The index grew to 30 components by 1928. Since then, it's changed many times the very first came three months after the 30-component index launched. The first large-scale change was in 1932 when eight stocks in the Dow were replaced.

The Dow is reevaluated on a regular basis. Companies are replaced when they no longer meet the index's listing criteria with those that do. This index reflects economic changes of the U.S. economy. Figure 1.2 shows the DJIA market summary from 1983 to 2023.

Market Summary > Dow Jones Industrial Average

32,921.32 +31,708.28 (2,613.95%) ↑ all time Jun 1, 10:54 AM EDT • Disclaimer 1M YTD 1,213.04 Jun 3, 1983 40,000 30,000 20,000 10.000 1988 1998 2018 2008 32,929.85 52-wk high 34,712.28 Open Low 32,704.51 High 32,934.69 Prev close 32,908.27 52-wk low 28,660.94

Figure 1.2 DJIA market summary from 1983 to 2023

1.2.2.2 How does it work?

Stocks with higher share prices are given greater weight in the index. So, a higher percentage move in a higher-priced component will have a greater impact on the final calculated value. At the Dow's inception, Charles Dow calculated the average by adding the prices of the 12 Dow component stocks and dividing by 12. The result was a simple average. Over time, there were additions and subtractions to the index that had to be accounted for, such as mergers and stock splits. At that point, a simple mean calculation no longer made sense.

To address this issue the Dow Divisor was created. This is a predetermined constant that

is used to determine the effect of a one-point move in any of the approximately 30 stocks that make up the index. There have been instances when the divisor needed to be changed so that the value of the Dow stayed consistent.

Unlike the S&P 500, the Dow is not calculated using a weighted arithmetic average and does not represent its component companies' market cap. Rather, it reflects the sum of the price of one share of stock for all the components, divided by the divisor: DJIA Price = SUM (Component Stock Prices) ÷ Dow Divisor.

1.2.3 Nasdaq Composite index (NASDAQ)

The Nasdaq Composite (ticker symbol ^IXIC) is a stock market index that includes almost all stocks listed on the Nasdaq stock exchange (more than 2500 stocks). Along with the Dow Jones Industrial Average and S&P 500, it is one of the three most-followed stock market indices in the United States. The composition of the NASDAQ Composite is heavily weighted towards companies in the information technology sector. The Nasdaq-100, which includes 100 of the largest non-financial companies in the Nasdaq Composite, accounts for over 90% of the movement of the Nasdaq Composite.

The Nasdaq Composite is a capitalization-weighted index; its price is calculated by taking the sum of the products of closing price and index share of all of the securities in the index. The sum is then divided by a divisor which reduces the order of magnitude of the result. Figure 1.3 shows the Nasdaq Composite market summary from 1983 to 2023.

Market Summary > Nasdag Composite

13.000.28 +12,686.43 (4,042.19%) ↑ all time Jun 1, 10:58 AM EDT • Disclaimer 1M 313.85 Jun 3, 1983 20.000 15.000 10,000 5,000 1993 2023 2003 2013 12.944.46 12,903.63 52-wk high 13,181.09 Open Low High 13,020.15 Prev close 12,935.28 52-wk low 10,088.83

Figure 1.3 Nasdaq Composite market summary from 1983 to 2023

1.2.4 Russell 2000 Index (RUT)

The Russell 2000 Index is a small-cap U.S. stock market index that makes up the smallest 2,000 stocks in the Russell 3000 Index. It was started by the Frank Russell Company in 1984. The index is maintained by FTSE Russell, a subsidiary of the London Stock Exchange Group (LSEG).

The Russell 2000 is by far the most common benchmark for mutual funds that identify themselves as "small-cap", while the S&P 500 index is used primarily for large capitalization stocks. It is the most widely quoted measure of the overall performance of small-cap to mid-cap company shares. It is commonly considered an indicator of the U.S. economy due to its focus on small-cap companies in the U.S. market. The index represents approximately 10% of the total market capitalization of the Russell 3000 Index. As of 31 December 2022, the weighted average market capitalization of a company in the index is approximately \$2.76 billion and the median

market capitalization is approximately \$950 million. The market capitalization of the largest company in the index is approximately \$8.1 billion. It first traded above the 1,000 level on May 20, 2013, and above the 2,000 level on December 23, 2020. Figure 1.4 shows the Russell 2000 Market summary from 2004 to 2023.

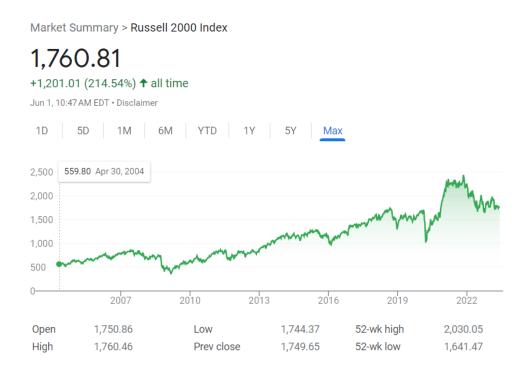


Figure 1.4 Russell 2000 Market Summary from 2004 to 2023

1.2.5 Morgan Stanley Capital International Europe, Australasia, Far East Index (MSCI EAFE)

The MSCI EAFE Index is a stock market index that is designed to measure the equity market performance of developed markets outside of the U.S. & Canada. It is maintained by MSCI Inc., a provider of investment decision support tools; the EAFE acronym stands for Europe, Australasia and Far East. Figure 1.5 shows the countries that are part of the MSCI EAFE Index The index is market-capitalization weighted (meaning that the weight of securities is based on their respective market capitalizations). It first ranks each stock in the investable universe from largest to smallest by market capitalization. The largest 70% will compose the MSCI EAFE Large Cap

(new index), the largest 85% will compose the MSCI EAFE Standard, and the largest 99% will compose the MSCI Investable Market index (IMI). The 71st to 85th percentiles represent the MSCI EAFE Mid Cap, and the 85th to 99th percentiles represent the MSCI EAFE Small Cap.



Figure 1.5 List of the countries part of the MSCI EAFE Index

The index includes a selection of stocks from 21 developed markets but excludes those from the U.S. and Canada. The index has been calculated since 31 December 1969, making it the oldest truly international stock index. It is probably the most common benchmark for foreign stock funds in the U.S.

MSCI EAFE has had an increase of 100.024% over the past 5 years as of May 2023. Figure 1.6 shows the MSCI EAFE Market Summary from 2018 to 2023. Current value as of May 31, 2023 is at \$2041.81, Figure 1.7 shows MSCI EAFE Market Summary from 2018 to 2023, valued at \$1992.40 on June 1, 2018. Figure 1.8 shows the MSCI EAFE Market Summary over one-month period (May 2023)



Figure 1.6 MSCI EAFE Market Summary from 2018 to 2023



Figure 1.7 MSCI EAFE Market Summary from 2018 to 2023

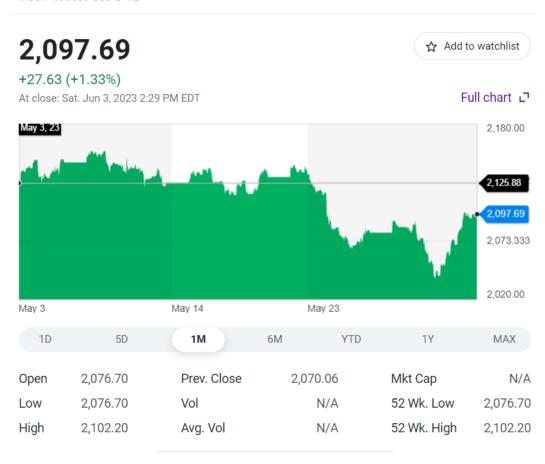


Figure 1.8 MSCI EAFE Market Summary over one month period

Looking and tracking at the different indexes we will have a broader understanding of how to invest with more certainty.

1.3 Different factors that affect the Stock Market (Nikola M)

The stock market is often unstable and can be very volatile. Volatility is the measure of price variation. If the market fluctuates in large percentage movements, financial analysts say it is volatile at that time. When the market is volatile, most experienced investors stay on the sidelines waiting for things to settle. There are also experienced traders who profit in times of volatility, but volatility also carries a significant risk on the downside potential. There are different factors that

influence the stock market and that can cause volatility spikes. The most important factors include news, trends, liquidity, market sentiment, GDP reports, unemployment, world events and interest rates. Let us explain in more detail how some of these factors affect the stock market.

News is new information which has the capability of affecting the stock price of a certain company. For example, each quarter public companies are obligated to publish their earnings. This can have a direct impact on the stock market in a matter of minutes. If the results are good, everybody buys in the company and stock price goes up. On the other hand, if the results are bad, a lot of investors are going to sell, driving the stock price down. News can also discover information about management changes which may include high positions like CEOs or CFOs. This information can drive the stock price in both directions depending on the nature of the decisions. Sometimes good performing CEOs step down to look for new challenges and that may create uncertainty in the short term for investors causing some pullback. Controversies also play a big part in affecting the stock market. Often there are investigations launched at companies which come out as breaking news for investors. Even if the company is not guilty or the investigation is routine, the likelihood of investment increases steadily in such a situation. As a result, when such news is released, stock market prices are likely to fall.

Market sentiment and trends are two important factors which no investor should neglect. There is always a general attitude to the anticipated price fluctuations by investors at large at any given time. This attitude makes up the market sentiment. Trends are the directions in which pointers move. The price may fluctuate in the short term but has a steady rise in the long run for a particular period. Trends can determine public opinion in a way that everyone wants to do what others are doing. If Warren Buffet adds millions of shares of APPL to his portfolio tomorrow, there are going to be hundreds of investors also adding to APPL to their portfolios considering how

successful Buffet has been over decades. This is an example of how a positive trend is created.

Liquidity is a scale that measures how easy it is to sell a stock. Stocks are sold in stock exchanges. For every seller, there must be a buyer. A high number of buyers creates a higher state of liquidity and vice versa. The most liquid securities are stocks, as they can easily be bought through brokers. The liquidity situation in stocks is exactly like that of a real-life market situation. Before the pandemic, hand sanitizers were selling for an average price of \$8-\$9 apiece. When COVID-19 hit, everyone ran to buy hand sanitizers causing the inventory to go down. Now there was a liquidity situation. The demand was much higher than the supply. Everyone needed hand sanitizers and were willing to pay more, which drove the price of them to an average of \$20-\$25. Lower liquidity is the opposite situation where an investor will get a lesser price for the stock they want to sell because the number of buyers will be less, so he has to offer a discounted price to attract the buyer.

Gross Domestic Product (GDP) is defined as the total value of goods and services produced within a particular country within a specified period of time. It serves as a measure of the country's economic condition as it shows the total production of a country. Any changes in the GDP signify a change in economic growth rate and impacts the demand and supply curve. The GDP shares a direct correlation with the stock market. A high GDP means the consumption of goods is high and cash flow is high. This leads to higher stock prices. A decrease in GDP will show that consumption is less and cash flow on the decline, moving the stock prices down.

World events are external factors that have an impact on many socioeconomic conditions as well as the stock market itself. War and international conflict affect the trade between countries and create shortages in commodities, thereby leading to inflation, where the prices of goods and services increase. The way in which war and conflicts affect the stock market is different. Stocks

of travel and leisure companies tend to pull back in times of war as there is restrictions on the movement of people. People also try to avoid areas of conflict when they decide to go on vacation. On the other hand, there are stocks which do good during war events. War brings inflation, and with higher prices of energy and crude oil, oil companies do good. Defense stocks' price also increase because production of defensive armor goes up. Bank stocks and stocks of mortgage finance companies also portray a tendency to fall as the inflation that is created by the conflict tends to push the interest rates higher. However, it has been observed that the effect of wars on most other stocks is often short-lived.

Government monetary policy is another important factor of the stock market. It is primarily of two kinds: expansionary or contractionary. Expansionary monetary policies are those policies that are aimed at promoting economic growth. Expansionary monetary policies include policies that reduce interest rates and increase the money flow. Contractionary monetary policy, on the other hand, refers to those strategies that are framed to limit or slow economic growth. The stock market is affected in opposite ways depending on what the policy is. Expansionary monetary policies positively impact stock prices as it reduces interest rates and increases the money flow. Contractionary monetary policies negatively impact stock prices as they are designed to limit economic growth.

1.4 Stock Market Crash (Bishoy S)

A stock market crash is a sudden and dramatic drop in the value of stocks listed on an exchange. Many factors can cause such a drop, including economic or geopolitical events, rumors or compounding herd behavior. Stock market crashes are frequently confused with market corrections, but there are specific thresholds for each. A stock market crash refers to a drop of 20% or more from a recent high, while "correction" refers to a drop of 10% or more.

A stock market crash can occur at any time, but it tends to happen most frequently during times of economic or political turmoil. The stock market crash of 1929, which marked the start of the Great Depression, was precipitated by several factors, including decreasing economic activity, over-speculation of stocks and credit tightening by the Federal Reserve.

During a stock market crash, investor confidence plummets, leading to a widespread selloff of stocks. This rapid selling pressure can trigger a vicious cycle where falling prices lead to more selling, further driving down stock prices. The crash is typically accompanied by high volatility, increased trading volume, and a general atmosphere of fear and panic among investors.

Although there is no set schedule for stock market crashes, they frequently seem to happen in cycles. Investors refer to this as a "boom and bust." The U.S. has experienced several major stock market crashes in its history, including Black Monday and the dot-com bubble burst in 2000.

1.4.1 Understanding why the stock market crashes is important

Stock market crashes can lead to significant losses for investors. Being aware of the signs and factors that can contribute to a crash can help you make informed investment decisions and take appropriate steps to protect your portfolio. This may involve diversifying your investments, setting stop-loss orders, or having a plan in place to navigate turbulent market conditions.

Stock market crashes are a reminder of the inherent risks associated with investing in stocks. By understanding the potential for market downturns, you can assess your risk tolerance and adjust your investment strategy accordingly. This might involve balancing your portfolio with other asset classes, such as bonds or real estate, to reduce the impact of a stock market crash on your overall wealth. Stock market crashes can be emotionally challenging for investors. Knowing about past crashes and their eventual recoveries can provide you with a long-term perspective on the stock market's resilience. It can help you stay focused on your investment goals and avoid

making impulsive decisions based on short-term market fluctuations. Stock market crashes also present buying opportunities for investors with a long-term perspective. When stock prices decline significantly, some stocks may become undervalued. By being prepared and having a watchlist of potential investments, you can take advantage of lower prices and potentially generate long-term returns when the market recovers. Stock market crashes often have broader economic implications. They can be indicative of underlying economic weaknesses, such as recessions or financial imbalances. By understanding the causes and consequences of stock market crashes, you can gain insights into the overall health of the economy and make informed decisions regarding personal finances, job security, and other economic factors.

1.4.2 The Most Famous Stock Market Crashes

The first was the Wall Street Crash of 1929. The Wall Street Crash, also known as the Stock Market Crash of 1929, was one of the most devastating crashes in history. It marked the beginning of the Great Depression, with stock prices collapsing, investors losing their fortunes, and widespread economic hardship.

The second was the Black Monday, On October 19, 1987. Stock markets around the world experienced a rapid and severe decline. The Dow Jones Industrial Average (DJIA) dropped by about 22% in a single day, the largest one-day percentage decline in history. Although the crash was significant, markets eventually recovered relatively quickly.

The third was the Dot-Com Bubble Burst of 2000. The dot-com bubble was a speculative frenzy in technology stocks during the late 1990s. However, in early 2000, the bubble burst, leading to a sharp decline in the stock prices of many internet-based companies. Investors faced significant losses, and the crash marked the end of the dot-com era.

The fourth was the global financial crisis of 2008, which was triggered by the collapse of

the subprime mortgage market in the United States. It resulted in a severe liquidity crisis, bank failures, and a significant decline in stock markets worldwide. The crash led to a global recession and had far-reaching consequences for the global economy.

Finally, the fifth was the COVID-19 Pandemic Crash of 2020. In February and March 2020, global stock markets experienced a sharp decline due to the outbreak of the COVID-19 pandemic. Investors feared the economic impact of the pandemic, leading to widespread selling. Governments and central banks took significant measures to stabilize the markets, and stock prices eventually rebounded.

These five crashes are noteworthy due to their magnitude, the economic impact they had, and the lessons learned from them. They serve as reminders of the volatility and risks associated with investing in the stock market and have shaped the regulatory and risk management practices in the financial industry.

Chapter 2: Strategy

Before we start trading stocks on the simulation, we did research to find the simulator we felt comfortable using and thought that can provide us with resources to help us make the right decisions. In addition, each of the team members individually chose the strategy that felt comfortable following for the next 5 weeks of simulation.

2.1 Simulation Platform (Nikolas K)

With stock trading becoming more and more popular throughout the years, people from every social level have been trying to get into stock trading. The stock market is an overwhelming environment, with a huge diversity in stocks, constant fluctuations and many more complexities, it is easy to get lost when you start trading. With no experience and no practice, people are risking a substantial amount of money on their first trades. Therefore, the best way to start getting this experience and knowledge is a stock market simulator. A stock market simulator is a virtual environment that mimics the behavior and the features of the stock market, using paper trading, which allows the investors to make all kinds of trades, try out different techniques and strategies, and take risks without actually risking their own money.

For our stock market simulator, we are going to use Investopedia. Investopedia is a trade simulator that follows a game format, by providing the investors with a \$100,000 starting fund and keeping a leaderboard for the players, but also provides a real-time tracking for the changes in simulated investment value. The interface of the simulator is really simple and is divided into five areas: portfolio, trade, research, learn, and games.

The portfolio allows the user to view stock information, like their stocks, account value, daily gains and losses, and annual return, as well as game information, like their current rank on the leaderboard and the top player. The trade tab allows the user to see the price quotes and buy or

sell stocks. The research tabs contain information about the stocks and the companies behind them, which helps the user decide when to buy or sell stocks. The learning tab provides the user with tutorials on the basics of the stock market, which help to learn how to buy and sell stocks and also which beginner strategies to follow. Lastly, the games tab shows the investor's progress on the leaderboard and the other players. It also allows the user to join or create private games that they can compete against friends or classmates.

2.2 Trading strategies

2.2.1 Swing trading (Nikolas K)

Swing strategy is a short-term investing strategy. Swing traders hold their stocks for a few days or weeks sometimes, unlike day trading where people buy and sell stocks every few hours. Swing trading does not require a precise entry point. It requires less dedication, making it suitable for part-time traders, people who are busy during the day and trade as a hobby.

The trader is expected to commit to the stocks and not get influenced from the daily ups and downs of the stock price and wait until there is the right time to sell. The most suitable stocks for this strategy, would be calm high-priced stocks that are trending upward. Calm stocks mean they don't show excessive price moves and are generally well established.

Traders use technical analysis to decide when to enter and exit the trade, studying price charts. Many traders use support and resistance levels or price patterns, like flags and triangles, or other charting indicators, like moving averages. I will be using support and resistance levels and the moving averages, in order to identify those support and resistance levels and make my buy and sell points clear. My purpose will be to follow the upward and downward trends and buy stocks at a support level and sell them at a resistance level, in order to make profit.

2.2.2 Position trading (Joan M)

Position trading is a strategy of buying a stock (or multiple stocks) and keeping it in long term as it is concluded that its values will increase over that time. This is based on the trendline that concludes that a stock will increase in value as both the company and the stock market (index) increase in value over long periods. This type of trading strategy is less concerned with short-term fluctuations in price and the news of the day unless they alter the trader's long-term view of the position.

Position trading is considered to be the opposite of day trading. Position traders do not trade actively, some might be placing fewer than 10 trades in a year. Investing in traditional stable companies is a more secure form of investment for this strategy rather than investing in new companies which might have a greater growth in the beginning but have uncertainty in the long run. Investing in new companies might be more related with short-term strategies.

Usually, it takes time to analyze the full performance of this strategy and on this project even that our investment will span only over a few weeks, we believe that it will provide us the major differences when it will be compared with the other investing strategies we have used in this study.

2.2.3 Day Trading (Nikola M)

Day trading is a stock trading strategy where stock traders aim to profit from short-term price fluctuations in a single day. Day traders take advantage of the intraday volatility and make large profits if stocks go up or down significantly. They use charts, indicators, and patterns to identify exit points or entry potential. Prices are monitored closely, and most positions are often closed by the end of the trading day. Day traders also use stop loss orders to limit their downside potential. Stop loss orders are orders placed at a lower predetermined price with the purpose of exiting the position once the price hits that level.

Day traders rely on real-time market news such as economic data release, federal reserve meetings and political events. A key requirement for day trading is to have sufficient trading capital due to the frequency of trades and the need to exit quickly. For traders who trade on margin, it is important to actively manage your risk, so they can meet the minimum margin requirements set by brokers and do not get margin called. Day trading may involve other intraday strategies such as scalping, range trading, news-based trading, and high-frequency trading. Swing trading can also be implemented in day trading too if you buy and sell stocks intraday.

2.2.4 Momentum and Position trading (Bishoy S)

Momentum trading is a strategy that aims to profit from the strength and persistence of price movements in financial markets. It is based on the belief that assets that have been rising in price will continue to do so, while assets that have been falling will continue to decline.

Traders who employ momentum trading look for assets that are exhibiting strong upward or downward trends. They enter positions in the direction of the prevailing trend, expecting the price to continue moving in that direction. The goal is to capture the momentum and ride the trend for as long as possible to maximize profits.

Momentum traders often use technical analysis indicators, such as moving averages, relative strength index (RSI), and stochastic oscillators, to identify assets with strong momentum. They may also consider other factors like trading volume and news events that could potentially impact the momentum.

Momentum trading typically involves shorter time frames, ranging from days to weeks. Traders often set specific entry and exit points, using stop-loss orders to limit potential losses and take-profit orders to secure profits when the momentum weakens or reverses.

