# Stock Market Simulation 

An Interactive Qualifying Project Report: Submitted to the Faculty of


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Degree of Bachelor of Science
By

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#### Abstract

:

This project examined the practical implications of investing by utilizing an online simulator, Investopedia.com, which provides a virtual fund of $\$ 100,000$ for trading and investing in stocks. A 2-week simulation was done to determine the final portfolio value, in which a profit of $0.4326 \%$ was successfully achieved in the first week. On the other hand, during the second week there were major losses which resulted in a final $-0.2485 \%$ loss in portfolio value, concluding with the final cash remaining of $\$ 99,751.5$. Finally, the simulation of the first week was not too bad compared to the second week; the reason for this is that the simulator took too long to process the trades which resulted in major losses because two active trading methods were used to perform this project and they are based on short-term trading.


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## 1 Introduction

### 1.1 Goals and Methods

The main objective of this project is to put into professional practice the scope of investing and its benefits. The project will be based on the use of an investing simulator called Investopedia.com, which offers $\$ 100,000$ to trade and invest in stocks. As a first-time investor, this is a significant opportunity to learn. The table of contents provides accurate information that leads to an understanding of this world, including types of stocks, which give insights into the function of each stock; strategies of investing, an extremely broad branch of this topic that explains four different strategies; and finally, the elements of stock value, which are essential for comprehending this topic. Furthermore, the goal of this project is to simulate trading with the buying power of the mentioned amount above throughout four weeks. This amount of time perfectly fits into the vision of the project because it will reflect the gains/losses throughout one month. After that month, there will be a post- simulation phase in which all the figures, tables, and additional information will come together to determine the objective of the project.

### 1.2 Advantages of Investing

Stock investing offers numerous advantages to investors. Primarily, it provides the potential for significant returns, historically outperforming other conventional investment choices. Moreover, investing in stocks grants partial ownership in companies, allowing shareholders to participate in profits and growth. Diversification opportunities further mitigate risk by spreading investments across different industries and regions. The liquidity of the stock market facilitates easy buying and selling of shares. Additionally, dividends from some companies offer a steady income stream.

Stock investing is accessible to individual investors and acts as a long-term hedge against inflation. For those seeking a hands-off approach, professional management through mutual funds or ETFs is available. Although stock investing entails risks, conducting thorough research and maintaining a long-term perspective can lead to financial growth and wealth accumulation.

### 1.3 History of the Stock Market

Despite the establishment of the first stock market in Amsterdam in 1611, the United States did not become a part of the stock market until the late 18th century. During this period, a collective of merchants established what is commonly referred to as the Buttonwood Tree Agreement. They would convene on a regular basis beneath a Buttonwood tree to engage in the trading of stocks and bonds. This project developed into the New York Stock market (NYSE), which is now the largest stock market in America. Nevertheless, the Philadelphia Stock Exchange, established in 1790, is officially recognized as the first stock exchange in the United States. Its establishment had a profound impact on Philadelphia's position in the world economy and played a crucial part in the growth of the nation's financial sectors and westward expansion.

In a contemporary advancement, in 1971 the establishment of the National Association of Securities Dealers Automated Quotations, often known as NASDAQ. This platform transformed trading by introducing technology, to the New York Stock Exchange's traditional trading floor. In 1992, NASDAQ saw significant growth with its merger with the International Stock Exchange located in London, resulting in the establishment of the first transcontinental securities exchange. This computerized trading platform, working together with the NYSE, the American Stock Exchange, and other regional exchanges in locations such as Boston, Philadelphia, and San Francisco, this has expanded the opportunities for investors to purchase and sell equities across several platforms [1].

### 1.4 Stock Market Indexes

There are in the United States three major indexes which are the Dow Jones Industrial Average, the S\&P 500, and the Nasdaq composite. These can simply provide investors with a simplified image of a large sector in the market, without the necessity to evaluate every single asset in the market. Furthermore, the Dow Jones Industrial Average is the oldest index in U.S. history as well as Nasdaq. On the other hand, S\&P 500 provides a lot more cross section of the economy [2].

