https://www.youtube.com/watch?v=p7HKvqRI_Bo&pp=ygU5aWxsdXN0cmF0aW9ucyB0byBleHBsYWluIGFib3V0IHN0b2NrIG1hcmtldCBmb3IgYmVnaW5uZXJz - what is stock market (tedX)

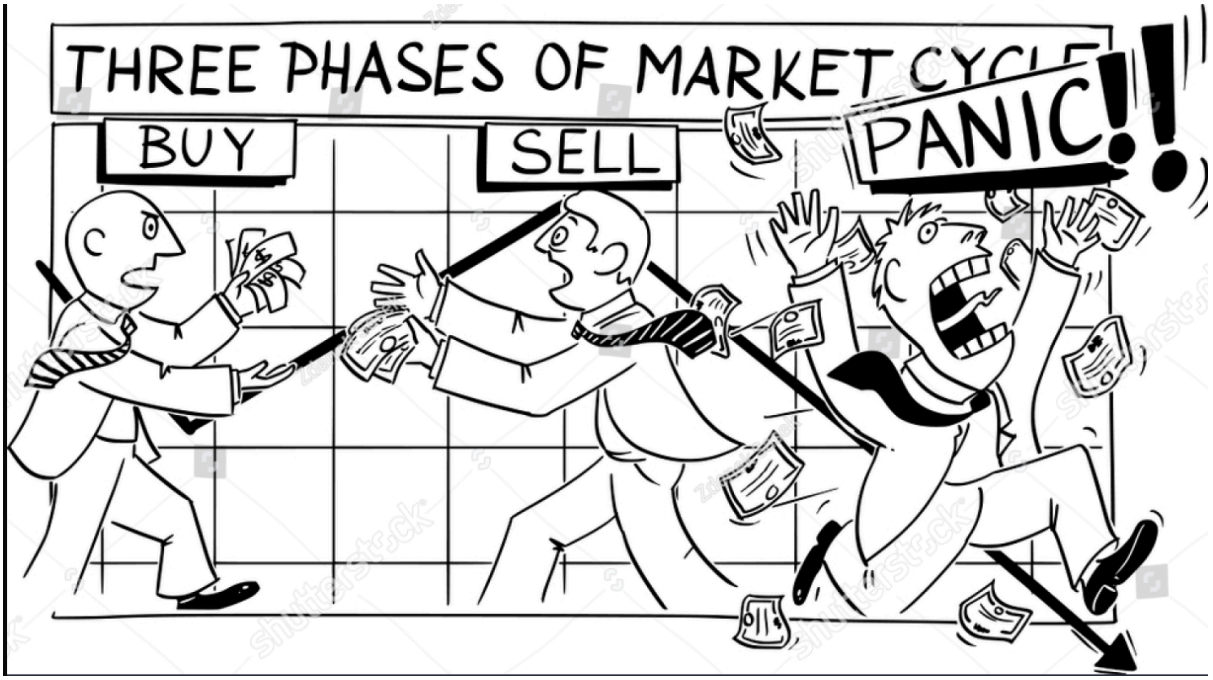
Explained | The Stock Market | FULL EPISODE | Netflix

(Explained)

https://giphy.com/gifs/applause-leonardo-dicaprio-martin-scorsese-wC4P0yFYqjXhK WOWS

https://giphy.com/gifs/film-leonardo-dicaprio-matthew-mcconaughey-1N7wpCVjQJatq WOWS

Introduction to stock markets



Example story:

Imagine that you and your friends decide to start a lemonade stand together. You all contribute some money to buy lemons, sugar, and cups, and you work together to make delicious lemonade. Now, instead of just selling cups of lemonade to your neighbors, let's say you decide to sell "shares" of your lemonade stand to other people in your neighborhood.These shares represent ownership in your lemonade stand. So, if you sell 100 shares, each share would be like a small piece of the entire business. People who buy these

shares become "shareholders" and have a claim on the profits your lemonade stand makes.

Now, the stock market is like a big marketplace where people buy and sell shares of different companies, just like your lemonade stand. Instead of selling lemonade shares, companies sell shares called "stocks" to the public. For example, think of big companies like Apple or Disney. They sell stocks to people who believe in their business and want to invest in them.

When you buy a stock, you become a shareholder of that company. If the company does well and makes profits, the value of their stocks may increase. This means that if you decide to sell your stocks, you can sell them for a higher price than what you paid, making a profit. On the other hand, if the company doesn't do well, the stock value may decrease, and you may lose money if you sell your stocks at a lower price.

Here's a verifiable fact: In 2020, the global stock market had a total value of over $95 trillion, which shows how many people around the world are involved in buying and selling stocks.

Just like your lemonade stand can have good or bad days depending on how many people buy your lemonade, the stock market can have good or bad days too. Sometimes, people get really excited about a company, and many people rush to buy its stocks, causing the stock price to go up. Other times, if there's bad news about a company, people may start selling their stocks, causing the price to go down.

So, the stock market is like a giant marketplace where people buy and sell shares of companies, hoping to make a profit by investing in businesses they believe will do well. It's important to remember that stock market investing carries risks, just like any business venture, but it can also be a way to grow your money over time if done wisely.

Introduction to Stock Markets for Beginners:
Stock markets play a pivotal role in the global financial system, providing a platform for buying and selling shares of publicly traded companies. As a beginner, it's crucial to grasp some foundational concepts to navigate this dynamic landscape effectively.
Understanding Stock Markets:

Definition:

- Stock markets, also known as equity markets or share markets, are centralized exchanges where individuals and institutional investors buy and sell ownership stakes (shares) in publicly listed companies.

Basic Concepts:

- Stocks/Shares:
  - A stock or share represents ownership in a company. When you own shares, you become a shareholder, entitled to a portion of the company's profits and losses.
- Publicly Listed Companies:
  - Companies opt to go public by offering shares to the public, and these shares are then listed on stock exchanges. Well-known examples include technology giants like Apple, Google, and Microsoft.
- Stock Exchanges:
  - Stock exchanges are platforms where buying and selling of stocks take place. Notable ones include the New York Stock Exchange (NYSE) and NASDAQ.
- Bulls and Bears:
  - In the stock market, you often hear about "bull" and "bear" markets. A bull market is characterized by rising prices and optimistic investor sentiment, while a bear market sees falling prices and pessimistic sentiment.

How Stock Markets Work:

Market Participants:

- Investors: Individuals or institutions that buy shares as an investment.
- Traders: Individuals or institutions engaging in frequent buying and selling for short-term gains.
- Companies: Publicly listed companies issue shares to raise capital for expansion and other purposes.