It's worth noting that momentum trading carries risks, as markets can be volatile, and trends

can reverse unexpectedly. Traders employing this strategy need to be diligent in their analysis, manage their risk effectively, and have a disciplined approach to both entry and exit points.

2.3 Trading plan (Nikolas K)

Our plan for this IQP is for every team member to simulate on of the strategies we mentioned. Four simulations, each with a different strategy, will run for 5 weeks. We will make weekly reports to document our progress and at the end of the simulation, we will compare the strategies to each other, in order to determine which, one was more profitable.

Chapter 3: Why to Invest Now (Joan M)

The US market has had uncertainty lately due to the high inflation rates caused by outside factors such as ongoing wars, which impacts the market directly with increased prices in supply. Also, the monetary policy in the United States has had to change its normal course in order to help the government in Ukraine by supplying it with humanitarian aid and weapons, and both this has a financial cost that is translated into higher inflation.

Viewing the performance of the stock market we can see a trend of increase especially on the auto and tech industries, the decision of the government to not increase the interest rate plus the drop-in inflation rates are both good indexes of an optimistic economy. The CPI (consumer price index) released by the Bureau of Labor Statistics on June 13 indicates that it dropped compared to last year to 4.0% and also for the period of May 2023 it was 0.1%. This is translated to a healthier economy as it is the first time that it has hit the lowest in about two years. This is shown in Figure 3.1 which represents the average CPI over a 5-year period and Figure 3.2 which represents the average CPI over a one-year period.

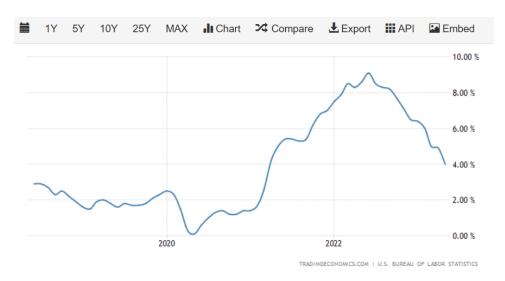


Figure 3.1 CPI over the past 5 years

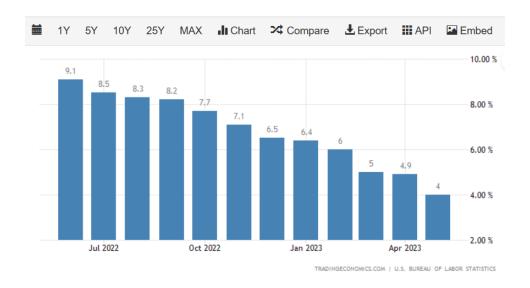


Figure 3.2 CPI over the past year from June 22 to May 23

Feeling optimistic about the economy performance recently in the US we decided to invest in some of the most stable companies which have a longevity in business for many years such as Microsoft, General Motors, Ford, Apple, Google, Tesla plus on other companies which have the potential to endure cycles in economy such as Tesla which is a new company but has a potential as it is one of the most valuable companies today.

Before investing we investigated and referred to the major indices on the US such as Dow Jones Industrial Average and S&P500. The indices are represented by Figure 3.3 and Figure 3.4 respectively which show the graph for DJIA and S&P500 respectively.



Figure 3.3 DJIA performance over the past year



Figure 3.4 S&P 500 performance over the past year

Chapter 4: Swing Strategy (Nikolas K)

As mentioned in the previous chapters, our team is going to run four simulations for 5 weeks, providing weekly progress reports for each. The swing strategy simulation started by purchasing stocks from 5 different companies, that I chose and I tried to distribute the \$100,000 into these five companies by purchasing stocks worth around \$20,000 for each. The entry point didn't matter that much therefore I didn't pay much attention to the price of the stocks I looked for well-established companies that have the potential to grow even more. The companies were:

Apple, INC (AAPL)

Apple specializes on the electronic technology sector and consists of 164,000 employees. Apple, specializes in the design, manufacturing, and sale of electronic devices in the likes of smartphones, personal computers, tablets, and other related products. It operates all over the world and has segments in Americas, Europe, China, Japan, and the Rest of Asia Pacific. The Company was founded in 1976 by Steven Jobs, Ronald Wayne, and Stephen Wozniak and its headquarters are located in Cupertino, CA. Apple's most products include the iPhone, Mac, iPad, Apple Watch, and other accessories and services that are really popular. Figure 4.1 shows Apple's stock price over the past year.

Apple Inc

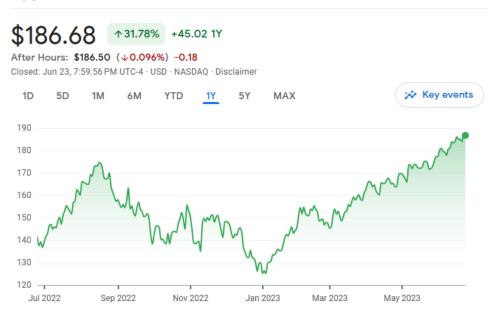


Figure 4.1 Apple Stock Price Over the Past Year

Amazon.com, INC (AMZN)

Amazon specializes on the retail sector, specifically on internet retail, and consisting of 1,541,000 employees. Amazon provides internet retail shopping services through their website. It operates in 3 segments: North America, International, and Amazon Web Services (AWS). Other than its retail services, Amazon, through the Amazon Web Services, provides compute, database, storage, and other AWS services for other companies, government agencies, and academic institutions. The company was founded in July 1994 by Jeffrey Bezos and the headquarters are located in Seattle, WA. Figure 4.2 shows Amazon's stock price over the past year.

Amazon.com, Inc.

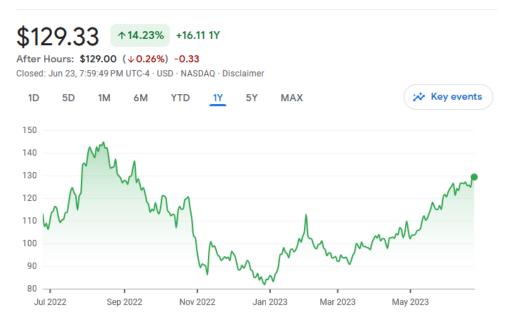


Figure 4.2 Amazon Stock Price Over the Past Year

Meta Platforms, INC (META)

Meta specializes on the technology services sector, specifically on internet software and services industry and consists of 86,482 employees. Meta develops social media applications and technologies that help people connect and socialize. The company operates through 2 segments: the Family of Apps (FoA) and the Reality Labs (RL). The FoA segment consists of popular social media platforms like Facebook, Instagram, WhatsApp and Messenger, as well as other services. The RL segment specializes in development and selling of virtual reality related consumer products. The company was founded in February 2004 by Mark Zuckerberg, Dustin Moskovitz, Chris Hughes, Andrew McCollum, and Eduardo Saverin as TheFacebook, Inc, which later was named Facebook, Inc and in 2021 rebranded as Meta, Inc. The headquarters are located in Menlo Park, CA. Figure 4.3 shows Meta's stock price over the past year.

Meta Platforms Inc

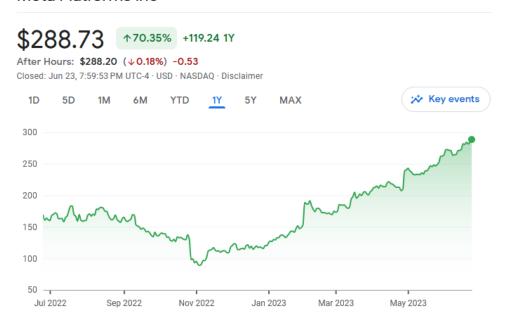


Figure 4.3 Meta Stock Price Over the Past Year

Microsoft Corp. (MSFT)

Microsoft corp. specializes in technology services, specifically in the packaged software industry, and consists of 221,000 employees. Microsoft develops and supports software, services, and devices. The company is known for developing and supporting the most popular OS, Windows, but also other software like the Office and services like Outlook.com, formally known as Hotmail, as well as video games and other software, devices, and services. The company was founded in 1975 by Paul Allen and Bill Gates and the headquarters are located in Redmond, WA. Figure 4.4 shows Microsoft's stock price over the last year.

Microsoft Corp

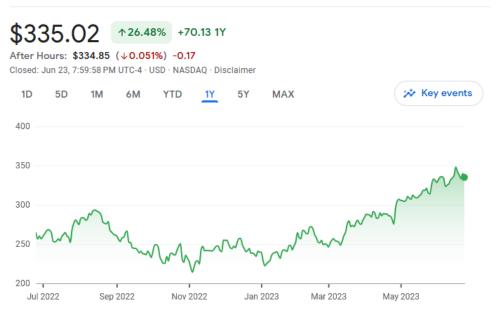


Figure 4.4 Microsoft Stock Price Over the Past Year

Tesla, INC (TSLA)

Tesla specializes in consumer durables sector, specifically in the motor vehicles industry, and consists of 127,855 employees. Tesla designs, develops, manufactures, and sells fully electric vehicles, as well as energy generation and storage systems. Tesla consists of 2 segments: Automotive segment and Energy Generation and Storage segment. The Automotive segment includes the design, development, manufacture, and sale of electric vehicles and technologies. The Energy Generation and Storage segment includes the design, development, manufacture, sale, and lease of energy generation and storage products for home, commercial, and utility use. The company was founded in July 2003 by Jeffrey Straubel, Elon Musk, Martin Eberhard, and Marc Tarpenning, and the headquarters are located in Palo Alto, CA. Figure 4.5 shows Tesla's stock price over the past year.

Tesla Inc

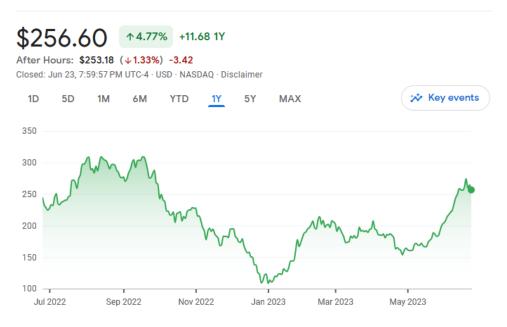


Figure 4.5 Tesla Stock Price Over the Past Year

The reason why I chose to buy stocks from these companies is that all of them are well-established, as already mentioned, and also have the chance of increasing their values since all are producing and inventing products that are popular with the public and also necessities, so I think they provide some security.

4.1 Week 1 (6/12 – 6/18)

On Monday, June 12th 2023, all stocks for the swing strategy were bought. Throughout this week, I was paying close attention to the stocks, checking the market daily or even twice per day. I didn't proceed on selling any of these stocks this week as I believed that they could grow more.

Firstly, I bought 110 shares from Apple at \$182.38 per share with a total cost of \$20,061.81. Secondly, I bought 159 shares from Amazon at \$125.55 per share with a total cost of \$19,962.45. The third company was Meta from which I bought 75 shares at \$269.21 per share with a total cost of \$20,190.75. The fourth was Microsoft, 61 shares were bought at \$327.73 per share coming at a total cost of \$19,991.53. Finally, I bought 80 shares from Tesla at \$246.44 per share totaling

\$19,714. From the starting \$100,000, I invested a total \$99,921.34 on these 5 companies with \$78.66 remaining. Table 4.1 below shows in detail the stocks that were purchased, the number of shares, and the price of each.

Table 4.1 Swing Strategy Transactions Week 1

Date	Symbol	Buy/Sell	Price	Shares	Total Cost	Profit/	Total Cash
						Loss	
6/12/2023							100,000
6/12/2023	AAPL	Buy	182.38	110	20,061.81	-	79,938.19
6/12/2023	AMZN	Buy	125.55	159	19,962.45	-	59,975.74
6/12/2023	META	Buy	269.21	75	20,190.75	-	39,784.99
6/12/2023	MSFT	Buy	327.73	61	19,991.53	-	19,793.46
6/12/2023	TSLA	Buy	246.44	80	19,714.80	-	78.66

By the end of the week the value of all the stocks had increased, increasing the account value from \$100,000, which we started with, to \$104,130.02, increasing our asset value by \$4,130.02.

4.2 Week 2 (6/19 – 6/25)

Starting week 2, after some consideration and searching, I decided to sell half of my Tesla stocks, 40 stocks, to invest to Netflix. The reason that I decided to invest to Netflix is mostly for its popularity.

Netflix, Inc (NFLX)

Netflix is a streaming entertainment company that consists of 12,800 employees. It provides a subscription-based streaming service that allows the users to stream to shows and movies over the internet. Netflix is split into two segments: Domestic streaming and international streaming. The domestic streaming includes the streaming services and content and the revenues from monthly membership fees in the United States. The International Streaming segment includes the streaming services and content and the revenues from monthly membership fees outside the United States. The company was founded in August, 1997 from Marc Randolph and Wilmot

Hastings Jr. and the headquarters are located in Los Gatos, CA. Figure 4.6 shows Netflix's stock price over the past year.

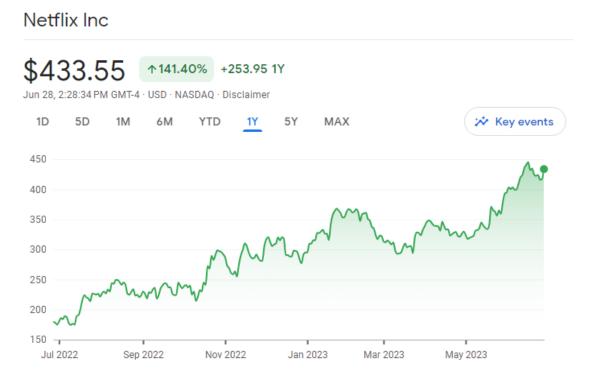


Figure 4.6 Netflix Stock Price Over the Past Year

Netflix is a very popular platform, with millions of users across the world, and even though Netflix has increased their prices over the last year, the number of users has only increased. With the 40 Tesla stocks that I sold for \$270.85 each for a total of \$10,834, I bought 40 stocks from Netflix worth \$434.73 each, totaling at \$17,389.

Later this week I realized that I had spent more money than I was able to afford. Netflix stocks didn't show any promises and the fact that they are trying to minimize account sharing by increasing the prices for any additional profile getting some really bad backlash, I decided to sell half of the stocks that I bought. I sold 20 Netflix stocks at a price of \$420.26 each for a total of \$8,405.20, around \$14 less that I bought them. In addition to that, I sold 59 of my Amazon stocks for \$129.15 each, totaling at \$7,619.90, making a small profit. With that money, I was able to

cover the money that I had overspend and I had some money to invest.

Up until now, all the companies that I had invested in had a technology theme, which I believe is pretty safe for investing in. I decided to expand to health technology too, another safe sector but also a more important one, since people value their health more than anything and health care can be considered relatively immune to any severe stock declining. The company that I invested in was Eli Lilly and Company.

Eli Lilly & Co. (LLY)

Eli Lilly & Co. is a company in the health technology sector, in the pharmaceuticals industry, that consists of 39,000 employees. Eli Lilly & Co. discovers, develops, manufactures, and sells pharmaceutical products and therapies. The company's main focus is diabetes, oncology, immunology, and neuroscience. The company was founded in May 1876 by Eli Lilly and its headquarters are located in Indianapolis, IN. Figure 4.7 shows Eli Lilly and Co. stock price over the past year.

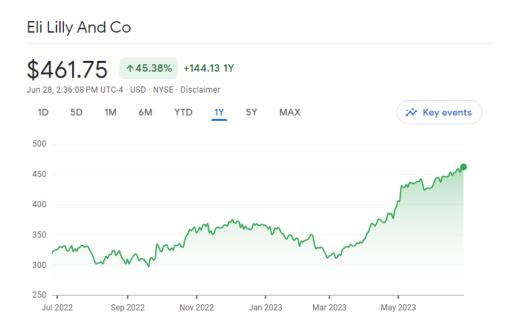


Figure 4.7 Eli Lilly & Co. Stock Price Over the Past year

From Eli Lilly and Co. I bought 20 stocks, worth \$459.83 each for a total of \$9,195.60. Table 4.2 shows the transactions that I made this week.

Table 4.2 Swing Strategy Transactions Week 2

Date	Symbol	Buy/Sell	Price	Shares	Total Cost	Profit/Loss	Total Cash
6/20/2023	TSLA	Sell	270.95	40	10,835.00	+980.4	10,912.66
6/20/2023	NFLX	Buy	434.73	40	17,389.00	-	-6,476.34
6/22/2023	NFLX	Sell	420.26	20	8,405.20	-289.4	1,928.86
6/22/2023	AMZN	Sell	129.15	59	7,619.90	+212,.4	9,548.76
6/22/2023	LLY	Buy	246.44	20	9,196.60	-	352.17

By the end of the week the account value was \$103,832.14, making a loss of \$297.88 from last week that the account value was \$104,130.02.

4.3 Week 3 (6/26 – 7/2)

As already mentioned, we closed last week with a loss in our portfolio value. This wasn't disappointing as I learnt to be more careful while in which stocks I should invest in and do better research.

Starting in week 3 I realized that with the Netflix stocks I was losing money but considering that Netflix would release the new season of one its most popular series: The Witcher, I decided to wait 1-2 days and see how the market would react to that. On Wednesday, June 28, I saw that the stock wasn't going to be profitable, and I sold all my shares. I sold 20 Netflix stocks at \$432.04 each for a total of \$8,640.80. With the cash that I had I decided to buy 6 Amazon stocks at \$128.65 each, for a total of \$771.89 and invest in a new company, Nvidia Corp.

NVIDIA Corp

Nvidia Corp. specializes in the electronic technology sector, and specifically in the semiconductor industry, and consists of 26,196 employees. Nvidia designs and manufactures

computer graphics processors, chipsets, and other multimedia software. The company splits into 3 segments: the Graphics Processor Unit (GPU) segment, the Tegra processor segment, and the third segment that is all other things. The GPU segment is focused on the design and manufacture of commercial GPUs like the GeForce brand for gaming, the Quadro for designers, and the Tesla and DGX for data scientists and researchers. The Tegra segment integrates an entire computer into one single chip, that consists of GPUs and multi-core CPUs, in order to create a supercomputer. The third segment refers to non-recurring charges that the company makes. That could be corporate infrastructure and support cost, legal fees, acquisition related costs, and others. The company was founded in 1993 by Jen Hsun Huang, Chris Malachowsky, and Curtis Priem. The company's headquarters are located in Santa Clara, CA. Figure 4.8 shows Nvidia's stock price over the past year.

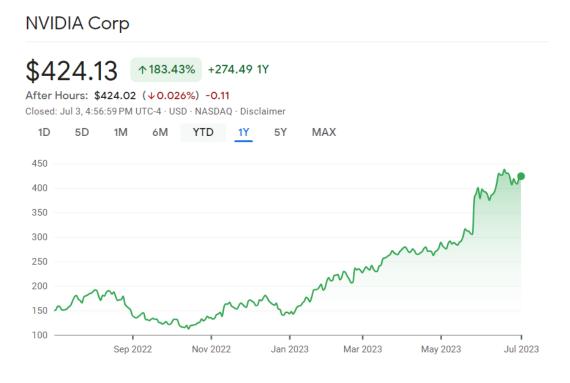


Figure 4.8 NVIDIA Stock Price Over the Past Year

From Nvidia, I bought 20 stocks, worth \$409.75 each for a total of \$8,195.01.

Table 4.3 Swing Strategy Transactions Week 3

	Date	Symbol	Buy/Sell	Price	Shares	Total Cost	Profit/Loss	Total Cash
I	6/28/2023	NFLX	Sell	432.04	20	8,640.80	-53.8	8,992.97
ĺ	6/28/2023	NVDA	Buy	409.75	20	8,195.01	-	797.96
ĺ	6/28/2023	AMZN	Buy	128.65	6	771.89	-	26.07

By the end of the week my portfolio value was \$105,788.17, increasing by \$1,956.03 from last week.

4.4 Week 4 (7/3 – 7/9)

For this week I was really satisfied on how my stocks looked. Every single one showed growth. Looking at most of them, I thought it wouldn't be wise to sell, especially Amazon and Meta.

Amazon was one week away from Prime Day, an event taking place from July 11 until July 12, therefore I was expecting for the stock price to rise. Meta launched their new Instagram app, Threads. Threads launched on July 5, 2023, and by July 8 it had 90 million registered users, making it one of the most popular apps launches ever.

Microsoft, Nvidia, and Apple, all are tied with Amazon since a lot of their products are listed on Amazon.com, and I personally noticed a lot of advertisements for Prime day featuring products from all three companies. Therefore, I believed that their stocks will be affected from Amazon. In addition, Nvidia is set to launch their new RTX 4060 Graphics card, which is a budget friendly and appealing to the public GPU.

Tesla and Lilly & Co. stocks were still on the rise, so I thought of keeping them for this week and see their progress on the next.

Unfortunately, at the end of the week Lilly & Co. stocks dropped significantly and causing me a 1.45% total loss. Closing the week, my portfolio value was \$105,637.12, \$151.05 less than

last week.

4.5 Week 5 (7/10 – 7/16)

Starting week 5, I decided to sell my shares of Lilly & Co, after they had drop significantly, for \$449.68 per share, 20 shares, totaling \$8,993.60.

All other stocks were on the rise and especially Tesla was rising steadily since last week. With that in mind, with the cash that I had left from selling my stocks from Eli Lilly & Co., I bought 33 Tesla shares for \$269.64 each, totaling at \$8,898.10. Table 4.4 shows the transactions of week 5.

Table 4.4 Swing Strategy Transactions Week 5

Date	Symbol	Buy/Sell	Price	Shares	Total Cost	Profit/Loss	Total Cash
7/11/2023	LLY	Sell	449.68	20	8,993.60	-203	9019.67
7/11/2023	TSLA	Buy	269.64	33	8,898.10	-	121.57

By the end of the week, my decision to buy more Tesla stocks had been justified because they had increased significantly, increasing my portfolio value to \$110,232.98, a \$4,595.86 increase from last week, making it the most profit I made in a single week.

