

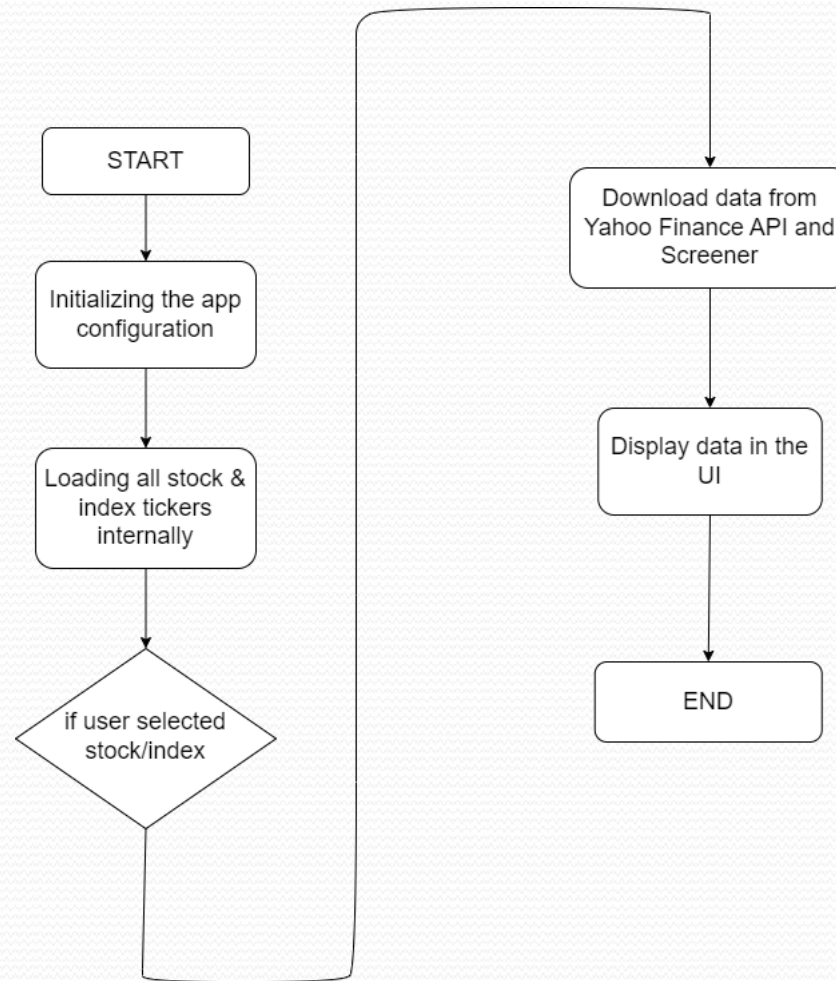
Introduction

- The Stock Data Analysis Dashboard is a Web application that is used to analyze a stock's different metrics, historical data, financial reports, charts, etc. This is the most common version of the app which is implemented using the Streamlit web app development framework which is a popular open source app framework for Python language.
- There are many features available in the app such as, user can check the current price of a stock, many important metrics, historical price trend as a line chart, different historical prices like open, high, low, close as an interactive table, quarterly & yearly financial report, line chart for sales & profit, balance sheet, share holding pattern, etc. Also can check dividend payout history, stock splits, traded volume in the interactive table. The stock's data is coming from Yahoo Finance's publicly available API's and Screener.
- The application downloads real-time data in backend from yahoo finance & Screener and cache it for future reference. A user can search any company/index name and the app will show all the details for the company/index.

Objectives

- This project is a Stock Data Analyzer Dashboard built using Python language, is web based application with very easy to use interface. In this project, anyone can analyze a stock's/index's different metrics, historical data, financial data, charts. This is an interactive application so you have to give company name/index name as input to check and analyze the data.
- Each time you search for a company/index data, it fetches the data from multiple publicly available APIs and create interactive charts, diagrams, and tables. And when we close the app, all the data are deleted.
- We can check current price, historical price chart, high, low, open, close, dividend, stock split, volume, quarterly & yearly financial data, balance sheet, share holding pattern for any stock/index which is registered in the app.
- It isn't the world's best Stock Data Analyzer app, but it does give you an idea of what you can achieve with a relatively simple python web app and perhaps the basis by which to extend the principles and create more interesting app of your own.

