

Tkinter Gui Application Development Blueprints Second Edition Build Nine Projects By Working With Widgets Geometry Management Event Handling And More

Find out how to create visually stunning and feature-rich applications by empowering Python's built-in Tkinter GUI toolkit Key Features Explore Tkinter's powerful features to easily design and customize your GUI application Learn the basics of 2D and 3D animation in GUI applications. Learn to integrate stunning Data Visualizations using Tkinter Canvas and Matplotlib. Book Description Tkinter is a lightweight, portable, and easy-to-use graphical toolkit available in the Python Standard Library, widely used to build Python GUIs due to its simplicity and availability. This book teaches you to design and build graphical user interfaces that are functional, appealing, and user-friendly using the powerful combination of Python and Tkinter. After being introduced to Tkinter, you will be guided step-by-step through the application development process. Over the course of the book, your application will evolve from a simple data-entry form to a complex data management and visualization tool while maintaining a clean and robust design. In addition to building the GUI, you'll learn how to connect to external databases and network resources, test your code to avoid errors, and maximize performance using asynchronous programming. You'll make the most of Tkinter's cross-platform availability by learning how to maintain compatibility, mimic platform-native look and feel, and build executables for deployment across popular computing platforms. By the end of this book, you will have the skills and confidence to design and build powerful high-end GUI applications to solve real-world problems. What you will learn Implement the tools provided by Tkinter to design beautiful GUIs Discover cross-platform development through minor customizations in your existing application Visualize graphs in real time as data comes in using Tkinter's animation capabilities Use PostgreSQL authentication to ensure data security for your application Write unit tests to avoid regressions when updating code Who this book is for This book will appeal to developers and programmers who would like to build GUI-based applications. Knowledge of Python is a prerequisite.

Quickly discover solutions to common problems, best practices you can follow, and everything JavaScript has to offer. Using a problem-solution approach, this book takes you from language basics like built-in objects and flow control all the way to advanced optimization techniques, frameworks and Node.js. With JavaScript Recipes you will learn language fundamentals like types, conversions, execution contexts, expressions, operators, statements, and built-in objects. You'll explore and make the most of your script's host environment and how to create your own JavaScript host using Google's V8 engine. Employ advanced optimization techniques to create scripts that execute as fast, or faster, than native executables. JavaScript Recipes shows you how to avoid wasting development time and concentrate on developing cutting-edge applications. You'll see how much quicker and efficient it is to develop with JavaScript. Start becoming a JavaScript pro with JavaScript Recipes today. What You'll Learn Learn JavaScript language fundamentals and what they can do for you Use JavaScript's powerful features to develop next-generation applications Explore your script's host environment and extend it with your own objects Learn how to use Google's V8 Engine to create your own JavaScript environment Learn advanced optimization techniques Implement advanced techniques like closures, namespaces, and reflection How to use Node.js efficiently Who This Book Is For JavaScript developers who need to get development tasks accomplished quickly.

There are many more people who want to study programming other than aspiring computer scientists with a passing grade in advanced calculus. This guide appeals to your intelligence and ability to solve practical problems, while gently teaching the most recent revision of the programming language Python. You can learn solid software design skills and accomplish practical programming tasks, like extending applications and automating everyday processes, even if you have no programming experience at all. Authors Tim Hall and J-P Stacey use everyday language to decode programming jargon and teach Python 3 to the absolute beginner.

Develop more dynamic and robust GUI applications using PySide, an open source cross-platform UI framework About This Book Designed for beginners to help you get started with GUI application development Develop your own applications by creating customized widgets and dialogs Written in a simple and elegant structure so you easily understand how to program various GUI components Who This Book Is For This book is written for Python programmers who want to learn about GUI programming. It is also suitable for those who are new to Python but are familiar with object-oriented programming. What You Will Learn Program GUI applications in an easy and efficient way Download and install PySide, a cross-platform GUI development toolkit for Python Create menus, toolbars, status bars, and child windows Develop a text editor application on your own Connect your GUI to a database and manage it Execute SQL queries by handling databases In Detail Elegantly-built GUI applications are always a massive hit among users. PySide is an open source software project that provides Python bindings for the Qt cross-platform UI framework. Combining the power of Qt and Python, PySide provides easy access to the Qt framework for Python developers and also acts as an excellent rapid application development platform. This book will take you through everything you need to know to develop UI applications. You will learn about installing and building PySide in various major operating systems as well as the basics of GUI programming. The book will then move on to discuss event management, signals and slots, and the widgets and dialogs available with PySide. Database interaction and manipulation is also covered. By the end of this book, you will be able to program GUI applications efficiently and master how to develop your own applications and how to run them across platforms. Style and approach This is an accessible and practical guide to developing GUIs for Python applications.

