

Learning Python Powerful Object Oriented Programming

Google and YouTube use Python because it's highly adaptable, easy to maintain, and allows for rapid development. If you want to write high-quality, efficient code that's easily integrated with other languages and tools, this hands-on book will help you be productive with Python quickly -- whether you're new to programming or just new to Python. It's an easy-to-follow self-paced tutorial, based on author and Python expert Mark Lutz's popular training course. Each chapter contains a stand-alone lesson on a key component of the language, and includes a unique Test Your Knowledge section with practical exercises and quizzes, so you can practice new skills and test your understanding as you go. You'll find lots of annotated examples and illustrations to help you get started with Python 3.0. Learn about Python's major built-in object types, such as numbers, lists, and dictionaries Create and process objects using Python statements, and learn Python's general syntax model Structure and reuse code using functions, Python's basic procedural tool Learn about Python modules: packages of statements, functions, and other tools, organized into larger components Discover Python's object-oriented programming tool for structuring code Learn about the exception-handling model, and development tools for writing larger programs Explore advanced Python tools including decorators, descriptors, metaclasses, and Unicode processing

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Learning Python Powerful Object-Oriented Programming"O'Reilly Media, Inc."

Do you wish to develop further your journey to becoming an expert Python programmer and achieve your goals? Are you looking to refine your Python programming skills and build professional grade applications? If so then your search ends here! Learning new skills is a process made from two big components: the first one is just your own will to learn and the second one is a good source of information, and lucky for you, you've come to the right place! Python is a dynamic programming language that, due to its simple but efficient nature, is used in a wide range of domains. While writing Python code is easy, it is challenging to make it readable, reusable and easy to maintain. This third edition on Expert Python Programming will help you overcome this challenge, complete with best practices, necessary and useful tools and standards applied by experienced Python developers. In addition to learning how to implement principles from different programming paradigms, including object-oriented programming, functional programming and event-driven programming, you can learn the specialized components of Python syntax. By the end of the book, you will have become an expert in writing efficient and maintainable Python code. What you will learn getting up to speed with automated ways of deploying your software on remote servers. create useful Python extensions with C, C++, Cython, and CFFI. studying about code management tools, writing clear documentation, and exploring test driven development which will help you write clean code. Explore modern ways of setting up repeatable and

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consistent development environments Package Python code effectively for community and production use Learn modern syntax elements of Python programming such as f-strings, enums, and lambda functions Write concurrent code in Python Extend and integrate Python with code written in different languages And so much more There are countless books on the market on this topic promising better understanding of the subject and immeasurable success but this carefully sought out guide will teach you the advanced concepts you most definitely need so you can be on your way to becoming a master of the Python programming language. Becoming a Python expert takes time, but over time you'll master this beautiful programming language. It's worth it! Now then, what are you waiting for? Scroll up and click on the 'Buy Now' button and unleash the python programmer in you, today!

Make the Leap From Beginner to Intermediate in Python... Python Basics: A Practical Introduction to Python 3 Your Complete Python Curriculum-With Exercises, Interactive Quizzes, and Sample Projects What should you learn about Python in the beginning to get a strong foundation? With Python Basics, you'll not only cover the core concepts you really need to know, but you'll also learn them in the most efficient order with the help of practical exercises and interactive quizzes. You'll know enough to be dangerous with Python, fast! Who Should Read This Book If you're new to Python, you'll get a practical, step-by-step roadmap on developing your foundational skills. You'll be introduced to each concept and language feature in a logical order. Every step in this

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curriculum is explained and illustrated with short, clear code samples. Our goal with this book is to educate, not to impress or intimidate. If you're familiar with some basic programming concepts, you'll get a clear and well-tested introduction to Python. This is a practical introduction to Python that jumps right into the meat and potatoes without sacrificing substance. If you have prior experience with languages like VBA, PowerShell, R, Perl, C, C++, C#, Java, or Swift the numerous exercises within each chapter will fast-track your progress. If you're a seasoned developer, you'll get a Python 3 crash course that brings you up to speed with modern Python programming. Mix and match the chapters that interest you the most and use the interactive quizzes and review exercises to check your learning progress as you go along. If you're a self-starter completely new to coding, you'll get practical and motivating examples. You'll begin by installing Python and setting up a coding environment on your computer from scratch, and then continue from there. We'll get you coding right away so that you become competent and knowledgeable enough to solve real-world problems, fast. Develop a passion for programming by solving interesting problems with Python every day! If you're looking to break into a coding or data-science career, you'll pick up the practical foundations with this book. We won't just dump a boat load of theoretical information on you so you can "sink or swim"-instead you'll learn from hands-on, practical examples one step at a time. Each concept is broken down for you so you'll always know what you can do with it in practical terms. If you're interested in teaching

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others "how to Python," this will be your guidebook. If you're looking to stoke the coding flame in your coworkers, kids, or relatives-use our material to teach them. All the sequencing has been done for you so you'll always know what to cover next and how to explain it. What Python Developers Say About The Book: "Go forth and learn this amazing language using this great book." - Michael Kennedy, Talk Python "The wording is casual, easy to understand, and makes the information flow well." - Thomas Wong, Pythonista "I floundered for a long time trying to teach myself. I slogged through dozens of incomplete online tutorials. I snoozed through hours of boring screencasts. I gave up on countless crufty books from big-time publishers. And then I found Real Python. The easy-to-follow, step-by-step instructions break the big concepts down into bite-sized chunks written in plain English. The authors never forget their audience and are consistently thorough and detailed in their explanations. I'm up and running now, but I constantly refer to the material for guidance." - Jared Nielsen, Pythonista Whether you're a novice or an advanced practitioner, you'll find this refreshed book more than lives up to its reputation. Programming Python, Third Edition teaches you the right way to code. It explains Python language syntax and programming techniques in a clear and concise manner, with numerous examples that illustrate both correct usage and common idioms. By reading this comprehensive guide, you'll learn how to apply Python in real-world problem domains such as:

Python is an easy to learn, powerful programming language. It has efficient high-level

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data structures and a simple but effective approach to object-oriented programming. Python's elegant syntax and dynamic typing, together with its interpreted nature, make it an ideal language for scripting and rapid application development in many areas on most platforms. The Python interpreter and the extensive standard library are freely available in source or binary form for all major platforms from the Python Web site. The same site also contains distributions of and pointers to many free third party Python modules, programs and tools, and additional documentation. The Python interpreter is easily extended with new functions and data types implemented in C or C++ (or other languages callable from C). Python is also suitable as an extension language for customizable applications. This tutorial introduces the reader informally to the basic concepts and features of the python language and system. It helps to have a Python interpreter handy for hands-on experience, but all examples are self contained, so the tutorial can be read off-line as well. For a description of standard objects and modules, see [library-index](#). [reference-index](#) gives a more formal definition of the language. To write extensions in C or C++, read [extending-index](#) and [c-api-index](#). There are also several books covering Python in depth. This tutorial does not attempt to be comprehensive and cover every single feature, or even every commonly used feature. Instead, it introduces many of Python's most noteworthy features, and will give you a good idea of the language's flavor and style. After reading it, you will be able to read and write Python modules and programs, and you will be ready to learn more about the

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various Python library modules described in [library-index](#). The Glossary is also worth going through. This fast-paced, thorough introduction to programming with Python will have you writing programs, solving problems, and making things that work in no time. Python Tutorial Release 3.7.0 Guido van Rossum and the Python development team

Being familiar with object-oriented design is an essential part of programming in Python. This new edition includes all the topics that made Python Object-Oriented Programming an instant Packt classic. Moreover, it's packed with updated content to reflect more recent changes in the core Python libraries and cover modern third-party packages.

Power up your Python with object-oriented programming and learn how to write powerful, efficient, and re-usable code. Object-Oriented Python is an intuitive and thorough guide to mastering object-oriented programming from the ground up. You'll cover the basics of building classes and creating objects, and put theory into practice using the `pygame` package with clear examples that help visualize the object-oriented style. You'll explore the key concepts of object-oriented programming — encapsulation, polymorphism, and inheritance — and learn not just how to code with objects, but the absolute best practices for doing so. Finally, you'll bring it all together by building a complex video game, complete with full animations and sounds. The book covers two fully functional Python code packages that will speed up development of graphical user interface (GUI) programs in Python.

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Get a comprehensive, in-depth introduction to the core Python language with this hands-on book. Based on author Mark Lutz's popular training course, this updated fifth edition will help you quickly write efficient, high-quality code with Python. It's an ideal way to begin, whether you're new to programming or a professional developer versed in other languages. Complete with quizzes, exercises, and helpful illustrations, this easy-to-follow, self-paced tutorial gets you started with both Python 2.7 and 3.3—the latest releases in the 3.X and 2.X lines—plus all other releases in common use today. You'll also learn some advanced language features that recently have become more common in Python code. Explore Python's major built-in object types such as numbers, lists, and dictionaries Create and process objects with Python statements, and learn Python's general syntax model Use functions to avoid code redundancy and package code for reuse Organize statements, functions, and other tools into larger components with modules Dive into classes: Python's object-oriented programming tool for structuring code Write large programs with Python's exception-handling model and development tools Learn advanced Python tools, including decorators, descriptors, metaclasses, and Unicode processing

Python Essential Reference is the definitive reference guide to the Python programming language — the one authoritative handbook that reliably untangles and explains both the core Python language and the most essential parts of the Python library. Designed for the professional programmer, the book is concise, to the point, and highly accessible. It

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also includes detailed information on the Python library and many advanced subjects that is not available in either the official Python documentation or any other single reference source. Thoroughly updated to reflect the significant new programming language features and library modules that have been introduced in Python 2.6 and Python 3, the fourth edition of Python Essential Reference is the definitive guide for programmers who need to modernize existing Python code or who are planning an eventual migration to Python 3. Programmers starting a new Python project will find detailed coverage of contemporary Python programming idioms. This fourth edition of Python Essential Reference features numerous improvements, additions, and updates:

- Coverage of new language features, libraries, and modules
- Practical coverage of Python's more advanced features including generators, coroutines, closures, metaclasses, and decorators
- Expanded coverage of library modules related to concurrent programming including threads, subprocesses, and the new multiprocessing module
- Up-to-the-minute coverage of how to use Python 2.6's forward compatibility mode to evaluate code for Python 3 compatibility
- Improved organization for even faster answers and better usability
- Updates to reflect modern Python programming style and idioms
- Updated and improved example code
- Deep coverage of low-level system and networking library modules — including options not covered in the standard documentation

About Book Python programming language book. This book contains every details

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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.

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

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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.

Easy to understand and fun to read, this updated edition of *Introducing Python* is ideal for beginning programmers as well as those new to the language. Author Bill Lubanovic takes you from the basics to more involved and varied topics, mixing tutorials with cookbook-style code recipes to explain concepts in Python 3. End-of-chapter exercises help you practice what you've learned. You'll gain a strong foundation in the language, including best practices for testing, debugging, code reuse, and other development tips. This book also shows you how to use Python for applications in business, science, and the arts, using various Python tools and open source packages.

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. Python is considered easy to learn, but there's no quicker way to mastery of the language than learning from an expert teacher. This edition of *Learning Python* puts you in the hands of two expert teachers, Mark Lutz and David Ascher, whose friendly, well-structured prose has guided many a programmer to proficiency with the language. *Learning Python, Second Edition*, offers programmers a comprehensive learning tool for Python and object-oriented programming. Thoroughly updated for the

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numerous language and class presentation changes that have taken place since the release of the first edition in 1999, this guide introduces the basic elements of the latest release of Python 2.3 and covers new features, such as list comprehensions, nested scopes, and iterators/generators. Beyond language features, this edition of Learning Python also includes new context for less-experienced programmers, including fresh overviews of object-oriented programming and dynamic typing, new discussions of program launch and configuration options, new coverage of documentation sources, and more. There are also new use cases throughout to make the application of language features more concrete. The first part of Learning Python gives programmers all the information they'll need to understand and construct programs in the Python language, including types, operators, statements, classes, functions, modules and exceptions. The authors then present more advanced material, showing how Python performs common tasks by offering real applications and the libraries available for those applications. Each chapter ends with a series of exercises that will test your Python skills and measure your understanding. Learning Python, Second Edition is a self-paced book that allows readers to focus on the core Python language in depth. As you work through the book, you'll gain a deep and complete understanding of the Python language that will help you to understand the larger application-level examples that you'll encounter on your own. If you're interested in learning Python--and want to do so quickly and efficiently--then Learning Python, Second Edition is your best choice.

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With Wiley's Interactive Edition, you get all the benefits of a downloadable, reflowable eBook with added resources to make your study time more effective, including: • Lambda Expressions, Default & Static Method interfaces • Embedded Problem Solving Sections & How-To Guides • Worked Examples & Self-Check Exercises at the end of each chapter • Progressive Figures that trace code segments using color for easy recognition • Linked Programming Tips & Common Errors for programming best practices Cay Horstmann's Python for Everyone, Interactive Edition, 2nd Edition provides a comprehensive and approachable introduction to fundamental programming techniques and design skills, and helps students master basic concepts and become competent coders. The inclusion of advanced chapters makes the text suitable for a 2 or 3-term sequence, or as a comprehensive reference to programming in Python. Major rewrites and an updated visual design make this student-friendly text even more engaging. Filled with realistic programming examples, a great quantity and variety of homework assignments, and lab exercises that build student problem-solving abilities, it is no surprise Python for Everyone is the number one text for early objects in the Python market.

This textbook on Python 3 explains concepts such as variables and what they represent, how data is held in memory, how a for loop works and what a string is. It also introduces key concepts such as functions, modules and packages as well as object orientation and functional programming. Each section is prefaced with an introductory

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chapter, before continuing with how these ideas work in Python. Topics such as generators and coroutines are often misunderstood and these are explained in detail, whilst topics such as Referential Transparency, multiple inheritance and exception handling are presented using examples. A Beginners Guide to Python 3 Programming provides all you need to know about Python, with numerous examples provided throughout including several larger worked case studies illustrating the ideas presented in the previous chapters.

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

"Based on author Mark Lutz's popular training course, this updated fifth edition will help you quickly write efficient, high-quality code with Python. It's an ideal way to begin, whether you're new to programming or a professional developer versed in other languages."--Provided by publisher.

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.

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Portable, powerful, and a breeze to use, Python is ideal for both standalone programs and scripting applications. With this hands-on book, you can master the fundamentals of the core Python language quickly and efficiently, whether you're new to programming or just new to Python. Once you finish, you will know enough about the language to use it in any application domain you choose. Learning Python is based on material from author Mark Lutz's popular training courses, which he's taught over the past decade. Each chapter is a self-contained lesson that helps you thoroughly understand a key component of Python before you continue. Along with plenty of annotated examples, illustrations, and chapter summaries, every chapter also contains Brain Builder, a unique section with practical exercises and review quizzes that let you practice new skills and test your understanding as you go. This book covers: Types and Operations -- Python's major built-in object types in depth: numbers, lists, dictionaries, and more Statements and Syntax -- the code you type to create and process objects in Python, along with Python's general syntax model Functions -- Python's basic procedural tool for structuring and reusing code Modules -- packages of statements, functions, and other tools organized into larger components Classes and OOP -- Python's optional object-oriented programming tool for structuring code for customization and reuse Exceptions and Tools --

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exception handling model and statements, plus a look at development tools for writing larger programs Learning Python gives you a deep and complete understanding of the language that will help you comprehend any application-level examples of Python that you later encounter. If you're ready to discover what Google and YouTube see in Python, this book is the best way to get started.

The Python programming language was created back in the late 1980s, and in contrast to other popular languages it provides a simple yet powerful syntax. It is used to develop software at organizations like Google, CERN, Yahoo, Industrial Light, Magic and many others. Great things can be accomplished with Python if you are an experienced programmer; however, the beauty of python lies in the fact that it is also accessible to beginners and gives them the freedom of tackling problems more quickly as compared to other, more complicated languages. The most important features of python, including its ease of use, are that it is also powerful, object oriented, a glue language, it runs everywhere, and best of all, it is an Open Source Language, so it is free!

Praise for Core Python Programming The Complete Developer's Guide to Python
New to Python? The definitive guide to Python development for experienced programmers Covers core language features thoroughly, including those found in

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the latest Python releases—learn more than just the syntax! Learn advanced topics such as regular expressions, networking, multithreading, GUI, Web/CGI, and Python extensions Includes brand-new material on databases, Internet clients, Java/Jython, and Microsoft Office, plus Python 2.6 and 3 Presents hundreds of code snippets, interactive examples, and practical exercises to strengthen your Python skills Python is an agile, robust, expressive, fully object-oriented, extensible, and scalable programming language. It combines the power of compiled languages with the simplicity and rapid development of scripting languages. In *Core Python Programming, Second Edition*, leading Python developer and trainer Wesley Chun helps you learn Python quickly and comprehensively so that you can immediately succeed with any Python project. Using practical code examples, Chun introduces all the fundamentals of Python programming: syntax, objects and memory management, data types, operators, files and I/O, functions, generators, error handling and exceptions, loops, iterators, functional programming, object-oriented programming and more. After you learn the core fundamentals of Python, he shows you what you can do with your new skills, delving into advanced topics, such as regular expressions, networking programming with sockets, multithreading, GUI development, Web/CGI programming and extending Python in C. This edition reflects major

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enhancements in the Python 2.x series, including 2.6 and tips for migrating to 3. It contains new chapters on database and Internet client programming, plus coverage of many new topics, including new-style classes, Java and Jython, Microsoft Office (Win32 COM Client) programming, and much more. Learn professional Python style, best practices, and good programming habits Gain a deep understanding of Python's objects and memory model as well as its OOP features, including those found in Python's new-style classes Build more effective Web, CGI, Internet, and network and other client/server applications Learn how to develop your own GUI applications using Tkinter and other toolkits available for Python Improve the performance of your Python applications by writing extensions in C and other languages, or enhance I/O-bound applications by using multithreading Learn about Python's database API and how to use a variety of database systems with Python, including MySQL, Postgres, and SQLite Features appendices on Python 2.6 & 3, including tips on migrating to the next generation!

Ever wished you could learn Python from a book? Head First Python is a complete learning experience for Python that helps you learn the language through a unique method that goes beyond syntax and how-to manuals, helping you understand how to be a great Python programmer. You'll quickly learn the

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language's fundamentals, then move onto persistence, exception handling, web development, SQLite, data wrangling, and Google App Engine. You'll also learn how to write mobile apps for Android, all thanks to the power that Python gives you. We think your time is too valuable to waste struggling with new.

This book follows a standard tutorial approach with approximately 750 code samples spread through the 19 chapters. This amounts to over 5,900 lines of code that illustrate each concept. This book is aimed at programmers who have already learned the basics of object-oriented Python and need to write more sophisticated, flexible code that integrates seamlessly with the rest of Python. This book assumes a computer science background, with experience of common Python design patterns.

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.

Python is an object-oriented, scripting language that is used in wide range of categories. In software engineering, a design pattern is a recommended solution to a software design problem. Although not new, design patterns remain one of the hottest

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topics in software engineering and they come as a ready reference for software developers to ...

Learn the fundamentals of Python (3.7) and how to apply it to data science, programming, and web development. Fully updated to include hands-on tutorials and projects. Key Features Learn the fundamentals of Python programming with interactive projects Apply Python to data science with tools such as IPython and Jupyter Utilize Python for web development and build a real-world app using Django Book Description Learn Python Programming is a quick, thorough, and practical introduction to Python - an extremely flexible and powerful programming language that can be applied to many disciplines. Unlike other books, it doesn't bore you with elaborate explanations of the basics but gets you up-and-running, using the language. You will begin by learning the fundamentals of Python so that you have a rock-solid foundation to build upon. You will explore the foundations of Python programming and learn how Python can be manipulated to achieve results. Explore different programming paradigms and find the best approach to a situation; understand how to carry out performance optimization and effective debugging; control the flow of a program; and utilize an interchange format to exchange data. You'll also walk through cryptographic services in Python and understand secure tokens. Learn Python Programming will give you a thorough understanding of the Python language. You'll learn how to write programs, build websites, and work with data by harnessing Python's renowned data science libraries.

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Filled with real-world examples and projects, the book covers various types of applications, and concludes by building real-world projects based on the concepts you have learned. What you will learn Get Python up and running on Windows, Mac, and Linux Explore fundamental concepts of coding using data structures and control flow Write elegant, reusable, and efficient code in any situation Understand when to use the functional or OOP approach Cover the basics of security and concurrent/asynchronous programming Create bulletproof, reliable software by writing tests Build a simple website in Django Fetch, clean, and manipulate data Who this book is for Learn Python Programming is for individuals with relatively little experience in coding or Python. It's also ideal for aspiring programmers who need to write scripts or programs to accomplish tasks. The book shows you how to create a full-fledged application. 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

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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

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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.

Updated for both Python 3.4 and 2.7, this guide provides concise information on Python types and statements, special method names, built-in functions and exceptions, commonly used standard library modules, and other prominent Python tools.--From back cover.

Master the world of Python with this incredible 2-in-1 bundle. Are you interested in

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becoming a Python pro? Or do you want to learn more about the incredible world of machine learning, and what it can do for you? Then keep reading. Created with the beginner in mind, this powerful bundle delves into the fundamentals behind Python, from basic code and mathematical formulas to complex neural networks and ensemble modeling. Inside, you'll discover everything you need to know to get started with Python, and begin your journey to success! In book one, you'll discover: How to Install, Run, and Understand Python on Any Operating System A Comprehensive Introduction to Python Python Basics and Writing Code Writing Loops, Conditional Statements, Exceptions and More Python Expressions and The Beauty of Inheritances And More! And in book two, you will: Learn the Fundamentals of Machine Learning Master the Nuances of 12 of the Most Popular and Widely-Used Machine Learning Algorithms Become Familiar with Data Science Technology Dive Into the Functioning of Scikit-Learn Library and Develop Machine Learning Models Uncover the Secrets of the Most Critical Aspect of Developing a Machine Learning Model - Data Pre-Processing and Training/Testing Subsets And So Much More! Whether you're a complete beginner or a programmer looking to improve your skillset, this bundle is your all-in-one solution to mastering the world of Python. So don't wait - it's never been easier to learn. Buy now to become a master of Python today! Scroll Up and Click the BUY NOW Button to Get Your Copy!

The programming language Python was conceived in the late 1980s, [1] and its

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implementation was started in December 1989[2] by Guido van Rossum at CWI in the Netherlands as a successor to the ABC (programming language) capable of exception handling and interfacing with the Amoeba operating system.[3] Van Rossum is Python's principal author, and his continuing central role in deciding the direction of Python is reflected in the title given to him by the Python community, Benevolent Dictator for Life (BDFL).[4][5] Python was named for the BBC TV show Monty Python's Flying Circus.[6] Python 2.0 was released on October 16, 2000, with many major new features, including a cycle-detecting garbage collector (in addition to reference counting) for memory management and support for Unicode. However, the most important change was to the development process itself, with a shift to a more transparent and community-backed process.[7] Python 3.0, a major, backwards-incompatible release, was released on December 3, 2008[8] after a long period of testing. Many of its major features have also been backported to the backwards-compatible Python 2.6 and 2.7.[9] In February 1991, van Rossum published the code (labeled version 0.9.0) to alt.sources.[10] Already present at this stage in development were classes with inheritance, exception handling, functions, and the core datatypes of list, dict, str and so on. Also in this initial release was a module system borrowed from Modula-3; Van Rossum describes the module as "one of Python's major programming units." [1] Python's exception model also resembles Modula-3's, with the addition of an else clause.[3] In 1994 comp.lang.python, the primary discussion forum for Python, was formed, marking a milestone in the

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growth of Python's userbase.[1] Python reached version 1.0 in January 1994. The major new features included in this release were the functional programming tools lambda, map, filter and reduce. Van Rossum stated that "Python acquired lambda, reduce(), filter() and map(), courtesy of a Lisp hacker who missed them and submitted working patches." [11] The last version released while Van Rossum was at CWI was Python 1.2. In 1995, Van Rossum continued his work on Python at the Corporation for National Research Initiatives (CNRI) in Reston, Virginia whence he released several versions. By version 1.4, Python had acquired several new features. Notable among these are the Modula-3 inspired keyword arguments (which are also similar to Common Lisp's keyword arguments) and built-in support for complex numbers. Also included is a basic form of data hiding by name mangling, though this is easily bypassed.[12] During Van Rossum's stay at CNRI, he launched the Computer Programming for Everybody (CP4E) initiative, intending to make programming more accessible to more people, with a basic "literacy" in programming languages, similar to the basic English literacy and mathematics skills required by most employers. Python served a central role in this: because of its focus on clean syntax, it was already suitable, and CP4E's goals bore similarities to its predecessor, ABC. The project was funded by DARPA.[13] As of 2007, the CP4E project is inactive, and while Python attempts to be easily learnable and not too arcane in its syntax and semantics, reaching out to non-programmers is not an active concern.[14] Here are what people are saying about the book: This is the best

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beginner's tutorial I've ever seen! Thank you for your effort. -- Walt Michalik The best thing i found was "A Byte of Python," which is simply a brilliant book for a beginner. It's well written, the concepts are well explained with self evident examples. -- Joshua Robin Excellent gentle introduction to programming #Python for beginners -- Shan Rajasekaran Best newbie guide to python -- Nickson Kaigi start to love python with every single page read -- Herbert Feutl perfect beginners guide for python, will give u key to unlock magical world of python

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

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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

Learn to code like a professional with Python – an open source, versatile, and powerful programming language About This Book Learn the fundamentals of programming with Python – one of the best languages ever created Develop a strong set of programming skills that you will be able to express in any situation, on every platform, thanks to Python's portability Create outstanding applications of all kind, from websites to scripting, and from GUIs to data science Who This Book Is For Python is the most popular introductory teaching language in U.S. top computer science universities, so if you are new to software development, or maybe you have little experience, and would like to start off on the right foot, then this language and this book are what you need. Its amazing design and portability will help you become productive regardless of the environment you choose to work with. What You Will Learn Get Python up and running on Windows, Mac, and Linux in no time Grasp the fundamental concepts of coding, along with the basics of data structures and control flow. Write elegant, reusable, and efficient code in any situation Understand when to use the functional or the object oriented programming approach Create bulletproof, reliable software by writing tests to

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support your code Explore examples of GUIs, scripting, data science and web applications Learn to be independent, capable of fetching any resource you need, as well as dig deeper In Detail Learning Python has a dynamic and varied nature. It reads easily and lays a good foundation for those who are interested in digging deeper. It has a practical and example-oriented approach through which both the introductory and the advanced topics are explained. Starting with the fundamentals of programming and Python, it ends by exploring very different topics, like GUIs, web apps and data science. The book takes you all the way to creating a fully fledged application. The book begins by exploring the essentials of programming, data structures and teaches you how to manipulate them. It then moves on to controlling the flow of a program and writing reusable and error proof code. You will then explore different programming paradigms that will allow you to find the best approach to any situation, and also learn how to perform performance optimization as well as effective debugging. Throughout, the book steers you through the various types of applications, and it concludes with a complete mini website built upon all the concepts that you learned. Style and approach This book is an easy-to-follow guide that will take you from a novice to the proficient level at a comfortable pace, using a lot of simple but effective examples. Each topic is explained thoroughly, and pointers are left for the more inquisitive readers to dig deeper and expand their knowledge.

While Excel remains ubiquitous in the business world, recent Microsoft feedback

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forums are full of requests to include Python as an Excel scripting language. In fact, it's the top feature requested. What makes this combination so compelling? In this hands-on guide, Felix Zumstein--creator of xlwings, a popular open source package for automating Excel with Python--shows experienced Excel users how to integrate these two worlds efficiently. Excel has added quite a few new capabilities over the past couple of years, but its automation language, VBA, stopped evolving a long time ago. Many Excel power users have already adopted Python for daily automation tasks. This guide gets you started. Use Python without extensive programming knowledge Get started with modern tools, including Jupyter notebooks and Visual Studio code Use pandas to acquire, clean, and analyze data and replace typical Excel calculations Automate tedious tasks like consolidation of Excel workbooks and production of Excel reports Use xlwings to build interactive Excel tools that use Python as a calculation engine Connect Excel to databases and CSV files and fetch data from the internet using Python code Use Python as a single tool to replace VBA, Power Query, and Power Pivot

The second edition of the best-selling Python book in the world (over 1 million copies sold!). A fast-paced, no-nonsense guide to programming in Python. Updated and thoroughly revised to reflect the latest in Python code and practices. Python Crash Course is the world's best-selling guide to the Python programming language. This fast-paced, thorough introduction to programming with Python will have you writing

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programs, solving problems, and making things that work in no time. In the first half of the book, you'll learn basic programming concepts, such as variables, lists, classes, and loops, and practice writing clean code with exercises for each topic. You'll also learn how to make your programs interactive and test your code safely before adding it to a project. In the second half, you'll put your new knowledge into practice with three substantial projects: a Space Invaders-inspired arcade game, a set of data visualizations with Python's handy libraries, and a simple web app you can deploy online. As you work through the book, you'll learn how to:

- Use powerful Python libraries and tools, including Pygame, Matplotlib, Plotly, and Django
- Make 2D games that respond to keypresses and mouse clicks, and that increase in difficulty
- Use data to generate interactive visualizations
- Create and customize web apps and deploy them safely online
- Deal with mistakes and errors so you can solve your own programming problems

If you've been thinking about digging into programming, Python Crash Course will get you writing real programs fast. Why wait any longer? Start your engines and code!

Python Algorithms, Second Edition explains the Python approach to algorithm analysis and design. Written by Magnus Lie Hetland, author of Beginning Python, this book is sharply focused on classical algorithms, but it also gives a solid understanding of fundamental algorithmic problem-solving techniques. The book deals with some of the most important and challenging areas of programming and computer science in a highly

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readable manner. It covers both algorithmic theory and programming practice, demonstrating how theory is reflected in real Python programs. Well-known algorithms and data structures that are built into the Python language are explained, and the user is shown how to implement and evaluate others.

Manufacturing And Workshop Practices Have Become Important In The Industrial Environment To Produce Products For The Service Of Mankind. The Basic Need Is To Provide Theoretical And Practical Knowledge Of Manufacturing Processes And Workshop Technology To All The Engineering Students. This Book Covers Most Of The Syllabus Of Manufacturing Processes/Technology, Workshop Technology And Workshop Practices For Engineering (Diploma And Degree) Classes Prescribed By Different Universities And State Technical Boards. Some Comparisons Have Been Given In Tabular Form And The Stress Has Been Given On Figures For Better Understanding Of Tools, Equipments, Machines And Manufacturing Setups Used In Various Manufacturing Shops. At The End Of Each Chapter, A Number Of Questions Have Been Provided For Testing The Student S Understanding About The Concept Of The Subject. The Whole Text Has Been Organized In 26 Chapters. The First Chapter Presents The Brief Introduction Of The Subject With Modern Concepts Of Manufacturing Technology Needed For The Competitive Industrial Environment. Chapter 2 Provides The Necessary Details Of Plant And Shop Layouts. General Industrial Safety Measures To Be Followed In Various Manufacturing Shops Are

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Described In Detail In Chapter 3. Chapters 4 8 Provide Necessary Details Regarding Fundamentals Of Ferrous Materials, Non-Ferrous Materials, Melting Furnaces, Properties And Testing Of Engineering Materials And Heat Treatment Of Metals And Alloys. Chapters 9 13 Describe Various Tools, Equipments And Processes Used In Various Shops Such As Carpentry, Pattern Making, Mold And Core Making, Foundry Shop. Special Casting Methods And Casting Defects Are Also Explained At Length.Chapters 14 16 Provide Basic Knowledge Of Mechanical Working Of Metals. Fundamental Concepts Related To Forging Work And Other Mechanical Working Processes (Hot And Cold Working) Have Been Discussed At Length With Neat Sketches. Chapter 17 Provides Necessary Details Of Various Welding And Allied Joining Processes Such As Gas Welding, Arc Welding, Resistance Welding, Solid-State Welding, Thermochemical Welding, Brazing And Soldering. Chapters 18 19 Describe Sheet Metal And Fitting Work In Detail. Various Kinds Of Hand Tools And Equipments Used In Sheet Metal And Fitting Shops Have Been Described Using Neat Sketches. Chapters 20 24 Provide Construction And Operational Details Of Various Machine Tools Namely Lathe, Drilling Machine, Shaper, Planer, Slotter, And Milling Machine With The Help Of Neat Diagrams. Chapter 25 Deals With Technique Of Manufacturing Of Products With Powder Metallurgy. The Last Chapter Of The Book Discusses The Basic Concepts Of Quality Control And Inspection Techniques Used In Manufacturing Industries.The Book Would Serve Only As A Text Book For The

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Students Of Engineering Curriculum But Would Also Provide Reference Material To Engineers Working In Manufacturing Industries.

Django for Beginners is a project-based introduction to Django, the popular Python-based web framework. Suitable for total beginners who have never built a website before as well as professional programmers looking for a fast-paced guide to modern web development and Django fundamentals. In the book you'll learn how to: Build 5 websites from scratch, including a Blog and Newspaper website Deploy online using security best practices Customize the look and feel of your sites Write tests and run them for all your code Integrate user authentication, email, and custom user models Add permissions and authorizations to make your app more secure Identify common mistakes and errors so you can build your own websites If you're curious about Python-based web development, Django for Beginners is your guide to writing and deploying your own websites quickly.

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