Stock Price Determinants:

- Supply and Demand: Stock prices are influenced by the number of buyers and sellers in the market.
- Company Performance: Factors like earnings, growth prospects, and industry trends impact stock prices.

Market Index:

- A market index, such as the S&P 500 or Dow Jones Industrial Average, represents the overall performance of the market by tracking a basket of stocks.

Investing in Stocks:

Risk and Return:

- Investing in stocks involves risk, but historically, they have provided attractive returns. Generally, higher-risk investments have the potential for higher returns.

Long-Term Perspective:

- Successful investing often requires a long-term perspective. Patiently holding onto investments and staying informed about market trends and individual companies is crucial.

Getting Started:

Brokerage Accounts:

- To start buying and selling stocks, individuals need a brokerage account. Popular online brokers include Robinhood, E*TRADE, and Charles Schwab.

Research:

- Before investing, it's essential to research and understand the companies in which you plan to invest. This includes analyzing financial statements, industry trends, and future growth prospects.

Diversification:

- Diversification involves spreading investments across different stocks and industries to manage risk effectively. Avoiding overconcentration in a single stock reduces vulnerability to significant losses.

Points to Display on a Website:

- Introduction to Stock Markets:
  - A concise and clear definition and purpose of stock markets.
- Basic Concepts:
  - In-depth explanation of stocks, publicly listed companies, stock exchanges, and the concept of bullish and bearish markets.
- How Stock Markets Work:
  - Detailed insights into market participants, stock price determinants, and the significance of market indices.
- Investing in Stocks:
  - Emphasis on the delicate balance between risk and return, the importance of adopting a long-term perspective, and practical steps for beginners.
- Getting Started:

- Practical guidance on opening a brokerage account, conducting thorough research, and the critical role of diversification.

Key Takeaway:
Understanding stock markets equips beginners with the knowledge needed to make informed investment decisions, potentially leading to the growth of wealth over the long term.

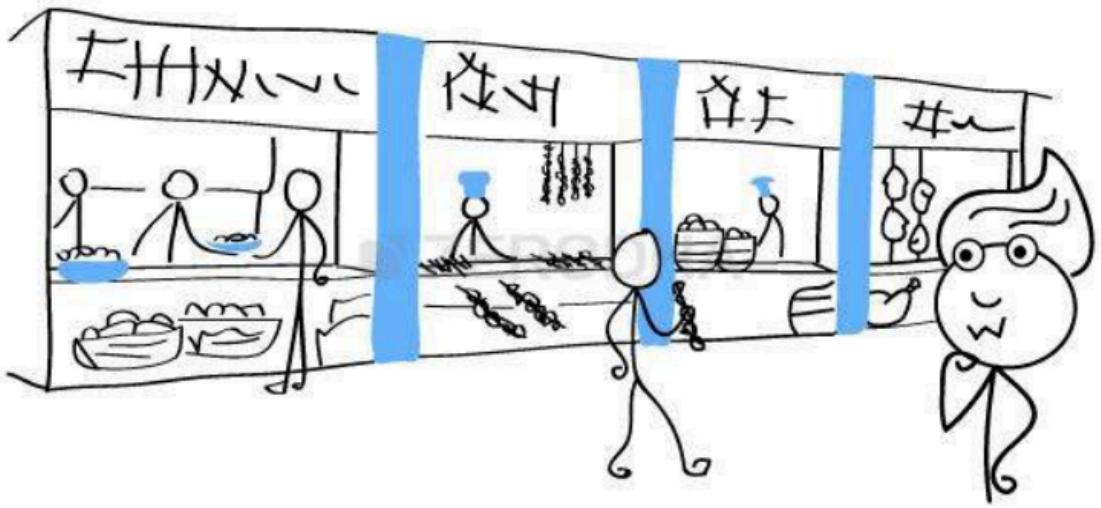
For additional , more detailed learning you can refer :
https://zerodha.com/varsity/module/introduction-to-stock-markets/
How does the stock market work : https://www.youtube.com/watch?v=A7fZp9dwELo

Technical analysis

Stock market technical analysis is a way to study and predict the future price movements of stocks by analyzing historical data and patterns. It involves looking at charts, graphs, and other indicators to try to understand where the stock price might go next.An analogy to help you understand technical analysis is by comparing it to studying the weather. Just like meteorologists study weather patterns and past data to predict future conditions, technical analysts study charts and past stock data to predict future stock prices.

For example, let's say you have a favorite ice cream shop. You notice that every time it rains, fewer people visit the shop, which affects their sales. By keeping track of how rain influences customer behavior over time, you can predict that on rainy days, the shop will likely have fewer customers. Similarly, technical analysts study patterns in stock prices to predict if they will go up or down based on historical data.

Here's a verifiable fact: One common indicator used in technical analysis is called the moving average. It calculates the average price of a stock over a specific period, like the past 50 days. Traders use this indicator to identify trends and potential buying or selling opportunities.



Imagine you are vacationing in a foreign country where everything including the language, culture, climate, and food is new to you. On day 1, you do the regular touristy activities, and by evening you are very hungry. You want to end your day by having a great dinner. You ask around for a good restaurant and you are told about a nice food street which is close by. You decide to give it a try.

To your surprise, there are many vendors selling different varieties of food. Everything looks different and interesting. You are absolutely clueless as to what to eat for dinner. To add to your dilemma you cannot ask around as you do not know the local language. So given all this, how will you make a decision on what to eat?

Well, you have two options to figure out what to eat.

Option 1: You visit a vendor, figure out what they are cooking / selling. Check on the ingredients used, cooking style, probably taste a bit and figure out if you actually like the food. You repeat this exercise across a few vendors, after which you would most likely end up eating at a place that satisfies you the most.

The advantage with this technique is that you know exactly what you are eating since you have researched about it on your own. However on the flip side, the methodology you adopted is not really scalable as there could be about 100 odd vendors, and with limited time at your disposal, you can probably cover about 4 or 5 vendors. Hence there is a high probability that you could have missed the best tasting food on the street!

Option 2: You just stand in a corner and observe all the vendors. You try and find a vendor who is attracting the maximum crowd. Once you find such a vendor you make a simple assumption -'The vendor is attracting so many customers which means he must be making the best food!' Based on your assumption and the crowd's preference you decide to go to that particular vendor for your dinner.

