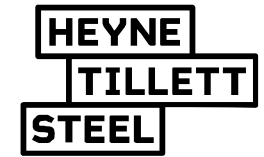


Structural Engineer's Python Book

Contents



Getting Started

Chapter 00 – Python

- What is Python?
- Why you should use it
- Fundamental Syntax rules

Chapter 01 – Fundamentals

- Variables
- Types of Data
- Printing Results

Chapter 02 – Data Storage

- Lists
- Tuples
- Dictionaries
- Accessing and Extracting Data (Indexes)

Chapter 03 – Conditionals

- Conditional Operators
- If
- Else
- Elif

Chapter 04 – Loops

- While loops
- For loops

Chapter 05 – Functions

- Basics
- Passing Arguments
- Global and Local Variables

Chapter 06 – Classes & Objects

- Introduction
- Objects
- Classes
- The `__init__()` Function
- Engineering Context
- Default values
- Class Methods
- Inheritance

Chapter 07 – Phone a Friend

- Importing Libraries and Modules
- Installing Libraries
- Getting Help

Chapter 08 – Next Steps

- What's next?
- Collaboration with GitHub

Chapter 09 – Advanced Classes

- Composition
- Setting Class Attributes using Dictionaries
- Converting Class Attributes to Dictionaries
- Advanced Composition

Chapter 10 – Extra Bits WIP

- Useful Libraries and Modules
- Data Manipulation
- List Comprehension
- Debugging
- Try and Except
- Combinations and Iterations
- Accessing Directories and File Paths
- Launch Scripts
- Running Python from Excel
- To be continued...