

Python Cookbook 3rd Edition Ebook

MySQL's popularity has brought a flood of questions about how to solve specific problems, and that's where this cookbook is essential. When you need quick solutions or techniques, this handy resource provides scores of short, focused pieces of code, hundreds of worked-out examples, and clear, concise explanations for programmers who don't have the time (or expertise) to solve MySQL problems from scratch. Ideal for beginners and professional database and web developers, this updated third edition covers powerful features in MySQL 5.6 (and some in 5.7). The book focuses on programming APIs in Python, PHP, Java, Perl, and Ruby. With more than 200+ recipes, you'll learn how to:

- Use the mysql client and write MySQL-based programs
- Create, populate, and select data from tables
- Store, retrieve, and manipulate strings
- Work with dates and times
- Sort query results and generate summaries
- Use stored routines, triggers, and scheduled events
- Import, export, validate, and reformat data
- Perform transactions and work with statistics
- Process web input, and generate web content from query results
- Use MySQL-based web session management
- Provide security and server administration

This book is designed to introduce students to programming and computational thinking through the lens of exploring data. You can think of Python as your tool to solve problems that are far beyond the capability of a spreadsheet. It is an easy-to-use and easy-to-learn programming language that is freely available on Windows, Macintosh, and Linux computers. There are free downloadable copies of this book in various electronic formats and a self-paced free online course where you can explore the course materials. All the supporting materials for the book are available under open and remixable licenses. This book is designed to teach people to program even if they have no prior experience. Quickly learn and employ practical recipes for developing real-world, cross-platform applications using Delphi. Key Features Get to grips with Delphi to build and deploy various cross-platform applications Design and deploy real-world apps by implementing a single source codebase Build robust and optimized GUI applications with ease Book Description Delphi is a cross-platform integrated development environment (IDE) that supports rapid application development on different platforms, saving you the pain of wandering amid GUI widget details or having to tackle inter-platform incompatibilities. Delphi Cookbook begins with the basics of Delphi and gets you acquainted with JSON format strings, XSLT transformations, Unicode

encodings, and various types of streams. You'll then move on to more advanced topics such as developing higher-order functions and using enumerators and run-time type information (RTTI). As you make your way through the chapters, you'll understand Delphi RTL functions, use FireMonkey in a VCL application, and cover topics such as multithreading, using a parallel programming library and deploying Delphi on a server. You'll take a look at the new feature of WebBroker Apache modules, join the mobile revolution with FireMonkey, and learn to build data-driven mobile user interfaces using the FireDAC database access framework. This book will also show you how to integrate your apps with Internet of Things (IoT). By the end of the book, you will have become proficient in Delphi by exploring its different aspects such as building cross-platforms and mobile applications, designing server-side programs, and integrating these programs with IoT. What you will learn Develop visually stunning applications using FireMonkey Deploy LiveBinding effectively with the right object-oriented programming (OOP) approach Create RESTful web services that run on Linux or Windows Build mobile apps that read data from a remote server efficiently Call platform native API on Android and iOS for an unpublished API Manage software customization by making better use of an extended RTTI Integrate your application with IOT Who this book is for Delphi

Cookbook is for intermediate developers with a basic knowledge of Delphi who want to discover and understand all the development possibilities offered by it.

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 Python uses 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.

Python for Software Design is a concise introduction to software design using the Python programming language. The focus is on the programming process, with special emphasis on debugging. The book includes a wide range of exercises, from short

examples to substantial projects, so that students have ample opportunity to practice each new concept.

The user-friendly, object-oriented programming language Python is quickly becoming the most popular introductory programming language for both students and instructors. This updated Second Edition of Python Programming in Context provides a comprehensive, accessible introduction to Python fundamentals. An ideal first language for learners entering the rapidly expanding field of computer science, Python gives students a solid platform of key problem-solving skills that translate easily across programming languages. Building on essential concepts of computer science, and offering a plenitude of real-world examples, Python Programming in Context, Second Edition offers a thorough overview of multiple applied areas, including image processing, cryptography, astronomy, the Internet, and bioinformatics. The text's emphasis on problem-solving, extrapolation, and development of independent exploration and solution-building provides students with a unique and innovative approach to learning programming. Python Programming in Context, Second Edition is the ideal introductory text for those delving into computer programming. Key Features - Utilizes Python 3 - Provides a clear, accessible, and skill-focused approach to programming with Python -

Contains problem sets based on real-world examples and problem-solving rather than language features - Offers a variety of exercises that develop independent skill-building and exploration - Every new copy of the text is packaged with full student access to Turing's Craft Custom CodeLab.

