# CISC 322
## Software Architecture

**Lecture 08:**

**Architecture Styles (3)**

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# Automated Stock Trading System

- A customer approaches YOURSTRULYTradingSolutions with the need for an architecture design for an automated stock trading system. The system needs to take in a list of stocks, related to specific sectors and buy/sell these stocks based on some predefined algorithms.

- The system needs to perform well (place many orders) and scale to support many investors.

- Your task is to propose an architecture for the system, accompanied by an informal evaluation of the advantages and disadvantages of the proposed architecture.

# Automated Stock Trading System

- **Input**
  - List of sectors/stocks to trade
  - List of investors and their daily budget

- **Output**
  - Notification to buyers/sellers
    - List of stocks bought/sold
    - Cost, if bought; Gain/Loss, if sold
  - Withdraw/deposit money based on orders

# Automated Stock Trading System Assumptions

- Historical data of all stocks will be provided (very large)
  - To perform historical analysis on the stocks/sectors

- Buy/Sell algorithms will be provided by financial engineers
  - To know which stocks to buy/sell

- Investor personal data will be provided
  - To withdraw and deposit money