Chances are that you could be eating the best tasting food available on the street. The advantage of this method is the scalability. You just need to spot the vendor with the maximum number of customers and bet on the fact that the food is good based on the crowd's preference. However, on the flipside the crowd need not always be right.
If you could recognize, option 1 is very similar to Fundamental Analysis where you research about a few companies thoroughly. We will explore about Fundamental Analysis in greater detail in the next module.
2
Option 2 is very similar to Technical Analysis where one scans for opportunities based on the current trend aka the preference of the market.
Technical Analysis is a research technique to identify trading opportunities in market based on the actions of market participants. The actions of markets participants can be visualized by means of a stock chart. Over time, patterns are formed within these charts and each pattern conveys a certain message. The job of a technical analyst is to identify these patterns and develop a point of view.

Like any research technique, technical analysis stands on a bunch of assumptions. As a practitioner of technical analysis, you need to trade the markets keeping these assumptions in perspective. Of course we will understand these assumptions in details as we proceed along.

Also, at this point it makes sense to throw some light on a matter concerning FA and TA. Often people get into the argument contending a particular research technique is a better approach to market. However in reality there is no such thing as the best research approach. Every research method has its own merits and demerits. It would be futile to spend time comparing TA and FA in order to figure out which is a better approach.

Both the techniques are different and not comparable. In fact a prudent trader would spend time educating himself on both the techniques so that he can identify great trading or investing opportunities.

Key Assumptions of TA:

Markets discount everything: This assumption posits that all known and unknown information, whether public or insider, is already reflected in the current stock price. For example, if an insider buys a large quantity of a company's stock in anticipation of positive quarterly earnings, the price will adjust accordingly, revealing potential buying opportunities to technical analysts.

The 'how' is more important than 'why': Technical analysts prioritize understanding how the price reacts to market events rather than delving into the reasons behind those events. For instance, instead of questioning why an insider bought a stock, the focus is on how the price responded to that action.

Price moves in trend: This assumption asserts that significant market movements occur in trends. Whether up or down, trends form the foundation of technical analysis. For example, the gradual upward movement of the NIFTY Index over 11 months from 6400 to 7700 exemplifies the concept of trend-driven price movements.

History tends to repeat itself: In technical analysis, price trends tend to repeat due to consistent reactions from market participants. Human behavior leads to similar responses to price movements over time, regardless of whether the market is trending upwards or downwards.

The Indian stock market operates from 9:15 AM to 15:30 PM, witnessing millions of trades during this 6-hour 15-minute session. With trades occurring every minute, it's impractical for market participants to track every single price point. Instead, focusing on a summary of trading action is essential.

Tracking the open, high, low, and close prices provides a comprehensive summary of the day's price action:

Open: The first price at which a trade executes when the market opens.
High: The highest price at which market participants were willing to transact during the day.
Low: The lowest level at which market participants were willing to transact during the day.
Close: The final price at which the market closed. It indicates intraday strength and serves as a reference point for market sentiment and the next day's trading.
Among these, the closing price holds particular importance in technical analysis. It reflects market sentiment and helps traders gauge whether it was a positive or negative day.
Analyzing these key data points—open, high, low, and close—is crucial for technical analysis, guiding trading decisions and market analysis.

Fundamental analysis

https://zerodha.com/varsity/module/fundamental-analysis/

Overview:

Fundamental Analysis is used to make long term investments.
Investment in a company with good fundamentals creates wealth
Using Fundamental Analysis one can separate out an investment grade company from a junk company
All investment grade companies exhibit few common traits. Likewise all junk companies exhibit common traits
Fundamental analysis helps the analysts identify these traits

Tools of FA :

1. Annual report of the company – All the information that you need for FA is available in the annual report. You can download the annual report from the company's website for free 5 2. Industry related data – You will need industry data to see how the company under consideration is performing with respect to the industry. Basic data is available for free, and is usually published in the industry's association website
3. Access to news – Daily News helps you stay updated on latest developments happening both in the industry and the company you are interested in. A good business news paper or services such as Google Alert can help you stay abreast of the latest news
4. MS Excel – MS Excel can be extremely helpful in fundamental calculations

The compounding effect:
Compounding in simple terms is the ability of money to grow when the gains of year 1 is reinvested for year 2.
For example consider you invest Rs.100 which is expected to grow at 20% year on year (recall this is also called the CAGR). At the end of the first year the money is expected to grow to Rs.120. At the end of year 1 you have two options: 1. Let Rs.20 in profits remain invested along with the original principal of Rs.100 or 2. Withdraw the profits of Rs.20. You decide not withdraw Rs.20 profit; instead you decide to reinvest the money for the 2nd year. At the end of 2nd year, Rs.120 grows to Rs.144. At the end of 3rd year Rs.144 grows to Rs.173. So on and so forth. Compare this with withdrawing Rs.20 profits every year. Had you opted to withdraw Rs.20 every year then at the end of 3rd year the profits would have been just Rs. 60. However since you decided to stay invested, the profits at the end of 3 years is Rs.173. A good Rs.13 or 21.7% over Rs.60 is generated just because you opted to do nothing and decided to stay invested. This is called the compounding effect.

The chart above shows how Rs.100 invested at 20% grows over a 10 year period. If you notice, it took almost 6 years for the money to grow from Rs.100 to Rs.300. However the next Rs.300 was generated in only 4 years i.e from the 6th to 10th year. This is in fact the most interesting property of the compounding effect. The longer you stay invested, the harder (and faster) the money works for you.

Investible grade attributes? What does that mean?
an investible grade company has a few distinguishable characteristics. These characteristics can be classified under two heads namely the ‘Qualitative aspect’ and the ‘Quantitative aspects’. The process of evaluating a fundamentally strong company includes a study of both these aspects.
The Qualitative aspect mainly involves understanding the non numeric aspects of the business. This includes many factors such as: 1. Management’s background – Who are they, their background, experience, education, do they have the merit to run the business, any criminal cases against the promoters etc 2. Business ethics – is the management involved in scams, bribery, unfair business practices 3. Corporate governance – Appointment of directors, organization structure, transparency etc 4. Minority shareholders – How does the management treat minority shareholders, do they consider their interest while taking corporate actions 5. Share transactions – Is the management buying/selling shares of the company through clandestine promoter groups 6. Related party transactions – Is the company tendering financial favors to known entities such as promoter’s relatives, friends, vendors etc at the cost of the shareholders funds? 7. Salaries paid to promoters – Is

