

# Quantrack Python crash course - Data-analysis using Python

## 1. Python Basics

- Basic String manipulations and variable assignment
- Float, strings, int and basic data types
- Data type - Lists : Intro

## 2. Lists, some built-in functions

- Data type - Lists - Indexing and Slicing
- Built in list functions : len, max, min, append, insert, count, and set
- Exercises : Draw a pyramid, get prepare for the great loop experience

## 3. Loops

- For loops, introduction
- Continue and Break Statement
- Exercises and nested loops

## 4. Functions, basics

- Definitions - Syntax in Python
- Calling a function in Python
- Exercises with solutions

## 5. Notebook of -difficult- exercises

- Basic statements, strings, print.
- For loop - if/else conditions - lists.
- Miscellaneous - maths stuff

## 6. Dictionaries

- Syntax and common operations
- Accessing items and basic functions
- Exercises

## **7. Pandas, NumPy : Basics - Part.1**

- Getting started - Object creation
- Basic commands - Pandas Series
- Basic commands - Your first Pandas DataFrame

## **8. Pandas, NumPy : Basics - Part.2**

- Basic commands - Boolean Indexing and missing data
- Load Data - os package - a few pre-processing commands
- Operations - Basic statistics - Your first seaborn visualization

## **9. Pandas, NumPy : Exercises only - Part.1**

- Pandas Series
- Pandas DataFrames
- A little bit of maths