

# Portfolio Sentinel

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# In Summary...

Head Client: Matthew Garrett

Mentor: Jacob Deffendall



## What is Portfolio Sentinel?

Portfolio Sentinel is a program that will provide the user with information on recent stock data through the use of a Generative Artificial Intelligence.

# Feedback (Mentor)

Mentor: Jacob Deffendall

- He thought the program was looking amazing and that Matt would love our changes and updates
- Mentioned a way to analyze the portfolio as a whole and each stock individually
- Overall, he believes we are headed in the right direction

# Feedback (Client)

Client: Matthew Garrett

## Comments and Notes from Use:

- ChatGPT can't surf through information from specific APIs like our program
- Notes that ChatGPT can't be as specific as our summaries are
- Wasn't sure if "Add to Portfolio" and "Analyze Portfolio" buttons were clicked
- Large summaries could be formatted in some way

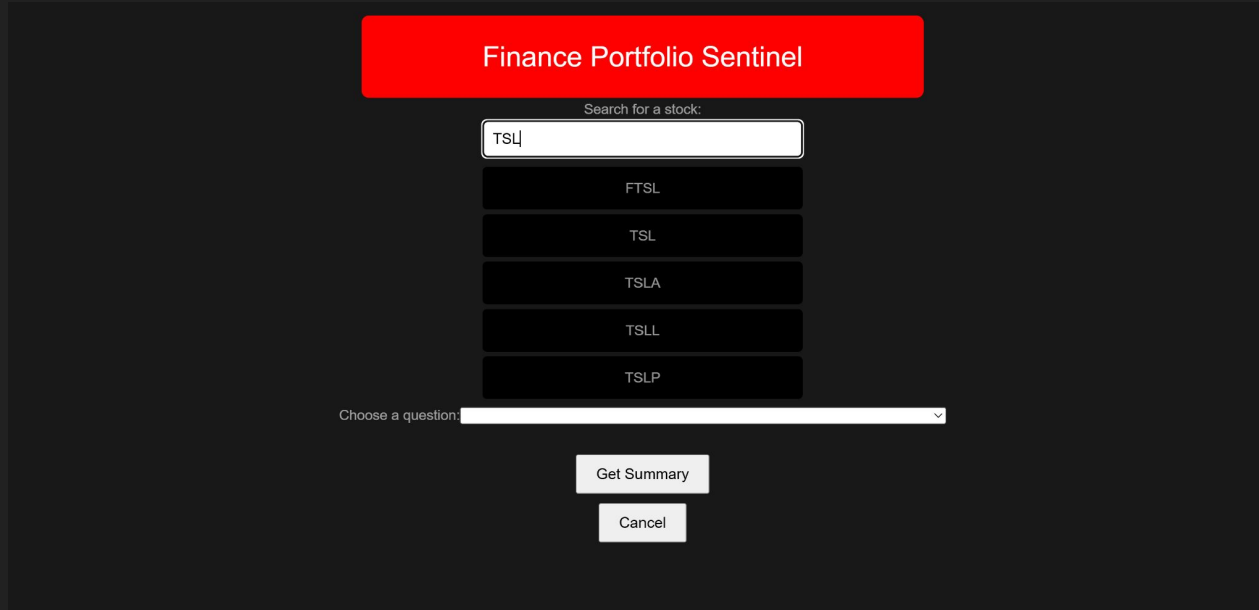
## Suggestions:

- Adding a way to alert the user that an action is in progress
- UI changes
  - Make it easier to read
  - Data entry?
- Advisor comment section
- Method to erase portfolio and start over
- Mutual funds could be difficult to add but possible

# Review: Business Requirement

Analyzing investments to help Advisors find vulnerabilities and risks that can be presented to a client in a meaningful and insightful way.

# Iteration 3 Feature: Search Bar Populated



The screenshot displays a web application interface for "Finance Portfolio Sentinel". At the top, a red header bar contains the title. Below it, a search section is titled "Search for a stock:". A text input field contains the text "TSL". A dropdown menu is open, showing a list of stock tickers: FTSL, TSL, TSLA, TSLL, and TSLP. Below the search section, there is a "Choose a question:" label followed by a dropdown menu. At the bottom of the interface, there are two buttons: "Get Summary" and "Cancel".