Proposed Model



Technology Used

Programming Language: **Python**

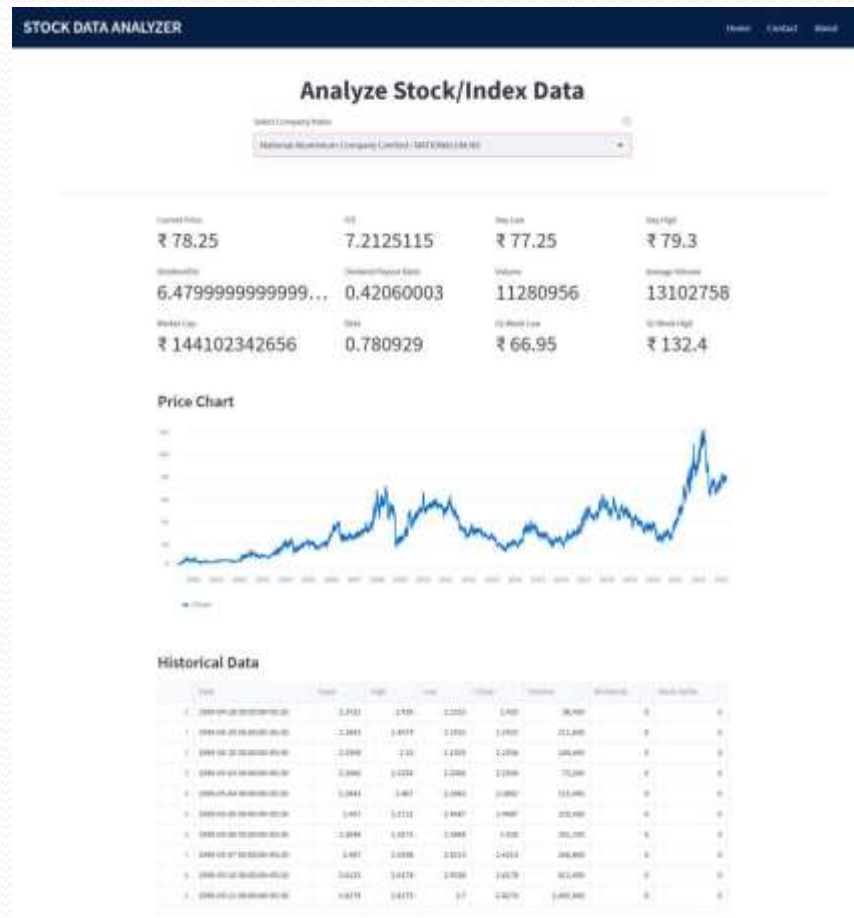
Web Development Framework: **Streamlit**

Other Libraries Used:

- **Pandas** – to handle tabular data
- **Yfinance** – to fetch data from Yahoo Finance
- **Yahoofinancials** – to fetch data from Yahoo Finance
- **Altair** – to draw charts
- **Urllib** – to handle HTTP Errors
- **SSL** – to handle SSL validations