Customized to match the organization of the text, CodeLab offers students hands-on Python programming experience with immediate feedback. - Accompanied by a full suite of instructor support material, including solutions to the exercises in the text, downloadable source code, PowerPoint Lecture Outlines, and a complete Test Bank.

Raspberry Pi Cookbook for Python Programmers is written in a Cookbook format, presenting examples in the style of recipes. This allows you to go directly to your topic of interest, or follow topics throughout a chapter to gain a thorough in-depth knowledge. The aim of this book is to bring you a broad range of Python 3 examples and practical ideas which you can develop to suit your own requirements. By modifying and combining the examples to create your own projects you learn far more effectively with a much greater understanding. Each chapter is designed to become a foundation for further experimentation and discovery of the topic, providing you with the tools and information to jump right in. Readers are expected to be familiar with programming concepts and Python (where possible

Python 3 is used), although beginners should manage with the help of a good Python reference book and background reading. No prior knowledge of the Raspberry Pi or electronics is required; however for the hardware sections you will need some basic electronic components/household tools to build some of the projects.

The book shows you how to view data from multiple perspectives, including data frame and column attributes. You will cover common and not-so-common challenges that are faced while cleaning messy data for complex situations. You will learn to manipulate data and get them down to a form that can be useful for making the right decisions.

This book shows readers how they can successfully analyze data using only two core machine learning algorithms---and how to do so using the popular Python programming language. These algorithms deal with common scenarios faced by all data analysts and data scientists. This book focuses on two algorithm families (linear methods and ensemble methods) that effectively predict outcomes. This type of problem covers a multitude of use cases (what ad to place on a web page, predicting prices in securities markets, detecting credit card fraud, etc.). The focus on two families gives enough room for full descriptions of the mechanisms at work in the algorithms. Then the code examples serve to illustrate the workings of the machinery with specific hackable code. The author will explain in simple terms, using no complex math, how these algorithms work, and will then show how to apply them in Python. He will also provide advice on how to select from among these algorithms, and will show

how to prepare the data, and how to use the trained models in practice. The author begins with an overview of the two core algorithms, explaining the types of problems solved by each one. He then introduces a core set of Python programming techniques that can be used to apply these algorithms. The author shows various techniques for building predictive models that solve a range of problems, from simple to complex; he also shows how to measure the performance of each model to ensure you use the right one. The following chapters provide a deep dive into each of the two algorithms: penalized linear regression and ensemble methods. Chapters will show how to apply each algorithm in Python. Readers can directly use the sample code to build their own solutions. If you need help writing programs in Python 3, or want to update older Python 2 code, this book is just the ticket. Packed with practical recipes written and tested with Python 3.3, this unique cookbook is for experienced Python programmers who want to focus on modern tools and idioms. Inside, you'll find complete recipes for more than a dozen topics, covering the core Python language as well as tasks common to a wide variety of application domains. Each recipe contains code samples you can use in your projects right away, along with a discussion about how and why the solution works. Topics include: Data Structures and Algorithms Strings and Text Numbers, Dates, and Times Iterators and Generators Files and I/O Data Encoding and Processing Functions Classes and Objects Metaprogramming Modules and Packages Network and Web Programming Concurrency Utility Scripting and System Administration Testing, Debugging, and Exceptions C Extensions Introduces regular expressions and how they are used, discussing topics including metacharacters, nomenclature, matching and modifying text, expression processing, benchmarking, optimizations, and loops.

Demonstrates the programming language's strength as a Web development tool, covering syntax, data types, built-ins, the Python standard module library, and real world examples. Get complete instructions for manipulating, processing, cleaning, and crunching datasets in Python. Updated for Python 3.6, the second edition of this hands-on guide is packed with practical case studies that show you how to solve a broad set of data analysis problems effectively. You'll learn the latest versions of pandas, NumPy, IPython, and Jupyter in the process. Written by Wes McKinney, the creator of the Python pandas project, this book is a practical, modern introduction to data science tools in Python. It's ideal for analysts new to Python and for Python programmers new to data science and scientific computing. Data files and related material are available on GitHub. Use the IPython shell and Jupyter notebook for exploratory computing

Learn basic and advanced features in NumPy (Numerical Python) Get started with data analysis tools in the pandas library Use flexible tools to load, clean, transform, merge, and reshape data Create informative visualizations with matplotlib Apply the pandas groupby facility to slice, dice, and summarize datasets Analyze and manipulate regular and irregular time series data Learn how to solve real-world data analysis problems with thorough, detailed examples