Dow Jones Industrial Average (DJIA): The Dow Jones Industrial Average (DJIA) is a stock market index that follows the performance of thirty substantial blue-chip businesses that are owned by the public and that are traded on the New York Stock Exchange (NYSE) and the Nasdaq. The Dow Jones is named after Charles Dow, who, in 1896, was the person responsible for creating the index together with Edward Jones, who was his business partner. An index that is regarded to be an indicator of the economy of the United States as a whole is the Dow 30, which is another name for the index [3].

S\&P 500: In the United States, the S\&P 500 Index, often known as the Standard \& Poor's 500 Index, is a market-capitalization-weighted index that includes 500 of the most prominent publicly listed firms. Due to the fact that three of the components have two share classes mentioned, the index really consists of 503 components. There are additional criteria that are included in the index, which means that it is not an accurate ranking of the top 500 corporations in the United States based on market capitalization. Despite this, the S\&P 500 index is often considered to be among the most accurate indicators of the performance of significant American stocks and, by extension, of the stock market as a whole [5].

Nasdaq Composite Index: With almost 2,500 stocks that are traded on the Nasdaq stock exchange, the Nasdaq Composite Index is a market capitalization-weighted index that measures the performance of these firms. This is a wide index that concentrates a significant amount of its weight on the significant technology sector. It is important to note that the index includes both domestic and foreign enterprises. One of the most widely followed indices in the world, the Nasdaq Composite Index is a standard component of news on the financial markets [5].

## 2 Types of Stocks

### 2.1 Income Stocks

Income stocks often provide a high yield and may account for the majority of the asset's total earnings. The bulk of income firms have lower levels of volatility than the overall stock market and offer dividend yields that are both sustainable and higher than the average. Although there is no specific cutoff for classification, the bulk of income equities have these criteria.

There is a chance that income stocks may have limited prospects for future development, resulting in lower levels of ongoing capital investment. Any cash flow that exceeds what is needed to support profits might be given to investors on a regular basis. Income stocks can come from any sector of the economy, although they are most found in real estate energy, utilities, natural resources, and financial institutions. [6] Walmart Inc. is a great example because its stock has been going up in the last 30 years ago, so they are able to increase their dividend payout.

### 2.2 Defensive Stock

A defensive stock exhibits performance that is reasonably constant regardless of the situation of the economy at the time. The term "non-cyclical stocks" is another name for defensive stocks. This is because defensive stocks are less susceptible to the economic cycle of expansions and recessions. A consistent dividend payment and a share price that is more stable are two benefits that will come with defensive stocks [7]. During an anticipated economic decline, investors typically include defensive stocks in their investment portfolios, as these stocks are projected to perform favorably even in the midst of the slump. Conversely, cyclical stocks closely resemble the economic cycle by flourishing during periods of economic growth and experiencing difficulties during periods of economic decline.

### 2.3 Growth Stock

Shares of a firm that are expected to increase at a pace that is much higher than the average growth rate for the market are referred to as growth stocks. Generally speaking, dividends are not paid out by these stocks. Typically, organizations who wish to reinvest whatever earnings they accumulate in order to accelerate growth in the short term are the ones that issue growth stocks. This is the reason why this occurrence occurs. Investors who put their money into growth companies do so with the expectation that they will eventually sell their shares at some point in the future and realize a profit from capital gains [8]. This type of stock often trades at a high price-to-earnings ratio (P/E ratio) and can be found in any industry or sector. At the time, it is possible that they do not have any earnings; nevertheless, it is anticipated that they will in the near future.

### 2.4 Cyclical Stock

Whenever there is a socioeconomic or systematic shift in the economy as a whole, the price of a cyclical stock is impacted. Cyclical stocks are well-known for their ability to track the cycles of an economy, during which they experience growth, peak, recession, and recovery events. When the economy is doing well, customers spend more money on consumer discretionary items, but when the economy is in a recession, they spend less money on these items. The majority of cyclical stocks include firms that sell these kinds of products [9]. Companies with cyclical stocks include automakers, airlines, furniture merchants, clothes stores, motels, and restaurants. When the economy is strong, consumers can afford to purchase new automobiles, renovate their houses, shop, and vacation.

## 3 Strategies of Active Trading

### 3.1 What is Active Trading?

Active trading is the practice of purchasing and selling assets in order to benefit quickly from short-term market swings. The objective is to retain the post for a limited period of time. There is no exact time measurement for active trading. Day traders who make tens or hundreds of transactions every day are particularly active traders, although swing traders who initiate or close positions every few days are also considered busy traders by many [10]. Furthermore, day trades are a lot more active than swing traders.