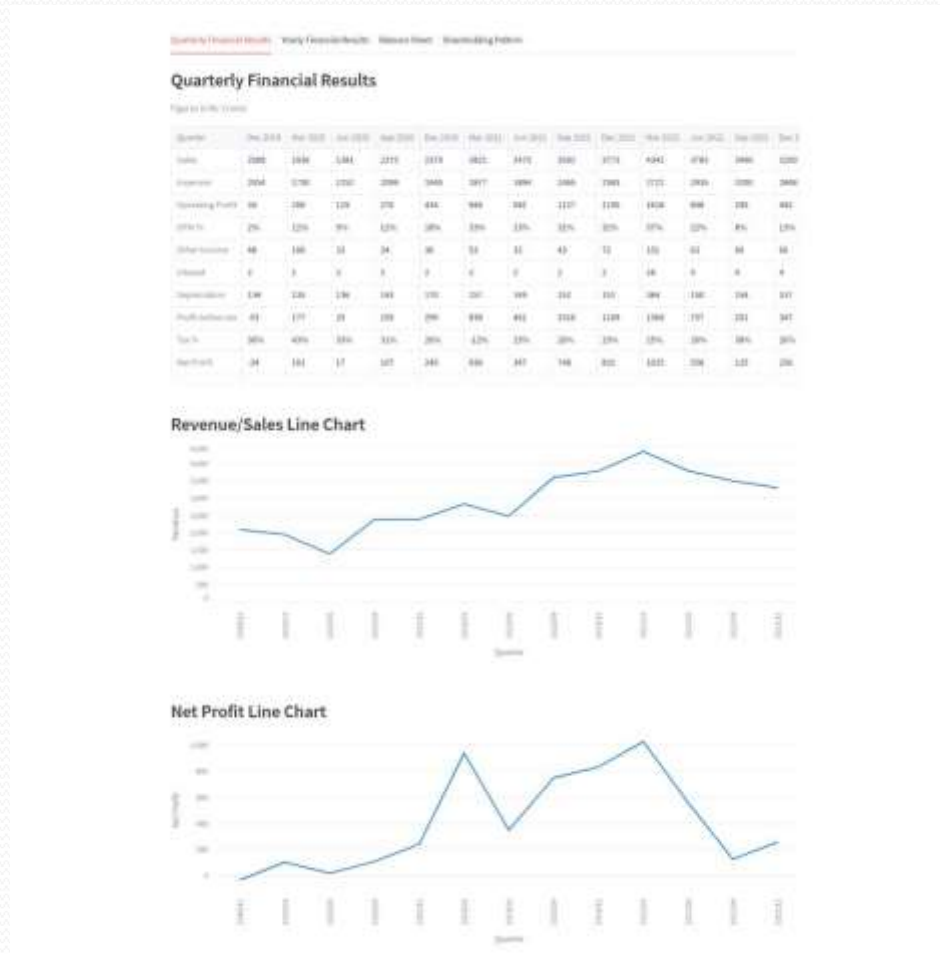
Example UI

- Searching for a Stock and Showing Metrics and Historical Data of it:



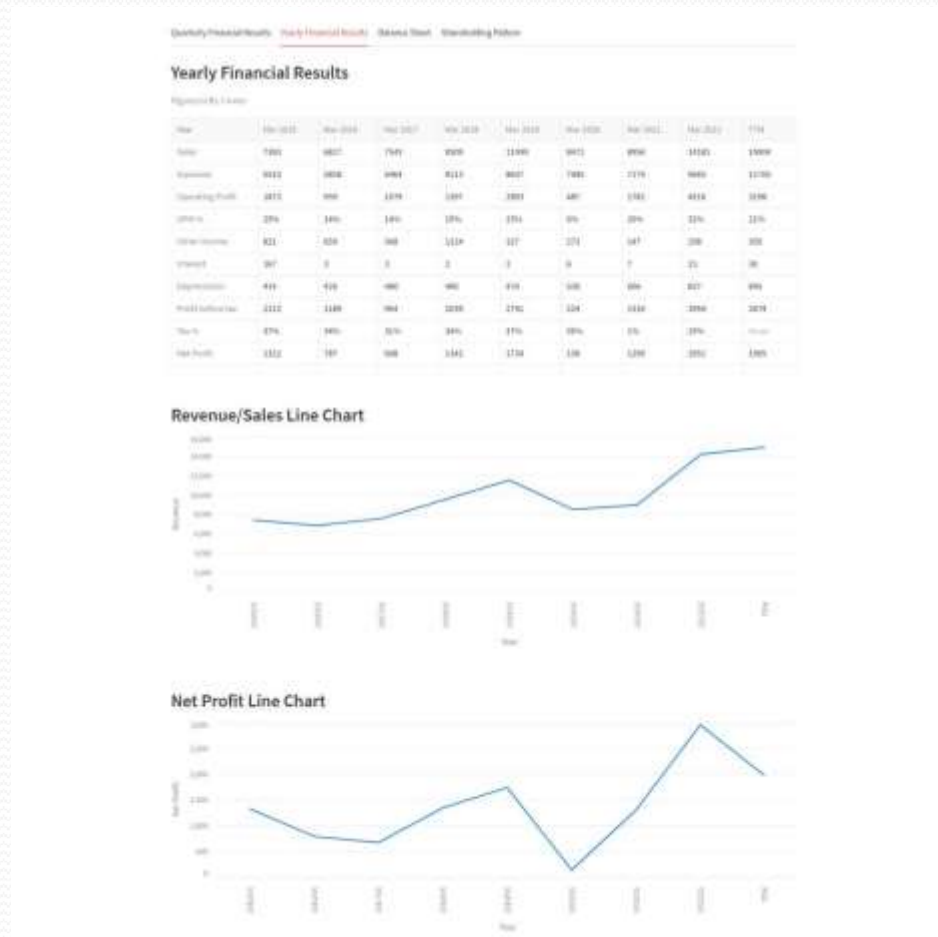
Example UI

- Showing Quarterly Financial Report and Line chart:



