Everything you need to program in Python in one course (includes 3 real-world projects)

Total Hours : 52 Hours

A complete beginner-friendly course

No Prior Knowledge Needed

This course assumes you know nothing about Python or any other programming languages. Go from complete beginner to expert, with plenty of hands-on exercises along the way.

What You'll Learn

- Write Python code with confidence
- Use Python in machine learning and data science projects
- Automate boring, repetitive tasks
- Build command-line utilities
- Build web scraping tools
- Process CSV, JSON, Excel spreadsheets, PDFs, ZIP files, etc
- Send emails and text messages

▶ Module 1: Getting Started (1 Hour)

- Introduction to Python
- Installing Python
- Python Interpreter
- Your First Python Program
- Python Extension
- Running Python Code
- Quiz

▶ Module 2: Primitive Types (2 Hours)

- Variables
- Strings
- Escape Sequences
- Formatted Strings
- String Methods
- Numbers
- Working with Numbers
- Type Conversion
- Quiz

▶ Module 3: Control Flow (8 Hours)

- Arithmetic Operators
- Comparison Operators

- Logical Operators
- Assignment Operators
- Bitwise Operators
- Membership Operators
- Identity Operators
- Operator Precedence
- If else
- elif
- For Loops
- Nested Loops
- Iterables
- While Loops
- Exercise

▶ Module 4: Functions (4 Hours)

- Defining Functions
- Arguments
- Types of Functions
- Keyword Arguments
- Default Arguments
- *args
- **kwargs
- Scope
- Exercise

▶ Module 5: Data Structures (10 Hours)

- Python Numbers
- Python List
- Python Tuple
- Python String
- Python Set
- Lambda Functions
- Map Function
- Filter Function
- Zip Function
- Stacks
- Queues
- Tuples
- Arrays
- Sets
- Dictionaries
- Exercise

▶ Module 6: Exceptions (1 Hour)

- Exceptions
- Handling Exceptions
- The With Statement
- Raising Exceptions
- Cost of Raising Exceptions

▶ Module 7: Classes (14 Hours)

- Classes
- Creating Classes
- Constructors

- Class vs Instance Attributes
- Class vs Instance Methods
- Magic Methods
- Comparing Objects
- Making Custom Containers
- Private Members
- Inheritance
- The Object Class
- Method Overriding
- Multi-level Inheritance
- Multiple Inheritance
- Abstract Base Classes
- Polymorphism
- Duck Typing
- Extending Built-in Types
- Data Classes

▶ Module 8: Modules (2 Hours)

- Creating Modules
- Compiled Python Files
- Module Search Path
- Packages
- Sub-packages
- Intra-package References
- The dir Function
- Executing Modules as Scripts

▶ Module 9: Python Standard Library (10 Hours)

- Python Standard Library
- Working With Paths
- Working with Directories
- Working with Files
- Working with Zip Files
- Working with CSV Files
- Working with JSON Files
- Working with a SQLite Database
- Working with Timestamps
- Working with DateTimes
- Working with Time Deltas
- Generating Random Values
- Opening the Browser
- Sending Emails
- Templates
- Command-line Arguments
- Running External Programs
- NumPy
- Pandas
- Matplotlib