Build, design, and style beautiful and informative applications on the Salesforce Lightning platform Key Features Build and Test Lightning Components that enhance application usability and adaptability Apply Security Best Practices to your Custom Lightning Components Design Lightning Components for Salesforce UIs such as Lightning Pages, Salesforce 1 Application, Communities, and more. Book Description Built on the Salesforce App Cloud, the new Salesforce Lightning Experience combines three major components: Lightning Design System, Lightning App Builder, and Lightning Components, to provide an enhanced user experience. This book will enable you to quickly create modern, enterprise apps with Lightning Component Framework. You will start by building simple Lightning Components and understanding the Lightning Components architecture. The chapters cover the basics of Lightning Component Framework semantics and syntax, the security features provided by Locker Service, and use of third-party libraries inside Lightning Components. The later chapters focus on debugging, performance tuning, testing using Lightning Testing Services, and how to publish Lightning Components on Salesforce AppExchange. What you will learn Understand Lightning Components architecture Learn Locker security best practices Debug and Improve performance of your Lightning Components Use third-party libraries along with Lightning Component Framework Learn how to publish Lightning Components on AppExchange Use Lightning Out to take your Lightning Components outside the Salesforce platform Who this book is for This book is for Salesforce developers or developers from other platforms who are familiar with HTML, CSS, and JavaScript and want to build and test Salesforce Lightning components. No knowledge of Salesforce Lightning is required.

Explore Python's GUI frameworks and create visually stunning and feature-rich applications Key Features Integrate stunning data visualizations using Tkinter Canvas and Matplotlib Understand the basics of 2D and 3D animation in GUI applications Explore PyQt's powerful features to easily design and customize your GUI applications Book Description A responsive graphical user interface (GUI) helps you interact with your application, improves user experience, and enhances the efficiency of your applications. With Python, you'll have access to elaborate GUI frameworks that you can use to build interactive

GUIs that stand apart from the rest. This Learning Path begins by introducing you to Tkinter and PyQt, before guiding you through the application development process. As you expand your GUI by adding more widgets, you'll work with networks, databases, and graphical libraries that enhance its functionality. You'll also learn how to connect to external databases and network resources, test your code, and maximize performance using asynchronous programming. In later chapters, you'll understand how to use the cross-platform features of Tkinter and Qt5 to maintain compatibility across platforms. You'll be able to mimic the platform-native look and feel, and build executables for deployment across popular computing platforms. By the end of this Learning Path, you'll have the skills and confidence to design and build high-end GUI applications that can solve real-world problems. This Learning Path includes content from the following Packt products: Python GUI Programming with Tkinter by Alan D. Moore Qt5 Python GUI Programming Cookbook by B. M. Harwani What you will learn Visualize graphs in real time with Tkinter's animation capabilities Use PostgreSQL authentication to ensure data security for your application Write unit tests to avoid regression when updating code Handle different signals generated on mouse clicks using QSpinBox and sliders Employ network concepts, internet browsing, and Google Maps in UI Use graphics rendering to implement animations in your GUI Who this book is for If you're an intermediate Python programmer looking to enhance your coding skills by writing powerful GUIs in Python using PyQt and Tkinter, this is an ideal Learning Path for you. A strong understanding of the Python language is a must to grasp the concepts explained in this book.

This is the book for you if you are a student, hobbyist, developer, or designer with little or no programming and hardware prototyping experience, and you want to develop IoT applications. If you are a software developer or a hardware designer and want to create connected devices applications, then this book will help you get started.

