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import requests
from prettytable import PrettyTable
import ison
# API Configuration
API_KEY = "your_alphavantage_api_key"
BASE_URL = "https://www.alphavantage.co/query"
# Portfolio Data
portfolio = {}
# Fetch stock price from Alpha Vantage API
def fetch_stock_price(symbol):
     url = f"{BASE URL}?function=GLOBAL QUOTE&symbol={symbol}&apikey={API KEY}"
     response = requests.get(url)
     data = response.json()
     if "Global Quote" in data:
        stock price = float(data["Global Quote"]["05. price"])
        return stock_price
        print(f"Error: Unable to fetch data for {symbol}. Check the stock symbol or API key.")
        return None
  except Exception as e:
     print(f"An error occurred: {e}")
     return None
# Add a stock to the portfolio
def add_stock(symbol, quantity, purchase_price):
  if symbol in portfolio:
     portfolio[symbol]["quantity"] += quantity
     portfolio[symbol]["purchase_price"] = purchase_price
  else:
     portfolio[symbol] = {"quantity": quantity, "purchase_price": purchase_price}
# Display the portfolio
def display_portfolio():
  table = PrettyTable(["Stock", "Quantity", "Purchase Price", "Current Price", "Gain/Loss (%)",
"Value"])
  total_value = 0
  for symbol, data in portfolio.items():
     current_price = fetch_stock_price(symbol)
     if current_price:
        quantity = data["quantity"]
        purchase_price = data["purchase_price"]
        current_value = current_price * quantity
        gain_loss = ((current_price - purchase_price) / purchase_price) * 100
        total_value += current_value
        table.add_row([
          symbol,
          quantity,
          f"${purchase_price:.2f}",
          f"${current_price:.2f}",
          f"{gain_loss:.2f}%",
          f"${current_value:.2f}"
   print(table)
```

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print(f"Total Portfolio Value: ${total value:.2f}")
# Save portfolio to file
def save portfolio(filename="portfolio.json"):
  with open(filename, "w") as file:
     json.dump(portfolio, file)
  print(f"Portfolio saved to {filename}")
# Load portfolio from file
def load portfolio(filename="portfolio.json"):
  global portfolio
  try:
     with open(filename, "r") as file:
        portfolio = json.load(file)
     print(f"Portfolio loaded from {filename}")
  except FileNotFoundError:
     print(f"File {filename} not found. Starting with an empty portfolio.")
# Main Menu
def main():
  load portfolio()
  while True:
     print("\nStock Portfolio Tracker")
     print("1. Add Stock")
     print("2. View Portfolio")
     print("3. Save Portfolio")
     print("4. Exit")
     choice = input("Enter your choice: ")
     if choice == "1":
        symbol = input("Enter stock symbol (e.g., AAPL): ").upper()
        quantity = int(input("Enter quantity: "))
        purchase_price = float(input("Enter purchase price: "))
        add_stock(symbol, quantity, purchase_price)
     elif choice == "2":
        display_portfolio()
     elif choice == "3":
        save_portfolio()
     elif choice == "4":
        save_portfolio()
        print("Goodbye!")
        break
        print("Invalid choice. Please try again.")
if __name__ == "__main__":
  main()
```