Provides both rich theory and powerful applications Figures are accompanied by code required to produce them Full color figures

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

Violent Python shows you how to move from a theoretical understanding of offensive computing concepts to a practical implementation. Instead of relying on another attacker's tools, this book will teach you to forge your own weapons using the Python programming language. This book demonstrates how to write Python scripts to automate large-scale network attacks, extract metadata, and investigate forensic artifacts. It also shows how to write code to intercept and analyze network traffic using Python, craft and spoof wireless frames to attack wireless and Bluetooth devices, and how to data-mine popular social media websites and evade

modern anti-virus. Demonstrates how to write Python scripts to automate large-scale network attacks, extract metadata, and investigate forensic artifacts Write code to intercept and analyze network traffic using Python. Craft and spoof wireless frames to attack wireless and Bluetooth devices Data-mine popular social media websites and evade modern anti-virus "The world of Raspberry Pi is evolving quickly, with many new interface boards and software libraries becoming available all the time. In this cookbook, prolific hacker and author Simon Monk provides more than 200 practical recipes for running this tiny low-cost computer with Linux, programming it with Python, and hooking up sensors, motors and other hardware--including Arduino. You'll also learn basic principles to help you use new technologies with Raspberry Pi as its ecosystem develops. Python and other code examples from the book are available on GitHub. This cookbook is ideal for programmers and hobbyists familiar with the Pi through resources such as *Getting Started with Raspberry Pi* (O'Reilly)."

Summary This third revision of Manning's popular *The Quick Python Book* offers a clear, crisp updated introduction to the elegant Python programming language and its famously easy-to-read syntax. Written for programmers new to Python, this latest edition includes new exercises throughout. It covers features common to other languages concisely, while introducing Python's comprehensive standard functions library and unique features in detail. Foreword by Nicholas Tollervey, Python Software Foundation. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Initially Guido van Rossum's 1989 holiday project, Python has grown into an amazing computer language. It's a joy to learn and read, and powerful enough to handle everything from low-level system resources to advanced applications like deep

learning. Elegantly simple and complete, it also boasts a massive ecosystem of libraries and frameworks. Python programmers are in high demand; you can't afford not to be fluent! About the Book The Quick Python Book, Third Edition is a comprehensive guide to the Python language by a Python authority, Naomi Ceder. With the personal touch of a skilled teacher, she beautifully balances details of the language with the insights and advice you need to handle any task. Extensive, relevant examples and learn-by-doing exercises help you master each important concept the first time through. Whether you're scraping websites or playing around with nested tuples, you'll appreciate this book's clarity, focus, and attention to detail. What's Inside Clear coverage of Python 3 Core libraries, packages, and tools In-depth exercises Five new data science-related chapters About the Reader Written for readers familiar with programming concepts--no Python experience assumed. About the Author Naomi Ceder is chair of the Python Software Foundation. She has been learning, using, and teaching Python since 2001. Table of Contents PART 1 - STARTING OUT 1. About Python 2. Getting started 3. The Quick Python overview PART 2 - THE ESSENTIALS 4. The absolute basics 5. Lists, tuples, and sets 6. Strings 7. Dictionaries 8. Control flow 9. Functions 10. Modules and scoping rules 11. Python programs 12. Using the filesystem 13. Reading and writing files 14. Exceptions PART 3 - ADVANCED LANGUAGE FEATURES 15. Classes and object-oriented programming 16. Regular expressions 17. Data types as objects 18. Packages 19. Using Python libraries PART 4 - WORKING WITH DATA 20. Basic file wrangling 21. Processing data files 22. Data over the network 23. Saving data 24. Exploring data This practical guide provides nearly 200 self-contained recipes to help you solve machine learning challenges you may encounter in your daily work. If you're comfortable with

