Using Python to Interact with the Operating System
Google

∨ **Course Material**

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Grades

Notes

Discussion Forums

Messages

Resources

Course Info

∨ **Managing Data and Processes**

▶ **48 min** of videos left   ⊕ **20 min** of readings left   ▣ **1** graded assessment left

In this module, we'll learn about reading and writing to data files based on an interaction with the user. Along the way, we'll dive into standard streams, environment variables, and command line arguments. Next, we'll jump into Python subprocesses, including system commands and how they can be used. We'll review how to obtain output from a system command, and dive into subprocess management, including how to check exit values and manipulate the normal versus error exit values. Finally, we'll rundown processing log files, and will cover what a log file is, how to filter log files using regular expressions, and how to understand the output captured from log files.

Learning Objectives

- Interact with log files using regular expressions
- Utilize Python to interact with a user to attain certain values
- Use the input() module to interact with the user
- Describe how subprocess.run works and interacts with system commands like ping
- Explain what a log file is
- Use the get command to pull data from log files

∧ **Hide Learning Objectives**

∨ **Data Streams**

▶ Intro to Module 4: Managing Data and Processes
Video • 1 min

◉ Discussion Prompt
Discussion Prompt • 10 min

▶ Reading Data interactively
Video • 3 min

▶ Standard Streams
Video • 4 min

▶ Environment Variables
Video • 4 min

▶ Command-Line Arguments and Exit Status
Video • 6 min

⊕ More About Input Functions
Reading • 10 min

▣ Practice Quiz: Data Streams
Practice Quiz • 5 questions

∨ **Python Subprocesses**

▶ Running System Commands in Python
Video • 5 min

▶ Obtaining the Output of a System Command
Video • 5 min

▶ Advanced Subprocess Management
Video • 5 min

⊕ Python Subprocesses Cheat Sheet
Reading • 10 min

▣ Practice Quiz: Python Subprocesses
Practice Quiz • 5 questions

∨ **Processing Log Files**

▶ What are log files?
Video • 1 min

▶ Filtering Log Files with Regular Expressions
Video • 4 min

▶ Making Sense out of the Data
Video • 4 min

▣ Practice Quiz: Processing Log Files
Practice Quiz • 5 questions

∨ **Module Review**   1 graded assessment left

▶ Module 4 Wrap Up: Managing Data and Processes
Video • 1 min

◎ Qwiklabs Assessment: Working with Log Files
Due, May 21, 11:59 PM +08   Graded App Item • 1h 30m • Grade: --

◉ Discussion Prompt
Discussion Prompt • 10 min

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