Over 80 object-oriented recipes to help you create mind-blowing GUIs in Python About This Book Use object-oriented programming to develop amazing GUIs in Python Create a working GUI project as a central resource for developing your Python GUIs Packed with easy-to-follow recipes to help you develop code using the latest released version of Python Who This Book Is For If you are a Python programmer with intermediate level knowledge of GUI programming and want to learn how to create beautiful, effective, and responsive GUIs using the freely available Python GUI frameworks, this book is for you. What You Will Learn Create amazing GUIs with Python's built-in Tkinter module Customize the GUIs by using layout managers to arrange the GUI widgets Advance to an object-oriented programming style using Python Develop beautiful charts using the free Matplotlib Python module Use threading in a networked environment to make the GUIs responsive Discover ways to connect the GUIs to a database Understand how unit tests can be created and internationalize the GUI Extend the GUIs with free Python frameworks using best practices In Detail Python is a multi-domain, interpreted programming language. It is a widely used general-purpose, high-level programming language. It is often used as a scripting language because of its forgiving syntax and compatibility with a wide variety of different ecosystems. Its flexible syntax enables developers to write short scripts while at the same time, they can use object-oriented concepts to develop very large projects. Python GUI Programming Cookbook follows a task-based approach to help you create beautiful and very effective GUIs with the least amount of code necessary. This book uses the simplest programming style, using the fewest lines of code to create a GUI in Python, and then advances to using object-oriented programming in later chapters. If you are new to object-oriented programming (OOP), this book will teach you how to take advantage of the OOP coding style in the context of creating GUIs written in Python. Throughout the book, you will develop an entire GUI application, building recipe upon recipe, connecting the GUI to a database. In the later chapters, you will explore additional Python GUI frameworks, using best practices. You will also learn how to use threading to ensure your GUI doesn't go unresponsive. By the end of the book, you will be an expert in Python GUI programming to develop a common set of GUI applications. Style and approach Every recipe in this programming cookbook solves a problem you might encounter in your programming career. At the same time, most of the recipes build on each other to create an entire, real-life GUI application.

Hands-on Application Development with PyCharm addresses the modern-age enterprise application development concerns and how to solve them using a variety of features and functionalities available in PyCharm. This book will help you master the art of developing and delivering production-ready and real-world python applications to your clients.

Leverage the power of Python and its de facto GUI framework to build highly interactive interfaces Key Features The fundamentals of Python and GUI programming with Tkinter. Create multiple cross-platform projects by integrating a host of third-party libraries and tools. Build beautiful and highly-interactive user interfaces that target multiple devices. Book Description Tkinter is a modular, cross-platform application development toolkit for Python. When developing GUI-rich applications, the most important choices are which programming language(s) and which GUI framework to use. Python and Tkinter prove to be a great combination. This book will get you familiar with Tkinter by having you create fun and interactive projects. These projects have varying degrees of complexity. We'll start with a simple project, where you'll learn the fundamentals of GUI programming and the basics of working with a Tkinter application. After getting the basics right, we'll move on to creating a project of slightly increased complexity, such as a highly customizable Python editor. In the next project, we'll crank up the complexity level to create an instant messaging app. Toward the end, we'll discuss various ways of packaging our applications so that they can be shared and installed on other machines without the user having to learn how to install and run Python programs. What you will learn Create a scrollable frame via theCanvas widget Use the pack geometry manager andFrame widget to control layout Learn to choose a data structurefor a game Group Tkinter widgets, such asbuttons, canvases, and labels Create a highly customizablePython editor Design and lay out a chat window Who this book is for This book is for beginners to GUI programming who haven't used Tkinter yet and are eager to start building great-looking and user-friendly GUIs. Prior knowledge of Python programming is expected.

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

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 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 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!

