

FLUTTER PROJECT PRESENTATION

SHARE MARKET STATS

Description

The **Stock Market Tracker** is a **Flutter** application designed to provide real-time stock market insights. It allows users to view **trending stocks**, **search for stocks**, **analyze stock charts**, and **view detailed stock profiles**. The app integrates with external APIs such as **TwelveData** and **Alpha Vantage** to fetch stock data dynamically.

Features

1. Home Page (StockHomePage)

- Displays **trending stocks** in a **carousel slider**.
- Fetches **stock list** dynamically from **TwelveData API**
- Lists stock **names and types** in a visually appealing way.
- Provides a **bottom navigation bar** to navigate to different sections.

2. Stock Chart Page (Stats Page)

- Fetches **real-time stock prices** using the **Alpha Vantage API**.
- Displays stock data in an **interactive graph/chart format**.
- Allows users to select different **time series functions** (Intraday, Daily, Weekly, Monthly).

3. Search Page (StockSearch)

- Allows users to **search for stock symbols**.

- *Fetches stock details dynamically.*
- *Provides a user-friendly interface for quick searches.*

4. Profile Page (Stock Profile Page)

- *Fetches **company profile data** from **TwelveData API***
- *Displays **stock logo, company name, sector, industry, and description.***

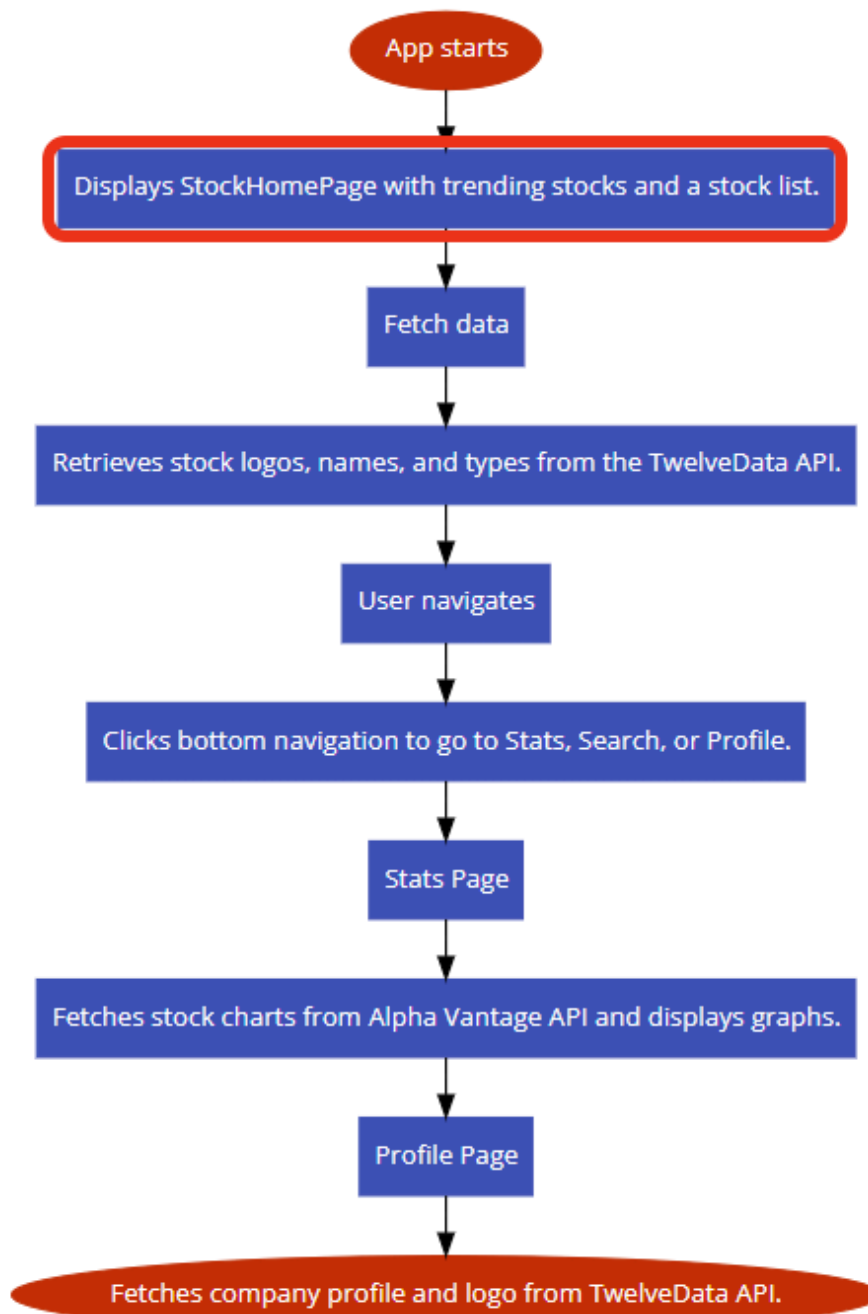
5. API Integration

- *Uses **TwelveData API** for **stock lists, logos, and profiles.***
- *Uses **Alpha Vantage API** for **stock price data and charts.***
- *Fetches data using **HTTP requests (GET method).***

6. UI/UX Enhancements

- ***Colorful & visually rich interface with engaging elements.***
- ***Smooth navigation** using a bottom navigation bar.*
- ***Loading indicators** for better user experience.*

