# **Apple News and Stock Price Tracker**

## **Introduction**

The Apple News and Stock Price Tracker is a web-based application designed to provide users with insights into Apple-related news articles and stock prices over time. This report outlines the development process, key features, and challenges faced during the project.

## **Project Overview**

### **Features**

1. News Count Tracking: The application fetches Apple-related news articles and tracks the count of articles over time.

2. Stock Price Visualization: It displays a line chart illustrating Apple's stock prices over a specific period.

3. Additional Insights: Users can view additional information, such as the last month's and last week's stock prices.

## **Development Approach**

### **Technology Stack**

- Frontend: React.js for building the user interface.

- Chart Library: Chart.js for creating interactive and visually appealing charts.

- Data Handling: Fetch API for retrieving news data and stock prices.

### **Implementation**

1. Data Fetching: Utilized asynchronous functions to fetch news data and stock prices from external sources.

2. Chart Visualization: Employed the Chart.js library to create a dynamic line chart for displaying stock prices and news counts.

3. Responsive Design: Ensured the application is responsive, providing a seamless user experience across devices.

## **Challenges Faced**

1. Data Integration: Coordinating the integration of news data and stock prices required careful handling of asynchronous calls and data transformations. In the data2023.json, there are two different date format **( 'YYYY-MM-DDTHH:mm:ss', 'YYYY-MM-DD HH:mm:ss').** Initially mapping of the newsData causing problem with unmatched date time format
2. Chart Configuration: Fine-tuning the chart configuration to display dual axes and additional data in tooltips posed some challenges. There is problem with the TimeScale and Tooltip, error was time is not registered. To solve this problem, I have to import and registered this scale using a useEffect hook.

## **Code Structure and Organization**

The codebase is organized into components, with clear separation of concerns. Proper documentation has been maintained, making it easier for developers to understand and extend the application.

#### **Running the Application Locally**

To run the application locally, follow these steps:

1. Clone the repository:

git clone <repository-url>

2.Install dependencies using :

npm install

cd news-stock

Also install: moment, 'chartjs-adapter-moment', react-chartjs-2;

3.Run the application with:

npm start

## **Conclusion**

The Apple News and Stock Price Tracker is a valuable tool for users interested in monitoring Apple-related news and stock performance. The use of modern web technologies and a well-organized codebase ensures scalability and maintainability.