

Project Title: Stock Portfolio Tracker

Extended Simple Description:

The **Stock Portfolio Tracker** is a beginner-friendly Python project that helps users keep track of their stock investments. It allows the user to enter the **names of stocks** they own (like "AAPL" for Apple or "TSLA" for Tesla) and the **number of shares** for each stock. The program then calculates the **total value of the portfolio** using a set of fixed (hardcoded) stock prices stored in a dictionary.

For example, if Apple stock (AAPL) is priced at \$180 and the user owns 10 shares, the program calculates:

$$10 \times \$180 = \$1800$$

The same is done for all other stocks the user enters, and the total investment amount is shown at the end.

The program also gives the user an option to **save the investment report to a text file** (portfolio_report.txt). This makes it easy to keep a copy of their investment summary.

Key Concepts Used:

- **Dictionaries:** Used to store stock prices (e.g., {"AAPL": 180}).
 - **User Input:** The user enters stock symbols and the number of shares.
 - **Loops:** To allow entering multiple stocks until the user types "done".
 - **Basic Arithmetic:** Calculates total value using quantity × price.
 - **File Handling (Optional):** Saves the result in a text file if the user wants.
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How It Works (Steps):

1. The user runs the program.
 2. They input stock names and how many shares they own.
 3. The program checks if the stock is in the hardcoded list.
 4. It multiplies the number of shares by the stock price.
 5. It shows the total value of each stock and the full portfolio.
 6. The user can choose to save the report to a file.
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Why This Project Is Useful:

- Helps users understand how to track investments.
- Practices important Python basics (like dictionaries and file I/O).
- Can be easily improved later with real-time data or a user interface.