Python 3, Part 5 of 6: Programming Tools

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Meet the expert: Jordan Hudgens has certifications for Ruby on Rails, Thinkful; Ruby on Rails, Bloc.io; Front End Development, Thinkful; and AngularJS, Thinkful. He is currently vice president of engineering for TRACKR in Midland, Texas and is working on his PhD in Computer Science from Texas Tech. In addition to Ruby, Jordan works with PHP, JavaScript, MySQL, Postgres, CSS3, C, C++, C#, Objective-C, and Python. He also works with the frameworks Rails (Ruby), Zend (PHP), and Django (Python), plus the libraries AngularJS, jQuery, and Backbone.js.

Prerequisites: This course is for anyone with the basic understanding of programming using Python 3. You should have the basic understanding of Python 3 to get the full use of this course. If you don't have a basic understanding of Python 3 please view the Python 3: Fundamentals series starting with 'Python 3: Getting Started', 'Python 3: Statements', 'Python 3: Data', and 'Python 3: Functions and Classes.'

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Course description: In this course, we're going to discuss some of the most important tools a Python 3 developer can use for advance implementations. We will introduce you to the high level concepts of various classes and techniques, and close each section with a practical, code-driven example on how you can leverage these techniques in daily development. Specifically, this course will start with an introduction on iterators and generators, followed by discussions on regular expressions, introspection, lambda functions, metaclasses, decorators, and more.

Course outline:

Iterators And Generators
- Introduction
- Programming Tools
- Iterators
- Demo: Iterators
- Demo: Iterators (Cont)
- Generators
- Demo: Generators
- Summary

Regular Expressions
- Introduction
- Regular Expressions
- RE Special Characters
- Special Character Extensions
- Demo: Regular Expressions
- Demo: More Regex
- Summary

Introspection and Lambda
- Introduction
- Introspection
- Demo: Introspection
- Demo: Types
- Demo: Type Mismatch
- Lambda Functions
- Demo: Lambda Functions
- Summary

Metaclasses and Decorators
- Introduction
- Metaclasses
- Demo: Classes
- Demo: Metaclasses
- Demo: Using Metaclasses
- Decorators
- Demo: Decorators
- Demo: Using Decorators
- Summary