### 3.2 Swing Trading

Swing trading involves holding holdings for periods ranging from a few days to a few weeks. Taking advantage of price swings that occur on hourly, four-hour, and/or daily price charts is what the swing trader means by "taking advantage of."

### 3.3 Day Trading

Day trading refers to the practice of acquiring and selling securities on the same trading day. This is often done with the goal of profiting on a certain event that is expected to have an influence on the stock price. A day trader, for example, might trade the volatile price movement that happens after the publication of corporate earnings or a central bank's announcement of a change in interest rates. These traders mostly employ one, five, or fifteen-minute charts.

## 4 Selected Companies

### 4.1 Google (GOOG)

Alphabet Inc., also known by its previous moniker Google, is a prominent stock market participant with the ticker code GOOG. As of 2024, the company's market value is estimated to be $\$ 1.989$ trillion, ranking it as the world's fourth most valuable. The stock price has fluctuated significantly during the last 52 weeks, ranging from $\$ 103.27$ to $\$ 157.00$. The current share price is around \$161.10 [12].

Alphabet's financial performance is excellent, with latest figures indicating sales of $\$ 137$ billion and profit of $\$ 30.7$ billion. The company's earnings per share (EPS) for the trailing twelve months (TTM) are $\$ 5.80$. Analysts predict a one-year objective of $\$ 162.20$ for the company, suggesting a small increase from present levels [11] [12].

For individuals interested in investing or trading, Alphabet's stock has liquidity and a beta of 1.04, suggesting that its price swings are generally consistent with the market. The stock does not presently pay dividends, as is customary for growth-oriented technology businesses.

Alphabet is essentially a holding corporation with Google as its primary subsidiary, receiving roughly $90 \%$ of its income from internet advertising. Other income sources include Google Play, YouTube, and hardware sales such as the Pixel smartphones and Google Home devices. The company's 'Other Bets' sector invests in high-tech enterprises, including healthcare, internet connectivity, and self-driving vehicles [11]. See Figure 1 for past direction of prices for future decisions.


Figure 1: GOOG Stock Price the last 19 years

### 4.2 Crown Castle Inc (CCI)

Crown Castle Inc. (CCI) is a major participant in the real estate market, particularly in the telecommunications tower REITs business. Crown Castle will have an enormous infrastructure network by 2024, comprising over 40,000 cell towers and nearly 90,000 route miles of fiber to service varied wireless communication demands throughout key U.S. markets. This infrastructure is critical for linking communities and companies to essential data and technological services [13]. Crown Castle has a market value of around $\$ 44.006$ billion and a price-earnings ratio of 29.27. The company has a future dividend yield of $5.93 \%$ and a recent dividend rate of $\$ 6.26$ per share. The current stock price is around $\$ 101.28$, with a 52 -week range of $\$ 84.72$ to $\$ 136.07$. Analysts expect CCI stock to reach $\$ 116.53$ within a year [14].

Recent performance and trends suggest a mixed prognosis. Crown Castle has lately encountered issues such as mounting debt and slower growth, resulting in a modest drop in stock price predictions and values. However, consistent demand for its site leasing services has helped surpass revenue projections, demonstrating resilience in its core business activities. See Figure 2 for past direction of prices for future decisions.
Crown Castle Inc. (CCI) $\ddagger$ Follow
95.44 -0.03 (-0.03\%) 95.440 .00 (0.00\%)
At close: April 24 at 4:00 PM EDT Pre-Market: 4:46 AM EDT C


Figure 2: CCI Stock Price the last 26 years

### 4.3 AMC Entertainment Holdings Inc (AMC)

AMC Entertainment Holdings Inc. (AMC), a well-known movie theater operator, is facing a difficult financial climate. As of 2024, the company's stock price has fluctuated significantly, with the current trading price about $\$ 3.00$, a decrease from earlier in the year. This is a significant drop from the 52 -week high of $\$ 62.30$ [15]. The firm has been the subject of considerable debate owing
to its status as a "meme stock," which has resulted in erratic trading patterns driven by individual investors. Despite this, AMC's management remains hopeful, expressing confidence in the company's continued survival and rejecting the possibility of Chapter 11 [16]. Financial experts have differing views on AMC's stock, with current predictions indicating a possible gain with price targets ranging from $\$ 4.00$ to $\$ 8.00$ over the next year. Analysts suggest a "sell" based on the stock's current performance and market circumstances. AMC's leadership, led by CEO Adam Aron, is concentrating on strategic development areas such as improving premium screen offerings and presenting concert movies to attract more customers and improve market share. These actions are crucial for AMC to recover and sustain its financial position in the competitive entertainment business [16]. See Figure 3 for past direction of prices for future decisions.