Master GUI programming in Tkinter as you design, implement, and deliver ten real-world applications from start to finish About This Book Conceptualize and build state-of-art GUI applications with Tkinter Tackle the complexity of just about any size GUI application with a structured and scalable approach A project-based, practical guide to get hands-on into Tkinter GUI development Who This Book Is For Software developers, scientists, researchers, engineers, students, or programming hobbyists with basic familiarity in Python will find this book interesting and informative. People familiar with basic programming constructs in other programming language can also catch up with some brief reading on Python. No GUI programming experience is expected. What You Will Learn Get to know the basic concepts of GUI programming, such as Tkinter top-level widgets, geometry management, event handling, using callbacks, custom styling, and dialogs Create apps that can be scaled in size or complexity without breaking down the core Write your own GUI framework for maximum code reuse Build apps using both procedural and OOP styles, understanding the strengths and limitations of both styles Learn to structure and build large GUI applications based on Model-View-Controller (MVC) architecture Build multithreaded and database-driven apps Create apps that leverage resources from the network Learn basics of 2D and 3D animation in GUI applications Develop apps that can persist application data with object serialization and tools such as configparser In Detail Tkinter is the built-in GUI package that comes with standard Python distributions. It is a cross-platform package, which means you build once and deploy everywhere. It is simple to use and intuitive in nature, making it suitable for programmers and non-programmers alike. This book will help you master the art of GUI programming. It delivers the bigger picture of GUI programming by building real-world, productive, and fun applications such as a text editor, drum machine, game of chess, media player, drawing application, chat application, screen saver, port scanner, and many more. In every project, you will build on the skills acquired in the previous project and gain more expertise. You will learn to write multithreaded programs, network programs, database driven programs and more. You will also get to know the modern best practices involved in writing GUI apps. With its rich source of sample code, you can build upon the knowledge gained with this book and use it in your own projects in the discipline of your choice. Style and approach An easy-to-follow guide, full of hands-on examples of real-world GUI programs. The first chapter is a must read as it explains most of the things you need to get started with writing GUI programs with Tkinter. Each subsequent chapter is a stand-alone project that discusses some aspects of GUI programming in detail. These chapters can be read sequentially or randomly depending upon the readers experience with Python.

Start building Python-based Android applications using Kivy with Android Studio. Through in-depth examples, this book teaches you everything you need to create your first Android application in Python and publish on Google Play. Building Android Apps in Python Using Kivy with Android Studio takes you through the basics of Kivy by discussing its application structure, widgets, and event handling. The KV language is then introduced for separating the logic and GUI by adding widgets within a KV file. You will then learn how to utilize Android camera using Kivy, build the HTTP server using Flask, and create and manage multiple screens to help you design your own applications. Through detailed step-by-step instructions, you will create your first multi-level cross-platform game that includes animation and sound effects. Following this, the process of converting the Kivy application into an Android application using Buildozer and Python-4-Android is covered in detail. You will then learn how to edit the generated Android Studio project into Android Studio by adding extensions to the original application. The widgets added in Kivy could be handled within Android Studio. Moreover, Android views could be added to enrich the Kivy application. The resulting Android application created with Kivy can be hosted on Google Play to download and install as a regular Android application. At the end, this book will give you the basic knowledge of Kivy needed to build cross-platform Android applications, produce an Android Studio project, and understand how it all works in detail. What You Will Learn Build cross-platform applications from scratch using Kivy in detail Create a cross-platform interactive multi-level game from the ground up Examine the pipeline of building an Android app from the Python Kivy app Understand the structure of the Android Studio project produced by Kivy Recognize how to extend the application within Android Studio by adding more Android views to the application main activity. Who This Book Is For Python developers with no previous experience in Kivy who are looking to create their first Android application completely in Python.

Design a virtualized data center with VMware vSphere 6.7 Key Features Get the first book on the market that helps you design a virtualized data center with VMware vSphere 6.7 Learn how to create professional vSphere design documentation to ensure a successful implementation A practical guide that will help you apply infrastructure design principles to vSphere design Book Description VMware is the industry leader in data center virtualization. The vSphere 6.x suite of products provides a robust and resilient platform to virtualize server and application workloads. This book uses proven infrastructure design principles and applies them to VMware vSphere 6.7 virtual data center design through short and focused recipes on each design aspect. The second edition of this book focused on vSphere 6.0. vSphere features released since then necessitate an updated design guide, which includes recipes for upgrading to 6.7, vCenter HA; operational improvements; cutting-edge, high-performance storage access such as RDMA and Pmem; security features such as encrypted vMotion and VM-level encryption; Proactive HA; HA Orchestrated Restart; Predictive DRS; and more. By the end of the book, you will be able to achieve enhanced compute, storage, network, and management capabilities for your virtual data

center. What you will learn Identify key factors related to a vSphere design Mitigate security risks and meet compliance requirements in a vSphere design Create a vSphere conceptual design by identifying technical and business requirements Design for performance, availability, recoverability, manageability, and security Map the logical resource design into the physical vSphere design Create professional vSphere design documentation Who this book is for If you are an administrator or consultant interested in designing virtualized data center environments using VMware vSphere 6.x (or previous versions of vSphere and the supporting components), this book is for you.

Kivy – Interactive Applications and Games in Python Second Edition, will equip you with all the necessary knowledge to create interactive, responsive, and cross-platform applications and games. This book introduces the Kivy language and the necessary components so you can implement a graphical user interface (GUI) and learn techniques to handle events, detect gestures, and control multi-touch actions. You will learn strategies to animate your applications, and obtain interactive, professional-looking, and responsive results. You will be applying this knowledge throughout the book by developing three applications and tackling their diverse programming challenges.

Python is a powerful, expressive programming language that's easy to learn and fun to use! But books about learning to program in Python can be kind of dull, gray, and boring, and that's no fun for anyone. Python for Kids brings Python to life and brings you (and your parents) into the world of programming. The ever-patient Jason R. Briggs will guide you through the basics as you experiment with unique (and often hilarious) example programs that feature ravenous monsters, secret agents, thieving ravens, and more. New terms are defined; code is colored, dissected, and explained; and quirky, full-color illustrations keep things on the lighter side. Chapters end with programming puzzles designed to stretch your brain and strengthen your understanding. By the end of the book you'll have programmed two complete games: a clone of the famous Pong and "Mr. Stick Man Races for the Exit"—a platform game with jumps, animation, and much more. As you strike out on your programming adventure, you'll learn how to: –Use fundamental data structures like lists, tuples, and maps –Organize and reuse your code with functions and modules –Use control structures like loops and conditional statements –Draw shapes and patterns with Python's turtle module –Create games, animations, and other graphical wonders with tkinter Why should serious adults have all the fun? Python for Kids is your ticket into the amazing world of computer programming. For kids ages 10+ (and their parents) The code in this book runs on almost anything: Windows, Mac, Linux, even an OLPC laptop or Raspberry Pi!

A developer's field-guide to designing scalable services using Kubernetes Key Features Develop and run your software using containers within a Kubernetes environment Get hands-on experience of using Kubernetes with DevOps concepts such as continuous integration, benchmark testing, monitoring, and so on Pragmatic example-based approach showing how to use Kubernetes in the development process Book Description Kubernetes is documented and typically approached from the perspective of someone running software that has already been built. Kubernetes may also be used to enhance the development process, enabling more consistent testing and analysis of code to help developers verify not only its correctness, but also its efficiency. This book introduces key Kubernetes concepts, coupled with examples of how to deploy and use them with a bit of Node.js and Python example code, so that you can quickly replicate and use that knowledge. You will begin by setting up Kubernetes to help you develop and package your code. We walk you through the setup and installation process before working with Kubernetes in the development environment. We then delve into concepts such as automating your build process, autonomic computing, debugging, and integration testing. This book covers all the concepts required for a developer to work with Kubernetes. By the end of this book, you will be in a position to use Kubernetes in development ecosystems. What you will learn Build your software into containers Deploy and debug software running in containers within Kubernetes Declare and add configuration through Kubernetes Define how your application fits together, using internal and external services Add feedback to your code to help Kubernetes manage your services Monitor and measure your services through integration testing and in production deployments Who this book is for If you are a full-stack or back-end software developers interested, curious, or being asked to test as well as run the code you're creating, you can leverage Kubernetes to make that process simpler and consistent regardless of where you deploy. If you're looking for developer focused examples in NodeJS and Python for how to build, test, deploy, and run your code with Kubernetes, this is perfect for you.

In test driven development, you first write an executable test of what your application code must do. Only then do you write the code itself and, with the test spurring you on, you improve your design. In acceptance test driven development (ATDD), you use the same technique to implement product features, benefiting from iterative development, rapid feedback cycles, and better-defined requirements. TDD and its supporting tools and techniques lead to better software faster. Test Driven brings under one cover practical TDD techniques distilled from several years of community experience. With examples in Java and the Java EE environment, it explores both the techniques and the mindset of TDD and ATDD. It uses carefully chosen examples to illustrate TDD tools and design patterns, not in the abstract but concretely in the context of the technologies you face at work. It is accessible to TDD beginners, and it offers effective and less well-known techniques to older TDD hands. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Learn hands-on to test drive Java code How to avoid common TDD adoption pitfalls Acceptance test driven development and the Fit framework How to test Java EE components-Servlets, JSPs, and Spring Controllers Tough issues like multithreaded programs and data access code

NOTE: You are purchasing a standalone product; MyProgrammingLab does not come packaged with this content. If you would like to purchase both the physical text and MyProgrammingLab search for ISBN-10: 0133050556/ISBN-13: 9780133050554. That package includes ISBN-10: 0132747189/ISBN-13: 9780132747189 and ISBN-10: 0133019861/ISBN-13: 9780133019865 . MyProgrammingLab should only be purchased when required by an instructor. 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.

Build real-world, production-ready solutions in Go using cutting-edge technology and techniques About This Book Get up to date with Go and write code capable of delivering massive world-class scale performance and availability Learn to apply the nuances of the Go language, and get to know the open source community that surrounds it to implement a wide range of start-up quality projects Write interesting and clever but simple code, and learn skills and techniques that are directly transferrable to your own projects Who This Book Is For If you are familiar with Go and are want to put your knowledge to work, then this is the book for you. Go programming knowledge is a must. What You Will Learn Build quirky and fun projects from scratch while exploring patterns, practices, and techniques, as well as a range of different technologies Create websites and data services capable of massive scale using Go's net/http package, exploring RESTful patterns as well as low-latency WebSocket APIs Interact with a variety of remote web services to consume capabilities ranging from authentication and authorization to a fully functioning thesaurus Develop high-quality command-line tools that utilize the powerful shell capabilities and perform well using Go's in-built concurrency mechanisms Build microservices for larger organizations using the Go Kit library Implement a modern document database as well as high-throughput messaging queue technology to put together an architecture that is truly ready to scale Write concurrent programs and gracefully manage the execution of them and communication by smartly using channels Get a feel for app deployment using Docker and Google App Engine In Detail Go is the language of the Internet age, and the latest version of Go comes with major architectural changes. Implementation of the language, runtime, and libraries has changed significantly. The compiler and runtime are now written entirely in Go. The garbage collector is now concurrent and provides dramatically lower pause times by running in parallel with other Go routines when possible. This book will show you how to leverage all the latest features and much more. This book shows you how to build powerful systems and drops you into real-world situations. You will learn to develop high-quality command-line tools that utilize the powerful shell capabilities and perform well using Go's in-built concurrency mechanisms. Scale, performance, and high availability lie at the heart of our projects, and the lessons learned throughout this book will arm you with everything you need to build world-class solutions. You will get a feel for app deployment using Docker and Google App Engine. Each project could form the basis of a start-up, which means they are directly applicable to modern software markets. Style and approach This book provides fun projects that involve building applications from scratch. These projects will teach you to build chat applications, a distributed system, and a recommendation system.