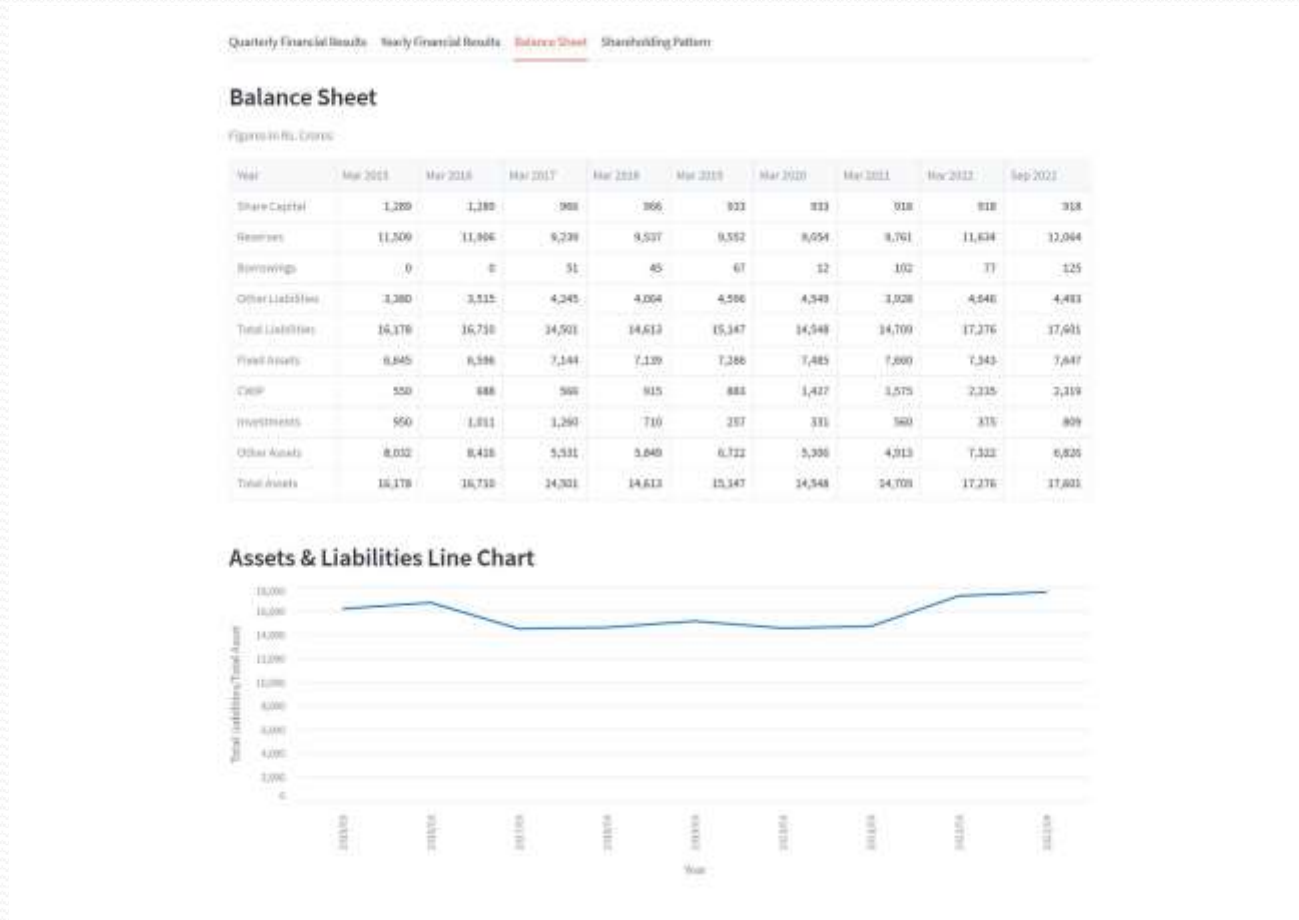
Example UI

- Showing Yearly Financial Report and Line chart:



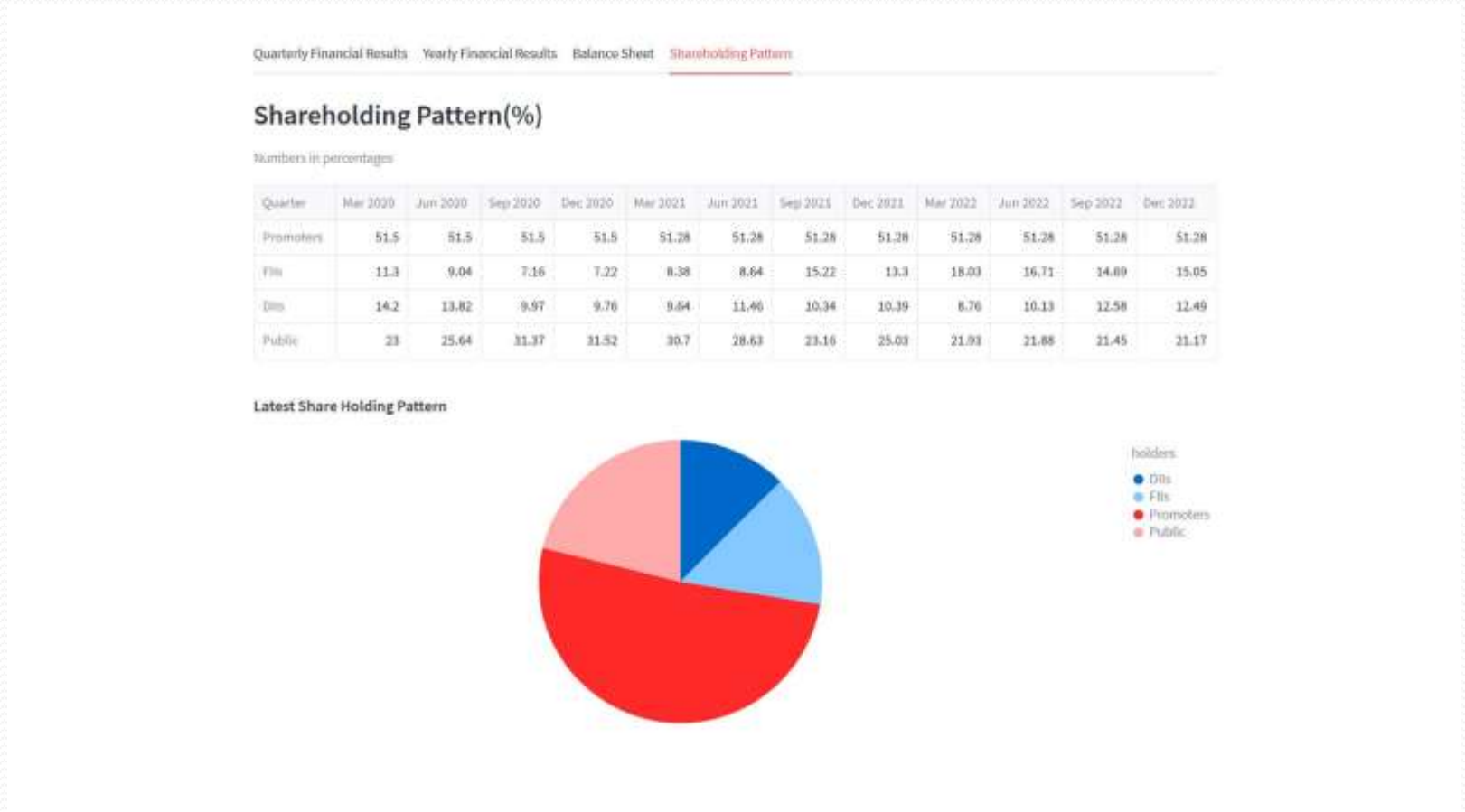
Example UI

➤ Showing Balance sheet and Line Chart:



Example UI

- Showing Share holding pattern and Pie chart:



Conclusion & Future Scope

This project will be able to release publicly in future after making some changes and modifications. So the modifications that can be done in our project are:

- 1) We have to add other important metrics and graphs for more in-depth stock analysis.
- 2) We can add more functionalities like display breaking news about the stock, predicting future price trend for the stock, etc.
- 3) We can improve the UI more so that UX gets better.



Thank You!