## NYSE - Delayed Quote • USD

## AMC Entertainment Holdings, Inc. (AMC) <br> ```&) Follow```

## $3.2800-0.1100(-3.24 \%) 3.2400-0.04$ (-1.22\%)

At close: April 24 at 4:00 PM EDT Pre-Market: 5:19 AM EDT C



Figure 3: AMC Stock Price the last 10 years

### 4.4 SPDR S\&P 500 ETF Trust (SPY)

The SPDR S\&P 500 ETF Trust (SPY) is a popular exchange-traded fund that seeks to replicate the performance of the S\&P 500 Index, providing investors with wide exposure to the US stock market. This ETF includes a varied choice of large-cap US equities from numerous sectors, allowing for a more thorough picture of the market's performance. According to the most recent available data in 2024, SPY has around $\$ 505$ billion in assets under management and a net asset value (NAV) of roughly $\$ 505.61$ per share. The ETF's liquidity and large trading volume demonstrate its appeal and accessibility for investors [17].

SPY's performance closely tracks that of the S\&P 500, with latest data indicating a year-to-date growth in market value of around $10.39 \%$ as of March 2024. Its historical performance has been consistent, closely tracking the larger market patterns shown in the $\mathrm{S} \& \mathrm{P} 500$ index. The fund has a low expense ratio of $0.09 \%$, making it a cost-effective option for investors looking to get exposure to US stocks without the high expenses of active management [17]. Investors respect SPY for its combination of characteristics, which include wide market exposure, cost-efficiency, and liquidity, making it a key investment in several portfolios. It is often used as a benchmark to compare the performance of other companies or funds[18]. See Figure 4 for past direction of prices for future decisions.


Figure 4: SPY Stock Price the last 31 years

### 4.5 Trump Media \& Technology Group Corp (DJT)

Trump Media \& Technology Group Corp., which trades under the ticker DJT, has undergone considerable market volatility. As of April 2024, the company's stock price was about $\$ 31.72$, representing a recent loss of around $2.61 \%$ on that day. Trump Media's market valuation has skyrocketed during the last year, increasing by $771.21 \%$ to almost $\$ 4.25$ billion. The firm, which is recognized for its social media platform, Truth Social, has had a turbulent stock price trajectory but has achieved significant market value increase in a short time. Given the company's revenue and stock performance difficulties, this quick increase in market capitalization is noteworthy. In 2023, Trump Media's yearly sales was $\$ 4.13$ million, a major increase from prior years but still low in comparison to its market capitalization. Investors face a complex spending landscape with volatility and growth opportunities, influenced by market conditions and strategic decisions in technology and media industries [19] [20]. See Figure 5 for past direction of prices for future decisions.


Figure 5: DJT Stock price the last 3 years

### 4.6 Bank of America Corp (BAC)

Bank of America Corporation (BAC), a well-known financial institution, has made significant investments in the stock market. By 2023, Bank of America's stock was actively traded, with an average daily volume of more than 40 million shares. According to finance. Yahoo, the stock's price has ranged between $\$ 24.96$ and $\$ 38.35$ over the previous 52 weeks, indicating a volatile year. Bank of America had a successful year with significant earnings. The company's profits report for the first quarter of 2024 surpassed expectations, despite a little decrease in net interest income from the previous year. The bank's profitability statistics, including an $8.70 \%$ return on equity (ROE), illustrate its ability to generate profits from shareholder investments [22]. The stock's trailing price-to-earnings (PE) ratio is 12.44, with a forward PE of 12.10 . Based on valuation standards, the stock seems to be priced in respect to its earnings. Bank of America has a large market value of $\$ 291.322$ billion as of the latest update, reflecting its strong role in the financial business [21]. Bank of

America's dividend yield is $2.56 \%$, which is consistent with their purpose of dispersing funds to shareholders [21]. Bank of America Corporation offers a wide range of financial services via its three primary divisions: consumer banking, global wealth and investment management, and global banking. See Figure 6 for past direction of prices for future decisions.