the management paying themselves a hefty salary, usually a percentage of profits 8. Operator activity in stocks – Does the stock price display unusual price behavior especially at a time when the promoter is transacting in the shares
9. Shareholders – Who are the significant shareholders in the firm, who are the people with above 1% of the outstanding shares of the company 10. Political affiliation – Is the company or its promoters too close to a political party? Does the business require constant political support? 11. Promoter lifestyle – Are the promoters too flamboyant and loud about their lifestyle? Do they like to display their wealth?
A red flag is raised when any of the factors mentioned above do not fall in the right place. For example, if a company undertakes too many related party transactions then it would send a signal of favoritism and malpractice by the company. This is not good in the long run. So even if the company has great profit margins, malpractice is not acceptable. It would only be a matter of time before the market discovers matters pertaining to ‘related party transactions’ and punishes the company by bringing the stock price lower. Hence an investor would be better off not investing in companies with great margins if such a company scores low on corporate governance.
Qualitative aspects are not easy to uncover because these are very subtle matters. However a diligent investor can easily figure this out by paying attention to annual report, management interviews, news reports etc. As we proceed through this module we will highlight various qualitative aspects. The quantitative aspects are matters related to financial numbers. Some of the quantitative aspects are straightforward while some of them are not. For example cash held in inventory is straight forward however ‘inventory number of days’ is not. This is a metric that needs to be calculated. The stock markets pay a lot of attention to quantitative aspects. Quantitative aspects include many things, to name few: 1. Profitability and its growth 2. Margins and its growth 3. Earnings and its growth 4.

Matters related to expenses 5. Operating efficiency 6. Pricing power 7. Matters related to taxes 8. Dividends payout

Financial statement:

1. The financial statement provides information and conveys the financial position of the company.
2. A complete set of financial statements include the Profit & Loss Account, Balance Sheet and Cash Flow Statement.
3. A fundamental Analyst is a financial statement user, and he needs to know what the maker of the financial statements states.
4. The profit and loss statement gives the profitability of the company for the year under consideration.
5. The P&L statement is an estimate, as the company can revise the numbers at a later point. Also, by default, companies publish data for the current year and the previous year, side by side.
6. The revenue side of the P&L is also called the top line of the company.
7. Revenue from operations is the main source of revenue for the company.
8. Other operating income includes revenue incidental to the business.
9. The other income includes revenue from non-operating sources.
10. The sum of revenue from (operations less of duty) and other operating income gives the “net revenue from operations”.
11. The P&L statement’s expense statement contains information on all the expenses incurred by the company during the financial year.
12. Each expense can be studied concerning a note which you can explore for further information.
13. Depreciation and amortization is a way of spreading the cost of an asset over its useful life.
14. The cost of interest and other charges paid when the company borrows money for its capital expenditure.
15. PBT = Total Revenue – Total Expense – Exceptional items (if any)
16. Net PAT = PBT – applicable taxes
17. EPS reflects the earning capacity of a company on a per-share basis. Earnings are profit after tax and preferred dividends.
18. EPS = PAT / Total number of outstanding ordinary shares

Balance sheet:

1. A Balance sheet also called the Statement of Financial Position is prepared on a flow basis that depicts the company’s financial position at any given point in time. It is a statement which shows what the company owns (assets) and what the company owes (liabilities)
2. A business will generally need a balance sheet when it seeks investors, applies for loans, submits taxes etc.

3. Balance sheet equation is Assets = Liabilities + Shareholders' Equity.
4. Liabilities are obligations or debts of a business from past transactions, and Share capital is the number of shares * face value.
5. Reserves are the funds earmarked for a specific purpose, which the company intends to use in future.
6. The surplus is where the profits of the company reside. This is one of the points where the balance sheet and the P&L interact. Dividends are paid out of the surplus.
7. Shareholders' equity = Share capital + Reserves + Surplus. Equity is the claim of the owners on the assets of the company. It represents the assets that remain after deducting the liabilities if you rearrange the Balance Sheet equation, Equity = Assets – Liabilities.
8. Non-current liabilities or the long-term liabilities are expected to be settled in not less than 365 days or 12 months of the balance sheet date.
9. Deferred tax liabilities arise due to the discrepancy in the way the depreciation is treated. Deferred tax liabilities are amounts of income taxes payable in the future concerning taxable differences as per accounting books and tax books.
10. Current liabilities are the company's obligations to settle within 365 days /12 months of the balance sheet date.
11. In most cases, both long and short term provisions are liabilities dealing with employee-related matters
12. Total Liability = Shareholders' Funds + Non-Current Liabilities + Current Liabilities. . Thus, total liabilities represent the total amount of money the company owes to others
13.
14. The Assets side of the Balance sheet displays all the assets the company owns
15. Assets are expected to give an economic benefit during its useful life.
16. Assets are classified as Non-current and Current asset.
17. The useful life of Non-current assets is expected to last beyond 365 days or 12 months.
18. Current assets are expected to pay off within 365 days or 12 months.
19. Assets inclusive of depreciation are called the 'Gross Block.'
20. Net Block = Gross Block – Accumulated Depreciation
21. The sum of all assets should equal the sum of all liabilities. Only then the Balance sheet is said to have balanced.
22. The Balance sheet and P&L statement are inseparable. They are connected in many ways.

