**Part 1 – Basics [[1]](#footnote-1)**

1. **Python Object and Data Structure Basics**

* Data Types, Lists, Dictionaries, Tuples, Sets, Booleans in Python
* I/O Basic Files in Python
* Python Comparison Operators: Chaining Comparison Operators in Python with Logical Operators

1. **Python Statements**

* If Elif and Else Statements in Python
* For Loops in Python
* While loops in Python
* List Comprehensions in Python

1. **Methods and Functions**

* Functions in Python
* Lambda Expressions, Map and Filter Functions
* Nested Statements and Scope

1. **Advanced Python Modules**

* Collections Module: counter, defaultdict, OrderedDict, namedtuple
* Datetime
* Timing your code: timeit
* Regular Expressions: re

**Part 2 – Python Data Tools[[2]](#footnote-2)**

1. **Numpy** [https://docs.scipy.org/doc/numpy/user/whatisnumpy.html]

* Introduction to Creating Arrays and numpy Datatypes
* Computation on Arrays: ufuncs, aggregates, broadcasting
* Boolean Arrays and Masks
* Indexing and Sorting arrays

1. **Working with Data**

* JSON with Python
* HTML with Python
* Microsoft Excel file with Python
* Introduction to SQL with Python
* SQL and Python

1. **Pandas**

* Introduction to Pandas Objects
* Data Indexing and Selection
* Operations in Pandas
* Handling Missing Values
* Concat, Append, Merge and Join
* Aggregation and Grouping
* Pivot Tables

1. **Web Scraping in Python**
2. **RESTfull APIs (IBM Watson, Microsoft, or Google)**

1. http://nbviewer.jupyter.org/github/jmportilla/Complete-Python-Bootcamp/tree/master/ [↑](#footnote-ref-1)
2. https://github.com/jakevdp/PythonDataScienceHandbook/tree/master/notebooks [↑](#footnote-ref-2)