WorkFlow



Work Flow Overview

- **User opens the app** → Lands on the **StockHomePage** displaying trending stocks.

- **App fetches data** → Retrieves stock logos, names, and details from the **TwelveData API**.
- **User interacts** → Selects stocks or navigates via the bottom navigation bar.
- **Stock details & charts** → Fetch stock data and display charts using **Alpha Vantage API**.
- **Profile & search** → Users can view company profiles or search for specific stocks.

Concepts Used

1. State Management

- Using **setState()** to update UI dynamically.
- Managing API responses and UI updates efficiently.

2. Networking & API Calls

- Fetching stock data from **TwelveData API** and **Alpha Vantage API**.
- Handling **JSON parsing** and asynchronous HTTP requests.

3. UI & Navigation

- **BottomNavigationBar** for seamless page transitions.
- **CarouselSlider** for displaying trending stocks interactively.

4. Flutter Widgets & Layouts

- **ListView** and **GridView** for structured stock lists.
- **SingleChildScrollView** for smooth scrolling experience.

5. Data Handling & Display

- Using **List<Map<String, dynamic>>** to store and display stock details.
- Implementing **conditional rendering** with loading indicators.

List of Modules

- *Home*
- *Stats*
- *Time Series Graph*
- *Search Bar*
- *Profile*

Home

- Navigation: Implemented using BottomNavigationBar with Navigator.push() for seamless page transitions.
- Trending Stocks & Stock Details: Displayed using CarouselSlider and ListView.builder, fetching data dynamically from APIs.

Stock Market Tracker

Trending Stocks



AAPL

Stock List

Ping An Bank Co., Ltd.

Type: Common Stock

China Vanke Co., Ltd.

Type: Common Stock

Shenzhen Guohua Network Co. Ltd.

Type: Common Stock

Shenzhen Zhenye Group Co., Ltd.