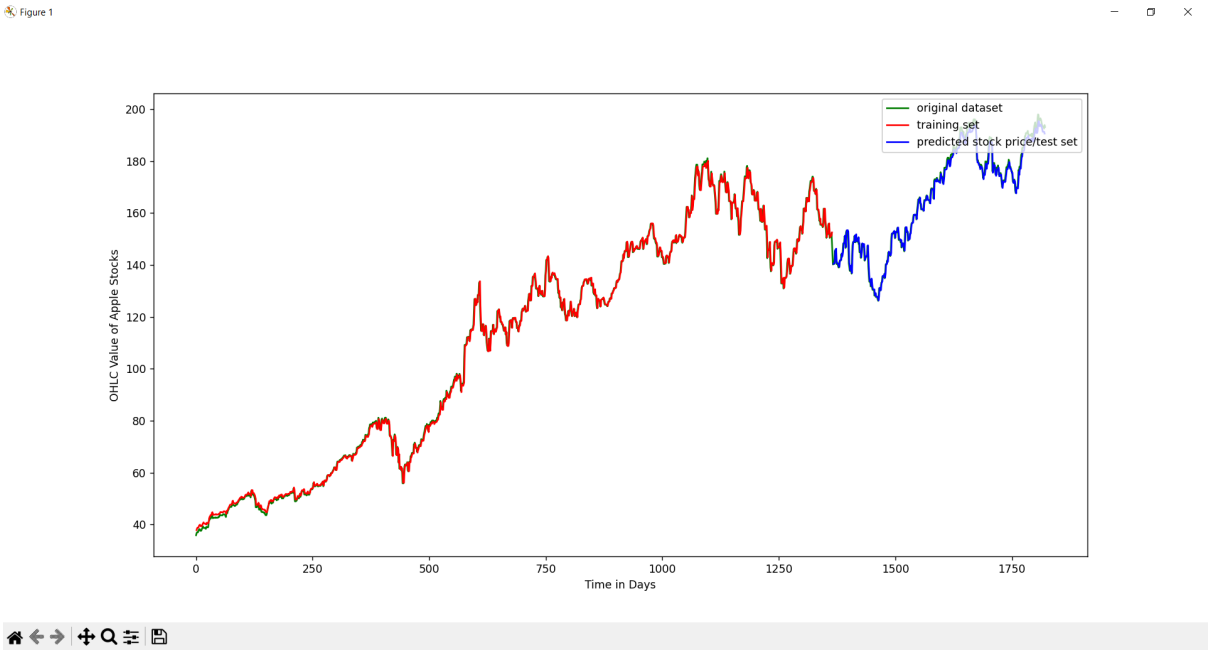
Cash flow statement:

1. The Cash flow statement gives us a picture of the true cash position of the company.

2. A legitimate company has three main activities – operating activities, investing activities and the financing activities.
3. Each activity either generates or drains money for the company.
4. The company's net cash flow is the sum of operating activities, investing activities, and financing activities.
5. Investors should specifically look at the cash flow from operating activities of the company.
6. When the liabilities increase, cash level increases and vice versa
7. When the assets increase, cash level decreases and vice versa.
8. The net cash flow number for the year is also reflected in the balance sheet.
9. The Statement of Cash flow is a useful addition to a company's financial statements because it indicates the company's performance.

5 years :

1. AAPL (sentiment + stock)

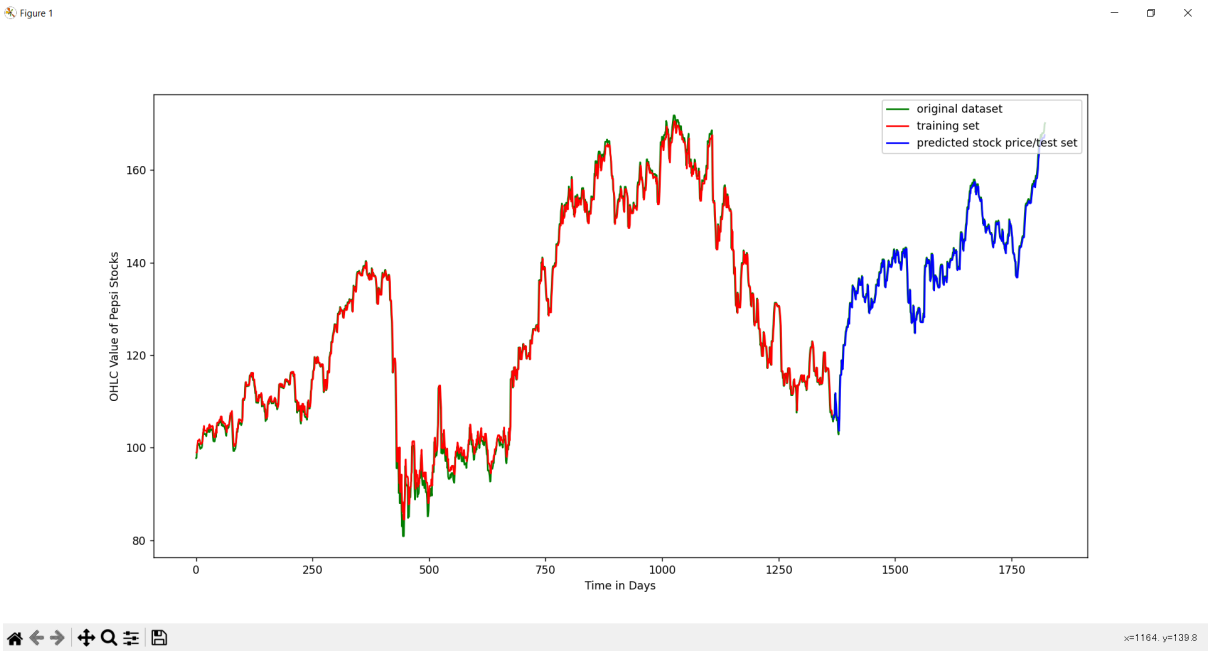


Train RMSE: 1.65
Test RMSE: 1.9

Day 1: Predicted Value - [[187.61243]]
Day 2: Predicted Value - [[184.9588]]
Day 3: Predicted Value - [[182.58821]]

Day 4: Predicted Value - [[180.45682]]
Day 5: Predicted Value - [[178.5297]]
Day 6: Predicted Value - [[176.77849]]
Day 7: Predicted Value - [[175.18002]]