Chapter 5: Position Trading (Joan M)

The first stocks that I bought were: Ford Motor, Alphabet Inc Class C (Google), General Motors, Biogen Inc, Tesla, Apple, and Microsoft.

Ford Motor Co. (F)

Ford Motor Co. is a company that manufactures, distributes, and sale of automobiles. It operates through the following three segments: Automotive, Mobility, and Ford Credit. The Automotive segment engages in manufacturing and developing and also marketing of the vehicles. The Mobility segment includes Ford Smart Mobility LLC and autonomous vehicles business. The Ford Credit segment does the financing and leasing activities. The company was founded by Henry Ford on June 16, 1903. The company headquarters is located in Dearborn, MI. As of today, it has 173,000 employees. Shown below Figure 5.1 represents the performance of Ford Motor Co over the past year.



Figure 5.1 Ford Stock Performance Over the Past Year

Alphabet, Inc (GOOG)

Alphabet, Inc is a conglomerate holding company and it is headquartered in Mountain view, Ca. The company was founded by Lawrence E. Page and Sergey Mikhailovich Brin on October 2, 2015. It was created as a restructuring of Google and it is considered one of the Big Five American information technology companies. It currently has 190,711 employees as of March 2023. In Figure 5.2 is shown the Alphabet Inc stock performance over the past year.

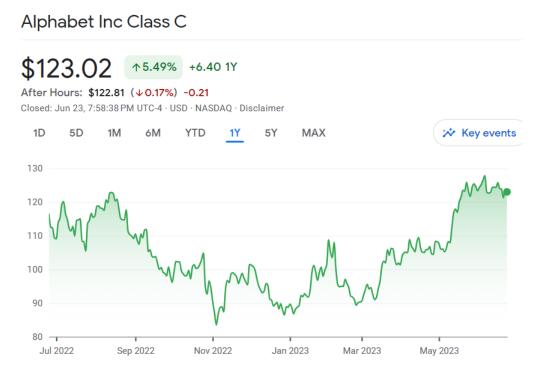


Figure 5.2 Google Stock Performance Over the Past Year

General Motors Co. (GM)

General Motors was founded by William C. Durant on September 16, 1908 and is headquartered in Detroit, MI. It engages in the designing, manufacturing, and selling of cars, trucks and also automobile parts. Currently having around 167,000 employees General Motors has been a key factor in the US economy. It is the largest auto manufacturer in the US, and also it was the largest in the world until 2008. The company sells vehicles under the Chevrolet, Cadillac, Baojun,

Buick, GMC, Holden, Jiefang, Wuling, Maven, and OnStar brands. In the Figure 5.3 is shown the market performance of GM stock over the past year.



Figure 5.3 GM Stock Performance Over the Past Year

Biogen, Inc. (BIIB)

Biogen, Inc. is a biopharmaceutical company, which engages in discovering, developing, and delivering therapies for neurological and neurodegenerative diseases. The company was founded in Geneva in 1978 as Biotechnology Geneva by Charles Weissmann, Heinz Schaller, Kenneth Murray, Walter Gilbert, and Phillip Allen Sharp. Today it is headquartered in Cambridge, MA. It currently has 8725 employees. Below in Figure 5.4 is shown the performance of this stock over the past year.

Biogen Inc



Figure 5.4 Biogen stock performance over the past year

Information for the Tesla, Apple, and Microsoft stocks was given in previous chapters.

5.1 Week 1 (6/12 - 6/18)

On Monday, June 12th, 2023, beginning of the first week of the simulation all stocks were bought. As I previously had decided to invest in more than one company, I purchased shares from Tesla (TSLA), Apple (AAPL), Microsoft Co (MSFT), Google (GOOG), Ford (F), General Motors (GM) and Biogen Inc (BIIB). Those purchases were based on the purpose of minimizing risk by having a diversified portfolio. I selected this specific portfolio after analyzing the trendline of the indexes (S&P500, DJIA, etc.) and also the stock performance for each company. I concluded that there is a great opportunity to make a good profit by investing in these companies. In Figure 5.5 from bottom up are shown the purchases completed on Monday in chronological order.

Date	Symbol	Trade Type	QΤΥ	Price	Total Cash Value
6/12/2023	GM	Stock: Buy at Market	222	\$36.73	\$8,152.95
6/12/2023	MSFT	Stock: Sell at Market	25	\$326.00	\$8,150.00
6/12/2023	F	Stock: Buy at Market	2	\$13.82	\$27.64
6/12/2023	GOOG	Stock: Buy at Market	32	\$122.62	\$3,923.84
6/12/2023	BIIB	Stock: Buy at Market	30	\$314.77	\$9,443.10
6/12/2023	AAPL	Stock: Buy at Market	100	\$181.21	\$18,121.00
6/12/2023	MSFT	Stock: Buy at Market	65	\$327.07	\$21,259.23
6/12/2023	TSLA	Stock: Buy at Market	80	\$246.92	\$19,753.63
6/12/2023	F	Stock: Buy at Market	2000	\$13.73	\$27,460.00

Figure 5.5 Transaction History 6/12/2023

I bought 2002 shares of Ford at \$13.73 and 80 shares of Tesla at \$246.92 on the expectation that following the agreement between the companies to use each other charging stations there would be a growth in their revenues. After that I bought 65 shares of Microsoft at \$327.07 motivated by its performance in the stock market over the recent past month and also over longer period of time. Following the release of the new product from Apple, Vision Pro and also the growth of its stock value with a potential to reach the 52-week high limit \$187.56, I purchased 100 shares at \$181.21. This purchase was also motivated by its P/E ratio of 31.71.

In addition to the news that Biogen received support from a key regulatory advisory board of the FDA to proceed on an Alzheimer's disease treatment developed by both a Japanese pharmaceutical company Eisai Co. and Biogen, gave the insight to invest in the company by purchasing 30 shares at \$314.77. I also purchased 32 shares at \$122.62 from Alphabet Inc (Google) with the expectation that the company revenue will increase due to its development of AI products. Later on, noticing a price drop in MSFT shares from \$327.07 to \$326.00 by \$1.07, I decided to sell 25 of the shares and keep hold on only 40 shares. This movement was made to minimize the risk and also reallocate the investing fund and diversify more the portfolio. I was investing more

than 1/5 of the investment portfolio on this stock and this transaction also helped minimize the risk (even though MSFT increased during the week). I had earlier spotted an investment opportunity General Motors. This was based on their agreement with Tesla to use the charging stations, that is why I bought 222 shares at \$36.73. Table 5.1 shows the asset changes and the transaction history of week 1.

Table 5.1 Position Trading Asset Changes and Transactions Week 1

Date	Symbol	Buy Price	Shares	Net Cost	Price Last Friday	Price This Friday	Asset This Friday	Weekly Gain/ Loss	Total Gain/ Loss
06/12/23	F	13.73	2000	27,460.00		14.42	28,840.00	1,380.00	1,380.00
06/12/23	TSLA	246.92	80	19,753.00		184.92	20,843.20	1,140.20	1,140.20
06/12/23	MSFT	327.07	40	13,082.80		342.33	13,693.20	610.40	610.40
06/12/23	AAPL	181.21	100	18,121.00		184.92	18,492.00	371.00	610.40
06/12/23	BIIB	314.77	30	9,443.10		297.48	8,924.40	-518.70	-518.70
06/12/23	GOOG	122.62	32	3,923.84		124.06	3,969.92	46.08	46.08
06/12/23	F	13.82	2	27.64		14.42	28.84	1.20	1.20
06/12/23	GM	36.73	222	8,152.95		\$37.46	8,427.12	274.17	274.17
							Total	3,258.27	

On the first week of trading the total value of the assets increased from \$100,000.00 to \$103,258.27 + \$8.62 (uninvested cash) adding a profit of \$3,258.27.

5.2 Week 2 (6/19 – 6/25)

For the second week of simulation, I decided to hold the investments on all stocks as the previous week. In order to minimize the risk, before the second week of simulation began, I decided to place some stop loss orders. The stop limit orders were placed only for 3 of the stocks in my portfolio as they also comprise the greater weight of my investment. Firstly, a stop limit was set for my 100 shares of Apple (APPL) at \$181.00. I also set a stop limit for the 2002 shares of Ford and 80 shares of Tesla, at \$13.90 and \$250.00 respectively. In the best interest of this simulation performance none of the orders was executed as none of the stocks dropped below the

limit value. Figure 5.6 shows the portfolio summary on 6/23/2023.

TOTAL VALUE TODAY'S CHANGE TOTAL GAIN/LOSS \$101,169.04 \$0.00 (0.00%) \$1,204.28 (1.20%) ↑ Symbol Description Current Price Today's Change Purchase Price QTY Total Value Total Gain/Loss -\$32.00 (-0.17%) \$547.00 (3.02%) AAPL Apple Inc \$186.68 \$181.21 100 \$18,668.00 -\$282.90 (-3.21%) -\$907.50 (-9.61%) BIIB Biogen Inc \$284.52 \$314.77 \$8,535.60 30 -\$340.34 (-1.20%) \$580.40 (2.11%) Ford Motor Co. \$14.02 \$13.73 \$28,068.04 2,002 -\$106.56 (-1.31%) -\$120.99 (-1.48%) GM General Motors Company \$36.18 \$36.73 222 \$8,031.96 \$12.80 (0.33%) -\$27.20 (-0.69%) GOOG Alphabet Inc - Ordinary Shares - Class C \$123.02 \$122.62 32 \$3,936.64 -\$187.60 (-1.38%) \$318.20 (2.43%) **MSFT** Microsoft Corporation \$335.02 \$327.07 40 \$13,400.80 -\$640.80 (-3.03%) \$774.37 (3.92%) **TSLA** Tesla Inc \$256.60 \$246.92 80 \$20,528.00

Figure 5.6 Portfolio Summary 6/23/2023

Table 5.2 shows the asset changes and the transaction history of week 2.

Table 5.2 Position Trading Asset Changes and Transactions Week 2

Date	Symbol	Buy Price	Shares	Net Cost	Price Last	Price This	Asset This	Weekly Gain/	Total Gain/
					Friday	Friday	Friday	Loss	Loss
06/12/23	F	13.73	2000	27,460.00	14.42	14.02	28,040.00	-800.00	580.00
06/12/23	TSLA	246.92	80	19,753.00	260.54	256.60	20,843.20	-315.20	774.4
06/12/23	MSFT	327.07	40	13,082.80	342.33	335.02	13,400.80	-292.40	318.20
06/12/23	AAPL	181.21	100	18,121.00	184.92	186.68	18,668.00	176.00	547.00
06/12/23	BIIB	314.77	30	9,443.10	297.48	284.52	8,535.60	-338.80	-907.50
06/12/23	GOOG	122.62	32	3,923.84	124.06	123.02	3,969.92	-33.28	12.80
06/12/23	F	13.82	2	27.64	14.42	14.02	28.04	-0.80	0.40
06/12/23	GM	\$36.73	222	\$8,152.95	37.46	36.73	8,031.96	-162.06	-120.99
							Total	-1,766.54	1,204.28

By the end of the second week of the simulation the total value of the assets dropped to \$101,204.28 due to a devaluation of \$1,766.54 compared to the week.

5.3 Week 3(6/26-7/2)

On the third week of the simulation starting on 06/26/2023, I had decided to hold all my stocks. During this week it was observed an underperformance on all the stocks. This underperformance was caused to the best of my knowledge due to the coup attempt in Russia. The head of a private military force ordered his troops to march towards the Russian capital and this caused fear and uncertainty among the investors of the stock market making it move unnaturally. All this uncertainty came to an end after the coup did not take place and the march was disbanded, bringing the market back to normal.

For this I decided to keep hold on Biogen, one of the most underperforming stocks in my portfolio as most of the analysts suggest buying the stock as it is undervalued, and they predict it will go up. I also decided to put a stop loss limit for Biogen which did not execute as I was expecting. A stop loss limit was put for Tesla at \$248.00 as I noticed that the price was dropping fast. This order was executed at a lower price of \$247.35. After this transaction I rebought Tesla at the price of \$245.96 as I noticed that it was in a dip down and was going to increase, making a profit of \$111.20 in available cash. I decided to keep a positioning on Tesla as to my knowledge it will go up on the next few weeks. Some other stop loss orders were placed later during the week for the shares of Ford and Microsoft, at prices of \$14.20 and \$330.00 respectively. Figure 5.7 shows the portfolio summary on 6/30/2023.

Symbol	Description	Current Price	Today's Change	Purchase Price	QTY	Total Value	Total Gain/Loss
AAPL	Apple Inc	\$193.97	\$438.00 (2.31%)	\$181.21	100	\$19,397.00	\$1,276.00 (7.04%)
BIIB	Biogen Inc	\$284.85	\$81.60 (0.96%)	\$314.77	30	\$8,545.50	-\$897.60 (-9.51%)
F	Ford Motor Co.	\$15.13	\$360.36 (1.20%)	\$13.73	2,002	\$30,290.26	\$2,802.62 (10.20%)
GM	General Motors Company	\$38.56	\$79.92 (0.94%)	\$36.73	222	\$8,560.32	\$407.37 (5.00%)
GOOG	Alphabet Inc - Ordinary Shares - Class C	\$120.97	\$30.72 (0.80%)	\$122.62	32	\$3,871.04	-\$52.80 (-1.35%)

Figure 5.7 Portfolio Summary 6/30/2023

\$219.60 (1.64%)

\$341.60 (1.66%)

\$327.07

\$245.96

40

\$13,621.60

\$20,941.60

(4.12%)

\$1,264.80 (6.43%)

Table 5.3 shows the asset changes and the transaction history of week 3.

\$340.54

\$261.77

TOTAL GAIN/LOSS

TOTAL VALUE

MSFT

TSLA

TODAY'S CHANGE \$105,227.32 \$0.00 (0.00%) \$5,339.39 (5.35%) ↑

Microsoft Corporation

Tesla Inc

Table 5.3 Position Trading Asset Changes and Transactions Week 3

Date	Symbol	Buy Price	Shares	Net Cost	Price Last Friday	Price This Friday	Asset This Friday	Weekly Gain/ Loss	Total Gain/ Loss
06/12/23	F	13.73	2000	27,460.00	14.02	15.13	30,260.00	2,220.00	2,800.00
06/12/23	TSLA	246.92	80	19,753.00	256.60	261.77	20,941.60	413.60	1,188.00
06/12/23	MSFT	327.07	40	13,082.80	335.02	340.54	13,621.60	220.80	538.80
06/12/23	AAPL	181.21	100	18,121.00	186.68	193.97	19,397.00	729.00	1,276.00
06/12/23	BIIB	314.77	30	9,443.10	284.52	284.85	8,545.50	9.90	-897.60
06/12/23	GOOG	122.62	32	3,923.84	123.02	120.97	3,871.04	-65.60	-52.80
06/12/23	F	13.82	2	27.64	14.02	15.13	30.26	2.22	2.80
06/12/23	GM	36.73	222	8,152.95	36.18	38.56	8,560.32	538.36	406.26
							Total	4,058.28	5,261.30

By the end of the third week of the simulation the total value of the assets was \$105,261.30 and \$119.82 is the amount of the uninvested cash making a total portfolio value of \$105,381.12. This value jumped up compared to the previous week to a gain of 5.35% compared to only 1.20% gain of the second week.

5.4 Week 4 (7/3 - 7/9)

On Monday 07/03/2023, the first day of the 4th week of the simulation, I did not make any changes to my portfolio as the market was in a bullish region. I decided to put some stop loss orders for most of my portfolio, while keeping the stop loss order for Microsoft (MSFT) the same as the previous week and upgrading the order for Tesla (TSLA). During this week on Tuesday, it was observed the Independence Day of the United States of America.

All the stop loss orders were placed on Monday, except for Microsoft which was placed on the previous week at a quote of \$330.00. Other stop loss orders were placed for Apple (AAPL) at \$187.00, Ford (F) at \$14.80, Tesla (TSLA) at \$270.00 and General Motors (GM) at \$38.00. I did not place a stop loss order for Biogen (BIIB) as it was already underperforming but I decided to take a risk. To my best knowledge, it will eventually go up following the FDA approval for its new Alzheimer's drug. Also, most experts and analysts suggested buying and holding. Figures 5.8 and Figure 5.9 below show the portfolio summary on 7/9/2023 and the active stop loss orders and Table

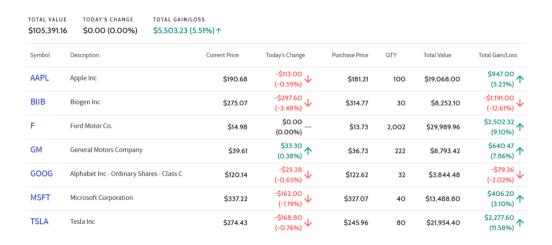


Figure 5.8 Portfolio Summary 7/9/2023

PENDING TRADE	s			
Symbol	Description	Transaction	Quantity	Current Price
MSFT	Microsoft Corporation	Sell at Stop at \$330.00	40	\$338.55
AAPL	Apple Inc	Sell at Stop at \$187.00	100	\$192.83
F	Ford Motor Co.	Sell at Stop at \$14.80	2002	\$15.27
TSLA	Tesla Inc	Sell at Stop at \$270.00	80	\$282.20
GM	General Motors Company	Sell at Stop at \$38.00	222	\$39.01

Figure 5.9 Active stop loss orders for week ending on 7/9/2023

Table 5.4 Position Trading Asset Changes and Transactions Week 4

Start	Symbol	Buy	Shares	Net Cost	Price	Price	Asset	Weekly	Total
Date		Price			Last	This	This	Gain/	Gain/
					Friday	Friday	Friday	Loss	Loss
06/12/23	F	13.73	2000	27,460.00	15.13	14.98	29,960.00	-300.00	2,500.00
06/12/23	TSLA	246.92	80	19,753.00	261.77	274.43	21,954.40	1,012.80	2,200.80
06/12/23	MSFT	327.07	40	13,082.80	340.54	337.22	13,488.80	-132.80	406.00
06/12/23	AAPL	181.21	100	18,121.00	193.97	190.68	19,068.00	-329.00	947.00
06/12/23	BIIB	314.77	30	9,443.10	284.85	275.07	8,252.10	-293.40	-1,191.00
06/12/23	GOOG	122.62	32	3,923.84	120.97	120.14	3,844.48	-26.56	-79.36
06/12/23	F	13.82	2	27.64	15.13	14.98	29.96	-0.30	2.32
06/12/23	GM	36.73	222	8,152.95	\$38.56	39.61	8,793.42	233.10	639.36
							Total	\$163.84	\$5,425.12

By the end of the fourth week of the simulation the total value of the assets was \$105,425.12 + \$119.82 = \$105,544.94, where \$119.82 is the amount of the uninvested cash. This value jumped up compared to the previous week to a gain of 5.54% compared to a 5.35% gain of the third week.

5.5 Week 5 (7/10 – 7/16)

This week was the last week of our simulation. On Monday 07/03/2023, the first day of the 5th week of the simulation, I did not make any changes to my portfolio as I had decided during the weekend and kept the positions as in the previous week. I kept the stop loss orders for

most of my portfolio as they were in the previous week which are represented in Figure 5.9.

This week three of the stop loss orders were executed, for Microsoft (MSFT), Tesla (TSLA) and Apple (APPL). The 40 shares of Microsoft were sold at \$329.43 as the stop loss order was at \$330.00. I decided to purchase the same 40 shares for \$328.90 by placing a buy limit order, because I noticed a dip and most experts were suggesting buying. This order was executed at an even lower price, at \$328.05, making a profit of \$55.20 in cash. The 80 shares of Tesla were sold at \$269.47; the stop loss order was at \$270.00. I decided to rebuy the 80 shares of Tesla and placed a buy at market order, the order was executed for a price of \$269.15 per share. This created a cash profit of \$25.60.

On Tuesday the other stop loss order for Apple was executed at a price of \$186.94 instead of the price set for \$187.00 translating into an amount of \$18.694.00 cash. I placed a buy limit order to rebuy the 100 shares of Apple at a price of \$187.00, but it was executed because the quoted price was \$190.15. Purchasing these shares at this high price would generate a considerable loss in cash, so I decided not to keep a position for Apple anymore, as purchasing the shares would double the risk. Figures 5.8 and Table 5.5 below show respectively the portfolio summary on 7/14/2023, and week 5 asset changes.

\$87,580.26		TOTAL GAIN/LOSS \$3,918.73 (4.68%)↑					
Symbol	Description	Current Price	Today's Change	Purchase Price	QTY	Total Value	Total Gain/Loss
BIIB	Biogen Inc	\$278.93	\$28.80 (0.35%)	\$314.77	30	\$8,367.90	-\$1,075.20 (-11.39%)
F	Ford Motor Co.	\$14.98	-\$420.42 (-1.38%)	\$13.73	2,002	\$29,989.96	\$2,502.32 (9.10%)
GM	General Motors Company	\$40.00	-\$111.00 (-1.23%)	\$36.73	222	\$8,880.00	\$727.05 (8.92%)
GOOG	Alphabet Inc - Ordinary Sha	ares - Class C \$125.70	\$27.84 (0.70%)	\$122.62	32	\$4,022.40	\$98.56 (2.51%)
MSFT	Microsoft Corporation	\$345.24	\$103.20 (0.75%)	\$328.05	40	\$13,809.60	\$687.60 (5.24%)
TSLA	Tesla Inc	\$281.38	\$278.40 (1.25%)	\$269.15	80	\$22,510.40	\$978.40 (4.54%)

Figure 5.10 Portfolio Summary 7/14/2023

Table 5.5 Position Trading Asset Changes and Transactions Week 5

Start Date	Symbol	Buy Price	Shares	Net Cost	Price Last	Price This	Asset This Friday	Weekl v Gain/	Total Gain/
Date					Friday	Friday	Filday	Loss	Loss
06/12/23	F	13.73	2000	27,460.00	14.98	14.98	29,960.00	0.00	2,500.00
06/12/23	TSLA	246.92	80	19,753.00	274.43	281.38	22,510.40	556.00	2,756.80
06/12/23	MSFT	327.07	40	13,082.80	337.22	345.24	13,809.60	320.80	726.80
06/12/23	AAPL	181.21	100	18,121.00	190.68	186.94*	18,694.00*	-374.00	573.00
06/12/23	BIIB	314.77	30	9,443.10	275.07	278.93	8,367.90	115.80	-1,075.20
06/12/23	GOOG	122.62	32	3,923.84	120.14	125.70	4,022.40	177.92	98.56
06/12/23	F	13.82	2	27.64	14.98	14.98	29.96	0.00	2.32
06/12/23	GM	36.73	222	8,152.95	39.61	40.00	8,880.00	86.58	725.94
							Total	883.10	6,308.22

^{*}Price when the stop loss order was executed was \$186.94, price of APPL on Friday \$190.69, the price used for the calculation is \$186.94.