Finance Portfolio Sentinel

Search for a stock:

TSL

- FTSL
- TSL
- TSLA
- TSLL
- TSLP

Choose a question:

Get Summary

Cancel

Previously users could only search up 5 stocks. Now the search bar is populated with a number of them

# Iteration 3 Feature: Portfolio Manager

Portfolio Manager

Search for a stock:

AAPL

AAPL

Allocation (%) e.g. 30

Add to Portfolio

Your Portfolio

TSLA (30%)

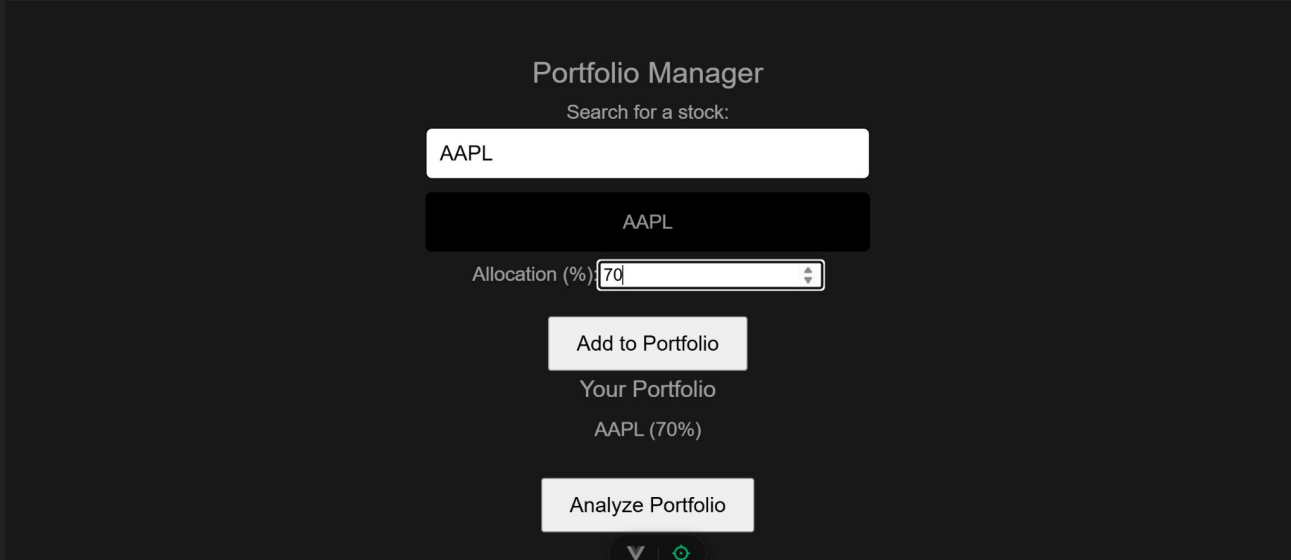
AAPL (70%)

Analyze Portfolio

Analysis Result: TSLA (30%): Tesla (TSLA) comprises a significant 30% of your portfolio, necessitating careful evaluation. Recent news indicates mixed performance. While 2024 saw a slight sales decline, stock price gains were fueled by investor optimism surrounding AI and robotaxi initiatives. However, a concerning trend is the decline in automotive revenue, raising questions about demand and market share. The high valuation remains a key risk factor. Although bullish projections exist regarding future potential, particularly concerning a speculated \$10 trillion business opportunity, the current data suggests a cautious approach. Consider reducing TSLA's portfolio weight to mitigate risk associated with the reported decline in automotive revenue while maintaining exposure to its long-term potential. Further due diligence, including a review of complete financials, is recommended before making any decisions. AAPL (70%): The provided data shows API request errors, preventing a data-driven analysis of AAPL's recent performance and financials. However, given that AAPL constitutes a massive 70% of your portfolio, this over-concentration presents significant risk regardless of AAPL's current status. Such a large allocation makes your portfolio highly vulnerable to fluctuations in AAPL's stock price. "Regardless of AAPL's current performance, it's strongly recommended to diversify your portfolio immediately." Reduce your AAPL holdings to a more appropriate level (generally, no single stock should exceed 20-30% of a portfolio). Obtain updated financial data on AAPL from reliable sources (like Yahoo Finance or Bloomberg) to inform your diversification strategy.

Portfolio Manager can create and analyze portfolios

# Iteration 3 Feature: Allocation



The screenshot displays a web application titled "Portfolio Manager". It features a search bar with the text "Search for a stock:" and a dropdown menu showing "AAPL". Below the search bar is a button labeled "AAPL". Underneath the button is a text input field for "Allocation (%)" with the value "70" and a small up/down arrow icon. Below the input field is a button labeled "Add to Portfolio". Underneath the button is a section titled "Your Portfolio" which contains the text "AAPL (70%)". Below this section is a button labeled "Analyze Portfolio". At the bottom of the interface are two small icons: a downward arrow and a circular refresh icon.

Users can not only create their portfolios but specifically allocate them how they please



# Future Iteration 4 Features

- Adding a method to delete or restart a portfolio (for advisor's ease of use)
- UI changes for better readability
- UI changes for user comprehension
- Advisor comment or notes section
- (If possible) Mutual funds rather than only using stocks

# Teamwork

Who worked where?

Antone - Search bar population, connecting csv file

Dennis - Allocation methods, cancel button, analysis prompt

Edgar - “Add to portfolio” backend, analysis prompt

Chandler - Portfolio Manager setup, “Add to portfolio” frontend

Mason - Tests, error handling

# Time to Grind:



The joke is that  
Matt (our client) is  
just incredibly tall...  
I did not expect it