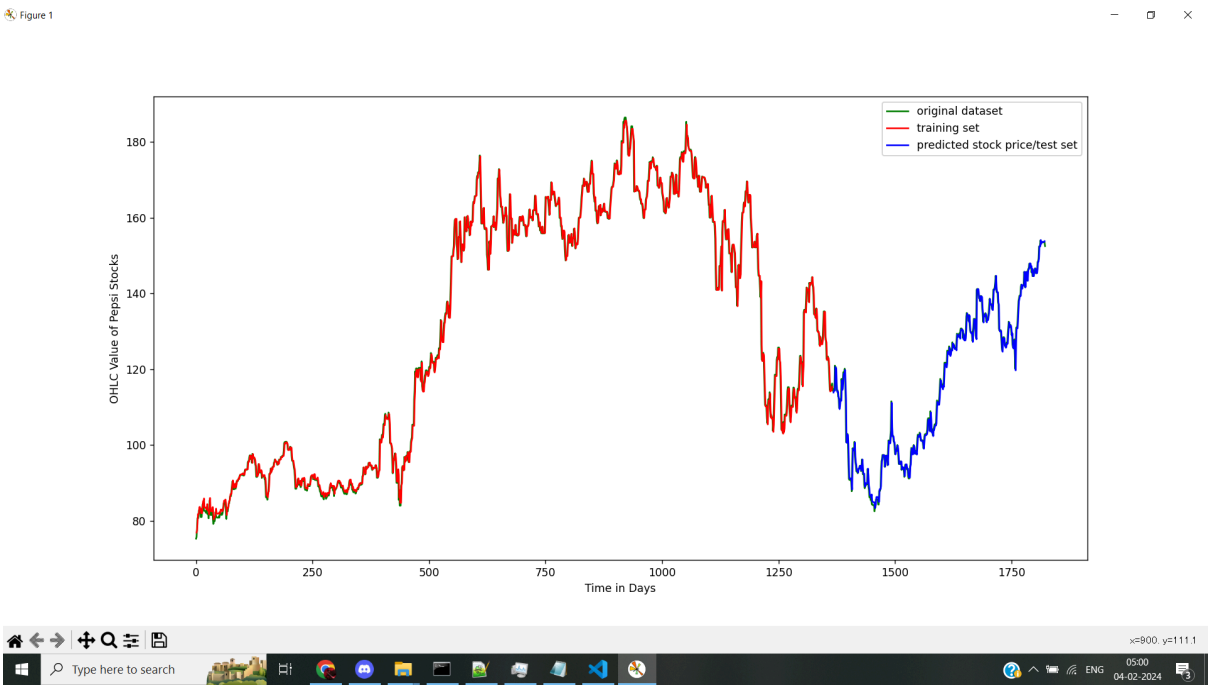
2. JPM



Train RMSE: 1.82
Test RMSE: 1.38

Day 1: Predicted Value - [[165.1458]]
Day 2: Predicted Value - [[162.95236]]
Day 3: Predicted Value - [[160.90916]]
Day 4: Predicted Value - [[158.99799]]
Day 5: Predicted Value - [[157.20361]]
Day 6: Predicted Value - [[155.51308]]
Day 7: Predicted Value - [[153.91539]]

3. AMZN

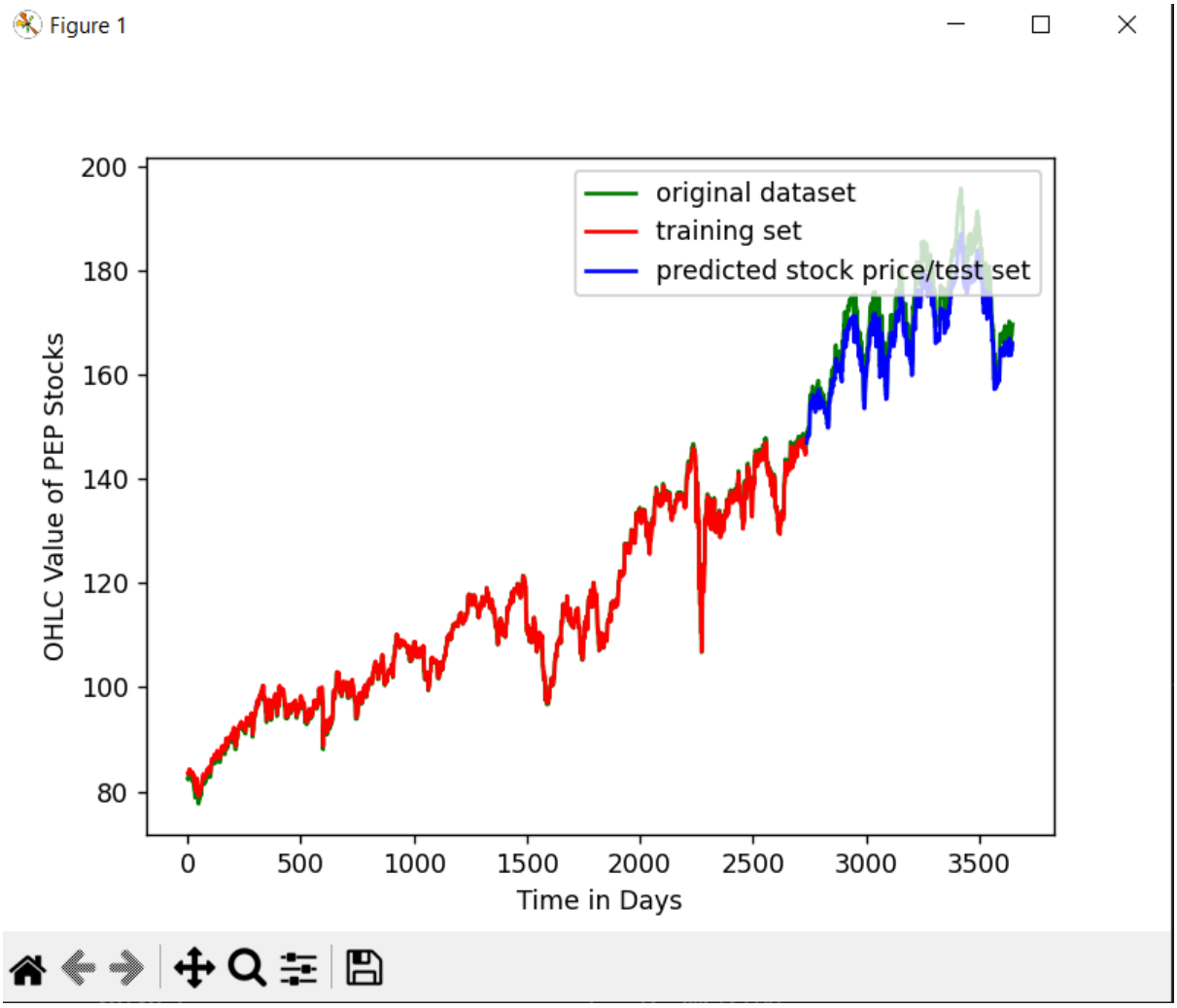


Day 1: Predicted Value - [[152.6304]]
Day 2: Predicted Value - [[151.55273]]
Day 3: Predicted Value - [[150.54767]]
Day 4: Predicted Value - [[149.608]]
Day 5: Predicted Value - [[148.72746]]
Day 6: Predicted Value - [[147.90054]]
Day 7: Predicted Value - [[147.12251]]