By the end of the fifth week of the simulation the total value of the assets was \$106,308.22 + \$200.62 = \$106,508.84, where \$200.62 is the amount of the uninvested cash. This value jumped up compared to the previous week to a gain of 6.308% compared to a 5.54% gain of the fourth week.

Chapter 6: Day Trading (Nikola M)

When it comes to day trading, there are hundreds of strategies to use. The historical annual returns of the S&P 500 index are 10% on average. Day traders believe that by making multiple intraday trades, they can reach up to 20% monthly returns. In annual returns that is more than 200%. Based on the large number of trades day traders make, there is little fundamental news that will affect the stocks. For this reason, day traders use technical analysis and indicators to trade stocks. The Securities and Exchange Commission makes it clear: Day trading is not investing. With that being said, fundamentals don't really matter that much. Stocks are traded on the news; decisions are made in minutes or even seconds. State of the art technologies and technical analysis are used to spot intraday patterns with the purpose of capitalizing. Regarding my simulation, I will use stocks throughout the whole stock exchange, starting from large caps stocks, blue chips, financials, banks, small caps, IPO releases, ETF and leveraged products. The main idea is to follow a strategy which will generate steady profits on a daily and weekly basis. No open positions will be held overnight, and no orders will be executed after hours or at pre-market.

6.1 Week 1 (06/12 - 06/18)

On the first week, 8 different stocks were traded in different days. My purpose for this week was to take on a conservative approach to day trading to gain confidence. I set my limits in such a way as not risking more than 1% of my whole portfolio in a single trade. In the following weeks, with more research done, I will be able to increase my risk to 4% to be able to aim for more gains. For example, if I was buying X number of shares of some stock and my portfolio value was \$100,000 initially, for every trade I set stop-loss limits when my loss would hit \$1,000. Simulation started on 06/13/2023 at 12:53 EDT, when I bought 100 shares of ORCL stock at an average price of 117.92.

Oracle Corp. (ORCL)

Oracle Corp. engages in the provision of products and services that address aspects of corporate information technology environments. It operates through the following business segments: Cloud and License, Hardware, and Services. The Cloud and License segments markers, sells, and delivers enterprise applications and infrastructure technologies through cloud and on-premise deployment models including cloud services and license support offerings. Figure 6.1 shows the performance of the stock year to date.

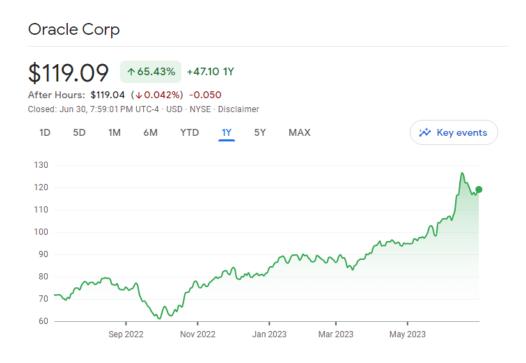


Figure 6.1 Oracle stock performance over the past year

Oracle reported strong earnings results in 06/12/2023 and it was the logical decision for me to buy at least 100 shares at 117.92. Figure 6.2 shows the minute chart of ORCL at the moment I decided to buy. The chart provided a double bottom pattern too, which is a bullish sign for day traders.



Figure 6.2 Double Bottom Pattern of ORCL Stock at the Minute Chart

SPDR S&P 500 ETF Trust (SPY)

The SPDR S&P 500 ETF Trust is one of the most popular funds. It aims to track the Standard & Poor's (S&P) 500 Index, which comprises 500 large-cap U.S. stocks. These stocks are selected by a committee based on market size, liquidity, and industry. The S&P 500 serves as one of the main benchmarks of the U.S. equity market and indicates the financial health and stability of the economy. Also known as the SPY ETF, the fund was established in Jan. 1993.

Most day traders focus on trading SPY options, as they are more volatile, and the risk-reward is greater. A lot of traders though choose to trade SPY intraday because it is the most liquid ETF on the market. Another reason is that SPY is a singular trading vehicle tracking 500 companies, so there won't be any crazy moves in most days. This was very comfortable for me, as I chose a conservative approach to trading during my first week. Figure 6.3 shows the performance of the index for the past year.

SPDR S&P 500 ETF Trust



Figure 6.3 SPY Performance Over the Past Year

AMC Entertainment Holdings Inc. (AMC)

AMC Entertainment Holdings Inc. Engages in the theatrical exhibition business through its subsidiaries. It operates through the U.S. Markets and International markets. The U.S. Markets segment is involved in owning, leasing, or operating theaters and screens in the U.S. The International Markets segment focuses on the same things in United Kingdom, Germany, Spain, Italy and other European Countries. The company was founded by Barney Dubinsky, Maurice Durwood and Edward Durwood in 1920 and is headquartered in Leawood, KS. The current CEO is Adam M. Aron, which has had a lot of media attention in recent years due to the frenzy of the so called "Apes", a group of retail traders who caused certain stocks to jump up large percentage overnight. Figure 6.4 shows the AMC stock performance over the past year.

AMC Entertainment Holdings Inc



Figure 6.4 AMC Stock Performance Over the Past Year

I bought 1000 shares of AMC stock at a price of 4.96 around 12:07 EDT. My goal was to build a position of 4000 shares, and I was dollar cost averaging at 10 minutes intervals. The technical analysis and the chart as shown in Figure 6.5 were showing a bull flag and if I was right, I was going to make 10 cents a minimum on every share.



Figure 6.5 AMC chart showing a bull flag pattern around 12:07 EDT

Eventually, I bought more shares of AMC at prices of 5.02 and 5.03 building my position of 4000 shares. The stock went up to 5.12, which hit my 5.10 set limit. My total profit was \$520.00, and my position size was in the range of \$20,000.00. Table 6.1 gives Week 1 transaction record.

Table 6.1 Day Trading Transactions Week 1

Start Date	Symbol	Buy/Sell	Price	Shares	Net cost/Proceeds	Profit/ Loss	Total cash	Total profit
06/13/23							100,000	
06/13/23	ORCL	Buy	117.92	100	11,792		88,208	
06/13/23	AMC	Buy	4.96	1,000	4,960		83,248	
06/13/23	SPY	Buy	436.83	50	21,841.5		61,406.5	
06/13/23	AMC	Buy	5.00	1,000	5,000		56,406.5	
06/13/23	AMC	Buy	5.02	2,000	10,040		46,366.5	
06/13/23	AMC	Sell	5.13	4,000	20,520	+520	66,886.5	520
06/13/23	META	Sell(short)	269.66	50	13,483		80,369.5	
06/13/23	SPY	Sell	435.53	50	21,776.5	-65	102,146	455
06/13/23	ORCL	Sell	117.11	100	11,711	-81	113,857	374
06/13/23	META	Buy-cover	271.21	50	13,560.5	-77.5	100,296.5	296.5
06/14/23	META	Sell-short	270.90	50	13,545		113,841.5	
06/14/23	META	Buy-cover	269.00	50	13,450	+95	100,391.5	391.5
06/14/23	NVDA	Sell-short	415.59	30	12,467.7		112,859.5	
06/14/23	NVDA	Sell-short	416.87	30	12,506.1		125,365.6	
06/14/23	NVDA	Buy-cover	421.95	50	21,097.5		104,268.1	
06/14/23	NVDA	Sell-short	421.10	70	29,477		133,745.1	
06/14/23	NVDA	Buy-cover	424.21	80	33,936.8	-583.50	99,808.3	-192
06/15/23	APPL	Buy	186.24	120	22,348.8		77,459.5	
06/15/23	TSLA	Buy	257.22	100	25,722		51,737.5	
06/15/23	TSLA	Sell	255.88	100	25,588	-134	77,325.5	-326
06/15/23	APPL	Sell	185.87	120	22,304.4	-44.4	99,629.9	-370.1

A list of every transaction filled for the first week is shown clearly below in Figure 6.6. As we can notice from the placed time, I started trading late in the session and did not participate in the market opening. This was a mistake of mine, as 90% of experienced day traders trade only the morning session, being more volatile and having more opportunities for gains.

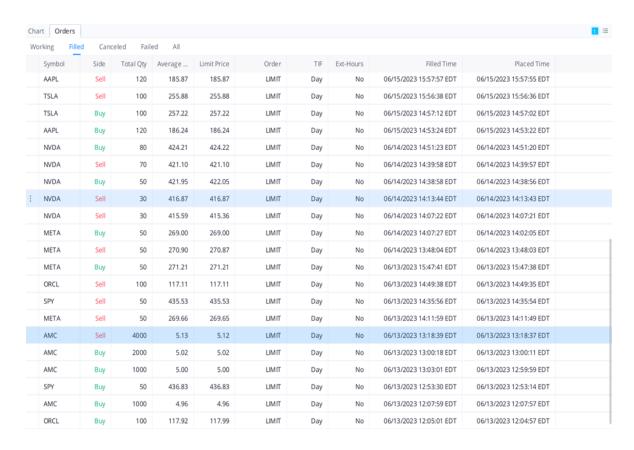


Figure 6.6 Week 1 Transaction History

On the first week of trading, my trades resulted in a total loss of \$370.10. In terms of percentage, my account ended the week 0.37% down. I underperformed the market, as the SPY index closed this week 2.37% up. My account value at the end of week 1 was \$99,629.90.

6.2 Week 2 (6/19 – 6/25)

After following a limited risk strategy during the first week with the purpose of getting a sense of day trading, I decided to level up my risk in order to generate higher returns. I decided to take a step back at the first two days without trading, but actively monitoring the behavior of high-volume stocks going up. I set up screeners searching for stocks with high volume, high implied volatility, and biggest daily jumps and dips. I started trading Wednesday and continued on Thursday. I was actively looking to enter trades on Friday but did not find any appropriate positions to open.

Direxion Daily S&P 500 Bull 3X Shares (SPXL)

As you may imagine from its name, the Direxion Daily S&P 500 Bull 3X Shares ETF is a leveraged product that attempts to magnify the returns of the S&P 500 (SPY) ETF on a daily basis. The goal here is to deliver 3X daily, or else said, 300% of the daily return of the S&P 500. SPXL generally works best during an upward trending environment, and when volatility is not elevated. This is driven by the compounding and daily rebalancing facets of this product, and there are both benefits and risks to this setup. The benefit is that through every day's price gain, the exposure to the index picks up at an accelerated pace (as they attempt to rebalance daily to ensure 3x daily returns), so one-way trending markets can do a world of good for this product, as cumulative returns ramp up quickly. Figure 6.7 shows SPXL's stock price over the past year.



Figure 6.7 SPXL Stock Price Over the Past Year

I was following the market sentiment through 3-4 hours and decided to enter trades in the main stocks of the S&P 500 around 13:30. My strategy for the day was scalping small price changes. I bought shares of AAPL and TSLA initially and I was looking to make at least 0.5%

return with my positions. After buying these shares, I decided to try the SPXL to magnify my returns. It turned out to be unprofitable as the market was pulling back at that moment. Figure 6.8 shows the chart of APPL when I initiated my first trade of this week. The daily trend was an uptrend, MACD was over 0 and the MACD line was over the signal line which is a bullish short-term signal.

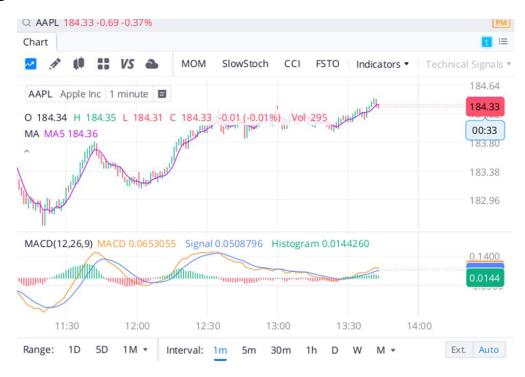


Figure 6.8 AAPL Stock Chart on 06/21/2023 at 1:42 PM EDT

After buying AAPL, I decided to look at TSLA, as it was one of the stocks with the highest volume of the day. This is very common for TSLA, as day traders love to trade stocks that have large movements. TSLA stock jumps up or down more than 5% a lot of times, so that is why it's of the most traded stocks daily. Figure 6.9 shows TSLA chart when I entered the trade. I bought 100 shares at 260.84 and then after 1 minute I bought another 100 shares at 261.01.

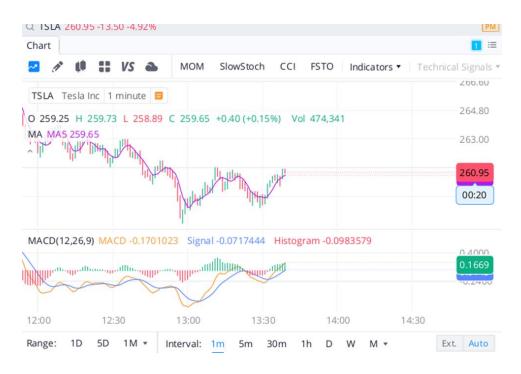


Figure 6.9 TSLA Stock Chart on 06/21/2023 at 1:40 PM EDT

Overstock.com, Inc (OSTK)

Overstock.com, Inc. operates as an online retailer in the United States. It offers furniture, décor, area rug, bedding and bath, home improvement, outdoor, and kitchen and dining items. The company provides its products and services through its internet websites comprising overstock.com, o.co, overstock.ca, and overstockgovernment.com. It also offers businesses advertising products or services on its website; Marketplace, a service that allows its partners to sell their products through third party sites; products to international customers using third party logistics providers. Figure 6.10 shows the year-to-date chart performance of the stock.

Overstock.com Inc



Figure 6.10 OSTK year-to-date Stock Price Chart

OSTK was up around 18% for the day on 06/21/2023 when I decided to buy it. The stock jumped on the news that the company had decided to buy Bed Bath & Beyond assets for \$21.5 million after the latest declared bankruptcy. I bought 1000 shares at 25.46 and sold them all after a few minutes for 26.00, generating a profit of \$540. After having made a profit on OSTK trade, I decided to short NVDA stock with the hope of a pullback from the market. Monitoring the MACD, it was going lower and lower on the daily crossovers. I started shorting 100 shares and after 10 minutes decided to cover 70 shares at a loss of 47 cents per share. Then I decided in a last attempt with 20 minutes at close to short again but was wrong again and was forced to cover at around 30 cents per share loss. Table 6.2 gives Week 2-day trading transactions in detail.

Table 6.2 Day Trading Transactions Week 2

Start Date	Symbol	Buy/Sell	Price	Shares	Net cost/Proceeds	Profit/Loss	Total cash	Total profit
06/21/2023							99,629.9	
06/21/2023	TSLA	Buy	260.84	100	26,084		73,545.9	
06/21/2023	TSLA	Buy	261.01	100	26,101		47,444.9	
06/21/2023	AAPL	Buy	184.33	100	18,433		29,011.9	
06/21/2023	TSLA	Sell	262.00	200	52,400	215	81,411.9	-155.1
06/21/2023	AAPL	Sell	185.00	100	18,500	67	99,911.9	-88.1
06/21/2023	SPXL	Buy	86.37	100	8,637		91,274.9	
06/21/2023	SPXL	Buy	86.48	100	8,648		82,626.9	
06/21/2023	SPXL	Buy	86.40	100	8,640		73,986.9	
06/21/2023	SPXL	Sell	86.30	300	25,890	-35	99,876.9	-123.1
06/22/2023	OSTK	Buy	25.46	1,000	25,460		74,416.9	
06/22/2023	META	Sell-short	281.60	100	28,160		102,576.9	
06/22/2023	META	Buy-cover	281.76	100	28,176	-16	74,400.9	-139.1
06/22/2023	OSTK	Sell	26.00	1,000	26,000	540	100,400.9	400.9
06/22/2023	NVDA	Sell-short	427.41	100	42,741		143,141.9	
06/22/2023	NVDA	Buy-cover	427.88	70	29,951		113,190.0	
06/22/2023	NVDA	Sell-short	427.91	100	42,791	_	155,981.9	
06/22/2023	NVDA	Sell-short	428.16	50	21,408		177,389.9	
06/22/2023	NVDA	Buy-cover	428.27	180	77,088.6	-100.2	100,300.7	300.7

The second week I generated a profit of \$670.8, bringing my account value up to \$100,300.7. In terms of percentage this was a move of 0.67% up. My biggest winning trade was OSTK long and biggest loser was NVDA shorting. Figure 6.11 shows a detailed history of transactions with more specifics.

NVDA	Buy	180	428.27	429.10	LIMIT	Day	No	06/22/2023 15:42:24 EDT	06/22/2023 15:42:22 EDT
NVDA	Sell	50	428.16	428.15	LIMIT	Day	No	06/22/2023 15:39:53 EDT	06/22/2023 15:39:50 EDT
NVDA	Sell	100	427.91	427.89	LIMIT	Day	No	06/22/2023 15:39:20 EDT	06/22/2023 15:38:38 EDT
NVDA	Buy	70	427.88	428.00	LIMIT	Day	No	06/22/2023 15:38:14 EDT	06/22/2023 15:38:11 EDT
NVDA	Sell	100	427.41	427.40	LIMIT	Day	No	06/22/2023 15:28:59 EDT	06/22/2023 15:28:37 EDT
OSTK	Sell	1000	26.00	26.00	LIMIT	Day	No	06/22/2023 14:42:42 EDT	06/22/2023 14:42:32 EDT
META	Buy	100	281.76	281.76	LIMIT	Day	No	06/22/2023 14:40:08 EDT	06/22/2023 14:40:06 EDT
META	Sell	100	281.60	281.60	LIMIT	Day	No	06/22/2023 14:26:19 EDT	06/22/2023 14:25:50 EDT
OSTK	Buy	1000	25.46	25.47	LIMIT	Day	No	06/22/2023 14:20:04 EDT	06/22/2023 14:19:32 EDT
SPXL	Sell	300	86.30	86.30	LIMIT	Day	No	06/21/2023 14:51:09 EDT	06/21/2023 14:51:07 EDT
SPXL	Buy	100	86.40	86.41	LIMIT	Day	No	06/21/2023 14:28:05 EDT	06/21/2023 14:27:52 EDT
SPXL	Buy	100	86.48	86.50	LIMIT	Day	No	06/21/2023 14:24:51 EDT	06/21/2023 14:24:49 EDT
SPXL	Buy	100	86.37	86.37	LIMIT	Day	No	06/21/2023 14:23:34 EDT	06/21/2023 14:22:23 EDT
AAPL	Sell	100	185.00	185.00	LIMIT	Day	No	06/21/2023 14:24:36 EDT	06/21/2023 14:16:08 EDT
TSLA	Sell	200	262.00	262.00	LIMIT	Day	No	06/21/2023 14:13:31 EDT	06/21/2023 14:08:20 EDT
AAPL	Buy	100	184.33	184.34	LIMIT	Day	No	06/21/2023 13:42:10 EDT	06/21/2023 13:42:08 EDT
TSLA	Buy	100	261.01	261.01	LIMIT	Day	No	06/21/2023 13:40:01 EDT	06/21/2023 13:39:56 EDT
TSLA	Buy	100	260.84	260.84	LIMIT	Day	No	06/21/2023 13:39:32 EDT	06/21/2023 13:39:25 EDT

Figure 6.11 Week 2 Transaction History

6.3 Week 3(6/26-7/2)

Engaging in simulated day trading for two weeks has given me a boost of confidence. I have now familiarized myself with a lot of new concepts, intricacies of the market and understand various strategies. By actively participating in a lot of trades, I have gained valuable insights into the dynamics of the markets, improved my decision-making skills in cutting losses and taking profits and built a solid foundation of skills. Stating these reasons, I decided to concentrate on highly volatile stocks this week, more on the ones going up. I set up a screener which allowed me to look up stocks with the biggest percentage jumps of the day. Below is a quick overview of some of the companies that were traded in the third week.

Black Diamond Therapeutics, Inc. (BDTX)

Black Diamond Therapeutics, Inc. is a precision oncology medicine company, which engages in the discovery and development of small molecule, masterkey therapies. The company was founded by David M. Epstein and Elizabeth Buck in 2014 and is headquartered in Cambridge,

Massachusetts. According to Robinhood, it has 6/6 buy analysts ratings. As of Tuesday morning, 06/27/2023 BDTX was up about 82.4% for the day, after releasing data from a dose escalation portion of a Phase 1 clinical trial study. Figure 6.12 shows BDTX stock price chart over the past year.



