

# Momentum Strategy

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# Problem

Based on historical returns for last 10, 50 and 100 trading days set up a model which tries to predict if it is worth to buy a particular stock

***Buy indicator*** – 25 day return equal or greater than 10%

## ***Constraints***

- Exclude companies traded less than 200 days
- Minimum 200 companies in scope
- Utilize open source stock close prices

# Solution

- It is a Classification Problem
- „Omega” stock prices from bossa.pl used as inputs
- Python and scikit learn package used (Random Forest Classifier)

## **Results:**

Accuracy for 10 days: 0.0%

Accuracy for 50 days: 0.0%

Accuracy for 100 days: 0.0%

# Future work and potential enhancements

- Input files download automation
- Descriptive statistics/dispersion graphs for input population/Input outliers monitoring
- Additional input cleaning constraints
- Additional analysis of the model fit results
  - Cross-entropy
  - Cross validation
  - Recall/Precision
  - Fixed/Avg seed of train/test split
  - Experiment with other model parameters like number of trees, depth of a tree etc.