

Stock Portfolio Tracker

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Internship: Code Alpha - Task 2

Overview

The **Stock Portfolio Tracker** is a Python-based tool designed to help users manage and monitor their stock investments in real-time. This program allows you to add stocks to your portfolio, remove stocks, and track the current value of your holdings using real-time financial data fetched from the Alpha Vantage API.

Features

- **Add Stocks:** Easily add a specific number of shares of a stock to your portfolio.
- **Remove Stocks:** Remove shares or entire stock holdings from your portfolio.
- **Track Portfolio:** View the current value of each stock in your portfolio, including the total value of your entire portfolio.
- **Real-Time Data:** Fetches real-time stock prices using the Alpha Vantage API.

Installation

- Python 3.x installed on your system
- Internet connection for fetching real-time data
- Alpha Vantage API key (you can obtain one by signing up at [Alpha Vantage](#))

Setup

1. **Clone the Repository or Copy the Code:**
 - Copy the provided Python script into your local environment.
2. **Install Required Libraries:**
 - Make sure requests library is installed. Open CMD in your Computer:

```
pip install requests
```

3. **Replace API Key:**
 - Replace `your_actual_alpha_vantage_api_key` in the script with your actual Alpha Vantage API key.

How to Use

1. Run the Program:

- Execute the Python script:

```
python stock_portfolio_tracker.py
```

2. Choose an Action:

- The program will present you with a menu of options:
 - A / a / 1: Add a stock to your portfolio.
 - R / r / 2: Remove a stock from your portfolio.
 - T / t / 3: Track and view your current portfolio.
 - Q / q / 4: Quit the program.

3. Adding Stocks:

- Select the option to add a stock.
- Enter the stock symbol (e.g., AAPL for Apple).
- Specify the number of shares you want to add.

4. Removing Stocks:

- Select the option to remove a stock.
- Enter the stock symbol you wish to remove.
- Specify the number of shares to remove (enter the total shares if you wish to remove the stock entirely).

5. Tracking Portfolio:

- Select the option to track your portfolio.
- The program will display the current value of each stock, the number of shares you hold, and the total value of your portfolio.

6. Quit:

- Select the quit option when you are done using the program. The program will thank you and exit gracefully.

Example

```
= RESTART: C:\Users\USER\OneDrive\Desktop\Stock_Portfolio_Tracker.py
_____STOCK PORTFOLIO TRACKER_____

:::MENU
[A / a / 1 to Add Stock]
[R / r / 2 to Remove Stock]
[T / t / 3 to Track Portfolio]
[Q / q / 4 to Quit]
Choose an action: a
Enter the stock symbol to add: TSLA
Enter the number of shares to add for TSLA: 20
Added 20 shares of TSLA to your portfolio.
Choose an action: a
Enter the stock symbol to add: AAP
Enter the number of shares to add for AAP: 10
Added 10 shares of AAP to your portfolio.
Choose an action: T

:::YOUR PORTFOLIO:

TSLA: 20 shares at $207.33 each, Total: $4146.60
AAP: 10 shares at $46.44 each, Total: $464.38
Total Portfolio Value: $4610.98
Choose an action: r
Enter the stock symbol to remove: AAP
Enter the number of shares to remove for AAP: 5
Removed 5 shares of AAP from your portfolio.
Choose an action: q
Exiting...
Thank you for using my program!
```

Notes

- **Accuracy:** The program relies on real-time data from the Alpha Vantage API, which may have limitations based on the API's free tier (e.g., data refresh limits).
- **Error Handling:** The program will notify you if there's an issue fetching data (e.g., if the stock symbol is incorrect).

License

This project is created for educational purposes as part of an internship task. Feel free to modify and use the code as needed.