Short Selling in Trading

In this course, you have learned how to create a relative series. Using the relative series, you have learned to calculate returns, detect regime change, calculate swings and find the floor and ceiling. You have also learned how to classify stocks, create and optimize strategies, and perform position sizing in Python.

This readme file has the following sections:

1. Prerequisites
2. Installing packages
3. Running the code
4. Folder structure
5. Authors

Prerequisites

Before running the notebook, you need to set up a Python environment on your local machine. If already present, make sure the Python version is 3.6.8. To change the Python version, open the Anaconda prompt and type the following command:

```
conda install python=3.6.8.
```

Installing packages

In all the codes provided, specific Python libraries are used. For you to smoothly run the code on your machine, make sure you have the correct versions of the packages. These are the libraries we have used in the notebooks with their versions. To install the same version on your local system. Type this command on the Jupyter notebook.

```
!pip install numpy==1.16.4

!pip install pandas==0.23.4

!pip install matplotlib==2.2.3

!pip install scipy==1.1.0
```

Running the code

Once you have your system in place, you can run the notebooks using the Jupyter interface. This is installed along with Anaconda. Search for Jupyter Notebook and open it. Search for the downloadable folder in the Jupyter interface and open it to see the notebook.

Folder structure

This folder contains 8 subfolders divided based on the sections of the course. Each subfolder contains a Jupyter notebook and the data required to run them in that particular section.

```
data_modules
   a. BAC_Jan_2010_to_Jan_2019.csv
   b. SP500_Jan_2010_to_Jan_2019.csv
   c. USDGBP_Jan_2010_to_Jan_2019.csv
   d. Jan_2010_to_Jan_2019_Rebased_Series.csv
   e. BK_Jan_2010_to_Jan_2019.csv
   f. JPM_Jan_2010_to_Jan_2019.csv
   g. WFC_Jan_2010_to_Jan_2019.csv
   h. short_selling.py


Section 3 Relative Series
          Compute_the_Relative_Series.ipynb

Section 4 Return Calculation
          Returns_Calculation.ipynb

Section 6 Regime Change Detection
          Breakout_Breakdown_Model.ipynb
          Moving_Average_Crossover.ipynb

Section 7 Floor and Ceiling
          Swings.ipynb
          Floor_And_Ceiling.ipynb

Section 8 Regime Methods
          Compare_Regimes.ipynb

Section 9 Stock Classifications
        a. Classification_Of_Stocks.iypnb
        b. BAC_Jan_2010_to_Jan_2019.csv
        c. JPM_Jan_2010_to_Jan_2019.csv
        d. WFC_Jan_2010_to_Jan_2019.csv
        e. BK_Jan_2010_to_Jan_2019.csv
        f. USDGBP_Jan_2010_to_Jan_2019.csv
        g. SP500_Jan_2010_to_Jan_2019.csv
        h. short_selling.py
```

```
Section 10 Strategy Creation
        a. Strategy_Creation_And_Optimization.ipynb
        b. BAC_Jan_2010_to_Jan_2019.csv
        c. USDGBP_Jan_2010_to_Jan_2019.csv
        d. SP500_Jan_2010_to_Jan_2019.csv
        e. short_selling.py


Section 11 Stop Loss and Position Sizing
        i. Position_Sizing.ipynb
        j. BAC_Jan_2010_to_Jan_2019.csv
        k. JPM_Jan_2010_to_Jan_2019.csv
        l. WFC_Jan_2010_to_Jan_2019.csv
        m. BK_Jan_2010_to_Jan_2019.csv
        n. USDGBP_Jan_2010_to_Jan_2019.csv
        o. SP500_Jan_2010_to_Jan_2019.csv
        p. short_selling.py
```

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