Figure 6: BAC Stock price the last 51 years

### 4.7 Rent the Runway (RENT)

Rent the Runway, Inc. (ticker: RENT), an online rental marketplace for designer goods, has seen severe stock market volatility. According to the most recent data, the company's revenue for 2023 was recorded at $\$ 298.20$ million, representing a moderate year-over-year increase. However, the firm has had issues, including a huge net loss, raising financial worries [24]. In response to its stock performance and regulatory compliance requirements, Rent the Runway performed a 1-for20 reverse stock split in early April 2024. The stock price was raised to meet Nasdaq listing rules
[24] [23]. The stock price has fluctuated significantly. Analysts have a mixed view, with target prices ranging from $\$ 12.00$ to $\$ 100.00$, indicating possible considerable upside from present levels. For up-to-date information, see Rent the Runway's investor relations website or financial news sources [23]. See Figure 7 for past direction of prices for future decisions.

NasdaqCM - Nasdaq Real Time Price • USD
Rent the Runway, Inc. (RENT) $\ddagger$ Follow
$12.07+0.16(+1.34 \%)$
At close: April 24 at 4:00 PM EDT


Figure 7: RENT Stock price the last 3 years

### 4.8 Supermicro (SMCI)

Super Micro Computer, Inc. (SMCI) has seen significant growth and maintained a strong position in the stock market. As of 2024, SMCI has been extremely successful, with a significant growth in stock value. The firm, recognized for its high-performance server and storage solutions, saw sales exceed $\$ 9.25$ billion during the previous twelve months ended December 31, 2023, representing a remarkable year-over-year rise of $39.22 \%$ [26]. SMCI's annual sales for the fiscal year ended June

30, 2023 were $\$ 7.12$ billion, representing a $37.09 \%$ increase over the previous year. SMCI's growing prominence in AI, cloud, and storage solutions is reflected in their stock analysis. The company's stock performance has also been impressive, with the price rising from $\$ 284.26$ at the beginning of 2024 to $\$ 754.72$, representing a $165.5 \%$ rise. Analysts have assigned SMCI a "Moderate Buy" rating with a price target range of $\$ 250.00$ to $\$ 1,500.00$, indicating potential for considerable future gains. SMCI does not presently pay dividends, reflecting a reinvestment strategy geared toward future development and expansion. The company's market valuation was recently $\$ 59.13$ billion, reflecting its tremendous scope and significance in the technology industry [25]. For those interested in the technical aspects of investing, the company has a high beta (1.29), indicating that price fluctuations are more volatile than the market average. Volatility may increase both risk and return for investors [25]. This analysis shows that SMCI is still a strong competitor in its area, with solid financial health and a potential future for development driven by innovation and market expansion. See Figure 8 for past direction of prices for future decisions.


Figure 8: SMCI Stock price the last 17 years

### 4.9 Moderna (MRNA)

Moderna, Inc. (ticker: MRNA) encountered tremendous obstacles in 2023, including a big decrease in sales and a change from profitability to a huge net loss. The business projected a revenue reduction from $\$ 19.3$ billion in 2022 to $\$ 6.8$ billion in 2023, owing mostly to lower demand for its COVID-19 vaccine. The drop in sales resulted in a $\$ 4.7$ billion net loss for the year, down from $\$ 8.4$ billion in 2022 [27].The stock market reflects these issues, with Moderna's stock showing volatility and an overall downward trend in value. The company's market value has declined by $-35.19 \%$ in the last year, reaching roughly $\$ 40.19$ billion in April 2024 [28]. Moderna expects to generate $\$ 4$ billion in sales from its respiratory franchise by 2024, suggesting a desire to expand beyond its COVID-19 vaccine. The business expects to spend around $\$ 4.5$ billion in research \& development this year, a modest decrease from $\$ 4.8$ billion in 2023 [27]. Stock experts have differing views on MRNA's prospects, with current recommendations ranging from strong buy to sell. Analysts gave price estimates for the next year ranging from $\$ 60.00$ to $\$ 231.00$, with a mean recommendation of moderate buy [28]. These data and estimates highlight the difficulties Moderna confronts as it expands beyond its early success with the COVID-19 vaccination to become a larger pharmaceutical firm with many drugs in development. Investors should regularly watch the company's performance, particularly its ability to control expenses and effectively introduce new items to the market. See Figure 9 for past direction of prices for future decisions.


