

A Very Simple Introduction to the Terrifyingly Beautiful World of Computers and Code**Pytest Quick Start Guide**

Quickly learn how to automate unit testing of Python 3 code with Python 3 automation libraries, such as doctest, unittest, nose, nose2, and pytest. This book explores the important concepts in software testing and their implementation in Python 3 and shows you how to automate, organize, and execute unit tests for this language. This knowledge is often acquired by reading source code, manuals, and posting questions on community forums, which tends to be a slow and painful process. Python Unit Test Automation: understanding of unit test libraries for Python 3 through the practical use of code examples and exercises. All of which makes this book a great resource for software developers and testers who want to get started with unit test automation in Python 3 and compare the differences with Python 2. This short work is your must-have quick start guide to mastering the essential concepts of software testing in Python. What You'll Learn: Essential concepts in software testing Various test automation libraries for Python driven development and best practices for test automation in Python Code examples and exercises Who This Book Is For: Python developers, software testers, open source enthusiasts, and contributors to the Python community

Learn the pytest way to write simple tests which can also be used to write complex tests Key Features Become proficient with pytest from day one by solving real-world testing problems Use pytest to write tests more efficiently Scale from simple to complex and functional testing Book Description Python's standard unittest module is based on the xUnit family of frameworks, which has its origins in Smalltalk and Java, and tends to be verbose to use and not easily extensible The pytest framework on the other hand cover complex testing integration scenarios, being considered by many the true Pythonic approach to testing in Python. In this book, you will learn how to get started right away and get the most out of pytest in your daily workflow, exploring powerful mechanisms and plugins to facilitate many common testing tasks. You will also see how to use pytest in existing unittest-based test suites and will learn some tricks to make the jump to a pytest-style test suite quickly and easily. What you will learn Write and run simple directories Find out how to be more productive on the command line Markers and how to skip, xfail and parameterize tests Explore fixtures and techniques to use them effectively, such as tmpdir, pytestconfig, and monkeypatch Convert unittest suites to pytest using little-known techniques Use third-party plugins Who this book is for This book is for Python programmers that want to learn more about testing. This book is also for QA testers, and those who already benefit from programming with tests daily but want to improve their existing testing tools.

Getting started with testing can be hard, and this book aims make it all very easy by using examples and explaining the process in a straightforward way. Testing is a core principle of robust software implementations and should be a prime skill to master that can be applied to any project. Explore the best tools and techniques to create lightweight, maintainable, and scalable Python web services Key FeaturesCombine Python with different data sources to build complex RESTful APIs from scratchConfigure and fine-tune your APIs using the best tools and techniques availableUse command-line and GUI tools to test CRUD operations performed by RESTful Web Services or APIsBook Description Python is the language of choice for millions of developers worldwide that builds great web services in RESTful APIs. RESTful Python Web Services will cover the best tools you can use to build engaging web services. This book shows you how to develop RESTful APIs using the most popular Python frameworks and all the necessary stacks with Python, combined with related libraries and tools. You'll learn to incorporate all new features of Python 3.7, Flask 1.0.2, Django 2.1, Tornado 5.1, and also a new framework, Pyramid. As you advance through the chapters, you will get to grips with each of these frameworks to build various web services covering when to use a particular framework. You'll then successfully develop RESTful APIs with all frameworks and understand how each framework processes HTTP requests and routes URLs. You'll also discover best practices for validation, serialization, and deserialization. In the concluding chapters, you will take advantage of specific features available in certain frameworks such as integrated ORMs, built-in authorization and authentication, and work with asynchronous code. At the end of each framework chapter, you will find a list of exercises to help you improve code coverage. By the end of the book, you will have gained a deep understanding of the stacks needed to build RESTful web services. What you will learnSelect the most appropriate framework based on requirementsDevelop complex RESTful APIs from scratch using PythonUse requests handlers, URL patterns, serialization, and validationsAdd authentication, authorization, and interaction with ORMs and databasesDebug, test, and improve RESTful APIs with four frameworksDesign RESTful APIs with frameworks

is for This book is for web developers who have a working knowledge of Python and would like to build amazing web services by taking advantage of the various frameworks of Python. You should have some knowledge of RESTful APIs.

Elegant Coding in Python

The Hitchhiker's Guide to Python

Mastering Python

Head First Python

Pragmatic AI

Robust Testing for Professionals

Python for DevOps

The Hitchhiker's Guide to Python takes the journeyman Pythonista to true expertise. More than any other language, Python was created with the philosophy of simplicity and parsimony. Now 25 years old, Python has become the primary or secondary language (after SQL) for many business users. With popularity comes diversity—and possibly dilution. This guide, collaboratively written by over a hundred members of the Python community, describes best practices currently used by package and application developers. Unlike other books for this audience, The Hitchhiker's Guide is light on reusable code and heavier on design philosophy, directing the reader to excellent sources that already exist.

Artificial Intelligence: A Modern Approach offers the most comprehensive, up-to-date introduction to the theory and practice of artificial intelligence. Number one in its field, this textbook is ideal for one or two-semester, undergraduate or graduate-level courses in Artificial Intelligence.

