

3.0.2 Module 3 Roadmap

Looking Ahead

In this module, you will learn how to use the programming language Python to:

- Create scripts that read, write, and store data from files or in arrays.
- Perform mathematical operations.
- Use decision statements, logical operations for complex comparisons, and repetition statements to run code more than once.
- Produce screen outputs.

Throughout this module, you will need to apply your knowledge of variables, arrays, conditionals, and loops, as well as install and use new software.

Unit Assessment Complete

Unit: Python Data Analysis

Module 3: PyPoll
Use the power of Python to automate the vote-counting process for a local election.

Module 4: PyCitySchools

What You Will Learn

By the end of this module, you should be able to:

- Navigate to folders on your computer using the command line.

- Read and extract data from CSV files.
 - Determine the difference between Python data types, like integers, floating-point decimal numbers, and strings.
 - Perform mathematical operations using data types.
 - Declare variables using different data types.
 - Create and use data structures like lists, tuples, and dictionaries.
 - Create and use decision and repetition statements.
 - Create and use Boolean and logical operators.
 - Write data to an output file and print the file.
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Planning Your Schedule

Here's a quick look at the lessons and assignments you'll cover in this module. You can use the time estimates to help pace your learning and plan your schedule.

- Introduction to Module 3 (15 minutes)
- Get Started with the Command Line and Python (1 hour)
- Python Practice (3 hours)
- Open the Election Results (30 minutes)
- Get Started with File Processing (3 hours)
- Analyze the Election Data (2 hours)
- Finalize the Election Results (1 hour)
- Application (5 hours)