Python and its libraries, including pandas and scikit-learn, you'll be able to address specific problems such as loading data, handling text or numerical data, model selection, and dimensionality reduction and many other topics. Each recipe includes code that you can copy and paste into a toy dataset to ensure that it actually works. From there, you can insert, combine, or adapt the code to help construct your application. Recipes also include a discussion that explains the solution and provides meaningful context. This cookbook takes you beyond theory and concepts by providing the nuts and bolts you need to construct working machine learning applications. You'll find recipes for: Vectors, matrices, and arrays Handling numerical and categorical data, text, images, and dates and times Dimensionality reduction using feature extraction or feature selection Model evaluation and selection Linear and logical regression, trees and forests, and k-nearest neighbors Support vector machines (SVM), naïve Bayes, clustering, and neural networks Saving and loading trained models Take the guesswork out of using regular expressions. With more than 140 practical recipes, this cookbook provides everything you need to solve a wide range of real-world problems. Novices will learn basic skills and tools, and programmers and experienced users will find a wealth of detail. Each recipe provides samples you can use right away. This revised edition covers the regular expression flavors used by C#, Java, JavaScript, Perl, PHP, Python, Ruby, and VB.NET. You'll learn powerful new tricks, avoid flavor-specific gotchas, and save valuable time with this huge library of practical solutions. Learn regular expressions basics through a detailed tutorial Use code listings to implement regular expressions with your language of choice Understand how regular expressions differ from language to language Handle common user input with recipes for validation and formatting Find and manipulate words, special characters,

and lines of text Detect integers, floating-point numbers, and other numerical formats Parse source code and process log files Use regular expressions in URLs, paths, and IP addresses Manipulate HTML, XML, and data exchange formats Discover little-known regular expression tricks and techniques

Why reinvent the wheel every time you run into a problem with JavaScript? This cookbook is chock-full of code recipes that address common programming tasks, as well as techniques for building web apps that work in any browser. Just copy and paste the code samples into your project—you'll get the job done faster and learn more about JavaScript in the process. You'll also learn how to take advantage of the latest features in ECMAScript 5 and HTML5, including the new cross-domain widget communication technique, HTML5's video and audio elements, and the drawing canvas. You'll find recipes for using these features with JavaScript to build high-quality application interfaces. Create interactive web and desktop applications Work with JavaScript objects, such as String, Array, Number, and Math Use JavaScript with Scalable Vector Graphics (SVG) and the canvas element Store data in various ways, from the simple to the complex Program the new HTML5 audio and video elements Implement concurrent programming with Web Workers Use and create jQuery plugins Use ARIA and JavaScript to create fully accessible rich internet applications

A recipe-based guide to programming your Raspberry Pi 3 using Python Key Features Leverage the power of Raspberry Pi 3 using Python programming Create 3D games, build neural network modules, and interface with your own circuits Packed with clear, step-by-step recipes to walk you through the capabilities of Raspberry Pi Book Description Raspberry Pi 3 Cookbook for Python Programmers – Third Edition

begins by guiding you through setting up Raspberry Pi 3, performing tasks using Python 3.6, and introducing the first steps to interface with electronics. As you work through each chapter, you will build your skills and apply them as you progress. You will learn how to build text classifiers, predict sentiments in words, develop applications using the popular Tkinter library, and create games by controlling graphics on your screen. You will harness the power of a built in graphics processor using Pi3D to generate your own high-quality 3D graphics and environments. You will understand how to connect Raspberry Pi's hardware pins directly to control electronics, from switching on LEDs and responding to push buttons to driving motors and servos. Get to grips with monitoring sensors to gather real-life data, using it to control other devices, and viewing the results over the internet. You will apply what you have learned by creating your own Pi-Rover or Pi-Hexipod robots. You will also learn about sentiment analysis, face recognition techniques, and building neural network modules for optical character recognition. Finally, you will learn to build movie recommendations system on Raspberry Pi 3. What you will learn

Learn to set up and run Raspberry Pi 3
Build text classifiers and perform automation using Python
Predict sentiments in words and create games and graphics
Detect edges and contours in images
Build human face detection and recognition system
Use Python to drive hardware
Sense and display real-world data
Build a neural network module for optical character recognition
Build movie recommendations system

Who this book is for
This book is for anyone who wants to master the skills of Python programming using Raspberry Pi 3. Prior knowledge of Python will be an added advantage.