The goal of this book is to teach you to think like a computer scientist. This way of thinking combines some of the best features of mathematics, engineering, and natural science. Like mathematicians, computer scientists use formal languages to denote ideas (specifically computations). Like engineers, they design things, assembling components into systems and evaluating tradeoffs among alternatives. Like scientists, they observe the behavior of complex systems, form hypotheses, and test predictions. The single most important skill for a computer scientist is problem solving. Problem solving means the ability to formulate problems, think creatively about solutions, and express a solution clearly and accurately. As it turns out, the process of learning to program is an excellent opportunity to practice problem-solving skills. That's why this chapter is called, The way of the program. On one level, you will be learning to program, a useful skill by itself. On another level, you will use programming as a means to an end. As we go along, that end will become clearer.

You Will Learn Python 3! Zed Shaw has perfected the world's best system for learning Python 3. Follow it and you will succeed—just like the millions of beginners Zed has taught to date! You bring the discipline, commitment, and persistence; the author supplies everything else. In Learn Python 3 the Hard Way, you'll learn Python by working through 52 brilliantly crafted exercises. Read them. Type their code precisely. (No copying and pasting!) Fix your mistakes. Watch the programs run. As you do, you'll learn how a computer works; what good programs look like; and how to read, write, and think about code. Zed then teaches you even more in 5+ hours of video where he shows you how to break, fix, and debug your code—live, as he's doing the exercises. Install a complete Python environment Organize and write code Fix and break code Basic mathematics Variables Strings and text Interact with users

Work with files Looping and logic Data structures using lists and dictionaries Program design Object-oriented programming Inheritance and composition Modules, classes, and objects Python packaging Automated testing Basic game development Basic web development It'll be hard at first. But soon, you'll just get it—and that will feel great! This course will reward you for every minute you put into it. Soon, you'll know one of the world's most powerful, popular programming languages. You'll be a Python programmer. This Book Is Perfect For Total beginners with zero programming experience Junior developers who know one or two languages Returning professionals who haven't written code in years Seasoned professionals looking for a fast, simple, crash course in Python 3

Obey the Testing Goat: Using Django, Selenium, and JavaScript

Python Testing with pytest

Python Packages

Exercise Your Mind

Peril Testing

Testing Python

Learn Ruthlessly Effective Automation

Master Powerful Off-the-Shelf Business Solutions for AI and Machine Learning Pragmatic AI will help you solve real-world problems with contemporary machine learning, artificial intelligence, and cloud computing tools. Noah Gift demystifies all the concepts and tools you need to get results—even if you don't have a strong background in math or data science. Gift illuminates powerful off-the-shelf cloud offerings from Amazon, Google, and Microsoft, and demonstrates proven techniques using the Python data science ecosystem. His workflows and examples help you streamline and simplify every step, from deployment to production, and build exceptionally scalable solutions. As you learn how machine language (ML) solutions work, you'll gain a more intuitive understanding of what you can achieve with them and how to maximize their value. Building on these fundamentals, you'll walk step-by-step through building cloud-based AI/ML applications to address realistic issues in sports marketing, project management, product pricing, real estate, and beyond. Whether you're a business professional, decision-maker, student, or programmer, Gift's expert guidance and wide-ranging case studies will prepare you to solve data science problems in virtually any environment. Get and configure all the tools you'll need Quickly review all the Python you need to start building machine learning applications Master the AI and ML toolchain and project lifecycle Work with Python data science tools such as IPython, Pandas, Numpy, Jupyter Notebook, and Sklearn Incorporate a pragmatic feedback loop that continually improves the efficiency of your workflows and systems Develop cloud AI solutions with Google Cloud Platform, including TPU, Colaboratory, and Datalab services Define Amazon Web Services cloud AI workflows, including spot instances, code pipelines, boto, and more Work with Microsoft Azure AI APIs Walk through building six real-world AI applications, from start to finish Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

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Discover the right way to code in Python. This book provides the tips and techniques you need to produce cleaner, error-free, and eloquent Python projects. Your journey to better code starts with understanding the importance of formatting and documenting your code for maximum readability, utilizing built-in data structures and Python dictionary for improved maintainability, and working with modules and meta-classes to effectively organize your code. You will then dive deep into the new features of the Python language and learn how to effectively utilize them. Next, you will decode key concepts such as asynchronous programming, Python data types, type hinting, and path handling. Learn tips to debug and conduct unit and integration tests in your Python code to ensure your code is ready for production. The final leg of your learning journey equips you with essential tools for version management, managing live code, and intelligent code completion. After reading and using this book, you will be proficient in writing clean Python code and successfully apply these principles to your own Python projects. What You'll Learn Use the right expressions and statements in your Python code Create and assess Python Dictionary Work with advanced data structures in Python Write better modules, classes, functions, and metaclassesStart writing asynchronous Python immediatelyDiscover new features in Python Who This Book Is For Readers with a basic Python programming knowledge who want to improve their Python programming skills by learning right way to code in Python.

Want to learn the Python language without slogging your way through how-to manuals? With Head First Python, you'll quickly grasp Python's fundamentals, working with the built-in data structures and functions. Then you'll move on to building your very own webapp, exploring database management, exception handling, and data wrangling. If you're intrigued by what you can do with context managers, decorators, comprehensions, and generators, it's all here. This second edition is a complete learning experience that will help you become a bonafide Python programmer in no time. Why does this book look so different? Based on the latest research in cognitive science and learning theory, Head First Pythonuses a visually rich format to engage your mind, rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multi-sensory learning experience is designed for the way your brain really works.

Practical Techniques for Python Developers and Testers

Crafting Test-Driven Software with Python