**Market Analysis**

**Report**

**Purpose: -**

This market research analysis is to look for the findings required according to a specific set of given questions provided and this research was to read and analyze the data provided through multiple sheets of data and then summarize all the information into the most compact way possible so that it is easily understandable by the one it is provided to.

The basic content present to fulfill the analysis were two sets data which were consisting of the company information like names, stocks, prices, dates, volume, etc. All this data was used to reach the final goal for this report.

**Set Of Instructions: -**

* Combine Metadata & Stock price of Nifty 50
* Compare Different stock prices, lows, highs using charts, graphs, etc.
* Separate each stock price into different sheets.
* Use XLookup, Vlookup, Hlookup.
* Write formulas to calculate average price, average volume traded, average high, average low.
* Use conditional formatting and data validation to calculate profit giving stocks & make separate column to check if the stocks are profitable or not.
* Plot the graph and compare all stocks together.
* Forecast the stock price for the upcoming years.
* Check the profit from a certain date to the last day of the trade.

**Key Findings of the research :-**

1. Comparison between Stock price, Open Price & Close Price of all companies’ year-wise.
2. Forecasted Average Prices of all the industries from 2022-2024 from the provided data of the years 2000-2021.
3. Implementation of Xlookup to calculate the Profit Percentage of Companies from 1 year to another.
4. Implementation of Conditional Formatting & Data Validation to calculate the Profit return of all the companies from its initial year to the final year.
5. Year-Wise Profit graphs of all the companies throughout the 2000–2021-time span.
6. Generated the formulas for Average Price, Average High, Average Low & Average Volume with including Data Validation.
7. Calculation of Profit From any specific date to the end trade day.

**Theoretical** **knowledge** **Used** **for** **the** **Analysis: -**

* **Data Validation: -** Microsoft Excel has a feature in built called Data Validation which can restrict or control the data that is being entered in the cell. It also allows user to give specific rule for data that can be entered in the cell/s. It can be used to limit entry.

Steps: -

1.Select the cell/s, array to create a rule.

2.Go to Data

3.Select Data Validation

4.Select whichever setting according to use (Whole Number, Decimal, List, Date, Time, Text Length, Custom).

* **Conditional Formatting: -**Conditional formatting is a type of formatting that is done to some specific cells which need some kind off highlighting or some identification or is used to visualize data and differentiate one cell from another and can be used as Key point Indicators or to data validate if some data is crossing the required necessary marker that it isn’t supposed to.
* Steps
* Select Cells or Array to apply conditional Formatting.
* Go to Home, Select Conditional Formatting.
* **Forecasting**: - Stock Forecasting is technique of reading and understanding the stocks in such a way that the future prediction of a specific or multiple stocks becomes possible. A prediction is understanding the future movement of a stock that if it will be bullish or bearish in a predicted time period.

Forecasting is a good way of analysing patterns of previous stocks and this is done by using certain algorithms. These algorithms are either generated by humans directly or with help of a machine. None of these algorithms are 100% correct and always can have a slight chance or failure or maybe more than that.

Syntax: -

=FORECAST.ETS(target\_value,values,timeline)

* **XLOOKUP :-** XLOOKUP is a built in Microsoft Excel function that is used to search for a match in a specific selected array and then returns the very first exact or a near match to the search.

=XLOOKUP(lookup\_value,lookup\_array,return\_array)

* **VLOOKUP:** -VLOOKUP is a built in Microsoft Excel function that is used to search for a match in a specific column provided by the user and it returns the very first exact match or a near match to the search.

=VLOOKUP(lookup\_value,table\_array,col\_index\_num).

* **HLOOKUP: -**HLOOKUP is a built in Microsoft Excel function that is used to search for a match in a specific row provided by the user and it returns the very first exact match or a near match to the search.

=HLOOKUP(lookup\_value,table\_array,col\_index\_num)

* **Average Price :-** Average Price is the mean of all the prices over a period of time.

=SUM(‘Range of Values(Price Values)’)/COUNT(‘Range of Values(Price Values)’).

* **Average Volume :-** Average Volume is the mean of the volume of all the stocks days-wise or month-wise.

=SUM(‘Range of Values(Volume Values)’)/COUNT(‘Range of Values(Volume Values)’).

* **Average High :-** Average High is the mean value of the selected highest peak values of the selected stocks of the specific period

of time.

=SUM(‘Range of Values(High Price Values)’)/COUNT(‘Range of Values(High Price Values)’).

* **Average Low :-** Average Low is the mean value of the selected lowest values of the selected stocks of the specific period

of time.

=SUM(‘Range of Values(High Price Values)’)/COUNT(‘Range of Values(High Price Values)’).

**Graphs Provided from the analysis :-**

1. **Comparison of Open Prices of all Nifty 50 :-**
2. Comparison of all Low prices of all Nifty 50 :-
3. Comparison of All High Prices of all Nifty 50 :-
4. Profit of All Companies between their intial year and the final year :-