## Figure 9: MRNA Stock price the last 6 years

### 4.10 Matterport (MTTR)

Matterport, Inc. (MTTR) made tremendous progress in 2023, focused on spreading its digital twin technology internationally and improving platform capabilities. The company's sales for the year were $\$ 157.75$ million, up $15.88 \%$ from the previous year. Matterport's success is credited to its increased product offerings and strategic alliances focused at growing its market presence worldwide [29]. Matterport's financial year concluded with a net loss of $\$ 199.08$ million and a negative return on equity of $36.35 \%$, attributed to substantial expenditures connected with growth and technological development. The company's market capitalization is at $\$ 1.45$ billion, and its stock price increased significantly when CoStar Group acquired it at a premium [30]. Analysts have assigned Matterport a consensus recommendation of "hold," with price estimates ranging from $\$ 3.00$ to $\$ 5.50$, indicating a cautious perspective on the stock's potential movement during the next year [30]. This viewpoint examines both the potential and constraints that Matterport
confronts as it continues to develop and extend its technology solutions in the digital twin area. See Figure 10 for past direction of prices for future decisions.


Figure 10: MTTR Stock price the last 3 years

## 5 Simulations

The following trades were made between April $17^{\text {th }}$ and April $24^{\text {th }}$ using the trading strategies of day trading and swing trading. For the day trading, an approximation of one to two hours passed after buying a trade to maximize the highest profit possible. On the other hand, for the swing trading, a waiting time of a few days was needed to reach a decent amount of profit. A historical representation of all trades is shown on Table 1.

Table 1: Transaction History of Trades

| Date | Symbol | Trade Type | Quantity | Price |
| :---: | :---: | :---: | :---: | :---: |
| 4/24/2024 | MTTR | Stock: Sell at Market |  | \$4.68 |
| 4/23/2024 | SPY | Stock: Sell at Stop | $20$ | \$505.77 |
| 4/22/2024 | MRNA | Stock: Sell at Market |  | \$104.58 |
| 4/22/2024 | MTTR | Stock: Buy at Market | $2000$ | \$4.86 |
| 4/22/2024 | MRNA | Stock: Buy at Market | $40$ | \$102.95 |
| 4/22/2024 | SMCI | Stock: Sell at Market |  | \$691.08 |
| 4/22/2024 | SMCI | Stock: Buy at Stop |  | \$710.49 |
| 4/22/2024 | CCI | Stock: Sell at Stop |  | \$94.67 |
| 4/18/2024 | RENT | Stock: Sell at Stop | $500$ | \$11.25 |
| 4/18/2024 | RENT | Stock: Buy at Market | $500$ | \$10.54 |
| 4/18/2024 | BAC | Stock: Sell at Stop |  | \$35.75 |
| 4/17/2024 | DJT | Stock: Sell at Stop |  | \$25.73 |
| 4/17/2024 | AMC | Stock: Sell at Stop |  | \$2.94 |
| 4/17/2024 | DJT | Stock: Buy at Market |  | \$25.98 |
| 4/17/2024 | GOOG | Stock: Sell at Market |  | \$157.53 |
| 4/17/2024 | BAC | Stock: Buy at Market |  | \$35.41 |
| 4/17/2024 | DJT | Stock: Buy at Market |  | \$25.72 |
| 4/17/2024 | SPY | Stock: Buy at Market |  | \$504.25 |
| 4/17/2024 | AMC | Stock: Buy at Market |  | \$2.95 |
| 4/17/2024 | CCI | Stock: Buy at Market |  | \$94.39 |
| 4/17/2024 | GOOG | Stock: Buy at Market |  | \$157.88 |

### 5.1 Simulation of Week 1: (April $17^{\text {th }}-$ April $18{ }^{\text {th }}$ )

The transactions that were executed with each category of stock are detailed in Tables 2 and 3, together with the data that corresponds to them and either a profit or a loss. This was a quite productive week; there were a number of day transactions that helped boost the value of the portfolio, which went from an initial value of $\$ 100,000$ to $\$ 100,434.5$, which resulted in a profit of $\$ 434.5$, which is equivalent to an increase of $+0.4326 \%$.