If you want to learn how to program, working with Python is an excellent way to start. This hands-on guide takes you through the language a step at a time, beginning with basic

programming concepts before moving on to functions, recursion, data structures, and object-oriented design. This second edition and its supporting code have been updated for Python 3. Through exercises in each chapter, you'll try out programming concepts as you learn them. Think Python is ideal for students at the high school or college level, as well as self-learners, home-schooled students, and professionals who need to learn programming basics. Beginners just getting their feet wet will learn how to start with Python in a browser. Start with the basics, including language syntax and semantics Get a clear definition of each programming concept Learn about values, variables, statements, functions, and data structures in a logical progression Discover how to work with files and databases Understand objects, methods, and object-oriented programming Use debugging techniques to fix syntax, runtime, and semantic errors Explore interface design, data structures, and GUI-based programs through case studies

DuBois organizes his cookbook's recipes into sections on the problem, the solution stated simply, and the solution implemented in code and discussed. The implementation and discussion sections are the most valuable, as they contain the command sequences, code listings, and design explanations that can be transferred to outside projects. Want to create devices that interact with the physical world? This cookbook is perfect for anyone who wants to experiment with the popular Arduino microcontroller and programming environment. You'll find more than 200 tips and techniques for building a variety of objects and prototypes such as IoT solutions, environmental monitors, location and position-aware systems, and products that can respond to touch, sound, heat, and light. Updated for the Arduino 1.8 release, the recipes in

this third edition include practical examples and guidance to help you begin, expand, and enhance your projects right away—whether you’re an engineer, designer, artist, student, or hobbyist. Get up to speed on the Arduino board and essential software concepts quickly Learn basic techniques for reading digital and analog signals Use Arduino with a variety of popular input devices and sensors Drive visual displays, generate sound, and control several types of motors Connect Arduino to wired and wireless networks Learn techniques for handling time delays and time measurement Apply advanced coding and memory-handling techniques

Python’s simplicity lets you become productive quickly, but this often means you aren’t using everything it has to offer. With this hands-on guide, you’ll learn how to write effective, idiomatic Python code by leveraging its best—and possibly most neglected—features. Author Luciano Ramalho takes you through Python’s core language features and libraries, and shows you how to make your code shorter, faster, and more readable at the same time. Many experienced programmers try to bend Python to fit patterns they learned from other languages, and never discover Python features outside of their experience. With this book, those Python programmers will thoroughly learn how to become proficient in Python 3. This book covers: Python data model: understand how special methods are the key to the consistent behavior of objects Data structures: take full advantage of built-in types, and understand the text vs bytes duality in the Unicode age Functions as objects: view Python functions as first-class objects, and understand how this affects

popular design patterns Object-oriented idioms: build classes by learning about references, mutability, interfaces, operator overloading, and multiple inheritance Control flow: leverage context managers, generators, coroutines, and concurrency with the concurrent.futures and asyncio packages Metaprogramming: understand how properties, attribute descriptors, class decorators, and metaclasses work

Practical recipes for building fast, robust, and secure web apps using Django 3 and Python Key Features

Explore the latest version of Django, and learn effectively with the help of practical examples Follow a task-based

approach to develop professional web apps using Django and Python Learn to deploy, scale, and secure apps using Docker and Amazon Web Services(AWS)

Book Description Django is a web framework for perfectionists with deadlines, designed to help you build manageable medium and large web projects in a short time span. This fourth edition of Django Web

Development Cookbook is updated with Django 3's latest features to guide you effectively through the

development process. This Django book starts by helping you create a virtual environment and project

structure for building Python web apps. You'll learn how to build models, views, forms, and templates for your

web apps and then integrate JavaScript in your Django apps to add more features. As you advance, you'll create

responsive multilingual websites, ready to be shared on social networks. The book will take you through

uploading and processing images, rendering data in HTML5, PDF, and Excel, using and creating APIs, and

navigating different data types in Django. You'll become well-versed in security best practices and caching techniques to enhance your website's security and speed. This edition not only helps you work with the PostgreSQL database but also the MySQL database. You'll also discover advanced recipes for using Django with Docker and Ansible in development, staging, and production environments. By the end of this book, you will have become proficient in using Django's powerful features and will be equipped to create robust websites.

What you will learn

- Discover how to set the basic configurations to start any Django project
- Understand full-stack web application development using Django
- Build a database structure using reusable model mixins
- Implement security, performance, and deployment features in your web apps
- Import data from local sources and external web services and export it to your app
- Secure web applications against malicious usage and find and fix common performance bottlenecks

Who this book is for

This Django book is for Python web developers who want to build fast and secure web apps that can scale over time. You'll also find this book useful if you want to upgrade to the latest Django framework. Knowledge of Python 3, along with a basic understanding of the Django framework will help you make the most of this book.