Figure 6.12 BDTX stock price year to date

BDTX came up in the screener I set, which contained the biggest jumps of the day across the entire stock market. I monitored the stock price action and decided to enter by buying 4000 shares at a price of 6.10. I continued to monitor the price action and decided to buy 3000 shares at a lower price of 6.05 so I could average down my cost. As price continued to fluctuate at this level, I bought another 3000 shares at a price of 6.00 so I could average down my cost even more. I immediately set up a limit order to sell all my shares at 6.15, which was filled after approximately after an hour. During this hour, the stock price dipped to levels in which I was down more than 5%, but I decided to hold as those moves were on low volume. Figure 6.13 shows the BDTX chart when I decided to buy the first shares.

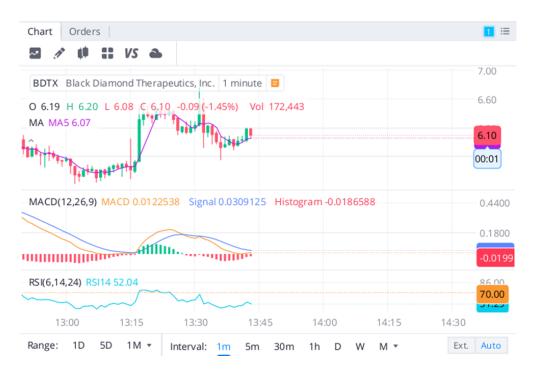


Figure 6.13 BDTX chart on 06/27/2023 around 13:45

I had set a stop loss limit order too, after doing some technical analysis. The price dropped down to 5.68 at one point, which was causing me a 6.8% unrealized loss on my position. Carefully examining the stock price action, I determined a line of support which in case it would break, I would exit the trade and cut my losses. Figure 6.14 shows the technical analysis I conducted and the support line price diverging.



Figure 6.14 Support line at 5.50 for BDTX

BDTX was trading at high volume and good news, so the price action was very quick with very large swings. After closing my position, I entered another trade buying 5000 shares at 5.78. I added more to my position with 1000 shares at 5.66. This price range was acting as support at that moment, that's why I decided to buy. Eventually I was right, as the price moved back up to 6.10, a price at which I closed my position again at a profit. I conducted more trades on BDTX at the last minutes of the trading sessions, which resulted in small losses compared to my winning trades.

Centogene NV (CNTG)

Centogene NV is a commercial-stage company, which focuses on rare diseases that transform real-world clinical and genetic data into actionable information for patients, physicians, and pharmaceutical companies. The company was founded by Arndt Rolf and Christoph Ehlers in 2006 and is headquartered in Rostock, Denmark. Listed name for CNTG is Centogene N.V. Common Shares. CNTG came up on my screener and had jumped more than 50% for the day, following the news that the company announced a collaboration with Lifera to form a joint venture

that will focus on providing multiomic testing services to patients, health systems and biopharma clients and research institutions in Saudi Arabia and countries of the Gulf Cooperation Council. Under these terms, the company will receive a \$30 million mandatory convertible loan from Lifera. Figure 6.15 shows the year-to-date stock price chart of CNTG.

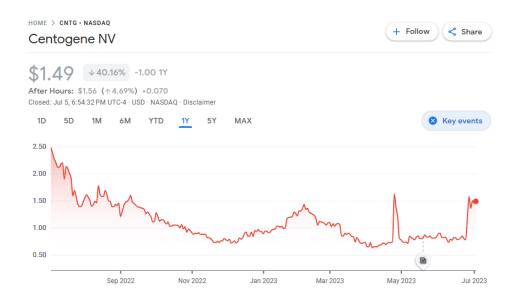


Figure 6.15 CNTG stock price chart year-to-date

On 06/28/2023 around 11:14, I started by buying 5000 shares of CNTG at a price of 1.73 with the idea of adding more. Figure 6.16 shows CNTG chart on that day which has established a strong uptrend. My strategy was to scalp multiple times, so I also bought multiple times at different price levels as the price was going up. I made a partial profit when the price hit 1.92 and decided to leave the rest of the shares on the market.



Figure 6.16 CNTG chart on 06/28/2023 around 11:30

I continued to trade CNTG multiple times until the end of the day and ended up with a profit of \$1,004.00.

Joby Aviation, Inc. (JOBY)

Joby Aviation, Inc. is a transportation company developing an all-electric, vertical take-off and landing aircraft that it intends to operate as a commercial passenger aircraft beginning in 2024. The company was founded by Bevirt Joebenn and is headquartered in Santa Cruz, California. According to Robinhood analysts, ratings are divided as follows: 50% in favor of buying, 33% holding, and 17% to sell. JOBY had a jump of more than 20% for the day on 06/28/2023 following the news that the company received FAA nod to begin flight testing of electric car taxi. The California-based company also said Toyota North America's CEO, Tetsuo Ogawa, will join its board on Sunday. Toyota is also Joby's largest external shareholder, having invested around \$400 million in the company. Figure 6.17 shows JOBY stock price over the past year.

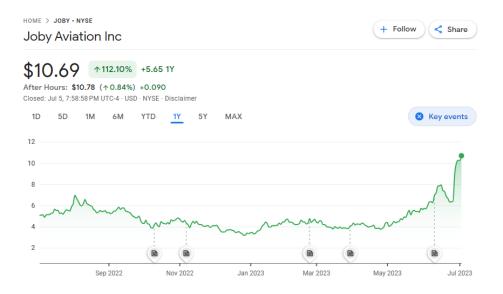


Figure 6.17 JOBY stock performance year-to-date

Having read this news and monitoring the price action, it was a good idea to enter long trades in this stock throughout the day. I started by buying 1000 shares at 11:08, at a price of 8.50 and added more as the stock price was going up. I added more to my position by buying two more times and exited the trade at a profit. Figure 6.18 shows JOBY stock chart on 06/28, in an uptrend, when I decided to enter the trade.



Figure 6.18 JOBY chart showing an uptrend movement

I sold all my shares at a price of 8.70, which resulted in a profit of more than \$400 after having held my position for less than half an hour. The price dipped to a low of 8.46 later, which made the stock more attractive to buy. I bought multiple times at different price levels throughout the session and ended up making more profit when I sold at 9.00. After hitting 9.00, the price action was stagnant which made me think this was a psychological price level which was not going to be broken. So, I decided to sell short 2000 shares at prices of 8.95 and 8.96, but I was wrong as the price spiked to 9.16 which forced me to cover at a loss.

Going towards the end of the day, I was monitoring the stocks on my watchlist, and AMC got my attention as it had a big spike over the last 10 minutes with a volume spike. Price jumped from 4.28 to 4.45 in a matter of 15 minutes, so I saw this as a chance to scalp some profits. Figure 6.19 shows the AMC stock price chart around 15:50.

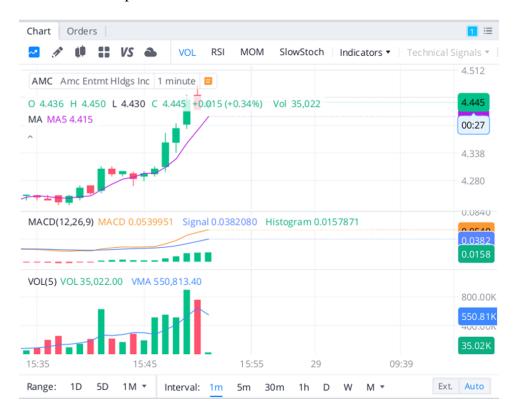


Figure 6.19 AMC stock chart towards the end of the session on 06/28

Having seen this price action, I bought 2000 shares at 15:48 at a price of 4.43 and 2000 more shares at a price of 4.40 seconds later. After approximately three minutes, I closed my whole position, selling 4000 shares at 4.53, making a profit of \$426.00. Table 6.3 shows in detail the transactions for Week 3.

Table 6.3 Day Trading Transactions Week 3

Start Date	Symbol	Buy/Sell	Price	Shares	Net cost/Proceeds	Profit/Loss	Total cash	Total profit
06/27/2023	BDTX	Buy	6.10	4,000	24,400		75,900.7	
06/27/2023	BDTX	Buy	6.05	3,000	18,150		57,750.7	
06/27/2023	BDTX	Buy	6.00	3,000	18,000		39,750.7	
06/27/2023	BDTX	Sell	6.15	10,000	61,500	950	101,250.7	1,250.7
06/27/2023	BDTX	Buy	5.78	5,000	28,900		72,350.7	
06/27/2023	BDTX	Buy	5.66	1,000	5,660		66,690.7	
06/27/2023	BDTX	Sell	6.10	6,000	36,600	2,040	103,290.7	3,290.7
06/27/2023	BDTX	Sell-short	6.10	2,000	12,200	·	115,490.7	
06/27/2023	BDTX	Buy-cover	5.95	2,000	11,900	300	103,590.7	3,590.7
06/27/2023	BDTX	Buy	5.80	1,000	5,800		97,790.7	
06/27/2023	BDTX	Sell	6.00	1,000	6,000	200	103,790.7	3,790.7
06/27/2023	BDTX	Sell-short	5.99	2,000	11,980		115,770.7	,
06/27/2023	BDTX	Buy-cover	6.14	2,000	12,280	-300	103,490.7	3,490.7
06/27/2023	BDTX	Buy	5.70	3,000	17,100		86,390.7	,
06/27/2023	BDTX	Sell	5.86	3,000	17,580	480	103,970.7	3,970.7
06/27/2023	CNTG	Buy	1.73	5,000	8,650		95,320.7	7,
06/28/2023	CNTG	Buy	1.83	1,000	1,830		93,490.7	
06/28/2023	JOBY	Buy	8.50	1,000	8,500		84,990.7	
06/28/2023	CNTG	Buy	1.89	1,000	1,890		83,100.7	
06/28/2023	CNTG	Buy	1.93	3,000	5,790		77,310.7	
06/28/2023	CNTG	Sell	1.92	6,000	11,520	1,040	88,830.7	5,010.7
06/28/2023	JOBY	Buy	8.55	1,000	8,550		80,280.7	
06/28/2023	JOBY	Buy	8.64	2,000	17,280		63,000,7	
06/28/2023	JOBY	Sell	8.70	4,000	34,800	470	97,800.7	5,480.7
06/28/2023	CNTG	Buy	1.76	2,000	3,520		94,280.7	
06/28/2023	JOBY	Buy	8.60	1,000	8,600		85,680.7	
06/28/2023	CNTG	Sell	1.86	6,000	11,160	-40	97,020.7	5,440.7
06/28/2023	JOBY	Buy	8.65	1,000	8,650		88,370.7	
06/28/2023	JOBY	Buy	8.72	500	4,360		84,010.7	
06/28/2023	JOBY	Buy	8.65	300	2,595	1.000	81,415.7	
06/28/2023	JOBY	Sell	9.01	2,800	25,228	1,023	106,643.7	6,643.7
06/28/2023	JOBY	Sell-short	8.95	1,000	8,950		115,593.7	
06/28/2023	JOBY	Sell-short	8.98	1,000	8,980		124,573.7	
06/28/2023	IONQ	Buy	13.32	1,000	13,320	270	111,253.7	6 272 7
06/28/2023	JOBY	Buy-cover	9.15	2,000	18,300	-370	92,953.7	6,273.7
06/28/2023 06/28/2023	IONQ IONQ	Buy Buy	13.20 13.10	1,000 500	13,200 6,550		79,753.7 73,203.7	
06/28/2023	IONQ	Sell	13.10	2,500	33,750	680	106,953.7	6,953.7
06/28/2023	AMC	Buy	4.43	2,000	8,860	000	98,093.7	0,933.7
06/28/2023	AMC	Buy	4.40	2,000	8,800		89,293.7	
06/28/2023	AMC	Sell	4.52	4,000	18,080	420	107,373.7	7,373.7

06/29/2023	OSTK	Sell-short	30.53	300	9,159		116,532.7	
06/29/2023	OSTK	Sells-short	30.55	500	15,275		131,807.7	
06/29/2023	OSTK	Buy-cover	30.46	800	24,368	66	107,439.7	7,439.7
06/30/2023	VBIV	Buy	3.33	2,000	6,660		100,779.7	
06/30/2023	VBIV	Buy	3.18	1,000	3,180		97,599.7	
06/30/2023	JOBY	Buy	10.45	1,000	10,450		87,149.7	
06/30/2023	CCL	Buy	18.85	1,000	18,850		68,299.7	
06/30/2023	CCL	Buy	18.84	500	9,420		58,879.7	
06/30/2023	JOBY	Sell	10.38	1,000	10,380	-70	69,259.7	
06/30/2023	CCL	Sell	18.85	1,500	28,275	5	97,534.7	
06/30/2023	VBIV	Buy	3.13	4,000	12,520		85,017.7	
06/30/2023	VBIV	Sell	3.10	7,000	21,700	-688	106,717.7	6,717.7

Total P&L (USD) for the whole week comes out to 6,236.00 according to data from my simulator. I want to mention that due to orders being filled at fractional prices sometimes, there might be a little discrepancy in my manual calculations in the table compared to the actual data in my simulator. I ended up the previous week (Week 2) with 100,300.7 in cash. This was my observation after finishing the above table. I subtracted my account value for the previous week and I found out that profit was 6,417.00, slightly higher than 6,236.00 actual. When it comes to lower price stocks that are decimated, for example VBIV at a price of 3.10. The order might have been filled at 3.006 or 3.104, which causes an error in my calculations. For this reason, I'm attaching Figure 6.20 which shows the Paper Trading P&L from Webull simulator for Week 3 (06/26/2023-06/30/2023).

otal P&L (USD):	. +30,230.00	
Symbol	Name	P&I
BDTX	Black Diamond Therapeutics, Inc.	+3,670.00
JOBY	Joby Aviation Inc	+1,053.00
CNTG	Centogene N.V.	+1,004.00
IONQ	long Inc	+680.00
AMC	Amc Entmt Hldgs Inc	+426.00
OSTK	Overstock.Com	+66.00
CCL	Carnival Corp	+5.00
VBIV	Vbi Vaccines	-668.00

Figure 6.20 Paper Trading P&L, Week 3(06/26/2023-06/30/2023)

My weekly percentage gain was 6.22%, which outperformed the major indexes significantly. S&P 500 was up 1.11% for the same period and DJIA was up 2.06% according to Google Finance charts. This has been the most successful week, speaking in terms of profit, but also in terms of winners and losers. I profited by trading 7 different companies, and I lost money only on VBIV- Vbi Vaccines on a late trade in the last day. Having said that, I am definitely getting better at this.

6.4 Week 4 (7/3 – 7/9)

The strategy for the fourth week was the same. I'm trying to find stocks with higher-than-average volume that have spiked up. I have set up screeners for higher volume stocks and daily price jumps. I'm also keeping an eye on daily price dips, but I mostly prefer to enter long trades as it's working out for me. What I have discovered during the last week while monitoring different stocks with large swings is that most stocks that have an RSI (Relative Strengh Index) of below

30 are most of the time in a good position to buy them. After doing some research on RSI, I found out that day traders use this index to determine overbought or oversold stocks. Anything above 70 is considered overbought and anything below 30 is considered oversold. Some traders use an 80/20 approach for a lower risk. To begin with the fourth week, here's some of the new companies that were traded, which are not mentioned in the previous chapters, and also their respective charts:

Vinco Ventures, Inc. (BBIG)

Vinco Ventures Inc. is a company focused on the development of digital media and content technologies. It operates business platforms through the video-sharing social network platform, end-to-end fully integrated programmatic advertising platform, streaming music non-fungible token. The company consolidated subsidiary, ZVV Media Partners, LLC, a joint venture of Vinco Ventures and ZASH Global Media and Entertainment Corporation, has an 80% ownership interest in Lomotif Private Limited ("Lomotif"), is a video-sharing social networking platform that is democratizing video creation. The company was founded on July 18, 2017, and is headquartered in Fairport, NY. Figure 6.21 shows a yearly chart for BBIG stock price. We can see the company has been on a disastrous decline over the past year, but day traders don't care about fundamentals when it comes to trading, as most positions are opened and closed in a matter of seconds or minutes. Since positions are not opened with the purpose of long-term holding, a yearly chart does not necessarily determine if a trade will be successful or not in the short-term.

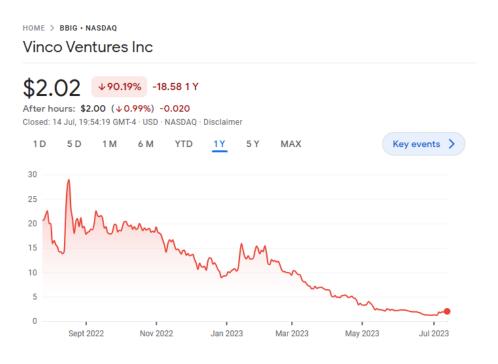


Figure 6.21 BBIG stock price chart over the past year

Monitoring the stocks on my screeners, I looked at BBIG who had a big jump of more than 15% for the day and almost double the average volume. After the big jump in market opening, the price had then retracted and consolidated for about 2-3 hours. Figure 6.22 shows the daily stock price chart and the price around 14:20 on the day I entered the trade. I believed the uptrend was going to hold for the rest of the day and this was an opportunity to capitalize on it. I entered a trade by buying 5000 shares at 1.69 which I ended up selling for 1.80 after 10-15 minutes, making a profit of \$550.00 initially. If I had held the stock for longer, I could have made more as it reached over 2.00, but nobody knows how a stock will react in the short-term so I decided I would lock in profits as soon as possible. The stock was traded multiple times during the day, and it ended up making me more than \$4000.00 in total, which will be shown in the transaction history table.



Figure 6.22 BBIG daily stock price on 07/07/2023 around 14:09 EDT

As we can see the stock had a big jump, followed by a retraction and consolidation which followed an uptrend until the end of the day.

Mullen Automotive Inc. (MULN)

Mullen Automotive Inc. is a southern California-based electric vehicle company. The company was founded on April 20, 2010, and is headquartered in Brea, CA. Its products include passenger electric vehicles and commercial vehicles; provides solid-state polymer battery technology. The company sells a rebadged Xiaohu FEV from China. For the moment, the company does not have any revenue and it has not been able to ramp up production. These issues have caused investors to pull their money out and look somewhere else to invest, which can also be understood by the 1Y chart of MULN stock price in Figure 6.23. The stock has lost more than 99% of its value during the last year.

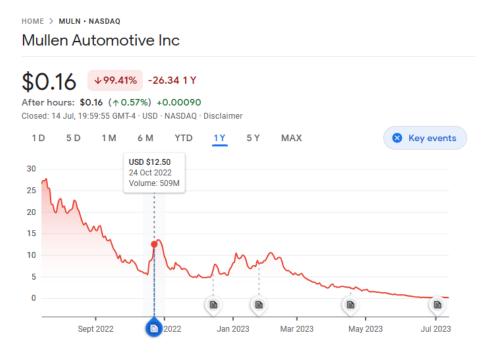


Figure 6.23 MULN stock price over the past year

While most day traders lose money in the long run, this had not been the case for me, until I discovered MULN. As you will see in the next chapters, MULN stock will be the biggest loss of my trading history, and it all came down to one of the simplest mistakes that everyone makes: Not using stop-loss orders. I started trading MULN on 07/05 after I had seen a big jump for the day and a price consolidation just like every other stock I would approach. I entered the trade by buying 10000 shares at 0.1688 and kept adding to my position with increments of 10000. When price took a hit, I decided to average down by buying 30000 shares at 0.157 and another 30000 shares at 0.15. Usually, I would have exited the trade at a loss at such risky stock, but I kept adding to my position up to 220000 shares which had a market value of more than \$35,000.00, around 1/3 of my portfolio. This was a mistake on my part, building such a huge position on a risky stock as MULN. At the end of the day, stock price went up and I made about \$1,100.00 after being down more than \$1,500.00 at one point. Figure 6.24 shows the daily chart of MULN on 07/05 and the price around 13:40 when I entered the first trade.

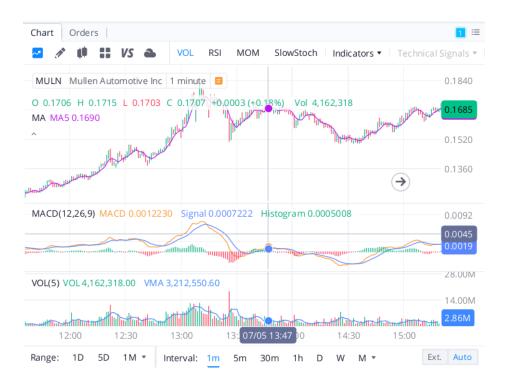


Figure 6.24 MULN 07/05/2023 stock price chart

After coming out profitable on Tuesday, 05/07, I decided to keep an eye on MULN for the next day. By 09:30 on Wednesday, 07/06, MULN was up 58% as shown in Figure 6.25. I thought that this would be a day runner and the stock would shoot up more than 100%, which has been the case with a lot of similar stocks, when news hits up. That morning the news was that Mullen Automotive had decided to launch a \$25million buyback program and this came as a shock to investors who had open short positions, forcing them to cover and driving up the price. I entered the trade by buying 30000 at 0.299 and added to my position with another 30000 shares at 0.3168 while the price was going up. My mistake was I did not put a stop loss order on this stock, as the stock price proceeded to dive to 0.28 in the next 20 minutes, a 9.8% decline. Instead of selling the stock at this point and taking a \$1,900 loss, I made the next mistake of averaging down and buying more stock at lower levels. I bought more than 200,000 shares at different lower levels such as 0.27, 0.26, 0.23 and 0.2291 lastly. At some point I had unrealized losses of more than \$17,000 on

this single trade, which made me understand the significance of stop-loss orders. No matter how steady you are over the weeks, all it takes is a bad single trade and it can evaporate all your profits. Being in this situation, I risked holding my position so I could lose as few as possible. At around 13:40, I decided to sell off my entire position of 300,000 shares at a price of 0.24, losing around \$5,000.00. Figure 6.25 shows the stock price chart of MULN on 07/06/2023. We can see the big jump when the market opened and a decline of more than 25% from its highs by 11:00.

