1. Signals are generated by strategy
   1. Input:
      1. Price data, strategy function
   2. Output:
      1. Signal series which corresponds to timeseries of price data
2. Set of Trades are created based on Signals
   1. Input:
      1. Entry date
      2. Entry price
      3. Exit Date
      4. Exit Price
      5. Trade Side(Long/Short)
      6. Price Data
   2. Output:
      1. Trades with following attributes:
         1. Trade Number
         2. Entry date
         3. Entry price
         4. Exit Date
         5. Exit Price
         6. Trade Side(Long/Short)
         7. Trade profit
         8. Trade Duration
         9. Trade max DD
         10. Trade Average DD
         11. Trade max DD duration
         12. Average DD duration
         13. Max Profit
         14. Max Loss
         15. Trade price series
3. Trade analysis pack has to be created
   1. Input:
      1. All Trades
      2. Price data
   2. Output:
      1. Combined trades analysis:
         1. Total trades
         2. Total Returns
         3. Profit factor
         4. Hit ratio
         5. Profitability
         6. Average Profit
         7. Average Profit in profit making trades
         8. Average loss in losing trade
         9. Average Duration
         10. Max profit
         11. Max loss
         12. Within trade Max DD
         13. Within trade Max DD duration
         14. Within trade max profit
         15. Within trade max loss
         16. Average Profit per days active
      2. Above attributes for:
         1. All
         2. Long
         3. Short
         4. Profitable
         5. Losing trades
      3. Trade distribution data
         1. Total
            1. Frequency distribution
            2. 50,90,95& 99 percentile
         2. Last 10%
            1. Frequency distribution
            2. 50,90,95& 99 percentile
      4. Trade wise simulation Data:
         1. DD :
            1. Mean, Median, 90, 95, 99%
      5. Rolling 12 month analysis:
         1. Total Returns
         2. Profit factor
         3. Hit ratio
         4. Profitability
      6. Walk-forward analysis:
         1. Total Returns
         2. Profit factor
         3. Hit ratio
         4. Profitability
         5. Drawdown evolution with CAGR returns
            1. Simulation for the same
4. Equity curve is created based on trades and position sizing rules

Input:

Trades, Position sizing rules function, daily price data, base amount

Output:

* + 1. Daily equity in INR
    2. Daily PNL in %
    3. Daily EOD Position in INR
    4. Underwater curve

1. Equity curve analysis is created:
   1. Input:
      1. Equity curve series
   2. Output:
      1. Monthly returns
      2. Annual returns
      3. Rolling 12 month returns
      4. Summary of returns
2. Drawdown analysis:
3. Comparative return analysis

Creating a simulated data series:

Creating Drawdown evolution with CAGR returns based on time elapsed and creating