BackTrade Object Oriented Analysis and Design

# Use cases

## Backtest with the given setup parameters

**Process:**

1. Load data. Sources.
   1. Excel spreadsheet
   2. Yahoo finance.
      1. Input:
         1. Data: exchange and symbols
         2. Parameters: start date, end date, interval, symbols & exchange
      2. Output
         1. Data: timeseries data of price (open, high, low, close) and volume
   3. Database
2. Clean data
   1. Input
      1. Data
      2. Parameters
   2. Fill missing value
   3. Remove data when the timeseries data in invalid
      1. Extreme price changes beyond limit
3. Generate signal
   1. Setup trade signal parameters
4. Backtest the signal against the price
   1. Setup backtest engine
   2. Input parameter:
      1. Strategy name
      2. rebalanceFcn
      3. rebalanceFrequency
      4. transactionCosts
      5. slipageCostsFcn
      6. lookbackWindow
      7. initialWeights
      8. annualRiskFreeRate
      9. initialPortfolioValue
      10. annualCashBorrowRate
5. Analyse the results
6. Visual the backtest results

## Optimize parameters

## Generate Stockpick and allocation

# Identified Data

## Input

## Output

# Identified Function

# Object Design