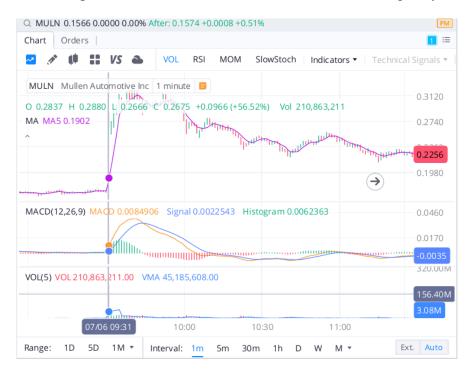


Figure 6.25 MULN stock price chart on 07/06/2023

Genius Sports Ltd. (GENI)

Genius Sports Ltd. engages in the provision of scalable technology-led products and services to the sports, sports betting and sports media industries. It also involves in Sports League, which offers technology infrastructure for the collection, integration and distribution of live data, live sports data, odds making, risk management and player marketing. The company was founded by Mark Adrian Locke in 2000 and is headquartered in London, United Kingdom. Figure 6.26

shows GENI stock price over the past year.



Figure 6.26 GENI stock price chart over the past year

Before the market opened, the company announced it had reached a deal to extend its exclusive partnership with the NFL for an additional five seasons. Genius Sports will remain the only sports betting platform to distribute NFL's official live game data, which allows for targetted betting across many aspects of the game matchup. Investors had a great start to the trading day on Thursday as the shares of the sports betting specialist were up to 11% by 11am ET. This was an easy trade for me, with little downside risk as at such news, the stock price would only move up for the day or in the worst scenario it would stay flat. As shown by the daily chart of GENI on Figure 6.27, I was right in my analysis. I bought shares at prices of 6.59 and 6.63 and sold at 7.13. Looking back if I had held towards the end of the day I would have profited more as the price reached highs of 7.40.

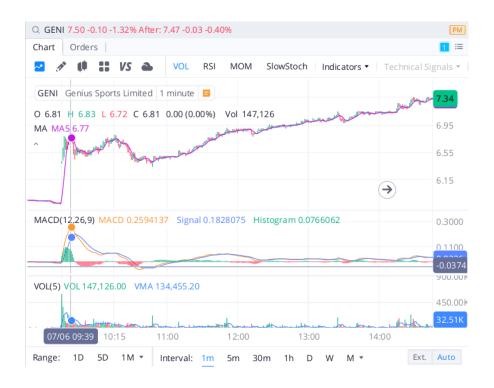


Figure 6.27 GENI stock price chart on 07/06/2023

Other stocks were trades on this week such as CRBU, TSLA and CVNA, some of them being winners and some losers having less impact on my portfolio than BBIG and MULN. Figure 6.28 shows the Paper Trading P&L for this week, represented by each company.

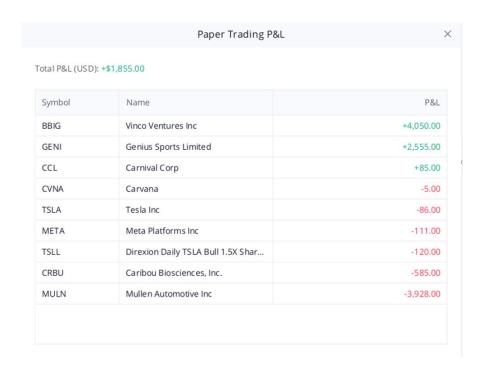


Figure 6.28 Paper Trading P&L (07/03/2023-07/07/2023)

Table 6.4 gives detailed information for every transaction that occurred during the fourth week of the stock trading simulation period. The cash balance was extracted from the broker data as it was a slight discrepancy between my manual calculations and the actual figures due to a lot of orders being filled at decimated stock prices.

Table 6.4 Day Trading Transactions Week 4

Start Date	Symbol	Buy/Sell	Price	Shares	Net cost/ Proceeds	Profit/ Loss	Total cash	Total profit
05/07/2023							106,536.40	6.536.40
05/07/2023	META	Buy	295.84	100	29,584		76,952.4	
05/07/2023	CCL	Buy	19.20	500	9,600		67,352.4	
05/07/2023	CCL	Buy	19.23	500	9,615		57,737.4	
05/07/2023	MULN	Buy	0.1688	10,000	1,688		56,049.4	
05/07/2023	TSLL	Buy	19.25	1,000	19,250		36,799.4	
05/07/2023	MULN	Buy	0.168	10,000	1,680		35,119.4	
05/07/2023			296.41	50				
	META	Buy			14,820.5		20,298.9	
05/07/2023	MULN	Buy	0.166	10,000	1,660		19,178.9	
05/07/2023	MULN	Buy	0.17	30,000	5,100		14,078.9	
05/07/2023	MULN	Buy	0.1607	20,000	3,214		10,864.9	
05/07/2023	MULN	Buy	0.157	30,000	4,710		6,154.9	
05/07/2023	MULN	Buy	0.1515	30,000	4,545		1,609.9	
05/07/2023	TSLL	Sell	19.13	1,000	19,130	-120	20,739.9	6,416.4
05/07/2023	META	Sell	295.29	150	44,293.5	-111	65,033.4	6,303.4
05/07/2023	MULN	Buy	0.1515	50,000	7,575		57,458.4	
05/07/2023	MULN	Buy	0.152	30,000	4,560		52,898.4	
05/07/2023	CCL	Buy	19.34	1,000	19,340		33,558.4	
05/07/2023	MULN	Sell	0.1629	220,000	35,838	1,106	69,396.4	7,409.4
05/07/2023	CCL	Sell	19.32	2,000	38,640	87	107,496.4	7,496.4
06/07/2023	MULN	Buy	0.299	30,000	8,970		98,526.4	,
06/07/2023	CRBU	Buy	5.92	1,500	8,880		89,646.4	
06/07/2023	MULN	Buy	0.3168	30,000	9,504		80,142.4	
06/07/2023	GENI	Buy	6.59	2,000	13,180		66,962.4	
06/07/2023	CRBU	Buy	6.17	1,500	9,255		57,707.4	
06/07/2023	CRBU	Sell	6.45	3,000	19,350	1,215	77,057.4	8,711.4
06/07/2023	TSLA	Sell-Short	273.74	100	27,374		77,057.4	
06/07/2023	MULN	Buy	0.2892	20,000	5,784		71,273.4	
06/07/2023	GENI	Buy	6.63	1,000	6,630		64,643.4	
06/07/2023	MULN	Buy	0.27	30,000	8,100		56,543.4	
06/07/2023	MULN	Buy	0.263	10,000	2,630		53,913.4	
06/07/2023	MULN	Buy	0.24	70,000	16,800		37,113.4	
06/07/2023	TSLA	Buy-cover	274.60	100	27,460	-86	37,027.4	8,625.4
06/07/2023	MULN	Buy	0.23	50,000	11,500		25,527.4	
06/07/2023	GENI	Buy	6.48	1,500	9,720		15,087.4	
06/07/2023	MULN	Buy	0.2291	60,000	13,746	7.024	1,341.4	2.501.1
06/07/2023	MULN	Sell	0.24	300,000	72,000	-5,034	73,341.4	3,591.4
06/07/2023	CRBU	Buy	6.17	5,000	30,850	2.555	42,491.4	C 1 4 C 4
06/07/2023	GENI	Sell	7.13	4,500	32,085	2,555	74,576.4	6,146.4
06/07/2023	CRBU	Buy	6.06	3,000	18,180	1.500	56,396.4	15561
06/07/2023	CRBU	Sell	5.93	8,000	47,440	-1,590	104,556.4	4,556.4
07/07/2023	CRBU	Buy	7.28	1,500	10,920		93,636.4	

07/07/2023	BBIG	Buy	1.69	5,000	8,450		85,186.4	
07/07/2023	CRBU	Buy	7.34	1,500	11,010		74,176.4	
07/07/2023	BBIG	Sell	1.80	5,000	9,000	550	83,176.4	5,106.4
07/07/2023	BBIG	Buy	1.85	5,000	9,250		73,926.4	
07/07/2023	BBIG	Sell	2.00	5,000	10,000	750	83,926.4	5,856.4
07/07/2023	CRBU	Sell	7.24	3,000	21,720	-210	105,646.4	5,646.4
07/07/2023	BBIG	Buy	1.92	5,000	9,600		96,046.4	
07/07/2023	BBIG	Buy	1.85	5,000	9,250		86,796.4	
07/07/2023	BBIG	Sell	1.96	10,000	19,600	750	106,396.4	6,396,4
07/07/2023	BBIG	Buy	1.91	5,000	9,550		96,846.4	
07/07/2023	BBIG	Buy	1.85	5,000	9,250		87,596.4	
07/07/2023	BBIG	Sell	1.96	10,000	19,600	800	107,196.4	7,196.4
07/07/2023	BBIG	Buy	1.87	5,000	9,350		97,846.4	
07/07/2023	BBIG	Sell	2.01	5,000	10,050	700	107,896.4	7,896.4
07/07/2023	BBIG	Buy	1.93	5,000	9,650		98,246.4	
07/07/2023	CVNA	Buy	29.55	500	14,775		83,471.4	
07/07/2023	BBIG	Sell	2.04	5,000	10,200	550	93,671.4	8,446.4
07/07/2023	CVNA	Sell	29.54	500	14,770	-5	108,441.4	8,441.4

Again, due to manual calculations error, there's a slight discrepancy when I double checked with the broker data for my account value on 07/07/2023, which was my last day of trading for this week. The actual balance on 07/07/2023 end of the day was 108,391.40. Having started the week with a cash balance of 106,536.40, the weekly performance comes out to a 1.74% gain. I was very satisfied with this result, considering the big loss on Mullen Automotive, which wiped out almost 5% of my portfolio. To verify all my transactions, I'm also attaching Figures 6.29, 6.30, and 6.31 which are screenshots of every order filled during this week, showing total quantities of shares, average filled price, limit price, order type, placed time and filled time.

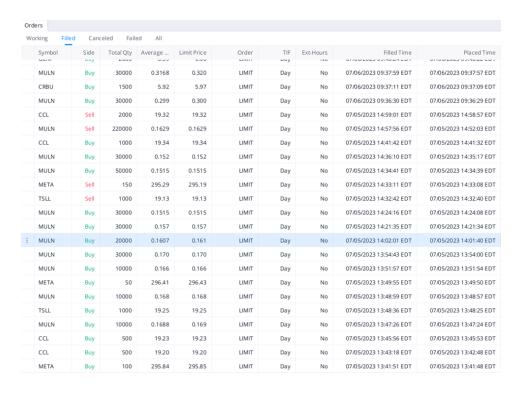


Figure 6.29 Orders filled through 05/07/2023

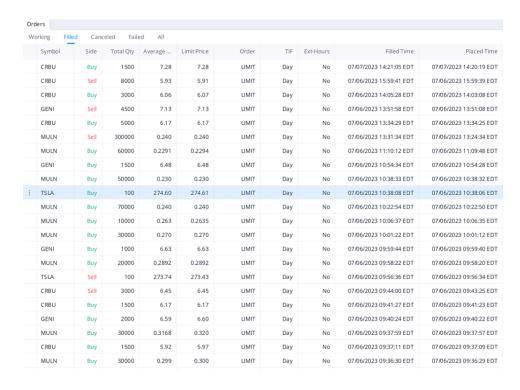


Figure 6.30 Orders filled through 06/07/2023

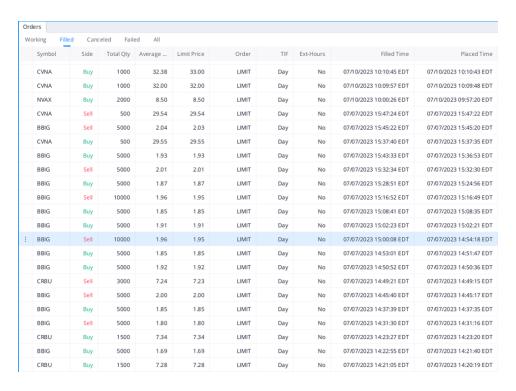


Figure 6.31 Orders filled through 07/07/2023

6.5 Week 5 (7/10 – 7/16)

The strategy for the final week will remain the same. I'm searching for stocks that are spiking up with high volume to make small gains through scalping trading in seconds or minutes. I'm also monitoring swings in daily charts for several stocks so I can determine entry positions for long or short trades. The RSI index is helping me a lot to determine the best times to enter and exit a trade and has around 70% success rate, so I'm keeping an eye on that too. An overview of companies that were traded in the final week is given below along with an explanation of my actions.

Carvana Co. (CVNA)

Carvana is a holding company and eCommerce platform, which engages in buying and selling used cars. The company was founded by Ernest Garcia, III, Benjamin Houston and Ryan Keeton in 2012 and is headquartered in Tempe, AZ. Carvana has seen a 97% drop in its stock price

from the pandemic highs due to several reasons including rising inflation, legal issues, rising costs of used cars, analyst downgrades and less than expected quarterly earnings. Lately though, there has been a turnaround around the company, taking shares to more than 50.00, translated in gains of 1000% from its lows. Figure 6.32 shows CVNA stock performance over the past year.

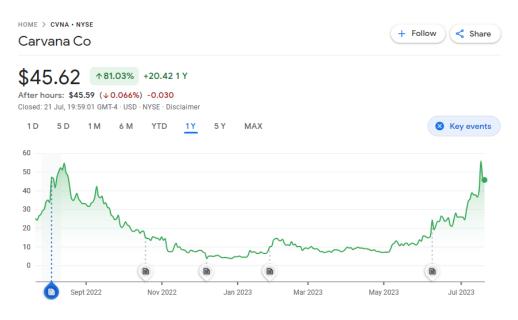


Figure 6.32 CVNA stock performance over the past year

On 07/10, I was monitoring CVNA stock price which was up around 10% in the first hours of trading. I decided to google if there was any news on it but could hardly find anything valuable. It is reported that over 60% of the float of the entire stock it sold short and that made me realize this is a type of short squeeze, forcing short sellers to cover due to rising rapidly. However, this was a good stock to trade, as it had volume and an uptrend on the daily chart. I decided to enter by buying in batches of 1,000 shares at a time at prices of 32.00 and 32.38 and then selling minutes later all my position at 33.32. Figure 6.33 shows the daily chart around 10:15 of CVNA stock when I started trading it. I traded CVNA multiple times, by buying on the dips and selling as soon as I was becoming profitable. In total, trading CVNA resulted in 1,398.00 profit for the week.

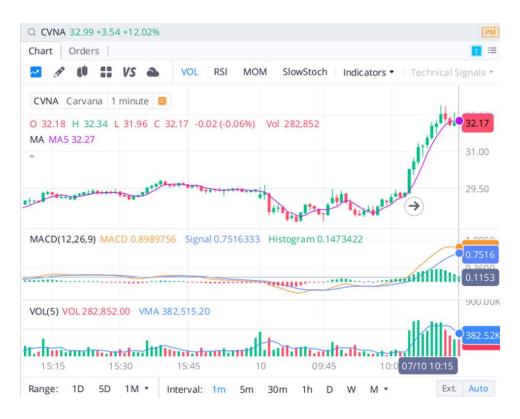


Figure 6.33 CVNA Stock on 07/10/2023 10:15 EDT

Novavax, Inc. (NVAX)

Novavax, Inc. is a biotechnology company, which engaged in discovery, development and commercialization of recombinant vaccines. The company was founded in 1987 and is headquartered in Gaithersburg, MD. The company has been developing a COVID-19 vaccine competing against Pfizer and Moderna with little to no success. The Novavax COVID-19 vaccine is an adjuvanted protein-based vaccine. This type of vaccine contains an antigen (protein) that's unique to a germ. In this case, it's the spike protein of SARS-CoV-2, the virus that causes COVID-19. Bad earnings and no success in mass adoption of the vaccines has sent shares down to more than 80% over the past year, reflected in the yearly chart on Figure 6.34.

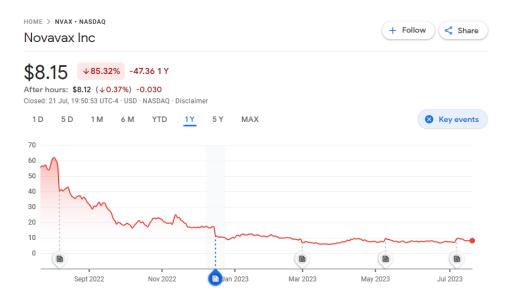


Figure 6.34 NVAX stock performance over the past year

On 07/10, NVAX was up more than 15% and was maintaining an uptrend. I entered the market by buying 2,000 shares at 8.50 which was already the high of the day. After the price retracted, I lowered my average by buying 1,000 more shares at 8.25. The MACD line was always on top of the signal line, so it was a bullish indicator. Later, I sold my position at 8.61, for a profit of 580.00. Figure 6.35 shows NVAX stock chart on 07/10 and the technical indicators signaling a bullish daily price action.

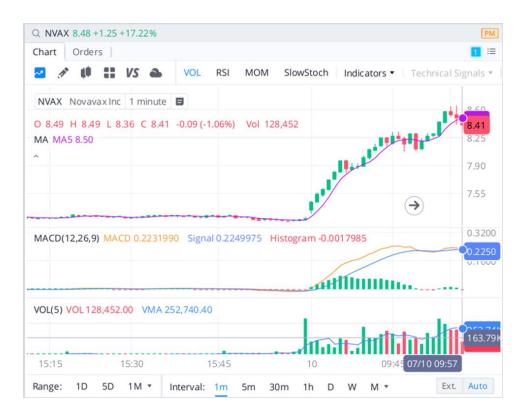


Figure 6.35 NVAX stock price chart on 07/10/2023 09:57

Prestige Wealth Inc. (PWM)

Prestige Wealth Inc. is a holding company providing wealth management and asset management services. The company was founded on October 25, 2018, and is headquartered in Hong Kong. The company has been public for less than a month, as it only started trading on July 6, 2023, at an initial price of 5.00. Since then, the stock has seen large swings reaching highs of 31.88 and lows of 4.60. Day traders with high risk tolerance love these kind of swings as they have a lot of room to capitalize. Figure 6.36 shows the chart of PWM when I conducted several trades following a strategy called "trading the channel". This was an example of a horizontal channel as shown below.

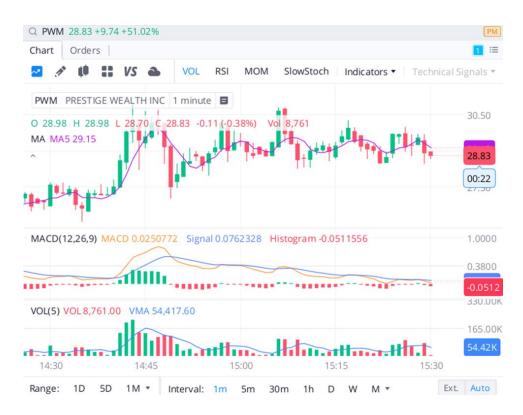


Figure 6.36 PWM Stock price showing stock price in a horizontal channel

At first, I did not jump right away to trade this stock as it was already more than 51.02% up for the day. Nobody knows how these kinds of movements will go. I monitored the price action for a good amount of time, and I determined that the channel was holding and there would not be any crazy move on the downside. I entered multiple trades aiming to gain 1.00 per share in each trade. This strategy resulted in my biggest profitable trade making a profit of \$6,925.00 simply by buying the dips and setting selling limits of 1.00 more.

Nikola Corp. (NKLA)

Nikola Corp. engages in the provision of zero-emissions transportation and infrastructure solutions. It designs and manufactures battery-electric and hydrogen-electric vehicles. The company was founded by Trevor Milton in 2015 and is headquartered in Phoenix, AZ. The stock price has been on a constant downfall due to the accusation and indictment of Trevor Milton for

defrauding the investors and deceiving them on purpose. Allegations reported described that trucks were being pushed downhill on neutral and not actually running on their electric motors. Figure 6.37 shows NKLA stock price over the past year.

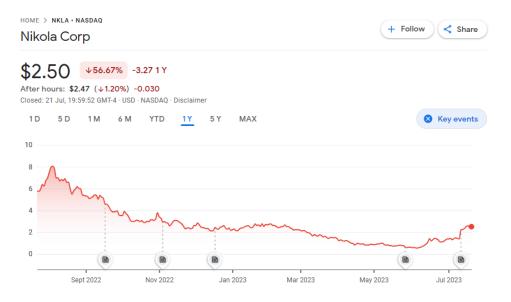


Figure 6.37 NKLA stock performance over the past year

As I have mentioned before, day traders do not really care about fundamentals when it comes to companies, as they don't invest in the long term. Most of the positions are opened and closed in minutes, or even in seconds. Figure 6.38 shows NKLA stock on 07/13/2023 around 14:15 when I initiated the trade.



Figure 6.38 NKLA daily stock price chart on 07/13/2023

I bought 5,000 shares three times at prices of 2.12, 2.16 and 2.18 and sold them at 15:57, 3 minutes before the market closed at a price of 2.22, resulting in a profit of exactly \$1,000.00. This was an easy trade, following the uptrend in the daily chart but with low volume so even if we lost it would not have been significant, that is why I did not even put a stop-loss order. The next day on 07/14 I followed the same strategy as I saw the same price action for NKLA. I bought 10,000 shares at 2.12 on 13:44 and another 5,000 shares at 2.13 at 14:14. I sold all my shares at the end of the session at 2.24 for a profit of 1,750.00, which jumped NKLA stock to my top gainers for the whole simulation.

