

Python for Trading: Basic

In this course, you have learned how to install and import Python packages, import the data from web sources and CSV files. You have also learned functions, data structure and data visualisation in Python. You have learned about Python libraries named Pandas and NumPy and created buy and hold strategy 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 these notebooks, you need to set up a Python environment on your local machine. If already present, make sure the Python version is 3.6.1. To change the Python version, open the Anaconda prompt and type the following command:

```
conda install python=3.6.1
```

Installing packages:

We have used the following Python libraries in the course. Kindly ensure you have these libraries installed with the same versions as mentioned below. To install the same version on your local system, type these commands on Jupyter notebook.

```
!pip install numpy == 1.16.4
```

```
!pip install pandas == 0.23.4
```

```
!pip install matplotlib == 2.2.3
```

```
!pip install bokeh == 0.13.0
```

```
!pip install Quandl == 3.4.5
```

```
!pip install yfinance == 0.1.44
```

```
!pip install scipy == 1.1.0
```

```
!pip install mlp-finance == 0.10.0
```

Running the code:

Once you have your system in place, you can run the notebooks using Jupyter interface. This is installed along with Anaconda.

Folder structure:

Folder contains nine subfolders divided based on the course sections and one data folder that stores the data required to run them.

data_modules

- a. *infy.csv*
- b. *infy_data.csv*
- c. *infy_data_bb.csv*
- d. *infy_dv.csv*
- e. *infy_twoweeks.csv*
- f. *infy_twoweeks_nan.csv*
- g. *nifty_data.csv*
- h. *candlestick_data.csv*
- i. *tcs.csv*
- j. *stocks_data_2010_2020.csv*

Hello Python

- a. *My First Python Code.ipynb*
- b. *Import Python Modules.ipynb*
- c. *Install Packages in Python.ipynb*

Expressions

- a. *Use of Expressions.ipynb*

Python Data Structures

- a. *Learn to Create Lists.ipynb*
- b. *What Are Stacks, Queues, Graphs & Trees.ipynb*

- c. *Learn to Create and Print Dictionaries.ipynb*
- d. *Learn to Create Tuples and Sets.ipynb*

Importing Data and Data Visualization

- a. *Import Data from Web Sources.ipynb*
- b. *Read Data from CSV Files.ipynb*
- c. *Data Visualization.ipynb*
- d. *3D Plotting.ipynb*
- e. *Candlesticks (Optional Read).ipynb*

Functions

- a. *Functions.ipynb*
- b. *Lambda.ipynb*

Numpy

- a. *Introduction to Arrays.ipynb*
- b. *Indexing & Slicing Arrays.ipynb*
- c. *Vectorization & Broadcasting in Arrays.ipynb*

Pandas

- a. *Introduction to Series.ipynb*
- b. *DataFrame & Basic Functionality.ipynb*
- c. *Descriptive Statistical Function.ipynb*
- d. *Indexing & Missing Values.ipynb*
- e. *Grouping and Reshaping.ipynb*

Conditional Statements and Loops

- a. *Introduction to Conditional Statements.ipynb*
- b. *Introduction to Loops.ipynb*

Buy and Hold Strategy

- a. *Buy and Hold Strategy.ipynb*

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