



Welcome to Data Collection and Processing with Python

Getting Started!

In order to be successful in this course you will need to have a willingness to put in the time and engage with the material. This course has been designed with non-programming learners in mind so there is no expectation that you will know how to write code in another language. That being said, it doesn't hurt to have experience; learners who have taken the Python for Everybody specialization will already have a familiarity with some of the content that will be in the course, and others may find it useful to take that specialization before taking this course. This course is part of a specialization and the expectation is that you have completed the first course, [Python Basics](#).

Week by week

In week one the video lectures and activities from the Runestone textbook will cover more complex data structures. By the end of this week, you will have learned how to process json formatted data, traverse nested data using nested iteration, and extract values from nested data.

In week two you will be learning more advanced forms of accumulation. By the end of the week, you will have learned how to use the map and filter functions in combination with functions to transform or filter out data and store the resulting data in a new object. You will have also learned how to accumulate data using a list comprehension.

In week three you will learn how to request data from the internet using Application Programming Interfaces (APIs). By the end of the week, you will have learned how to access data from a few APIs, cache data that you have requested, and also learned how to read and work with other APIs that were not touched on in the module.

Exercises

Throughout the course, there will be opportunities for you to practice your skills and test your understanding of the material so far. These are ungraded opportunities, and you can try them as much as you would like without penalty for any incorrect answers. For each lecture video, there will be an accompanying page or pages in the interactive textbook which have questions at the bottom for you to use. The questions, listed under "Check Your Understanding", are meant to help you tell if you're getting the main points from the material. There will also be a page at the end of almost every chapter labeled "Exercises". There will be questions here that you can practice with, which will be more similar to a graded quiz in both structure and difficulty. Finally, there will be a practice tool that you can access, which is hosted in the textbook. With this practice tool, you can select a topic, and you will then be prompted with a question to answer. You can move on to the next question regardless of if you complete the question.

- Interactive textbook - Check Your Understanding
- Interactive textbook - Exercises
- Interactive textbook - Practice Tool

At the beginning of each lesson, there is a link that does double duty: 1) it logs you into the textbook, enabling the rest of the textbook links; 2) it takes you the Practice Tool.

Quizzes

Once per lesson, there will be a graded quiz - sometimes referred to as a chapter assessment. The quiz is meant to provide a formal assessment of your understanding, and will mostly be a mix of multiple choice, fill in the blank, and short coding questions. These graded quizzes will be hosted in the interactive textbook, and the results will be sent back to coursera automatically.

- Interactive textbook - Graded Quizzes