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In [10]: import yfinance as yf
import random

class StockPortfolio:
    def __init__(self):
        self.portfolio = {}

    def add_stock(self, symbol, quantity, buy_price):
        """Add stock to the portfolio"""
        symbol = symbol.upper()
        if symbol in self.portfolio:
            self.portfolio[symbol]['quantity'] += quantity
            self.portfolio[symbol]['buy_price'] = (
                (self.portfolio[symbol]['buy_price'] * self.portfolio[symbol]['quantity']) + (buy_price * quantity)
            ) / (self.portfolio[symbol]['quantity'] + quantity)
        else:
            self.portfolio[symbol] = {"quantity": quantity, "buy_price": buy_price}

    def remove_stock(self, symbol):
        """Remove stock from the portfolio"""
        symbol = symbol.upper()
        if symbol in self.portfolio:
            del self.portfolio[symbol]
            print(f"{symbol} removed from portfolio.")
        else:
            print(f"{symbol} not found in portfolio.")

    def fetch_live_price(self, symbol):
        """Fetch the live price of a stock using Yahoo Finance"""
        try:
            stock = yf.Ticker(symbol)
            return stock.history(period="1d")["Close"].iloc[-1]
        except Exception as e:
            print(f"Error fetching data for {symbol}: {e}")
            return None

    def view_portfolio(self):
        """Display portfolio details with live prices"""
        if not self.portfolio:
            print("\nYour portfolio is empty!")
            return

        total_invested = 0
        total_value = 0

        print("\nStock Portfolio Summary:")
        print("-" * 60)
        print(f"{'Stock':<10}{'Qty':<10}{'Buy Price':<12}{'Live Price':<12}{'P/L'}")
        print("-" * 60)

        for symbol, details in self.portfolio.items():
            live_price = self.fetch_live_price(symbol)
            if live_price:
                quantity = details["quantity"]
                invested = quantity * details["buy_price"]
                current_value = quantity * live_price
                profit_loss = current_value - invested

                total_invested += invested
                total_value += current_value

            print(f"{symbol:<10}{quantity:<10}{details['buy_price']:<12.2f}{live_price:<12.2f}{profit_loss:<12.2f}")

        print("-" * 60)
        print(f"Total Invested: ${total_invested:.2f}")
        print(f"Current Portfolio Value: ${total_value:.2f}")
        print(f"Overall P/L: ${total_value - total_invested:.2f}")
        print("-" * 60)

# Interactive CLI
def main():
    portfolio = StockPortfolio()

    while True:
        print("\nStock Portfolio Tracker")
        print("1. Add Stock")
        print("2. Remove Stock")
        print("3. View Portfolio")
        print("4. Exit")
        choice = input("Enter your choice: ")

        if choice == "1":

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        symbol = input("Enter stock symbol (e.g., AAPL, TSLA): ").upper()
        quantity = int(input("Enter quantity: "))
        buy_price = float(input("Enter purchase price: "))
        portfolio.add_stock(symbol, quantity, buy_price)
        print(f"{symbol} added to portfolio.")

    elif choice == "2":
        symbol = input("Enter stock symbol to remove: ").upper()
        portfolio.remove_stock(symbol)

    elif choice == "3":
        portfolio.view_portfolio()

    elif choice == "4":
        print("Exiting Stock Portfolio Tracker. Goodbye!")
        break

    else:
        print("Invalid choice. Please enter a number between 1 and 4.")

if __name__ == "__main__":
    main()

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Stock Portfolio Tracker

1. Add Stock
2. Remove Stock
3. View Portfolio
4. Exit

AAPL added to portfolio.

Stock Portfolio Tracker

1. Add Stock
2. Remove Stock
3. View Portfolio
4. Exit

Stock Portfolio Summary:

Stock	Qty	Buy Price	Live Price	P/L
AAPL	15	200.00	217.90	268.50

Total Invested: \$3000.00

Current Portfolio Value: \$3268.50

Overall P/L: \$268.50

Stock Portfolio Tracker

1. Add Stock
2. Remove Stock
3. View Portfolio
4. Exit

TSLA added to portfolio.

Stock Portfolio Tracker

1. Add Stock
2. Remove Stock
3. View Portfolio
4. Exit

Stock Portfolio Summary:

Stock	Qty	Buy Price	Live Price	P/L
AAPL	15	200.00	217.90	268.50
TSLA	10	500.00	263.55	-2364.50

Total Invested: \$8000.00

Current Portfolio Value: \$5904.00

Overall P/L: \$-2096.00

Stock Portfolio Tracker

1. Add Stock
2. Remove Stock
3. View Portfolio
4. Exit

AAPL removed from portfolio.

Stock Portfolio Tracker

1. Add Stock
2. Remove Stock
3. View Portfolio
4. Exit

Stock Portfolio Summary:

Stock	Qty	Buy Price	Live Price	P/L
TSLA	10	500.00	263.55	-2364.50

Total Invested: \$5000.00  
Current Portfolio Value: \$2635.50  
Overall P/L: \$-2364.50

Stock Portfolio Tracker

- 1. Add Stock
- 2. Remove Stock
- 3. View Portfolio
- 4. Exit

Exiting Stock Portfolio Tracker. Goodbye!

In [ ]:

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