10-yr data:-

1. **AMZN**

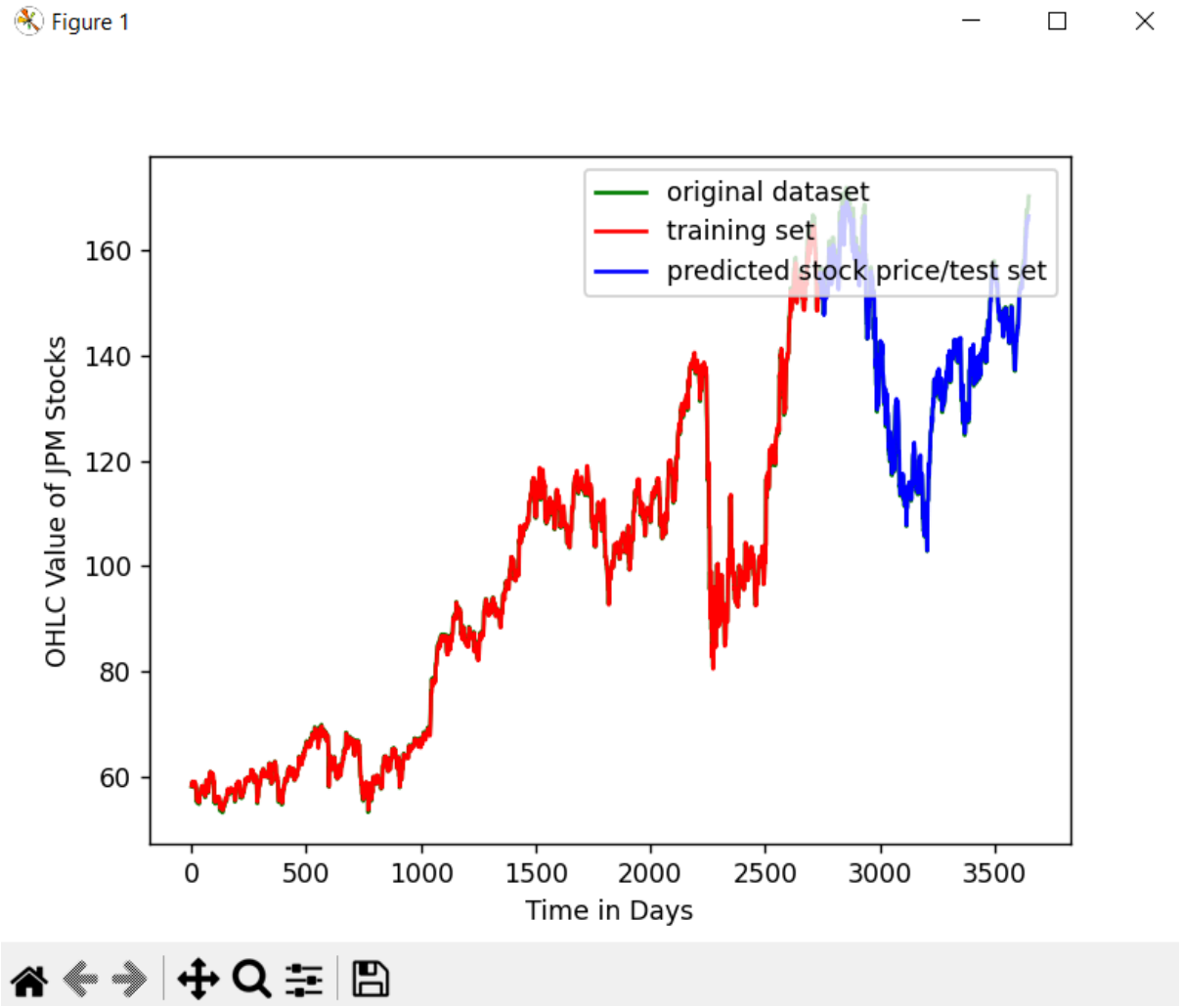
2. PEP



RMSE :- Train RMSE: 0.93
Test RMSE: 4.14

Day 1: Predicted Value - [[153.7913]]
Day 2: Predicted Value - [[144.70518]]
Day 3: Predicted Value - [[137.5918]]
Day 4: Predicted Value - [[131.824]]
Day 5: Predicted Value - [[127.02233]]
Day 6: Predicted Value - [[122.94192]]
Day 7: Predicted Value - [[119.416916]]

