

## Resources

Read or watch:

10 minutes to Pandas

Complete Python Pandas Data Science Tutorial! (Reading CSV/Excel files, Sorting, Filtering, Groupby)

## Learning Objectives

At the end of this project, you are expected to be able to explain to anyone, without the help of Google:

General

What is pandas?  
What is a `pd.DataFrame`? How do you create one?  
What is a `pd.Series`? How do you create one?  
How to load data from a file  
How to perform indexing on a `pd.DataFrame`  
How to use hierarchical indexing with a `pd.DataFrame`  
How to slice a `pd.DataFrame`  
How to reassign columns  
How to sort a `pd.DataFrame`  
How to use boolean logic with a `pd.DataFrame`  
How to merge/concatenate/join `pd.DataFrames`  
How to get statistical information from a `pd.DataFrame`  
How to visualize a `pd.DataFrame`

## Requirements

General

Allowed editors: `vi`, `vim`, `emacs`  
All your files will be interpreted/compiled on Ubuntu 16.04 LTS using python3 (version 3.5)  
Your files will be executed with numpy (version 1.15) and pandas (version 0.24)  
All your files should end with a new line  
The first line of all your files should be exactly `#!/usr/bin/env python3`  
All of your files must be executable  
A `README.md` file, at the root of the folder of the project, is mandatory  
Unless otherwise noted, you can only use `import pandas as pd`  
Your code should follow the `pycodestyle` style (version 2.4)  
All your modules should have documentation (`python3 -c 'print(__import__("my_module").__doc__)'`)  
All your classes should have documentation (`python3 -c 'print(__import__("my_module").MyClass.__doc__)'`)  
All your functions (inside and outside a class) should have documentation

```
(python3 -c 'print(__import__("my_module").my_function.__doc__)' and python3 -c  
'print(__import__("my_module").MyClass.my_function.__doc__)')
```

Download Pandas 0.24.x

`pip install --user pandas`

Datasets

For this project, we will be using the coinbase and bitstamp datasets, as seen previously in 0x0E. Time Series Forecasting