For many researchers, Python is a first-class tool mainly because of its libraries for storing, manipulating, and gaining insight from data. Several resources exist for individual pieces of this data science stack, but only with the Python Data Science Handbook do you get them

all—IPython, NumPy, Pandas, Matplotlib, Scikit-Learn, and other related tools. Working scientists and data crunchers familiar with reading and writing Python code will find this comprehensive desk reference ideal for tackling day-to-day issues: manipulating, transforming, and cleaning data; visualizing different types of data; and using data to build statistical or machine learning models. Quite simply, this is the must-have reference for scientific computing in Python. With this handbook, you'll learn how to use:

- IPython and Jupyter: provide computational environments for data scientists using Python
- NumPy: includes the ndarray for efficient storage and manipulation of dense data arrays in Python
- Pandas: features the DataFrame for efficient storage and manipulation of labeled/columnar data in Python
- Matplotlib: includes capabilities for a flexible range of data visualizations in Python
- Scikit-Learn: for efficient and clean Python implementations of the most important and established machine learning algorithms

As the industry standard method for enriching the presentation of HTML-based web pages, Cascading Style Sheets (CSS) allow you to give web pages more structure and a more sophisticated look. But first, you have to get past CSS theory and resolve real-world problems. For those all-too-common dilemmas that crop up with each project, CSS Cookbook provides hundreds of practical examples with CSS code recipes that you can use immediately to format your web pages.

Arranged in a quick-lookup format for easy reference, the second edition has been updated to explain the unique behavior of the latest browsers: Microsoft's IE 7 and

Mozilla's Firefox 1.5. Also, the book has been expanded to cover the interaction of CSS and images and now includes more recipes for beginning CSS users. The explanation that accompanies each recipe enables you to customize the formatting for your specific needs. With topics that range from basic web typography and page layout to techniques for formatting lists, forms, and tables, this book is a must-have companion, regardless of your experience with Cascading Style Sheets.

About Book Python programming language book. This book contains every details regarding python basic knowledge. From installation of Python software in computer to Data file handling in Python. Every topic is covered. Pictorial explanation is also provided. Solved programs, unsolved questions for reader is also given. Every topic is explained in best possible way. content is from scratch to database handling.

Over 90 recipes to help you develop widgets, forms, layouts, charts, and much more using the latest features of Python 3 Key Features Use object-oriented programming to develop impressive GUIs in Python Create interesting charts to visually represent data using Matplotlib Develop GUIs with the latest versions of tkinter, PyQt5, and wxPython frameworks Book Description Python is a multi-domain, interpreted programming language that is easy to learn and implement. With its wide support for frameworks to develop GUIs, you can build interactive and beautiful GUI-based applications easily using Python. This third edition of Python GUI Programming Cookbook follows a task-based approach to help you create effective GUIs

with the smallest amount of code. Every recipe in this book builds upon the last to create an entire, real-life GUI application. These recipes also help you solve problems that you might encounter while developing GUIs. This book mainly focuses on using Python's built-in tkinter GUI framework. You'll learn how to create GUIs in Python using simple programming styles and object-oriented programming (OOP). As you add more widgets and expand your GUI, you will learn how to connect to networks, databases, and graphical libraries that greatly enhance the functionality of your GUI. You'll also learn how to use threading to ensure that your GUI doesn't become unresponsive. Toward the end, you'll learn about the versatile PyQt GUI framework, which comes along with its own visual editor that allows you to design GUIs using drag and drop features. By the end of the book, you'll be an expert in designing Python GUIs and be able to develop a variety of GUI applications with ease. What you will learn

- Create amazing GUIs with Python's built-in tkinter module
- Customize GUIs using layout managers to arrange GUI widgets
- Advance from the typical waterfall coding style to an OOP style using Python
- Develop beautiful charts using the free Matplotlib Python module
- Use threading in a networked environment to make GUIs responsive
- Discover ways to connect GUIs to a MySQL database
- Understand how unit tests can be created and internationalize GUI
- Delve into the world of GUI creation using PyQt5

Who this book is for If you're a programmer or developer looking to enhance your Python skills by writing powerful GUI applications, this book is for you. Familiarity with the

Python programming language is necessary to get the most out of the book.

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.

