Stock Market News

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Abstract

In addressing the growing need for user-friendly stock market tools, this report presents the Stock market news app, a software designed for individual investors. By effortlessly extracting real-time stock data from platforms like Yahoo Finance, the tool equips users with valuable insights and a simple interface. Integrating machine learning, it empowers investors to make informed decisions. The proposed monetization model is tailored to user preferences, ensuring a valuable and sustainable financial resource.

1. Problem statement

Many individual investors lack a convenient tool to track real-time stock prices and receive valuable insights. They have to read and go through various articles to assess a company they are going to invest in. The need for a user-friendly solution led to the conceptualization of the Stock market news app.

2. Market/Customer/Business Need Assessment

In the past few years it has become very convenient to invest in the stock market due to the various stock trading apps allowing users to invest at no brokerage. However, deciding what stock to invest in is still based either on word of mouth or extensive research by reading through articles and news about a company/Industry. Not everybody has the time to go through those things. This software will fetch data through various sources to indicate some factors about a company. It won't give a clear indication about the price of a stock but will rather compile information based on which the user can decide to invest.

3. Target Specifications and Characterization (your customer characteristic)

Target Audience: Individual investors and stock enthusiasts.

Characteristics: Users who want to effortlessly track stock prices and receive data-driven insights.

4. External Search (online information sources/references/links)

[Yahoo Finance](#)
[The Economic Times](#)

4.1 Benchmarking

Benchmarking can be done on a simulated market which matches the real market and and compare the rate of returns of portfolios informed by this software and regular portfolio.

4.2 Application constraints

- Web scraping constraints need to set so user is not given false news
- Clear disclaimer needs to be given that the information provided by our software is just to the investor and can be well informed and is not a direct suggestion.
- Unexpected fall of the market can result in inconsistent information

5. Business opportunity

This software/web app will have 2 versions, one paid and one free. In the free version the user can either search information about a particular stock like "Adani power", "ICICI Bank", Or they can search about a sector like Energy, Banking, Real Estate etc. In the paid version the user can input their whole portfolio and based on the investment software can give news and info about those stocks/sectors. For example if someone has a lot of bank stocks it will give them banking sector news. Later we can also implement risk management strategies, So if someone is heavily invested in the banking sector they can be given News about IT stocks since they have an Inverse relation 70% of the time.

6. Final Product Prototype

The final product can be both a website and an app. It will give users concise news about the stock market, companies and different industries so the users can make an informed decision based on this.

The implementation will mainly require 3 things, A web scraping tool, a large language model trained to read financial papers/data and a sentiment analysis AI.
- The user will need to log in so user authentication will be needed to store data if they opt for the paid version
- If a user searches a stock, first the web scraper will gather data from sources like Yahoo Finance which provide concrete financial data like the rate of return, EPS target completed or not, charts, expected returns etc. And also gather articles from finance journals. This Data can be sorted into technical and opinionated so we can pass them through the LLM and Sentimental Analysis
- The user will get various information like the past performance of a stock/sector, the current affairs related to it and future announcements by the companies or major players in the sector.

7. Conclusion

More and more people want to invest these days as it can prove a better way to use your savings instead of keeping it in a FD. This software will keep them well informed about the market so they can make more educated decisions about their financial assets.