Adil Pharmaceuticals, Inc. (ADIL)

Adil Pharmaceuticals Inc. operates as a clinical stage biopharmaceutical company. Its lead product is AD04, a selective serotonin-3 antagonist. The company was founded in November 2010, by Bankole A. Johnson and William B. Stilley. Adial Pharmaceuticals Inc (NASDAQ: ADIL) shares were trading higher on 07/11 after the company provided a summary of feedback received following recent meetings with both U.S. and EU regulators and an update on the company's current clinical development plan based on guidance received. The authorities

confirmed the primary U.S. endpoint based on the Percentage of No Heavy Drinking Days, which utilized a responder analysis of patients who reduced their alcohol consumption to zero heavy drinking days in the last 2 months of a 6-month study. Figure 6.39 shows ADIL stock price on 07/11 on a daily chart.



Figure 6.39 ADIL stock price on the daily chart on 07/11/2023

The stock price was up more than 70% for the day, when I decided to enter the market by buying 20,000 shares at 0.405. Considering the stock was up significantly daily, I also expected the price to go lower, so I made sure I had enough cash to average down. Minutes later, the price dipped, and I bought another 15,000 shares at 0.3889 lowering my average down to 0.3981. 20 minutes later, the volume spiked, and the price shot up to 0.477 where I sold my whole position of 35,000, taking a profit of \$2,761.5, with a position of less than 14,000. This was the highest percentage gain on a single stock in my simulation, more than 19%. The stock dipped more than 20% after reaching highs of 0.49, so I decided to buy the dip again at price of 0.422 and 0.3823, 15,000 shares at each price level. I closed my position at profit again, selling at 0.427 and making little less than \$1,000.00 the second time. Table 6.5 shows the detailed history of transactions over the final week. Stocks other than the ones mentioned above were traded in the final week, some of

them being mentioned also in previous weeks.

Table 6.5 Day Trading Transactions Week 5

Start Date	Symbol	Buy/Sell	Price	Shares	Net cost/Proceeds (\$)	Profit/Loss (\$)	Total cash (\$)	Total profit (\$)
							108,391.4	8,391.4
07/10/2023	NVAX	Buy	8.50	2,000	17,000		91,391.4	
07/10/2023	CVNA	Buy	32.00	1,000	32,000		59,391.4	
07/10/2023	CVNA	Buy	32.38	1,000	32,380		27,011.4	
07/10/2023	MULN	Buy	0.21	20,000	4,200		22,811.4	
07/10/2023	NVAX	Buy	8.25	1,000	8,250		14,561.4	
07/10/2023	CVNA	Sell	33.32	2,000	66,640	2,260	81,201.4	10,651.4
07/10/2023	MULN	Sell	0.2003	20,000	4,006	-194	85,207.4	10,457.4
07/10/2023	DKNG	Buy	28.33	1,000	28,330	15.	56,877.4	10,157.1
07/10/2023	NVAX	Sell	8.61	3,000	25,830	580	82,707.4	11,037.4
07/10/2023	CVNA	Buy	32.80	1,000	32,800	360	49,907.4	11,037.4
07/10/2023	CVNA	Sell	33.40	1,000	33,400	600	83,307.4	11,637.4
07/10/2023	IOVA	Buy	8.59	2,000	17,180	000	66,127.4	11,037.4
		_						
07/10/2023	CVNA	Buy	33.00	1,000	33,000		33,127.4	
07/10/2023 07/10/2023	CVNA IOVA	Buy Sell	32.20 8.79	1,000 2,000	32,200 17,580	400	927.4 18,507.4	12,037.4
07/10/2023	DKNG	Sell	28.48	1,000	28,480	150	46,987.4	12,037.4
07/10/2023	CVNA	Sell	33.20	2,000	66,400	1,200	113,387.4	13,387.4
07/10/2023	PLTR	Buy	16.10	2,000	32,200	-,,	81,187.4	,
07/10/2023	PWM	Buy	27.50	1,000	27,500		53,687.4	
07/10/2023	PWM	Buy	25.80	1,000	25,800		27,887.4	
07/10/2023	PWM	Sell	27.25	2,000	54,500	1,200	82,387.4	14,587.4
07/10/2023	PLTR	Sell	16.26	2,000	32,520	320	114,907.4	14,907.4
07/10/2023	PWM	Buy	28.50	1,000	28,500		86,407.4	
07/10/2023	FSR	Buy	6.71	2,500	16,775	1.000	69,632.4	15 007 4
07/10/2023 07/10/2023	PWM FSR	Sell Sell	29.50 6.66	1,000 2,500	29,500 16,650	1,000 -125	99,132.4 115,782.4	15,907.4 15,782.4
07/10/2023	PWM		28.40	1,000	28,400	-123	87,382.4	13,762.4
07/10/2023	PWM	Buy Sell	29.20	1,000	29,200	800	116,582.4	16,582.4
07/10/2023	PWM	Buy	28.60	1,000	28,600	300	87,982.4	10,362.4
07/10/2023	PWM	Sell	29.58	10	295.8		88,278.2	
07/10/2023	PWM	Sell	29.00	990	28,710	405.8	116,998.2	16,998.2
07/10/2023	CVNA	Buy	33.84	1,500	50,760	703.0	66,238.2	10,770.2
07/10/2023	PWM	Buy	25.40	1,000	25,400		40,838.2	
07/10/2023	PWM	Buy	25.61	1,000	25,610		15,228.2	
07/10/2023	PWM	Sell	26.00	2,000	52,000	990	67,228.2	17,978.2
07/10/2023	CVNA	Sell	34.42	1,500	51,630	870	118,858.2	18,848.2
07/11/2023	CVNA	Buy	35.39	500	17,695		101,163.2	
07/11/2023	RDFN	Buy	15.00	1,500	22,500		78,663.2	

07/11/2023	PWM	Buy	26.69	1,000	26,690		51,973.2	
07/11/2023	CVNA	Buy	35.46	500	17,730		34.243.2	
07/11/2023	PWM	Sell	27.50	1,000	27,500	810	61,743.2	19,658.2
07/11/2023	ADIL	Buy	0.405	20,000	8,100		53,643.2	
07/11/2023	ADIL	Buy	0.3889	15,000	5,833.5		47,809.7	
07/11/2023	ADIL	Sell	0.477	35,000	16,695	2,761.5	64,504.7	22,419.7
07/11/2023	CVNA	Sell	35.93	1,000	35,930	505	100,434.7	22,924.7
07/11/2023	PWM	Buy	19.30	500	9,650		90,784.7	
07/11/2023	RDFN	Sell	15.21	1,500	22,815	315	113,599.7	23,239.7
07/11/2023	PWM	Buy	18.28	500	9,140		104,459.7	
07/11/2023	PWM	Buy	19.65	1,000	19,650		84,809.7	
07/11/2023	PWM	Sell	20.08	2,000	40,160	1,720	124,969.7	24,959.7
07/11/2023	BDRX	Buy	6.06	1,500	9,090		115,879.7	
07/11/2023	ADIL	Buy	0.422	15,000	6,330		109,549.7	
07/11/2023	ADIL	Buy	0.3823	15,000	5,734.5		103,815.2	
07/11/2023	BDRX	Sell	6.32	1,500	9,480	390	113,295.2	25,349.7
07/11/2023	ADIL	Sell	0.427	30,000	12,810	745.5	126,105.2	26,095.2
07/12/2023	CVNA	Buy	41.83	500	20,915		105,190.2	
07/12/2023	CEI	Buy	0.932	10,000	9,320		95,870.2	
07/12/2023	CVNA	Buy	41.00	500	20,500		75,370.2	
07/12/2023	CVNA	Buy	41.70	500	20,850		54,520.2	
07/12/2023	CEI	Buy	0.9316	10,000	9,316		45,204.2	
07/12/2023	CEI	Sell	0.9491	20,000	18,982	346	64,186.2	26,441.2
07/12/2023	CVNA	Buy	40.40	500	20,200		43,986.2	
07/12/2023	CVNA	Sell	38.67	2,000	77,340	-5,125	121,326.2	21,316.2
07/13/2023	NKLA	Buy	2.16	5,000	10,800		110,526.2	
07/13/2023	CVNA	Buy	38.00	800	30,400		80,126.2	
07/13/2023	NKLA	Buy	2.18	5,000	10,900		69,226.2	
07/13/2023	CVNA	Buy	37.40	800	29,920		39,306.2	
07/13/2023	NKLA	Buy	2.12	5,000	10,600		28,706.2	
07/13/2023	CVNA	Sell	38.38	1,600	61,408	1,088	90,114.2	22,404.2
07/13/2023	NKLA	Sell	2.22	15,000	33,300	1,000	123,414.2	23,404.2
07/14/2023	NKLA	Buy	2.12	10,000	21,200		102,214.2	
07/14/2023	KSCP	Buy	2.02	10,000	20,200		82,014.2	
07/14/2023	ACAD	Buy	32.48	500	16,240		65,774.2	
07/14/2023	NKLA	Buy	2.13	5,000	10,650		55,124.2	
07/14/2023	KSCP	Buy	1.99	10,000	19,900		35,224.2	
07/14/2023	ACAD	Sell	32.08	500	16,040	-200	51,264.2	23,204.2
07/14/2023	KSCP	Sell	2.10	20,000	42,000	1,900	93,264.2	25,104.2
07/14/2023	NKLA	Sell	2.24	15,000	33,600	1,750	126,864.2	26,854.2

According to data from my broker, my final account value after week 5 is 126,904.20, 50 dollars more than my manual calculations on Table 6.5. Figures 6.40-6.43 show information similar to our tables, adding the exact times of every order being filled.

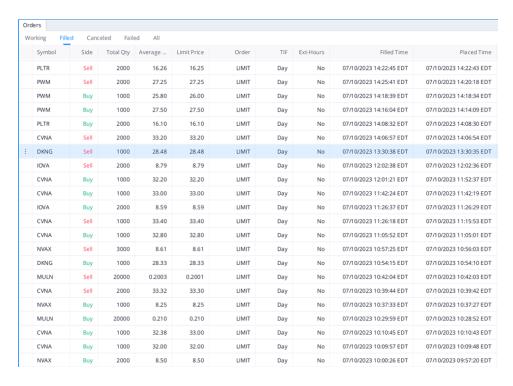


Figure 6.40 Orders filled through 07/10/2023

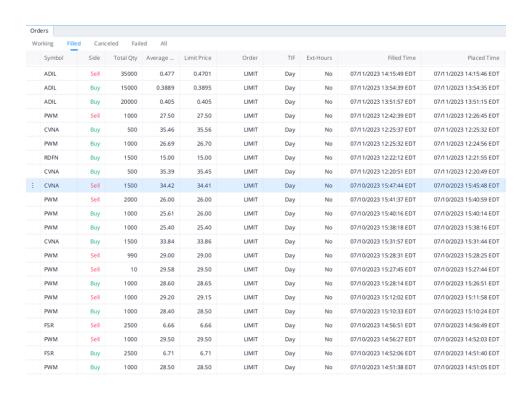


Figure 6.41 Orders filled through 07/11/2023

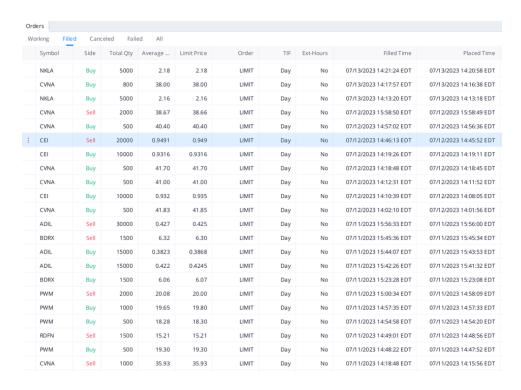


Figure 6.42 Orders filled through 07/13/2023

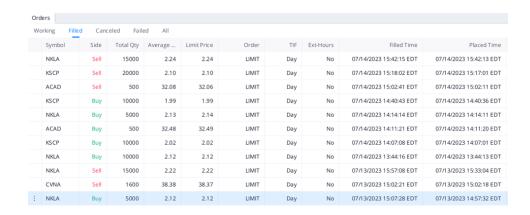


Figure 6.43 Orders filled through 07/14/2023

The final week ended up with a profit of 18,512.80. In terms of percentage, it comes out to a 17.07% gain. Compared to indexes such as SPY, DJIA and NASDAQ, my performance outperformed the markets by more than 15%. Following this pace from the beginning of my simulation, my theoretical annual return comes out to 655.69% according to Webull. It's very difficult to maintain these returns consistently. Most successful hedge funds have annual returns

of 25-30% at the highest.

Chapter 7: Momentum and Position Trading (Bishoy S)

Momentum trading is a strategy used by traders and investors to capitalize on trends and market momentum. It involves identifying stocks or assets that are experiencing significant price movements in a particular direction and taking advantage of these trends. I tried to trade per day as much as I could when I saw the market was going up or gaining for certain stocks but using the Investopedia simulator later, I found that the actions are being taken between 30 mins up to an hour interval. So, I had to change to the position strategy were its not risky and stable approach for trading for me.

7.1 Week 1 (6/12 – 6/18)

I started in week 1 to trade with a little bit of risk using the momentum strategy. So, I started by trading and shorting some stocks and didn't stick with specific ones. I started buying Amazon and Tesla stocks as they were selling gainers. And then jumped to new stocks not explained before. The companies are:

GameStop Corp. (GME)

GameStop Corp., a specialty retailer, provides games and entertainment products through its stores and ecommerce platforms in the United States, Canada, Australia, and Europe. The company sells new and pre-owned gaming platforms; accessories, such as controllers, gaming headsets, and virtual reality products; new and pre-owned gaming software; and in-game digital currency, digital downloadable content, and full-game downloads. It also sells collectibles comprising apparel, toys, trading cards, gadgets, and other retail products for pop culture and technology enthusiasts, as well as engages in the digital asset wallet and NFT marketplace activities. Figure 7.1 shows the GME stock performance over the past year.



Figure 7.1 GameStop Stock Price Over the Past Year

I have bought 500 shares of the stock and then ended up at a price of \$24.09 per share and ended up selling the 500 again at a price of \$24.18 per share.

Chinook Therapeutics, Inc. (KDNY)

Chinook Therapeutics, Inc., a clinical-stage biotechnology company, focuses on the discovery, development, and commercialization of precision medicines for kidney diseases. The company's lead clinical program is atrasentan, a Phase III endothelin receptor antagonist for the treatment of IgA nephropathy and other protein uric glomerular diseases. Its product candidates also include BION-1301, an anti-APRIL monoclonal antibody is being evaluated in a Phase I/II trial for IgA nephropathy; and CHK-336, an oral small molecule LDHA inhibitor for the treatment of primary hyperoxaluria, as well as research programs for other rare and severe chronic kidney diseases. Chinook Therapeutics, Inc. is headquartered in Seattle, Washington. Figure 7.2 shows the KDNY stock performance over the past year.



Figure 7.2 DNY Stock Performance Over the Past Year

My strategy was this was one of the gaining stocks in the start of week 1 but it was one of the risky trades I was dealing with as I have bought 800 shares at price of \$37.99 and was doing well but then it turned down and sold all the shares at the price of \$37.98 per share.

Gracell Biotechnologies Inc. (GRCL)

Gracell Biotechnologies Inc., a clinical-stage biopharmaceutical company, primarily discovers and develops cell therapies for the treatment of cancer in the People's Republic of China. In addition, it has a portfolio of earlier stage product candidates targeting various cancer indications, such as hematologic cell malignancies and solid tumors. Gracell Biotechnologies Inc. was incorporated in 2017 and is headquartered in Suzhou, China. Figure 7.3 shows the GRCL stock performance over the past year.

Closed: Jun 29, 6:45 PM EDT • Disclaimer After hours 2.97 -0.030 (1.00%)

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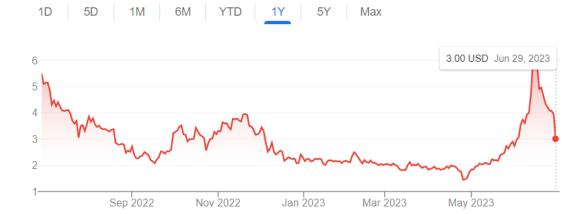


Figure 7.3 GRCL Stock Performance Over the Past Year

I have looked at the stock and it was suitable for the initial strategy I had. But it turned out to be a bad and risky decision to go with as I bought 10000 shares at \$4.80 per share and ended up selling all of them at \$4.73.

Walmart Inc. (WMT)

Walmart Inc. engages in the operation of retail, wholesale, and other units worldwide. The company operates through three segments: Walmart U.S., Walmart International, and Sam's Club. It operates supercenters, supermarkets, hypermarkets, warehouse clubs, cash and carry stores, and discount stores under Walmart and Walmart Neighborhood Market brands; membership-only warehouse clubs; ecommerce websites, such as walmart.com, walmart.com.mx, walmart.ca, flipkart.com, and samsclub.com; and mobile commerce applications. The company offers grocery and consumables, including dry grocery, snacks, dairy, meat, produce, bakery and deli, alcoholic and nonalcoholic beverages, floral, candy, and other grocery items, as well as dry, chilled, or

frozen packaged foods; and health and beauty aids, paper goods, laundry and home care, baby care, pet supplies, and other consumable items. Walmart Inc. was founded in 1945 and is based in Bentonville, Arkansas. Figure 7.4 shows the WMT stock performance over the past year.



Figure 7.4 WMT Stock Performance Over the Past Year

By looking at Walmart performance, I was doing buying and shorting depending on the performance of the stock per day.

Mastercard Incorporated (MA)

Mastercard Incorporated, a technology company, provides transaction processing and other payment-related products and services in the United States and internationally. It facilitates the processing of payment transactions, including authorization, clearing, and settlement, as well as delivers other payment-related products and services. The company offers integrated products and value-added services for account holders, merchants, financial institutions, businesses, governments, and other organizations, such as programs that enable issuers to provide consumers

with credits to defer payments; payment products and solutions that allow its customers to access funds in deposit and other accounts; prepaid programs services; and commercial credit, debit, and prepaid payment products and solutions. Mastercard Incorporated was founded in 1966 and is headquartered in Purchase, New York. Figure 7.5 shows the MA stock performance over the past year.



Figure 7.5 MA Stock Performance Over the Past Year

I tried to shorten the stock couple of times in this week but I ended up trying to cover and buying the amount that I shorted the stock with.

SoFi Technologies, Inc. (SOFI)

SoFi Technologies, Inc. provides various financial services. It operates through three segments: Lending, Technology Platform, and Financial Services. The company offers lending and financial services and products that allows its members to borrow, save, spend, invest, and protect money. It also offers personal loans, student loans, home loans, and related services. Further, the company provides SoFi Invest, a mobile investment platform that provide its members

access to trading and advisory solutions, such as active investing, robo-advisory, and digital assets accounts. The company was founded in 2011 and is headquartered in San Francisco, California. Figure 7.6 shows the SOFI stock performance over the past year.



Figure 7.6 SOFI Stock Performance Over the Past Year

With SOFI I bought 50 shares at \$9.17 per share and ended up selling them at \$9.28 which was a loss for me and ended up not trading in SOFI as it is not stable enough.

SPDR S&P Semiconductor ETF (XSD)

The SPDR S&P Semiconductor ETF (XSD) is an exchange-traded fund that aims to track the performance of the semiconductor industry. It is designed to provide investors with exposure to a diversified portfolio of semiconductor companies. The ETF holds a basket of stocks of companies engaged in various aspects of the semiconductor industry, including manufacturing, design, and equipment. Figure 7.7 shows the XSD stock performance over the past year.



Figure 7.7 XSD Stock Performance Over the Past Year

I kept buying 50 shares at the price of \$216.74 and 200 shares at the price of \$221.46 next day. But ended up selling all these shares at the price of \$218.39 per share. It was consistent but when the stock goes down at high number of shares owned it reflects badly from what I desired.

Lumen Technologies, Inc. (LUMN)

Lumen Technologies, Inc., a facilities-based technology and communications company, provides various integrated products and services under the Lumen, Quantum Fiber, and CenturyLink brands to business and residential customers in the United States and internationally. The company operates in two segments, Business and Mass Markets. It offers compute and application services, such as edge cloud services, IT solutions. The company was formerly known as CenturyLink, Inc. and changed its name to Lumen Technologies, Inc. in September 2020. The company was incorporated in 1968 and is headquartered in Monroe, Louisiana. Figure 7.8 shows the LUMN stock performance over the past year.



Figure 7.8 LUMN Stock Performance Over the Past Year

In this week the stock was performing well so I bought 200 shares at the price of \$2.07 and after that, with two days I bought 250 more shares at the price of \$2.26 as it was still performing well.

Intel Corporation (INTC)

Intel Corporation designs, develops, manufactures, markets, and sells computing and related products worldwide. It operates through Client Computing Group, Data Center and AI, Network and Edge, Mobileye, Accelerated Computing Systems and Graphics, Intel Foundry Services, and other segments. The company offers platform products, such as central processing units and chipsets, and system-on-chip and multichip packages; and accelerators, boards and systems, connectivity products, and memory and storage products. Figure 7.9 shows the INTC stock performance over the past year.



Figure 7.9 INTC Stock Performance Over the Past Year

Because of the performance of this stock. I decided to buy 100 shares at \$33.76 per share.

Schrödinger, Inc. (SDGR)

Schrödinger, Inc., together with its subsidiaries, develops a physics-based computational platform that enables discovery of novel molecules for drug development and materials applications. The company operates in two segments, Software and Drug Discovery. The Software segment is focused on licensing its software to transform molecular discovery for life sciences and materials science industries. The company serves biopharmaceutical and industrial companies, academic institutions, and government laboratories worldwide. Schrödinger, Inc. was incorporated in 1990 and is based in New York, New York. Figure 7.10 shows the SDGR stock performance over the past year.



Figure 7.10 SDGR Stock Performance Over the Past Year

During that week I projected that this stock would go down as per couple of articles online. So, I held the short position of 50 shares at the price of \$44.86 per share.