The latest in modern Python recipes for the busy modern programmer
About This Book Develop succinct, expressive programs in Python
Learn the best practices and common idioms through carefully explained and structured recipes
Discover new ways to apply Python for the new age of development
Who This Book Is For The book is for web developers, programmers, enterprise programmers, engineers, big data scientist, and so on. If you are a beginner, Python Cookbook will get you started. If you are experienced, it will expand your knowledge base. A basic knowledge of programming would help.
What You Will Learn See the intricate details of the Python syntax and how to use it to your advantage
Improve your code readability through functions in Python
Manipulate data effectively using built-in data structures
Get acquainted with advanced programming techniques in Python
Equip yourself with functional and

statistical programming features Write proper tests to be sure a program works as advertised Integrate application software using Python In Detail Python is the preferred choice of developers, engineers, data scientists, and hobbyists everywhere. It is a great scripting language that can power your applications and provide great speed, safety, and scalability. By exposing Python as a series of simple recipes, you can gain insight into specific language features in a particular context. Having a tangible context helps make the language or standard library feature easier to understand. This book comes with over 100 recipes on the latest version of Python. The recipes will benefit everyone ranging from beginner to an expert. The book is broken down into 13 chapters that build from simple language concepts to more complex applications of the language. The recipes will touch upon all the necessary Python concepts related to data structures, OOP, functional programming, as well as statistical programming. You will get acquainted with the nuances of Python syntax and how to effectively use the advantages that it offers. You will end the book equipped with the knowledge of testing, web services, and configuration and application integration tips and tricks. The recipes take a problem-solution approach to resolve issues commonly faced by Python programmers across the globe. You will be armed with the knowledge of creating applications with flexible logging, powerful configuration, and command-line options, automated unit tests, and good documentation. Style and approach This book takes a recipe-based approach, where each recipe addresses specific problems and issues. The recipes provide discussions and insights and an explanation of the problems.

Discover modern, next-generation sequencing libraries from Python ecosystem to analyze large amounts of biological data Key Features Perform complex bioinformatics analysis

using the most important Python libraries and applications Implement next-generation sequencing, metagenomics, automating analysis, population genetics, and more Explore various statistical and machine learning techniques for bioinformatics data analysis Book Description Bioinformatics is an active research field that uses a range of simple-to-advanced computations to extract valuable information from biological data. This book covers next-generation sequencing, genomics, metagenomics, population genetics, phylogenetics, and proteomics. You'll learn modern programming techniques to analyze large amounts of biological data. With the help of real-world examples, you'll convert, analyze, and visualize datasets using various Python tools and libraries. This book will help you get a better understanding of working with a Galaxy server, which is the most widely used bioinformatics web-based pipeline system. This updated edition also includes advanced next-generation sequencing filtering techniques. You'll also explore topics such as SNP discovery using statistical approaches under high-performance computing frameworks such as Dask and Spark. By the end of this book, you'll be able to use and implement modern programming techniques and frameworks to deal with the ever-increasing deluge of bioinformatics data. What you will learn Learn how to process large next-generation sequencing (NGS) datasets Work with genomic dataset using the FASTQ, BAM, and VCF formats Learn to perform sequence comparison and phylogenetic reconstruction Perform complex analysis with proteomics data Use Python to interact with Galaxy servers Use High-performance computing techniques with Dask and Spark Visualize protein dataset interactions using Cytoscape Use PCA and Decision Trees, two machine learning techniques, with biological datasets Who this book is for This book is for Data data Scientistsscientists, Bioinformatics bioinformatics

analysts, researchers, and Python developers who want to address intermediate-to-advanced biological and bioinformatics problems using a recipe-based approach. Working knowledge of the Python programming language is expected.

Offers instructions for creating programs to do tasks including fetching URLs and generating bar charts using the open source scripting language, covering topics such as data types, regular expressions, encryption, and PEAR.

Portable, powerful, and a breeze to use, Python is the popular open source object-oriented programming language used for both standalone programs and scripting applications. It is now being used by an increasing number of major organizations, including NASA and Google. Updated for Python 2.4, *The Python Cookbook, 2nd Edition* offers a wealth of useful code for all Python programmers, not just advanced practitioners. Like its predecessor, the new edition provides solutions to problems that Python programmers face everyday. It now includes over 200 recipes that range from simple tasks, such as working with dictionaries and list comprehensions, to complex tasks, such as monitoring a network and building a templating system. This revised version also includes new chapters on topics such as time, money, and metaprogramming. Here's a list of additional topics covered: Manipulating text Searching and sorting Working with files and the filesystem Object-oriented programming Dealing with threads and processes System administration Interacting with databases Creating user interfaces Network and web programming Processing XML Distributed programming Debugging and testing Another advantage of *The Python Cookbook, 2nd Edition* is its trio of authors--three well-known Python programming experts, who are highly visible on email lists and in newsgroups, and speak often at Python conferences. With scores of practical

examples and pertinent background information, The Python Cookbook, 2nd Edition is the one source you need if you're looking to build efficient, flexible, scalable, and well-integrated systems.

Unleash the power of Python 3 objects About This Book Stop writing scripts and start architecting programs Learn the latest Python syntax and libraries A practical, hands-on tutorial that teaches you all about abstract design patterns and how to implement them in Python 3 Who This Book Is For If you're new to object-oriented programming techniques, or if you have basic Python skills and wish to learn in depth how and when to correctly apply object-oriented programming in Python to design software, this is the book for you. What You Will Learn Implement objects in Python by creating classes and defining methods Separate related objects into a taxonomy of classes and describe the properties and behaviors of those objects via the class interface Extend class functionality using inheritance Understand when to use object-oriented features, and more importantly when not to use them Discover what design patterns are and why they are different in Python Uncover the simplicity of unit testing and why it's so important in Python Grasp common concurrency techniques and pitfalls in Python 3 Exploit object-oriented programming in key Python technologies such as Kivy and Django. Object-oriented programming concurrently with asyncio In Detail Python 3 is more versatile and easier to use than ever. It runs on all major platforms in a huge array of use cases. Coding in Python minimizes development time and increases productivity in comparison to other languages. Clean, maintainable code is easy to both read and write using Python's clear, concise syntax. Object-oriented programming is a popular design paradigm in which data and behaviors are encapsulated in such a way that they can be manipulated together. Many modern programming languages utilize the

powerful concepts behind object-oriented programming and Python is no exception. Starting with a detailed analysis of object-oriented analysis and design, you will use the Python programming language to clearly grasp key concepts from the object-oriented paradigm. This book fully explains classes, data encapsulation, inheritance, polymorphism, abstraction, and exceptions with an emphasis on when you can use each principle to develop well-designed software. You'll get an in-depth analysis of many common object-oriented design patterns that are more suitable to Python's unique style. This book will not just teach Python syntax, but will also build your confidence in how to program. You will also learn how to create maintainable applications by studying higher level design patterns. Following this, you'll learn the complexities of string and file manipulation, and how Python distinguishes between binary and textual data. Not one, but two very powerful automated testing systems will be introduced in the book. After you discover the joy of unit testing and just how easy it can be, you'll study higher level libraries such as database connectors and GUI toolkits and learn how they uniquely apply object-oriented principles. You'll learn how these principles will allow you to make greater use of key members of the Python eco-system such as Django and Kivy. This new edition includes all the topics that made Python 3 Object-oriented Programming an instant Packt classic. It's also packed with updated content to reflect recent changes in the core Python library and covers modern third-party packages that were not available on the Python 3 platform when the book was first published. Style and approach Throughout the book you will learn key object-oriented programming techniques demonstrated by comprehensive case studies in the context of a larger project. Learn Django 3 with four end-to-end web projects Key Features Learn Django 3 by building real-world web

applications from scratch in Python, using coding best practices Integrate other technologies into your application with clear, step-by-step explanations and comprehensive example code Implement advanced functionalities like a full-text search engine, a user activity stream, or a recommendation engine Add real-time features with Django Channels and WebSockets Book Description If you want to learn the entire process of developing professional web applications with Python and Django, then this book is for you. In the process of building four professional Django projects, you will learn about Django 3 features, how to solve common web development problems, how to implement best practices, and how to successfully deploy your applications. In this book, you will build a blog application, a social image bookmarking website, an online shop, and an e-learning platform. Step-by-step guidance will teach you how to integrate popular technologies, enhance your applications with AJAX, create RESTful APIs, and set up a production environment for your Django projects. By the end of this book, you will have mastered Django 3 by building advanced web applications. What you will learn Build real-world web applications Learn Django essentials, including models, views, ORM, templates, URLs, forms, and authentication Implement advanced features such as custom model fields, custom template tags, cache, middleware, localization, and more Create complex functionalities, such as AJAX interactions, social authentication, a full-text search engine, a payment system, a CMS, a RESTful API, and more Integrate other technologies, including Redis, Celery, RabbitMQ, PostgreSQL, and Channels, into your projects Deploy Django projects in production using NGINX, uWSGI, and Daphne Who this book is for This book is intended for developers with Python knowledge who wish to learn Django in a pragmatic way. Perhaps you are completely new to Django, or you

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already know a little but you want to get the most out of it. This book will help you to master the most relevant areas of the framework by building practical projects from scratch. You need to have familiarity with programming concepts in order to read this book. Some previous knowledge of HTML and JavaScript is assumed.

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