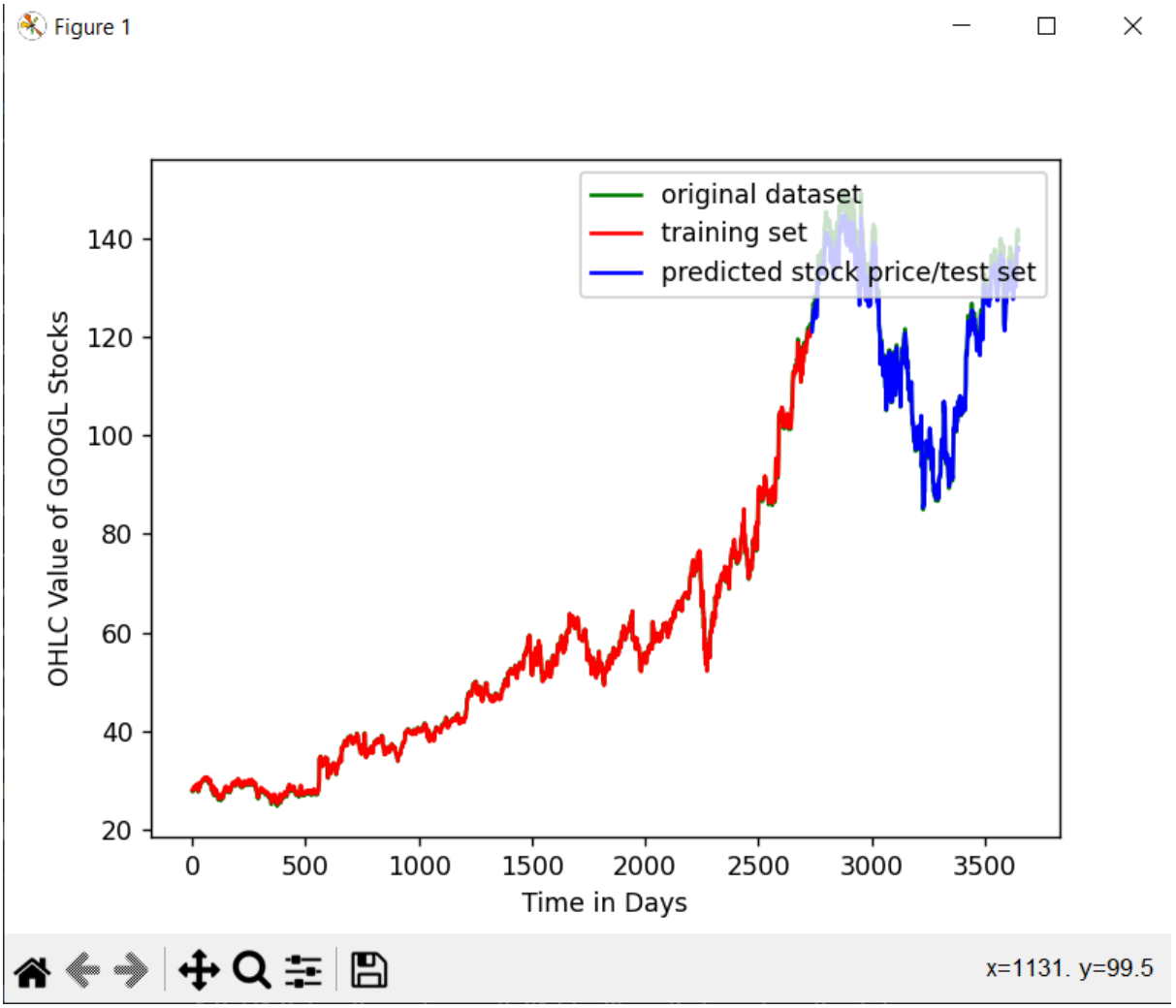
3. JPM



Train RMSE: 1.18
Test RMSE: 1.71

Day 1: Predicted Value - [[162.58789]]
Day 2: Predicted Value - [[159.3712]]
Day 3: Predicted Value - [[156.59117]]
Day 4: Predicted Value - [[154.16472]]
Day 5: Predicted Value - [[152.02907]]
Day 6: Predicted Value - [[150.13577]]
Day 7: Predicted Value - [[148.44682]]

4. GOOGL (10Y)

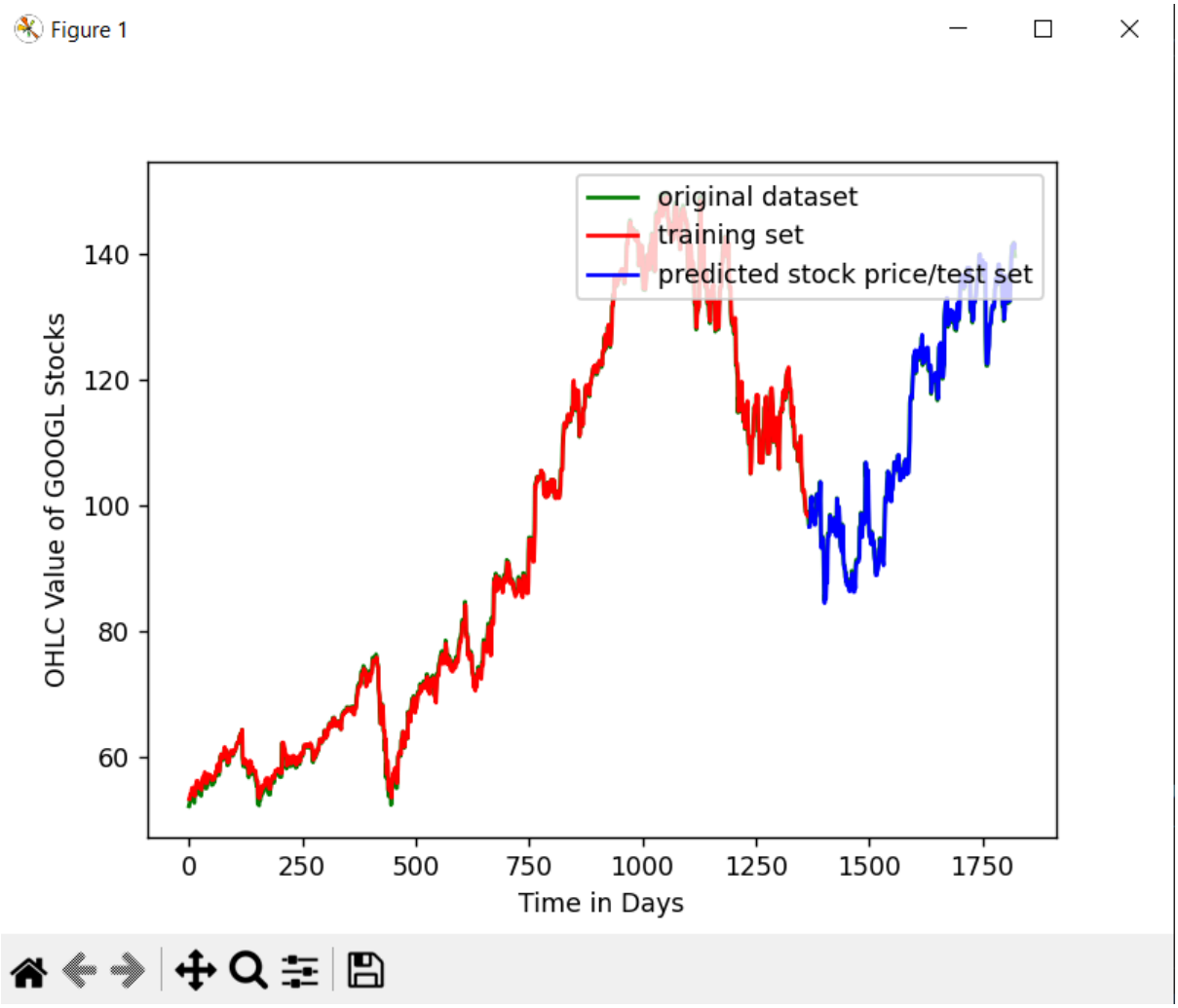


Train RMSE: 0.67
Test RMSE: 2.63

Day 1: Predicted Value - [[131.97787]]
Day 2: Predicted Value - [[127.49505]]
Day 3: Predicted Value - [[123.81113]]
Day 4: Predicted Value - [[120.72599]]
Day 5: Predicted Value - [[118.10277]]
Day 6: Predicted Value - [[115.844345]]

Day 7: Predicted Value - [[113.87967]]

5. GOOGL(5Y)



Train RMSE: 1.30
Test RMSE: 1.61

Day 1: Predicted Value - [[139.88734]]
Day 2: Predicted Value - [[138.95555]]
Day 3: Predicted Value - [[138.10547]]
Day 4: Predicted Value - [[137.32764]]
Day 5: Predicted Value - [[136.61395]]
Day 6: Predicted Value - [[135.95753]]

Day 7: Predicted Value - [[135.35245]]