Visa Inc. (V)

Visa Inc. operates as a payment technology company worldwide. The company operates Visa Net, a transaction processing network that enables authorization, clearing, and settlement of payment transactions. It also offers credit, debit, and prepaid card products; tap to pay, tokenization, click to pay; Visa Direct, a real-time payments network; Further, the; company provides CyberSource, a payment management platform; and risk and identity solutions, such as Visa Advanced Authorization, Visa Secure, Visa Advanced Identity Score, and Visa Consumer Authentication Service; and Visa Consulting and Analytics, a payment consulting advisory services. Figure 7.11 shows the V stock performance over the past year.



Figure 7.11 Visa Stock Performance Over the Past Year

Visa is a solid stock, so I went out and bought 100 shares at the price of \$225.34 per share in the intention of keeping it as it rarely goes down.

Table 7.1 shows the transaction history of momentum strategy for week 1, Table 7.2 shows the position transaction history of week 1:

Table 7.1 Momentum Transactions Week 1

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
6/12/2023	AMZN	Buy	125.94	200	25,188.00	0.00	100,000.00	0.00
6/12/2023	AMZN	Buy	125.61	5	628.05	130.80	100,130.80	130.80
6/12/2023	GM	Buy	36.58	100	3,658.00	9.00	100,139.80	139.80
6/12/2023	GME	Sell	24.18	500	12,090.00	45.00	100,184.80	184.80
6/12/2023	GME	Buy	24.09	500	12,045.00	0.00	100,184.80	184.80
6/12/2023	GOOGL	Buy	123.51	10	1,235.10	-2.90	100,181.90	181.90
6/12/2023	GOOGL	Short	123.22	10	1,232.20	0.00	100,181.90	181.90
6/12/2023	GRCL	Sell	4.73	10000	47,300.00	-700.00	99,481.90	-518.10
6/12/2023	GRCL	Buy	4.80	10000	48,000.00	0.00	99,481.90	-518.10
6/12/2023	KDNY	Sell	37.98	800	30,384.00	-8.00	99,473.90	-526.10
6/12/2023	KDNY	Buy	37.99	800	30,392.00	0.00	99,473.90	-526.10
6/12/2023	MA	Buy	375.18	10	3,751.80	1.30	99,475.20	-524.80
6/12/2023	MA	Short	374.08	10	3,740.80	0.00	99,475.20	-524.80
6/12/2023	SOFI	Buy	9.17	50	458.50	-0.50	99,474.70	-525.30
6/12/2023	TSLA	Buy	246.69	50	12,334.50	157.00	99,631.70	-368.30
6/12/2023	WMT	Buy	153.98	10	1,539.80	-0.60	99,631.10	-368.90
6/12/2023	WMT	Short	153.80	10	1,538.00	0.00	99,631.10	-368.90
6/12/2023	XSD	Buy	216.74	50	10,837.00	2.00	99,633.10	-366.90
6/13/2023	AMZN	Sell	126.78	205	25,989.90	304.65	99,937.75	-62.25
6/13/2023	INTC	Buy	33.76	100	3,376.00	15.00	99,952.75	-47.25
6/13/2023	LUMN	Buy	2.07	200	414.00	12.00	99,964.75	-35.25
6/13/2023	NFLX	Short	433.61	50	21,680.50	-106.00	99,858.75	-141.25
6/13/2023	SOFI	Sell	9.54	50	464.00	13.00	99,871.75	-128.25
6/13/2023	TSLA	Buy	257.95	100	25,795.00	520.00	100,391.75	391.75
6/13/2023	WMT	Short	155.49	50	7,774.50	9.50	100,401.25	401.25
6/13/2023	XSD	Buy	221.46	200	44,292.00	-9.00	100,392.25	392.25
6/15/2023	AAPL	Buy	184.87	200	36,974.00	228.00	100,620.25	620.25
6/15/2023	LUMN	Buy	2.26	250	565.00	-4.50	100,615.75	615.75
6/15/2023	MA	Short	376.33	50	18,816.50	-135.50	100,480.25	480.25
6/15/2023	NFLX	Buy	444.10	50	22,205.00	114.50	100,594.75	594.75
6/15/2023	SDGR	Short	44.86	50	2,243.00	-20.00	100,574.75	574.75
6/15/2023	V	Buy	225.34	100	22,534.00	83.00	100,657.75	657.75
6/15/2023	WMT	Short	157.60	100	15,760.00	0.00	100,657.75	657.75
6/15/2023	WMT	Buy	157.00	50	7,850.00	-73.50	100,584.25	584.25
6/15/2023	XSD	Sell	218.39	250	54,597.50	-538.50	100,045.75	45.75
6/16/2023	MA	Buy	381.61	50	19,080.50	-278.50	99,767.25	-232.75

Table 7.2 Position Transactions Week 1

Start Date	Symbol	Buy Price	Shares	Net Cost	Price Last Friday	Price This Friday	Asset This Friday	Week Gain/Loss
6/13/2023	INTC	33.76	100	3,376.00	33.76	36.37	100	261.00
6/15/2023	AAPL	184.87	200	36,974.00	184.87	193.97	200	1,820.00
6/12/202	GM	36.58	100	3,658.00	36.58	38.56	100	198.00
6/132023	TSLA	257.95	150	25,795.00	257.95	260.54	150	388.50

By the end of Week 1, I started the simulation with \$100,000, after these Investments, I received a loss of \$232.75. I ended up with my overall account value of \$99,767.25.

7.2 Week 2 (6/19 – 6/25)

For this week I wanted to keep Visa Stock, Tesla, General Motors and Apple as they were doing well this week, but I also saw that Lumin technologies were going down, so I sold the 450 shares at the price of \$2.09 per share at a loss.

Table 7.3 shows the Momentum transactions that happened in Week 2 and Table 7.4 is the Position asset changes of week 2:

Table 7.3 Momentum Transactions Week 2

Date	Symbol	Buy/Sell	Price	Share	Net Cost/Proceeds	Profit/ Loss	Total Cash	Total Profit
6/21/2023	LUMN	Sell	2.09	450	940.50	375.00	100,157.25	157.25

Table 7.4 Position Asset Changes Week 2

Start Date	Symbol	Buy Price	Shares	Net Cost	Price Last Friday	Price This Friday	Asset This Friday	Week Gain/Loss
6/13/2023	INTC	33.76	100	3,376.00	36.37	36.37	100	261.00
6/15/2023	AAPL	184.87	200	36,974.00	186.68	193.97	200	1,820.00
6/12/2023	GM	36.58	100	3,658.00	36.18	38.56	100	198.00
6/13/2023	TSLA	257.95	150	25,795.00	256.6	261.77	150	775.50

For this week, I gained \$3,429.50 which brought my overall account value to \$103,196.75 with a total of 3.4370% increase on last week.

7.3 Week 3(6/26-7/2)

In this week for Schrödinger (SDGR) I had to buy to cover the losses as the stock price went up to \$48.58 from my short price \$44.86. Intel Corporation (INTC) stock went down this week, so I wanted to sell all my shares from that stock at a loss of 100 shares for the price of \$32.93 per share while the original buy price was \$33.76 per share.

In this week, I found a crisis on the news in the flights being cancelled for travels in the summertime and especially in Florida. And so, I shorted for a day some of the airline's stocks explained down below:

Delta Air Lines, Inc. (DAL)

Delta Air Lines, Inc. provides scheduled air transportation for passengers and cargo in the United States and internationally. The company operates through a fleet of approximately 1,250 aircraft. Delta Air Lines, Inc. was founded in 1924 and is based in Atlanta, Georgia. Figure 7.12 shows the DAL stock performance over the past year.



Figure 7.12 DAL stock performance over the past year

I shorted 100 shares at the price of \$46.79 for one day to see the performance of the stock is it correlated with the flight cancellations situation or not. And it turned out to be correct as the price of the stock closed at \$46.31 per share.

JetBlue Airways Corporation (JBLU)

JetBlue Airways Corporation provides air passenger transportation services. As of December 31, 2022, the company operated a fleet of 63 Airbus A321 aircraft, 14 Airbus A220 aircraft, 23 Airbus A321neo aircraft, 130 Airbus A320 aircraft, and 60 Embraer E190 aircraft. It also served 100 destinations in the 32 states in the United States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, and 24 countries in the Caribbean and Latin America. JetBlue Airways Corporation has a strategic partnership with American Airlines Group Inc. to create connectivity for travelers in the Northeast. The company was incorporated in 1998 and is based in Long Island City, New York. Figure 7.13 shows the JBLU stock performance over the past year.

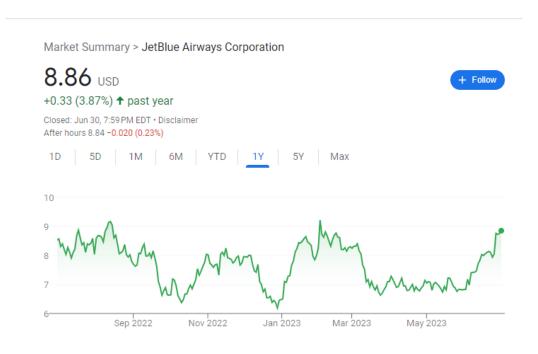


Figure 7.13 JBLU Stock Performance Over the Past Year

For this stock I found out that they are rebooking flights at a very higher rates where the travelers are not willing to pay and are more willing to book with other companies. I shorted 500 shares at the price of \$8.73 per share for one day. The price of the stock that day closed at \$8.76 but for the most part of that day it was swinging downward more than normal.

AAR Corp. (AIR)

AAR Corp. provides products and services to commercial aviation, government, and defense markets worldwide. The Aviation Services segment offers aftermarket support and services; inventory management and distribution services; and maintenance, repair, and overhaul, as well as engineering services. It primarily markets and sells products and services through its employees and foreign sales representatives. AAR Corp. was founded in 1951 and is headquartered in Wood Dale, Illinois. Figure 7.14 shows the AIR stock performance over the past year.



Figure 7.14 AIR Stock Performance Over the Past Year

For this stock I shorted 50 shares at the price of \$57.60 per share for one day. The stock price closed at \$57.92 but for the most part it was stable at 57\$ and not seem to be impacted by the

news.

I have watch that in the sport section Golf is on the rise with the deals that has been made between the market in Saudi Arabia and the United States league and how a big investment it brings and so I looked at the GOLF stock to invest in.

Acushnet Holdings Corp. (GOLF)

Acushnet Holdings Corp. designs, develops, manufactures, and distributes golf products in the United States, Europe, the Middle East, Africa, Japan, Korea, and internationally. The company operates through four segments: Titleist Golf Balls, Titleist Golf Clubs, Titleist Golf Gear, and FootJoy Golf Wear. It offers golf balls under the Titleist brand; golf clubs, such as drivers, fairways, hybrids, and irons under the Titleist brand name; wedges under the Vokey Design brand; and putters under the Scotty Cameron brand. The company also provides golf bags, headwear, golf gloves, travel products, head covers, and other golf accessories, as well as offers customization and personalization of products in Titleist golf gear. was founded in 1910 and is headquartered in Fairhaven, Massachusetts. Figure 7.15 shows the GOLF stock performance over the past year.



Figure 7.15 GOLF Stock Performance Over the Past Year

I bought and held 50 shares at the price of \$54.70 per share. The stock price went up for the last two days, but I am expecting it will go down for the next week so I will hold a short position for that stock.

Table 7.5 shows the Momentum transaction history for week 3 and Table 7.6 shows the Position asset changes for week 3:

Date	Symbol	Buy/Sell	Price	Shares	Net Cost /Proceeds	Profit/ Loss	Total Cash	Total Profit
6/29/2023	AIR	Short	57.60	50	2,880.00	-24.50	100,021.25	21.25
6/29/2023	JBLU	Short	8.73	500	4,365.00	-80.00	99,941.25	-58.75
6/29/2023	DAL	Short	46.79	100	4,679.00	-27.00	99,914.25	-85.75
6/29/2023	INTC	Sell	32.93	100	3,293.00	-83.00	99,831.25	-168.75
6/29/2023	SDGR	Buy	48.58	50	2,429.00	-49.00	99,782.25	-217.75
6/29/2023	GOLF	Buy	54.70	50	2,735.00	40.00	100,197.25	197.25

Table 7.5 Momentum Transactions Week 3

Table 7.6 Buy and Hold Asset Changes Week 3

Start Date	Symbol	Buy Price	Shares Net Cost		Price Last Friday	Price This Friday	Asset This Friday	Week Gain/Loss
6/13/2023	INTC	33.76	100	3,376.00	33.00	33.44	100	44.00
6/15/2023	AAPL	184.87	200	36,974.00	186.68	193.97	200	1458.00
6/12/2023	GM	36.58	100	3,658.00	36.18	38.56	100	238.00
6/13/2023	TSLA	257.95	150	25,795.00	256.60	261.77	150	775.50

For Week 3, I gained extra \$2,292.0 which brings my total account value to \$105,488.75 with an increase of 2.2210% from last week.

7.4 Week 4 (7/3 – 7/9)

For this week I tried the strategy for holding some of the stocks from last week and buying new ones. I removed some of the underperformed stocks in terms of shorting some for the airlines from past week as apparently, they performed well despite the situation with cancelled and delayed flights that I have seen on the news lately and for the 4th of July holiday. Below is the new stock that I have seen performing well in the recent week:

Alibaba Group Holding Limited (BABA)

Alibaba Group Holding Limited, through its subsidiaries, provides technology infrastructure and marketing reach to help merchants, brands, retailers, and other businesses to engage with their users and customers in the People's Republic of China and internationally. The company operates through seven segments: China Commerce, International Commerce, Local Consumer Services, Cainiao, Cloud, Digital Media and Entertainment, and Innovation Initiatives and Others. It operates Taobao Marketplace, a social commerce platform; Tmall, a third-party online and mobile commerce platform for brands and retailers; Alimama, a monetization platform; 1688.com and Alibaba.com, which are online wholesale marketplaces; AliExpress, a retail marketplace; Lazada, Trendyol, and Daraz that are e-commerce platforms; Freshippo, a self-

operated retail chain; and Tmall Global, an import e-commerce platform. Figure 7.16 shows the BABA stock performance over the past year.



Figure 7.16 BABA Stock Performance Over the Past Year

I bought 200 shares at the price of \$90.64 per share and am predicting for the most part of next week it will hold well.

For the rest of the week, I held Apple, General Motors and Tesla with the same number of shares. I also increased my short position at Walmart as they have been going down lately and I am profiting well from it. I also sold the Visa stocks as they were underperforming. Table 7.7 shows the Momentum transaction history for week 4 and Table 7.8 the Position asset changes for week 4

Table 7.7 Momentum Transactions Week 4

Date	Symbol	Buy/Sell	Price	Shares	Net Cost/Proceeds	Profit/Loss	Total Cash	Total Profit
7/7/2023	BABA	Buy	90.64	200	18,128.00	18	100,197.25	100,215.25

Table 7.8 Position Asset Changes Week 4

Date	Symbol	Buy Price	Shares	Net Cost	Price Last Friday	Price This Friday	Asset This Friday	Week Gain/Loss
6/15/2023	AAPL	184.87	200	36,974.00	193.97	190.68	200	-658
6/12/2023	GM	36.58	100	3,658.00	38.56	39.61	100	105
6/13/2023	TSLA	257.95	150	25,795.00	261.77	274.43	150	1,899.00

For Week 4, I have lost almost \$1689.19 which brought down my account value to \$103,799.56 which is 1.6012% less from last week.

7.5 Week 5 (7/10 – 7/16)

For this week I kept the same Position strategy from last week for the following stocks: Apple, Alibabab, General Motors and Tesla without any increase.

For Apple for the most part of the week it was closing well for the minimum of 188.08\$ and still growing stronger by the end of the week which closed at 190.69\$. For Aibaba stocks they have seen an increase of almost 5% closing at 94.56 due to Tech crackdown ends according to the wall street journal from last week which the impact can already be seen when Alibaba's Ele.me platform signs wages and became China's first delivery platform to sign collective contracts on wages and labor safety with its staff. For General Motors it grows slowly with maybe 1% almost increase which makes it by far a stable stock but still nothing major closing at 40.00\$ and so I tend to keep it for the next week and not take risks.

Finally for Tesla it's the best stock for this week as the news hit for Cybertruck came and immediately we can see that reflected on the stock price jumping to 281.38\$ per share. Table 7.9 shows the Position asset changes for week 5:

Table 7.9 Position Asset Changes Week 5

Start Date	Symbol	Buy Price	Shares	Net Cost	Price Last Friday	Price This Friday	Asset This Friday	Week Gain/Loss
6/15/2023	AAPL	184.87	200	36,974.00	190.68	190.69	200	2
6/12/2023	GM	36.58	100	3,658.00	39.61	40	100	39
6/13/2023	TSLA	257.95	150	25,795.00	274.43	281.38	150	1,042.50
7/7/2023	BABA	90.64	200	18,128.00	90.55	94.56	200	784

By the end of Week 5, I made \$1534.50 more than last week's performance. Which brings my final total account value to \$105,334.06 with an increase of 1.4783% from last week.

Chapter 8: Analysis and Comparison

Now that the 5-week simulation period of each strategy has been completed, we will analyze the results we got from each strategy simulation, focusing on the profits and the final portfolio value of each, and we will compare them to see which strategy was the most profitable and which is worth following for depending on the situation everyone is in.

8.1 Final Profits and Portfolio Value

We can say that the simulations were successful since every simulation turned out to be profitable by the end of the -week period, some more than others. It is worth pointing out that none of our team members had significant stock trading experience before, therefore mistakes, misjudgments, and wrong decisions were inevitably made, but thankfully not something that doomed any of the simulations and resulted in significant loses.

The Swing strategy had a few ups and downs, but it went smoothly. On the first week it started with the value of the portfolio increasing to \$104,130.02, a \$4,130.02 asset increase since we bought our stocks. On the second week, the value decreased to \$103,832.14, a \$297.88 loss from last week. On the third week, the portfolio value increased to \$105,637.12, a \$1956.03 increase. On the fourth week, there was a really small value decrease to \$105,637.12, a \$151.05 loss. On the fifth and last week, the portfolio value skyrocketed to \$110,232.98, increasing by \$4,595.86, the biggest value increase of the simulation period. At the end we had a total profit of \$10,232.98.

The position strategy started out very good as well, with the portfolio value increasing to \$103,258.27 having a \$3,258.27 increase in asset value since the stocks were bought. On the second week, the value decreased to 101,204.28, a \$1,766.54 loss from last week. On the third week, the portfolio value increased to \$105,381.12, a significant \$4,176.84 increase since last

week, making that the biggest value increase of the simulation period. On the firth week, the portfolio value kept increasing, with the value being at \$105,544.94, a \$163.82 increase from last week. On the fifth and last week of the simulation, the portfolio value increased to \$106,508.84, a \$963.90 increase from week 4. At the end we had a total profit of \$6,508.84.

The day trading strategy started rough with a small loss of \$370.10, reducing the portfolio value to \$99,639.90. On week 2 things bounced back, with the portfolio value increasing to \$100,300.70, a profit of \$670.80 from last week. On the third week, the portfolio value increased significantly to \$106,717.70, a big \$6,417.00 profit from last week. Week 4 was profitable too, with the portfolio value increasing to 108,391.40, having a \$1,673.70 profit. On the fifth and last week of the simulation, we saw the biggest profit of all the simulations, a profit of \$18,512.80, skyrocketing the portfolio value to \$126,904.20. At the end we had a total profit of \$26,904.20.

The momentum and position trading had a rough start as well with a small loss of \$232.75, dropping the portfolio value down to \$99,767.25. The second week was profitable, with portfolio value increasing to \$103,196.75, having a profit of \$3,429.50. The third week was also profitable, with making \$2,292.00 and increasing the portfolio value to \$105,488.75. On week 4, the portfolio value decreased to \$103,799.56, a \$1,689.19 loss from last week. On week 5, the portfolio value was \$105,334.06, a \$1,534.50 profit from last week. At the end we had a total profit of \$5,334.05.

8.2 Recommended Strategies

The two most profitable strategies were the day trading strategy and the swing strategy. At the end of the simulation the day trading strategy generated a profit of \$26,904.20 and the swing strategy a profit of \$10,232.98.

It is obvious that the day trading was profitable by a mile with in only 5 weeks making a profit of %26.9. We would recommend the day trading strategy to people with a little more

experience in stock trading, since it's a strategy that requires risky trades in order to get the most profit. In addition, it requires more dedication compared to other strategies because of the constant monitoring and trading, which would take a lot of time during the day, just like a full-time job.

On the other hand, the swing strategy didn't make as much profit, with %10.2 on the first 5 weeks and half of what day trading did during the same time. We would recommend swing trading to people with minimal experience, since it is less risky than day trading and less punishing at times. It works with stocks from well-established companies, and it doesn't require as much time and dedication as day trading does, so people with full-times jobs can allocate some of their free time to monitor the swings and trade their stocks.

It is also worth pointing out that both strategies require the traders to pay attention to the news, especially those that have to do with the companies that they have invested in, in order to take the right decisions.

Chapter 9: Conclusion

The trade simulation project concluded on a highly positive note, with each simulation proving to be successful within the designated five-week timeframe. Despite our team's lack of significant stock trading experience, we navigated the markets adeptly, minimizing losses from unavoidable mistakes and misjudgments.

Throughout the project, we learned the value of discipline, patience, and strategic planning. It became evident that continuous analysis of market trends and staying informed were crucial for making informed decisions.

The project required considerable time commitment and presented various challenges. Nonetheless, we reached our goals and determined which strategies are based to use for advance and novice traders. Additionally, the experience provided us with valuable insights into the complexities of stock trading without risking real capital. The simulations served as a safe environment to experiment with different strategies and comprehend their implications.

In conclusion, the trade simulation project was a rewarding learning experience. It equipped us with essential skills and knowledge applicable to the dynamic world of trading and investments. As we move forward, the lessons gained from this project will undoubtedly contribute to our success in future financial endeavors.

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