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In [1]: import random

# Define initial variables
balance = 10000 # Starting balance
stocks = {"TechCorp": 100, "HealthInc": 200, "AutoMotive": 50} # Initial stock prices
portfolio = {"TechCorp": 0, "HealthInc": 0, "AutoMotive": 0} # Empty portfolio
days = 0 # Track game days

# Function to display current status
def display_status():
    print("\nDay:", days)
    print("Balance:", balance)
    print("Stock Prices:", stocks)
    print("Your Portfolio:", portfolio)

# Function to simulate price changes
def update_stock_prices():
    for stock in stocks:
        change = random.uniform(-0.05, 0.05) # Price change between -5% to 5%
        stocks[stock] = round(stocks[stock] * (1 + change), 2)

# Function to buy stocks
def buy_stock(stock, amount):
    global balance
    cost = stocks[stock] * amount
    if cost <= balance:
        balance -= cost
        portfolio[stock] += amount
        print(f"Bought {amount} shares of {stock} at {stocks[stock]} each.")
    else:
        print("Insufficient balance to buy that many shares.")

# Function to sell stocks
def sell_stock(stock, amount):
    global balance
    if amount <= portfolio[stock]:
        portfolio[stock] -= amount
        earnings = stocks[stock] * amount
        balance += earnings
        print(f"Sold {amount} shares of {stock} at {stocks[stock]} each.")
    else:
        print("You don't own that many shares.")

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# Main game Loop
print("Welcome to the Financial Analysis Game!")
while days < 10: # Play for 10 days
    days += 1
    update_stock_prices()
    display_status()

    # Ask player for action
    action = input("Choose an action (buy/sell/hold/exit): ").strip().lower()

    if action == "buy":
        stock = input("Enter the stock to buy (TechCorp, HealthInc, AutoMotive): ").strip()
        amount = int(input("Enter the number of shares: "))
        if stock in stocks:
            buy_stock(stock, amount)
        else:
            print("Invalid stock choice.")

    elif action == "sell":
        stock = input("Enter the stock to sell (TechCorp, HealthInc, AutoMotive): ").strip()
        amount = int(input("Enter the number of shares: "))
        if stock in stocks:
            sell_stock(stock, amount)
        else:
            print("Invalid stock choice.")

    elif action == "hold":
        print("You chose to hold your investments.")

    elif action == "exit":
        break

    else:
        print("Invalid action. Choose buy, sell, hold, or exit.")

# Final report
print("\nGame Over!")
print("Final Balance:", balance)
for stock, qty in portfolio.items():
    value = qty * stocks[stock]
    print(f"{stock}: {qty} shares, Current Value: ${value:.2f}")
print("Thanks for playing!")
```

Welcome to the Financial Analysis Game!

Day: 1

Balance: 10000

Stock Prices: {'TechCorp': 99.8, 'HealthInc': 202.75, 'AutoMotive': 50.8}

Your Portfolio: {'TechCorp': 0, 'HealthInc': 0, 'AutoMotive': 0}

Choose an action (buy/sell/hold/exit): buy

Enter the stock to buy (TechCorp, HealthInc, AutoMotive): HealthInc

Enter the number of shares: 200

Insufficient balance to buy that many shares.

Day: 2

Balance: 10000

Stock Prices: {'TechCorp': 97.11, 'HealthInc': 207.27, 'AutoMotive': 51.28}

Your Portfolio: {'TechCorp': 0, 'HealthInc': 0, 'AutoMotive': 0}

Choose an action (buy/sell/hold/exit): sell

Enter the stock to sell (TechCorp, HealthInc, AutoMotive): Techgroup

Enter the number of shares: 100

Invalid stock choice.

Day: 3

Balance: 10000

Stock Prices: {'TechCorp': 93.52, 'HealthInc': 213.57, 'AutoMotive': 52.16}

Your Portfolio: {'TechCorp': 0, 'HealthInc': 0, 'AutoMotive': 0}

Choose an action (buy/sell/hold/exit): AutoMotive

Invalid action. Choose buy, sell, hold, or exit.

Day: 4

Balance: 10000

Stock Prices: {'TechCorp': 90.9, 'HealthInc': 217.3, 'AutoMotive': 51.55}

Your Portfolio: {'TechCorp': 0, 'HealthInc': 0, 'AutoMotive': 0}

Choose an action (buy/sell/hold/exit): sell

Enter the stock to sell (TechCorp, HealthInc, AutoMotive): 100

Enter the number of shares: 100

Invalid stock choice.

Day: 5

Balance: 10000

Stock Prices: {'TechCorp': 90.46, 'HealthInc': 215.22, 'AutoMotive': 52.89}

Your Portfolio: {'TechCorp': 0, 'HealthInc': 0, 'AutoMotive': 0}

Choose an action (buy/sell/hold/exit): sell

Enter the stock to sell (TechCorp, HealthInc, AutoMotive): healthInc

Enter the number of shares: 50

Invalid stock choice.

Day: 6

Balance: 10000

Stock Prices: {'TechCorp': 93.68, 'HealthInc': 224.94, 'AutoMotive': 50.37}

Your Portfolio: {'TechCorp': 0, 'HealthInc': 0, 'AutoMotive': 0}

Choose an action (buy/sell/hold/exit): hold

You chose to hold your investments.

Day: 7

Balance: 10000

Stock Prices: {'TechCorp': 95.59, 'HealthInc': 217.21, 'AutoMotive': 49.15}

Your Portfolio: {'TechCorp': 0, 'HealthInc': 0, 'AutoMotive': 0}

Choose an action (buy/sell/hold/exit): HealthInc

Invalid action. Choose buy, sell, hold, or exit.

Day: 8

Balance: 10000

Stock Prices: {'TechCorp': 95.93, 'HealthInc': 222.68, 'AutoMotive': 49.76}

Your Portfolio: {'TechCorp': 0, 'HealthInc': 0, 'AutoMotive': 0}

Choose an action (buy/sell/hold/exit): se;;

Invalid action. Choose buy, sell, hold, or exit.

Day: 9

Balance: 10000

Stock Prices: {'TechCorp': 97.65, 'HealthInc': 229.42, 'AutoMotive': 49.85}

Your Portfolio: {'TechCorp': 0, 'HealthInc': 0, 'AutoMotive': 0}

Choose an action (buy/sell/hold/exit): sell

Enter the stock to sell (TechCorp, HealthInc, AutoMotive): Automative

Enter the number of shares: 100

Invalid stock choice.

Day: 10

Balance: 10000

Stock Prices: {'TechCorp': 97.53, 'HealthInc': 221.98, 'AutoMotive': 50.61}

Your Portfolio: {'TechCorp': 0, 'HealthInc': 0, 'AutoMotive': 0}

Choose an action (buy/sell/hold/exit): buy

Enter the stock to buy (TechCorp, HealthInc, AutoMotive): Techgroup

Enter the number of shares: 100

Invalid stock choice.

Game Over!

Final Balance: 10000

TechCorp: 0 shares, Current Value: \$0.00

HealthInc: 0 shares, Current Value: \$0.00

AutoMotive: 0 shares, Current Value: \$0.00

Thanks for playing!

In []: