John Zelle Python Programming Solutions

This guide offers students an overview of computer science principles, and provides a solid foundation for those continuing their study in this dynamic and exciting discipline. New features of this edition include: a chapter on computer security providing readers with the latest information on preventing unauthorized access; types of malware and anti-virus software; protecting online information, including data collection issues with Facebook, Google, etc.; security issues with mobile and portable devices; a new section on cloud computing offering readers an overview of the latest way in which businesses and users interact with computers and mobile devices; a rewritten section on social networks including new data on Google+ and Facebook; updates to include HTML5; revised and updated Did You Know callouts are included in the chapter margins; revisions of recommendations by the ACM dealing with computer ethic issues. --

The new edition of an introductory text that teaches students the art of computational problem solving, covering topics ranging from simple algorithms to information visualization. This book introduces students with little or no prior programming experience to the art of computational problem solving using Python and various Python libraries, including PyLab. It provides students with skills that will enable them to make productive use of computational techniques, including some of the tools and techniques of data science for using computation to model and interpret data. The book is based on an MIT course (which became the most popular course offered through MIT’s OpenCourseWare) and was developed for use not only in a conventional classroom but in a massive open online course (MOOC). This new edition has been updated for Python 3, reorganized to make it easier to use for courses that cover only a subset of the material, and offers additional material including five new chapters. Students are introduced to Python and the basics of programming in the context of such computational concepts and techniques as exhaustive enumeration, bisection search, and efficient approximation algorithms. Although it covers such traditional topics as computational complexity and simple algorithms, the book focuses on a wide range of topics not found in most introductory texts, including information visualization, simulations to model randomness, computational techniques to understand data, and statistical techniques that inform (and misinform) as well as two related but relatively advanced topics: optimization problems and dynamic programming. This edition offers expanded material on statistics and machine learning and new chapters on Frequentist and Bayesian statistics.

Written by a groundbreaking figure of modern medical study, Tracking Medicine is an eye-opening introduction to the science of health care delivery, as well as a powerful argument for its relevance in shaping the future of our country. An indispensable resource for those involved in public health and health policy, this book uses Dr. Wennberg's pioneering research to provide a framework for understanding the health care crisis; and outlines a roadmap for real change in the future. It is also a useful tool for anyone interested in understanding and forming their own opinion on the current debate. A guide to completing Python projects for those ready to take their skills to the next level Python Projects is the ultimate resource for the Python programmer with basic skills who is ready to move beyond tutorials and start building projects. The preeminent guide to bridge the gap between learning and doing, this book walks readers through the "where" and "how" of real-world Python programming with practical, actionable instruction. With a focus on real-world functionality, Python Projects details the ways that Python can be used to complete daily tasks and bring efficiency to businesses and individuals alike. Python Projects is written specifically for those who know the Python syntax and lay of the land, but may still be intimidated by larger, more complex projects. The book provides a walk-through of the basic set-up for an application and the building and packaging for a library, and explains in detail the functionalities related to the projects. Topics include: *How to maximize the power of the standard library modules *Where to get third party libraries, and the best practices for utilization *Creating, packaging, and reusing libraries within and across projects *Building multi-layered functionality including networks, data, and user interfaces *Setting up development environments and using virtualenv, pip, and more Written by veteran Python trainers, the book is structured for easy navigation and logical progression that makes it ideal for individual, classroom, or corporate training. For Python developers looking to apply their skills to real-world challenges, Python Projects is a goldmine of information and expert insight.

This fast-paced introduction to Python moves from the basics to advanced concepts, enabling readers to gain proficiency quickly. This comprehensive volume is fully updated for C# 2.0 -- the newest version of Microsoft's revolutionary programming language. The changes found in C# 2.0 bring Java-like power to millions of Windows programmers worldwide. With expertly crafted explanations, insider tips, and hundreds of examples, this book fully explains every aspect of C# 2.0. Written in the clear, uncompromising style that has made master programming author Herb Schildt the choice of millions, the book covers all the new and existing features of this major programming language. Classroom-tested by tens of thousands of students, this new edition of the bestselling intro to programming book is for anyone who wants to understand computer science. Learn about design, algorithms, testing, and debugging. Discover the fundamentals of programming with Python 3.6--a language that's used in millions of devices. Write programs to solve real-world problems, and come away with everything you need to produce quality code. This edition has been updated to use the new language features in Python 3.6.

This book is widely used in introductory and intermediate corporate finance courses. This sixth edition offers an increased focus on questions and solutions. A greater number of questions have been inserted at the introductory and intermediate levels, and the Financial Management link on the website www.jutaacademic.co.za will offer additional questions and solutions. Recent examination questions from Part I and Part II of the Qualifying Examination have been included, as well as questions from the professional examinations set by ACCA and CIMA. Real-world applications of corporate finance theory and new developments are included to ensure that the textbook retains its relevance.
This invaluable textbook presents a comprehensive introduction to modern competitive programming. The text highlights how competitive programming has proven to be an excellent way to learn algorithms, by encouraging the design of algorithms that actually work, stimulating the improvement of programming and debugging skills, and reinforcing the type of thinking required to solve problems in a competitive setting. The book contains many “folklore” algorithm design tricks that are known by experienced competitive programmers, yet which have previously only been formally discussed in online forums and blog posts. Topics and features: reviews the features of the C++ programming language, and describes how to create efficient algorithms that can quickly process large data sets; discusses sorting algorithms and binary search, and examines a selection of data structures of the C++ standard library; introduces the algorithm design technique of dynamic programming, and investigates elementary graph algorithms; covers such advanced algorithm design topics as bit-parallelism and amortized analysis, and presents a focus on efficiently processing array range queries; surveys specialized algorithms for trees, and discusses the mathematical topics that are relevant in competitive programming; examines advanced graph techniques, geometric algorithms, and string techniques; describes a selection of more advanced topics, including square root algorithms and dynamic programming optimization. This easy-to-follow guide is an ideal reference for all students wishing to learn algorithms, and practice for programming contests. Knowledge of the basics of programming is assumed, but previous background in algorithm design or programming contests is not necessary. Due to the broad range of topics covered at various levels of difficulty, this book is suitable for both beginners and more experienced readers.

This Third Edition, in response to the enthusiastic reception given by academia and students to the previous edition, offers a cohesive presentation of all aspects of theoretical computer science, namely automata, formal languages, computability, and complexity. Besides, it includes coverage of mathematical preliminaries. NEW TO THIS EDITION • Expanded sections on pigeonhole principle and the principle of induction (both in Chapter 2) • A rigorous proof of Kleene’s theorem (Chapter 5) • Major changes in the chapter on Turing machines (TMs) – A new section on high-level description of TMs – Techniques for the construction of TMs – Multitape TM and nondeterministic TM • A new chapter (Chapter 10) on decidability and recursively enumerable languages • A new chapter (Chapter 12) on complexity theory and NP-complete problems • A section on quantum computation in Chapter 12. • KEY FEATURES • Objective-type questions in each chapter—with answers provided at the end of the book. • Eighty-three additional solved examples—added as Supplementary Examples in each chapter. • Detailed solutions at the end of the book to chapter-end exercises. The book is designed to meet the needs of the undergraduate and postgraduate students of computer science and engineering as well as those of the students offering courses in computer applications.


Introduction to Programming Using Python is intended for use in the introduction to programming course. Daniel Liang is known for his "fundamentals-first" approach to teaching programming concepts and techniques. "Fundamentals-first" means that students learn fundamental programming concepts like selection statements, loops, and functions, before moving into defining classes. Students learn basic logic and programming concepts before moving into object-oriented programming, and GUI programming. Another aspect of Introduction to Programming Using Python is that in addition to the typical programming examples that feature games and some math, Liang gives an example or two early in the chapter that uses a simple graphic to engage the students. Rather than asking them to average 10 numbers together, they learn the concepts in the context of a fun example that generates something visually interesting. Using the graphics examples is optional in this textbook. Turtle graphics can be used in Chapters 1-5 to introduce the fundamentals of programming and Tkinter can be used for developing comprehensive graphical user interfaces and for learning object-oriented programming.

Based on the authors' market leading data structures books in Java and C++, this textbook offers a comprehensive, definitive introduction to data structures in Python by authoritative authors. Data Structures and Algorithms in Python is the first authoritative object-oriented book available for the Python data structures course. Designed to provide a comprehensive introduction to data structures and algorithms, including their design, analysis, and implementation, the text will maintain the same general structure as Data Structures and Algorithms in Java and Data Structures and Algorithms in C++.

This book is for anyone who wants to understand computer programming. You'll learn to program in a language that's used in millions of smartphones, tablets, and PCs. You'll code along with the book, writing programs to solve real-world problems as you learn the fundamentals of programming using Python 3. You'll learn about design, algorithms, testing, and debugging, and come away with all the tools you need to produce quality code. In this second edition, we've updated almost all the material, incorporating the lessons we've learned over the past five years of teaching Python to people new to programming. You don't need any programming experience to get started. First, you'll get a detailed introduction to Python and to programming. You'll find out exactly what happens when your programs are executed. Through real-world examples, you'll learn how to work with numbers, text, big data sets, and files. Then you'll see how to create and use your own data types. The incremental examples show you the steps and missteps that happen while developing programs, so you know what to expect when you tackle a problem on your own. Inspired by "How to Design Programs" (HtDP), you'll learn a six-step recipe for designing functions, which helps you as you start to learn the concepts—and becomes an integral part of writing programs by the end. As you learn to use the fundamental programming tools in the first half of the book, you'll see how to document and organize your code so that you and other programmers can more...
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author Allison Parrish, Getting Started with Processing.py is your fast track to using Python's Processing mode.

An updated guide to programming your own Raspberry Pi projects Learn to create inventive programs and fun games on your
powerful Raspberry Pi—with no programming experience required. This practical TAB book has been revised to fully cover the new
Raspberry Pi 2, including upgrades to the Raspbian operating system. Discover how to configure hardware and software, write
Python scripts, create user-friendly GUIs, and control external electronics. DIY projects include a hangman game, RGB LED
controller, digital clock, and RaspPiRobot complete with an ultrasonic rangefinder. Set up your Raspberry Pi and explore its features
Navigate files, folders, and menus Write Python programs using the IDLE editor Use strings, lists, functions, and dictionaries Work
with modules, classes, and methods Create user-friendly games using Pygame Build intuitive user interfaces with Tkinter Attach
external electronics through the GPIO port Add powerful Web features to your projects

This book is suitable for use in a university-level first course in computing (CS1), as well as the increasingly popular course known
cs0. It is difficult for many students to master basic concepts in computer science and programming. A large portion of the
confusion can be blamed on the complexity of the tools and materials that are traditionally used to teach cs1 and cs2. This
textbook was written with a single overarching goal: to present the core concepts of computer science as simply as possible
without being simplistic.

By taking you through the development of a real web application from beginning to end, the second edition of this hands-on guide
demonstrates the practical advantages of test-driven development (TTD) with Python. You’ll learn how to write and run tests
before building each part of your app, and then develop the minimum amount of code required to pass those tests. The result?
Clean code that works. In the process, you’ll learn the basics of Django, Selenium, Git, jQuery, and Mock, along with current web
development techniques. If you’re ready to take your Python skills to the next level, this book—updated for Python 3.6—clearly
demonstrates how TDD encourages simple designs and inspires confidence. Dive into the TDD workflow, including the unit
test/code cycle and refactoring Use unit tests for classes and functions, and functional tests for user interactions within the browser.

Learn when and how to use mock objects, and the pros and cons of isolated vs. integrated tests Test and automate your
deployments with a staging server Apply tests to the third-party plugins you integrate into your site Run tests automatically by
using a Continuous Integration environment Use TDD to build a REST API with a front-end Ajax interface

Winner of the 2014 Jolt Award for "Best Book" "Whether you are an experienced programmer or are starting your career, Python in
Practice is full of valuable advice and example to help you improve your craft by thinking about problems from different
perspectives, introducing tools, and detailing techniques to create more effective solutions." --Doug Hellmann, Senior Developer,
DreamHost If you’re an experienced Python programmer, Python in Practice will help you improve the quality, reliability, speed,
maintainability, and usability of all your Python programs. Mark Summerfield focuses on four key themes: design patterns for
coding elegance, faster processing through concurrency and compiled Python (Cython), high-level networking, and graphics. He
identifies well-proven design patterns that are useful in Python, illuminates them with expert-quality code, and explains why some
object-oriented design patterns are irrelevant to Python. He also explores several counterproductive myths about Python
programming—showing, for example, how Python can take full advantage of multicore hardware. All examples, including three
complete case studies, have been tested with Python 3.3 (and, where possible, Python 3.2 and 3.1) and crafted to maintain
compatibility with future Python 3.x versions. All code has been tested on Linux, and most code has also been tested on OS X and
Windows. All code may be downloaded at www.qtrac.eu/pipbook.html. Coverage includes Leveraging Python's most effective
creational, structural, and behavioral design patterns Supporting concurrency with Python's multiprocessing, threading, and
concurrent.futures modules Avoiding concurrency problems using thread-safe queues and futures rather than fragile locks
Simplifying networking with high-level modules, including xmlrpcib and RPyC Accelerating Python code with Cython, C-based
Python modules, profiling, and other techniques Creating modern-looking GUI applications with Tkinter Leveraging today's
powerful graphics hardware via the OpenGL API using pyglet and PyOpenGL

Welcome to computer science in the 21st century. Did you ever wonder how computers represent DNA? How they can
download a web page containing population data and analyze it to spot trends? Or how they can change the colors in a
color photograph? If so, this book is for you. By the time you're done, you'll know how to do all of that and a lot more. And
Python makes it easy and fun. Computers are used in every part of science from ecology to particle physics. This
introduction to computer science continually reinforces those ties by using real-world science problems as examples.

Anyone who has taken a high school science class will be able to follow along as the book introduces the basics of
programming, then goes on to show readers how to work with databases, download data from the web automatically,
build graphical interfaces, and most importantly, how to think like a professional programmer. Topics covered include:
Basic elements of programming from arithmetic to loops and if statements. Using functions and modules to organize
programs. Using lists, sets, and dictionaries to organize data. Designing algorithms systematically. Debugging things
when they go wrong. Creating and querying databases. Building graphical interfaces to make programs easier to use.
Object-oriented programming and programming patterns.

Introduction to Rocket Science and Engineering, Second Edition, presents the history and basics of rocket science, and
examines design, experimentation, testing, and applications. Exploring how rockets work, the book covers the concepts
of thrust, momentum, impulse, and the rocket equation, along with the rocket engine, its components, and the physics
involved in the generation of the propulsive force. The text also presents several different types of rocket engines and
discusses the testing of rocket components, subsystems, systems, and complete products. The final chapter stresses the
importance for rocket scientists and engineers to creatively deal with the complexities of rocketry.

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

"Builds on knowledge from a first course in computer programming using Python. Makes a transition from programming in Python to a data structures course and programming in C++"--Provided by publisher.

Discover practical solutions for a wide range of real-world network programming tasks About This Book Solve real-world tasks in the area of network programming, system/networking administration, network monitoring, and more. Familiarize yourself with the fundamentals and functionalities of SDN Improve your skills to become the next-gen network engineer by learning the various facets of Python programming Who This Book Is For This book is for network engineers, system/network administrators, network programmers, and even web application developers who want to solve everyday network-related problems. If you are a novice, you will develop an understanding of the concepts as you progress with this book. What You Will Learn Develop TCP/IP networking client/server applications Administer local machines' IPv4/IPv6 network interfaces Write multi-purpose efficient web clients for HTTP and HTTPS protocols Perform remote system administration tasks over Telnet and SSH connections Interact with popular websites via web services such as XML-RPC, SOAP, and REST APIs Monitor and analyze major common network security vulnerabilities Develop Software-Defined Networks with Ryu, OpenDaylight, Floodlight, ONOS, and POX Controllers Emulate simple and complex networks with Mininet and its extensions for network and systems emulations Learn to configure and build network systems and Virtual Network Functions (VNF) in heterogeneous deployment environments Explore various Python modules to program the Internet In Detail Python Network Programming Cookbook - Second Edition highlights the major aspects of network programming in Python, starting from writing simple networking clients to developing and deploying complex Software-Defined Networking (SDN) and Network Functions Virtualization (NFV) systems. It creates the building blocks for many practical web and networking applications that rely on various networking protocols. It presents the power and beauty of Python to solve numerous real-world tasks in the area of network programming, network and system administration, network monitoring, and web-application development. In this edition, you will also be introduced to network modelling to build your own cloud network. You will learn about the concepts and fundamentals of SDN and then extend your network with Mininet. Next, you will find recipes on Authentication, Authorization, and Accounting (AAA) and open and proprietary SDN approaches and frameworks. You will also learn to configure the Linux Foundation networking ecosystem and deploy and automate your networks with Python in the cloud and the Internet scale. By the end of this book, you will be able to analyze your network security vulnerabilities using advanced network packet capture and analysis techniques. Style and approach This book follows a practical approach and covers major aspects of network programming in Python. It provides hands-on recipes combined with short and concise explanations on code snippets. This book will serve as a supplementary material to develop hands-on skills in any academic course on network programming. This book further elaborates network softwareization, including Software-Defined Networking (SDN), Network Functions Virtualization (NFV), and orchestration. We learn to configure and deploy enterprise network platforms, develop applications on top of them with Python.

Completely revised and updated with the latest version of C++, the new Fifth Edition of Programming and Problem Solving with C++ provides the clearest introduction to C++, object-oriented programming, and software development available. Renowned author team Nell Dale and Chip Weems are careful to include all topics and guidelines put forth by
the ACM/IEEE. A new chapter on Data Structures makes this text ideal for the one- or two-term course. New Software Maintenance Case Studies teach students how to read code in order to debug, alter, or enhance existing class or code segments. Important Notice: The digital edition of this book is missing some of the images or content found in the physical edition.

Teach Your Students How to Use Computing to Explore Powerful and Creative Ideas In the twenty-first century, computers have become indispensable in music making, distribution, performance, and consumption. Making Music with Computers: Creative Programming in Python introduces important concepts and skills necessary to generate music with computers. It interweaves computing pedagogy with musical concepts and creative activities, showing students how to integrate the creativity and design of the arts with the mathematical rigor and formality of computer science. The book provides an introduction to creative software development in the Python programming language. It uses innovative music-creation activities to illustrate introductory computer programming concepts, including data types, algorithms, operators, iteration, lists, functions, and classes. The authors also cover GUIs, event-driven programming, big data, sonification, MIDI programming, client–server programming, recursion, fractals, and complex system dynamics. Requiring minimal musical or programming experience, the text is designed for courses in introductory computer science and computing in the arts. It helps students learn computer programming in a creative context and understand how to build computer music applications. Also suitable for self-study, the book shows musicians and digital music enthusiasts how to write music software and create algorithmic music compositions. Web Resource A supplementary website (http://jythonMusic.org) provides a music library and other software resources used in the text. The music library is an extension of the jMusic library and incorporates other cross-platform programming tools. The website also offers example course and associated media resources.

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.

Python ProgrammingAn Introduction to Computer ScienceFranklin, Beedle & Associates, Inc.

Provides instructions for writing C code to create games and mobile applications using the new C11 standard. Combining the latest research and most current coverage available into a succinct nine chapters, FUNDAMENTALS OF INFORMATION SYSTEMS, 8E equips students with a solid understanding of the core principles of IS and how it is practiced. The streamlined 560-page eighth edition features a wealth of new examples, figures, references, and cases as it covers the latest developments from the field--and highlights their impact on the rapidly changing role of today's IS professional. In addition to a stronger career emphasis, the text includes expanded coverage of mobile solutions, energy and environmental concerns, the increased use of cloud computing across the globe, and two cases per chapter. Learning firsthand how information systems can increase profits and reduce costs, students explore new information on e-commerce and enterprise systems, artificial intelligence, virtual reality, green computing, and other issues reshaping the industry. The text introduces the challenges and risks of computer crimes, hacking, and cyberterrorism. It also presents some of the most current research on virtual communities, global IS work solutions, and social networking. No matter where students’ career paths may lead, FUNDAMENTALS OF INFORMATION SYSTEMS, 8E and its resources can help them maximize their success as employees, decision makers, and business leaders. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

If you want to learn how to program but don't know where to start, this is the right book and the right language for you. From the first page, our self-paced approach will help you build competence and confidence in your programming skills. And Python is the best language ever for learning how to program because of its simplicity and breadthtwo features that are hard to find in a single language. But this isn't just a book for beginners! Our self-paced approach also works for experienced programmers, helping you learn Python faster and better than youve ever learned a language before. By the time you're through, you will have mastered the key Python skills that are needed on the job, including those for object-oriented, database, and GUI programming. To make all of this possible, section 1 presents an 8-chapter course that will get anyone off to a great start with Python. Section 2 builds on that base by presenting the other essential skills that every Python programmer should have. Section 3 shows you how to develop object-oriented programs, a critical skillset in todays world. And section 4 shows you how to apply all of the skills that you've already learned as you build database and GUI programs for the real world.

The only way to master a skill is to practice. In Python Workout, author Reuven M. Lerner guides you through 50 carefully selected exercises that invite you to flex your programming muscles. As you take on each new challenge, you'll build programming skill and confidence. Summary: The only way to master a skill is to practice. In Python Workout, author Reuven M. Lerner guides you...
through 50 carefully selected exercises that invite you to flex your programming muscles. As you take on each new challenge, you'll build programming skill and confidence. The thorough explanations help you lock in what you've learned and apply it to your own projects. Along the way, Python Workout provides over four hours of video instruction walking you through the solutions to each exercise and dozens of additional exercises for you to try on your own. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology To become a champion Python programmer you need to work out, building mental muscle with your hands on the keyboard. Each carefully selected exercise in this unique book adds to your Python prowess—one important skill at a time. About the book Python Workout presents 50 exercises that focus on key Python 3 features. In it, expert Python coach Reuven Lerner guides you through a series of small projects, practicing the skills you need to tackle everyday tasks. You'll appreciate the clear explanations of each technique, and you can watch Reuven solve each exercise in the accompanying videos. What's inside 50 hands-on exercises and solutions Coverage of all Python data types Dozens more bonus exercises for extra practice About the reader For readers with basic Python knowledge. About the author Reuven M. Lerner teaches Python and data science to companies around the world. Table of Contents 1 Numeric types 2 Strings 3 Lists and tuples 4 Dictionaries and sets 5 Files 6 Functions 7 Functional programming with comprehensions 8 Modules and packages 9 Objects 10 Iterators and generators KEY BENEFIT: An exciting addition to the best-selling How to Program series, Python How to Program, provides a comprehensive introduction to the Python programming language. KEY TOPICS: Covers introductory programming techniques as well as more advanced topics such as graphical user interfaces, databases, wireless Internet programming, networking and multimedia. Signature “Live-Code™ Approach”— features thousands of lines of code in hundreds of complete working programs. Full chapter on Web accessibility for people with disabilities. Readers will learn principles that are applicable to both systems development and Web programming. Contains an extensive set of interesting exercises and substantial projects. MARKET: Ideal for anyone interested in learning to program with Python. A collection of progressively more complex Python programming challenges to help students learn to code in a naturally engaging way. Copyright: 20bcb02a499ec5f5f1dc054155935563