Table 2: Day Trading for Week 1

| Date of <br> Transaction | Symbol | Buy/Sell | Price <br> $\mathbf{( \$ )}$ | Shares | Net <br> Cost/Proceeds <br> $\mathbf{( \$ )}$ | Profit/Loss <br> (\$) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $04 / 17 / 2024$ | GOOG | Buy | 157.88 | 50 | 7,894 |  |
| $04 / 17 / 2024$ | GOOG | Sell | 157.53 | 50 | $7,876.5$ | -17.50 |
| $04 / 17 / 2024$ | AMC | Buy | 2.95 | 500 | 1,475 |  |
| $04 / 17 / 2024$ | AMC | Sell | 2.94 | 500 | 1470 | -5.00 |
| $04 / 17 / 2024$ | DJT | Buy | 25.72 | 700 | 18,004 |  |
| $04 / 17 / 2024$ | DJT | Sell | 25.98 | 700 | 18,011 | +7.00 |
| $04 / 18 / 2024$ | RENT | Buy | 10.54 | 500 | 5,270 |  |
| $04 / 18 / 2024$ | RENT | Sell | 11.25 | 500 | 5,625 | +355.00 |

Table 3: Swing Trading for Week 1

| Date of <br> Transaction | Symbol | Buy/Sell | Price <br> (\$) | Shares | Net <br> Cost/Proceeds <br> (\$) | Profit/Loss <br> (\$) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $04 / 17 / 2024$ | CCI | Buy | 94.39 | 50 | 4,719 |  |
| $04 / 22 / 2024$ | CCI | Sell | 94.67 | 50 | 4,733 | +14.00 |
| $04 / 17 / 2024$ | BAC | Buy | 35.41 | 150 | $5,311.5$ |  |
| $04 / 18 / 2024$ | BAC | Sell | 35.75 | 150 | $5,362.5$ | +51.00 |
| $04 / 17 / 2024$ | SPY | Buy | 504.25 | 20 | 10,085 |  |
| $04 / 23 / 2024$ | SPY | Sell | 505.77 | 20 | $10,115.4$ | +30.40 |

### 5.2 Simulation of Week 2: (April 22 ${ }^{\text {nd }}-$ April 24 ${ }^{\text {th }}$ )

Tables 3 and 4 provide the transactions that were carried out with each kind of stock, together with the data that corresponds to it and either a profit or a loss. In addition, week 2 was not the greatest week because of the significant losses on SMCI and MTTR, which led to a loss of $\$ 748.20$ across both final transactions. This was the reason why week 2 was not the best week. The primary reason for this was that the simulator had many crashes, and it took a considerable amount of time for transactions to be offered for sale. At the end of the day, we ended up incurring a total loss of $\$ 683.00$. Following the deduction of this from the value of the portfolio acquired during the first week, we arrived at a total value of $\$ 99,751.50$. As a consequence of the previous figure, this represents a decline of 0.2485 percent.

Table 4: Swing Trading for Week 2

| Date of <br> Transaction | Symbol | Buy/Sell | Price <br> $\mathbf{( \$ )}$ | Shares | Net <br> Cost/Proceeds <br> $\mathbf{( \$ )}$ | Profit/Loss <br> (\$) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $04 / 22 / 2024$ | MTTR | Buy | 4.86 | 2000 | 9,720 |  |
| $04 / 24 / 2024$ | MTTR | Sell | 4.68 | 2000 | 9,360 | -360.00 |

Table 5: Day Trading for week 2

| Date of <br> Transaction | Symbol | Buy/Sell | Price <br> (\$) | Shares | Net <br> Cost/Proceeds <br> (\$) | Profit/Loss <br> (\$) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $04 / 22 / 2024$ | SMCI | Buy | 710.49 | 20 | $14,209.80$ |  |
| $04 / 22 / 2024$ | SMCI | Sell | 691.08 | 20 | $13,821.60$ | -388.20 |
| $04 / 22 / 2024$ | MRNA | Buy | 102.95 | 40 | $4,118.00$ |  |
| $04 / 22 / 2024$ | MRNA | Sell | 104.58 | 40 | $4,183.20$ | +65.20 |

