Chapter #1 - Preface

- What Kinds of Data?
    - Tabular or spreadsheet-like data in which each column may be a different type (string, numeric, date, or otherwise).
    - Multidimensional arrays (matrices).
    - Multiple tables of data interrelated by key.
    - Evenly or unevenly spaced time series.
- Why Python for Data Analysis?
    - Python as Glue
    - Solving the "Two-Language" Problem
- Essential Python Libraries
    - NumPy
    - pandas
    - matplotlib
    - IPython and Jupyter
    - SciPy
    - scikit-learn
    - statsmodels

- Installation and Setup

- Book Structure

    - Code Examples
    - Data for Examples
    - Import Conventions
    - Jargon

Chapter #2 - IPython, and Jupyter Notebooks

- The Python Interpreter and iPython

    - IPython Basics

    - Running the IPython Shell

- Running the Jupyter Notebook

Chapter #2 and #3 – Python Basics and Built-in Data Structures, Functions, and Files

- Python Language Basics
    - Language Semantics
    - Scalar Types
    - Control Flow

- Data Structures and Sequences

    - Tuple
    - List
    - Built-in Sequence Functions
    - dict
    - set
    - List, Set, and Dict Comprehensions

- Functions

    - Namespaces, Scope, and Local Functions
    - Returning Multiple Values
    - Functions Are Objects
    - Anonymous (Lambda) Functions
    - Currying: Partial Argument Application
    - Generators
    - Errors and Exception Handling

- Files and the Operating System

    - Bytes and Unicode with Files