Python Data Files

Duration: 2 Weeks

This lesson teaches the students to clean data in CSV files and do basic statistics on the data using Python programs that they create.

Learning Objectives

- Write Python programs that perform file input and output by opening files, reading from files, writing to files, and closing files.
- Write Python code to check data constraints in a CSV file:
    - *Data type constraints*, such as the value must be an integer
    - *Range constraints*, such as the value must be between 0 and 99
    - *Mandatory constraints* that certain data values must be present
- Write Python code to clean bad data in a CSV file in one of three ways:
    - Identify the bad data to the user
    - Fix the bad data field
    - Eliminate the record with the bad data field.

Course Material

- Read/Do: Code Academy Unit 12: File Input and Output all 9 lessons
- Read: Wikibook Chapter on Python File Input/Output
- Read: Wikibook chapter on Data Cleaning With Python through Section 3.3 only

Assessments

- Conceptual Quiz:
    - Python Data Files (requires access)
- Practical Assignment:
    - Data Cleaning With Python | Grading Rubric | Answer Key | Teacher's Guide