### 5.3 Percentages of Profits/Losses

## Matterport, Inc. (MTTR):

There were both buy and sell transactions for MTTR, indicating active trading. The buy on $4 / 22 / 2024$ was at $\$ 4.86$, and the sell on $4 / 24 / 2024$ was at $\$ 4.68$, suggesting a potential short-term loss depending on the execution prices and excluding any trading fees. Loss of $3.70 \%$

## SPDR S\&P 500 ETF Trust (SPY):

SPY was sold at a stop, possibly to limit losses or to lock in profits, at a price of $\$ 505.77$ on $4 / 23 / 2024$, and was bought at $\$ 504.25$ on $4 / 17 / 2024$, which might suggest a slight profit if these were the opening and closing trades of a position. Profit of $0.30 \%$

## Moderna, Inc. (MRNA):

MRNA shows a buy transaction at $\$ 102.95$ and a sell at $\$ 104.58$. This sequence of trades could imply a successful short-term trade with a profit, assuming the selling price was higher than the buying price plus any associated costs. Profit of $1.58 \%$

## Super Micro Computer, Inc. (SMCI):

There's a sell transaction at $\$ 691.08$ and a stop buy at $\$ 710.49$. The stop buy at a higher price than the selling price might suggest a strategy to re-enter the position in anticipation of an upward trend. Loss of 2.73\%

## Crown Castle Inc. (CCI):

The stock was sold at a stop for $\$ 94.67$ and bought at market for $\$ 94.39$, which could indicate a defensive move to exit the position and possibly re-enter at a slightly lower price. Profit of $0.30 \%$

## Rent (RENT):

Sold at a stop for $\$ 11.25$ and bought at the market for $\$ 10.54$, this pair of transactions suggests a possible stop-loss execution followed by repurchasing at a lower price, which might be part of a dollar-cost averaging strategy or a re-entry after being stopped out. Profit of 6.74\%

## Bank of America (BAC):

Selling at a stop at $\$ 35.75$ after a buy at $\$ 35.41$ indicates a stop-loss strategy, potentially signaling a small profit if the trades represent a closed position. Profit of $0.96 \%$

## Trump Media \& Technology Group Corp (DJT):

The trades show a buying price at $\$ 25.72$ and a selling price at $\$ 25.73$, which is nearly break-even, excluding costs. Profit of $0.04 \%$

## AMC Entertainment Holdings Inc. (AMC):

The trades for AMC were both as stop-sell orders and buy at market orders at prices very close to each other, suggesting active trading and possibly short-term speculative moves. The trades show a buying price at $\$ 2.95$ and a selling price at $\$ 2.94$, which is nearly break-even, excluding costs. Profit of $0.04 \%$

## Alphabet Inc. (GOOG):

GOOG was bought at $\$ 157.88$ and sold at $\$ 157.53$, showing a slight loss on the trades if these were the open and close prices for a position. Loss of $0.22 \%$

## 6 Conclusion

After the conclusion of this experiment, a number of realizations came to light. This is due to the fact that the stock market is such a vast universe, and there are several methods to get information in order to make wise judgments. For this reason, social media programs like Discord, Reddit, and X are significant sources of information because of the live-streaming services they provide. These services allow individuals to get support and extra information that may be of assistance in the process of constructing a robust portfolio. On the other hand, these are ideas that are determined by one's own self-education, and it is necessary to have some degree of faith in order to follow such knowledge. Additionally, criteria that are well-known in this sector are an additional method for improving the quality of judgments made while trading.

Make sure you choose a reliable stock trading simulator since there are some that abruptly crush, and others that could take too long to sell your transactions, which might result in significant losses that harm your portfolio. Another advice is to make sure you use a stock trading simulator that is reliable. Additionally, they may be ten to fifteen minutes behind the clock in real life, which is another factor that might have an impact on your portfolio.

In conclusion, this was an incredible chance for you to be ready for future investments that can be categorized as either a part-time employment or a full-time investment. It will allow you to increase your income while also "compelling" you to learn about businesses and potential projects. A significant amount of what a business does may be deduced from fluctuations in the stock market, which provide insight into whether or not the corporation is making sound financial choices that can be beneficial to society.

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