**How Share Market Works?**

Certainly! Here's a simplified explanation of how the stock market works:

1. Companies Go Public: Companies sell ownership shares called "stocks" to the public.

2. Investors Buy Stocks: People and organizations buy these stocks.

3. Stock Exchanges: Stocks are traded on organized platforms called stock exchanges, like the NYSE.

4. Price Fluctuates: Stock prices go up and down based on how much people want to buy or sell.

5. Investors Trade Stocks: Investors can buy or sell stocks through brokerages.

6. Ownership and Profits: When you own a stock, you own a piece of the company. You can earn money through dividends (company profits shared with shareholders) or by selling the stock for more than you paid.

7. Market Indices: We use stock market indices (like the S&P 500) to see how the overall market is doing.

8. Rules and Regulations: There are rules and regulators (like the SEC) to make sure things are fair.

9. Risk and Reward: Investing in stocks has risks, but it can also lead to rewards.

10. Invest Wisely: Many people research and get advice before investing in stocks.

**How Share Market Works?**

Buying and selling stocks in the stock market is influenced by a variety of parameters and factors. Here are some of the key parameters and considerations that influence these decisions:

1. Price: The current market price of a stock is a fundamental consideration. Investors and traders often have price targets at which they are willing to buy or sell a stock.

2. Volume: Trading volume, or the number of shares traded, can provide insights into market liquidity and interest in a particular stock. Higher volume often indicates more active trading.

3. Market Order vs. Limit Order:

- Market Order: A market order is an order to buy or sell a stock at the current market price. Market orders are executed immediately but may not guarantee a specific price.

- Limit Order: A limit order specifies a price at which you are willing to buy or sell a stock. It will only execute at the specified price or better. Limit orders provide more control over the execution price but may not be filled if the market does not reach the specified price.

4. Time Horizon: Your investment or trading time horizon is crucial. Are you a short-term trader looking for quick profits, or a long-term investor aiming to hold stocks for years?

5. Risk Tolerance: Your risk tolerance determines how much volatility and potential loss you are willing to accept. Risk-averse investors may opt for less volatile, lower-risk stocks.

6. Fundamental Analysis: Investors often consider a company's financial health, earnings, revenue, and growth prospects when deciding to buy or sell its stock.

7. Technical Analysis: Traders use technical indicators, charts, and patterns to make decisions based on historical price and volume data.

8. News and Events: Market-moving news, such as earnings reports, economic data releases, geopolitical events, and company-specific news, can significantly impact stock prices.

9. Diversification: Diversifying your portfolio by holding a mix of stocks from different sectors or asset classes can help spread risk.

10. Liquidity: Highly liquid stocks are easier to buy and sell without significantly affecting their prices. Illiquid stocks may have wider bid-ask spreads.

11. Regulations and Tax Considerations: Stock trading may be subject to regulatory restrictions and tax implications. These factors can influence your buying and selling decisions.

12. Market Sentiment: The overall sentiment of the market and other investors can affect your decisions. Fear and greed often play a role in market dynamics.

13. Brokerage Fees and Costs: Transaction costs, such as brokerage commissions and taxes, can impact the profitability of your trades.

14. Portfolio Goals: Your portfolio's overall objectives, such as income generation, growth, or capital preservation, guide your buying and selling decisions.

15. Stop-Loss Orders: Some investors use stop-loss orders to automatically sell a stock if it reaches a predetermined price, helping to limit potential losses.

**Model Description:**

* **Model** - Random Forest, Support Vector Machine, Logistic Regression
* **Accuracy checker** - F1 score, accuracy score
* **Dateset** -- The dataset obtained using the `yfinance` library typically contains historical financial data for a specific stock or stock market index. It typically includes information such as the date of each data point and various attributes associated with that stock or index on that date. Here's are the features:

-> `Date`: The date of the trading day.

-> `Open`: The opening price of the stock or index on that day.

-> `High`: The highest price reached during the trading day.

-> `Low`: The lowest price reached during the trading day.

-> `Close`: The closing price of the stock or index on that day.

-> `Volume`: The trading volume, which represents the number of shares or contracts traded on that day.

* **Back testing** - Back testing in machine learning and finance refers to the process of evaluating the performance of a trading or investment strategy using historical data. It is commonly used in quantitative finance and algorithmic trading to assess how well a trading strategy would have performed in the past before deploying it in a live (real-time) trading environment. The main idea is to simulate the strategy's behavior as if it had been applied to historical market data, allowing you to make informed decisions about its potential profitability and risk. As the model is made for quantitative finance, we use this in the model to be confident with the model.