Type: Common Stock



Stock Market Chart

9:28



← Stock Market Chart

Select the Symbol

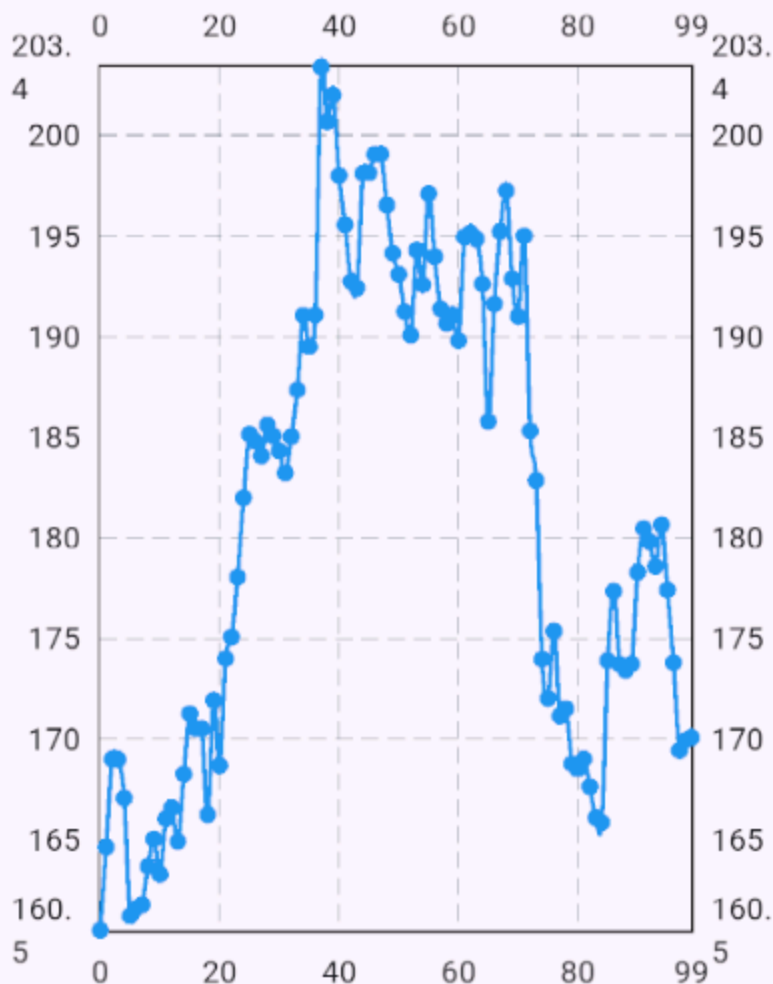
GOOGL

Select the Functionality

Daily

[View Stats](#)

Y-Axis: Stock Price (TIME SERIES DAILY)



Profile

- ***Displays Stock Logo and Profile Data*** – Shows the company's logo along with key details like name, exchange, industry, and country in a structured format.
- ***Stock Selection Dropdown*** – Allows users to select a stock from a dropdown menu to view its profile dynamically.

← Profile View

AAPL ▼

[View Profile](#)



symbol	AAPL
name	Apple Inc.
exchange	NASDAQ
mic_code	XNGS
sector	Technology
industry	Consumer Electronics
employees	150000
website	https://www.apple.com
description	<p>Apple Inc. is a leading corporation renowned for crafting and delivering a diverse array of technology products on a global scale. Specializing in consumer electronics, Apple's flagship products include the iPhone, a series of smartphones that have significantly influenced mobile communication. Complementing this is their line of Mac computers, which blend powerful processors with the macOS operating system distinguished for its sleek design and robust performance. Apple</p>

Stock Search

- **Search by Stock Symbol:** Provide a search bar or input field where users can type in stock symbols (e.g., AAPL, TSLA). Upon entering a symbol, the app fetches relevant stock data for that symbol from the Alpha Vantage or Twelve Data API.
- **Display Search Results:** After a stock symbol is searched, the app should display a list of related data such as stock price, historical data, and other details. This can include options like intraday, daily, weekly, or monthly charts, with interactive buttons to select the desired time series.

← Stock Search

Enter stock symbol

IBM



International Business Machines Corporation

Symbol: IBM

Exchange: NYSE

Country: United States

Currency: USD

International Business Machines Corporation

Symbol: IBM

Exchange: BCBA

Country: Argentina

Currency: ARS

International Business Machines Corporation

Symbol: IBM

Exchange: NEO

Country: Canada

Currency: CAD

International Business Machines Corporation

Symbol: IBM

Exchange: FSX

Country: Germany

Currency: EUR

International Business Machines Corporation

Symbol: IBM

Time Series Graph

- ***Interactive Stock Data:*** *The Time Series page allows users to select a stock symbol and view its historical data in different time intervals (Intraday, Daily, Weekly, Monthly), displayed through interactive charts and graphs.*
- ***Customizable Analysis:*** *Users can customize the time range, refresh data in real time, and switch between various time series functions for a detailed stock performance analysis.*

← Time Series Graph

AAPL ▼

1min ▼

Common Stock ▼

View Graph