Over 60 recipes to help you design interactive, smart, and cross-platform GUI applications Key Features Get succinct QT solutions to pressing GUI programming problems in Python Learn how to effectively implement reactive programming Build customized applications that are robust and reliable Book Description PyQt is one of the best cross-platform interface toolkits currently available; it's stable, mature, and completely native. If you want control over all aspects of UI elements, PyQt is what you need. This book will guide you through every concept necessary to create fully functional GUI applications using PyQt, with only a few lines of code. As you expand your GUI using more widgets, you will cover networks, databases, and graphical libraries that greatly enhance its functionality. Next, the book guides you in using Qt Designer to design user interfaces and implementing and testing dialogs, events, the clipboard, and drag and drop functionality to customize your GUI. You will learn a variety of topics, such as look and feel customization, GUI animation, graphics rendering, implementing Google Maps, and more. Lastly, the book takes you through how Qt5 can help you to create cross-platform apps that are compatible with Android and iOS. You will be able to develop functional and appealing software using PyQt through interesting and fun recipes that will expand your knowledge of GUIs What you will learn Use basic Qt components, such as a radio button, combo box, and sliders Use QSpinBox and sliders to handle different signals generated on mouse clicks Work with different Qt layouts to meet user interface requirements Create custom widgets and set up customizations in your GUI Perform asynchronous I/O operations and thread handling in the Python GUI Employ network concepts, internet browsing, and Google Maps in UI Use graphics rendering and implement animation in your GUI Make your GUI application compatible with Android and iOS devices Who this book is for If you're an intermediate Python programmer wishing to enhance your coding skills by writing powerful GUIs in Python using PyQT, this is the book for you.

Practical, real-world example projects. Start with the topics that grab your attention or work through each project in sequence. If you have just started with GUI programming, this book is ideal for you. This book is also great if you are an experienced software developer, scientist, researcher, engineer, student, or hobbyist.

Become a better, more productive programmer through a series of projects that will help you deeply understand and master each of the design patterns covered. In this book you will learn to write elegant "Pythonic" code to solve common programming problems. You will also experience design thinking, by identifying design patterns that would be helpful given a specific problem or situation. Python is eating the world. In recent years it has become so much more than a mere object-oriented, scripting language. Design patterns help you think of and solve problems in chunks. They help you to stand on the shoulders of the giants who have come before, instead of having to reinvent the wheel. What You Will Learn Craft cleaner code Increase your effectiveness as a programmer Write more Pythonic code Solve bigger problems Discover optimal solutions to common problems, done in a way that is uniquely Pythonic Who This Book Is For Programmers who are comfortable with Python. It is also guide for people who have mastered other programming languages and who want to make the transition to Python.

The easy way to learn programming fundamentals with Python Python is a remarkably powerful and dynamic programming language that's used in a wide variety of application domains. Some of its key distinguishing features include a very clear, readable syntax, strong introspection capabilities, intuitive object orientation, and natural expression of procedural code. Plus, Python features full modularity, supporting hierarchical packages, exception-based error handling, and modules easily written in C, C++, Java, R, or .NET languages, such as C#. In addition, Python supports a number of coding styles that include: functional, imperative, object-oriented, and procedural. Due to its ease of use and flexibility, Python is constantly growing in popularity—and now you can wear your programming hat with pride and join the ranks of the pros with the help of this guide. Inside, expert author John Paul Mueller gives a complete step-by-step overview of all there is to know about Python. From performing common and advanced tasks, to collecting data, to interacting with package—this book covers it all! Use Python to create and run your first application Find out how to troubleshoot and fix errors Learn to work with Anaconda and

use Magic Functions Benefit from completely updated and revised information since the last edition If you've never used Python or are new to programming in general, Beginning Programming with Python For Dummies is a helpful resource that will set you up for success.

A pragmatic guide for developing your own games with Python About This Book Strengthen your fundamentals of game programming with Python language Seven hands-on games to create 2D and 3D games rapidly from scratch Illustrative guide to explore the different GUI libraries for building your games Who This Book Is For If you have ever wanted to create casual games in Python and you would like to explore various GUI technologies that this language offers, this is the book for you. This title is intended for beginners to Python with little or no knowledge of game development, and it covers step by step how to build seven different games, from the well-known Space Invaders to a classical 3D platformer. What You Will Learn Take advantage of Python's clean syntax to build games quickly Discover distinct frameworks for developing graphical applications Implement non-player characters (NPCs) with autonomous and seemingly intelligent behaviors Design and code some popular games like Pong and tower defense Compose maps and levels for your sprite-based games in an easy manner Modularize and apply object-oriented principles during the design of your games Exploit libraries like Chimpunk2D, cocos2d, and Tkinter Create natural user interfaces (NUIs), using a camera and computer vision algorithms to interpret the player's real-world actions In Detail With a growing interest in learning to program, game development is an appealing topic for getting started with coding. From geometry to basic Artificial Intelligence algorithms, there are plenty of concepts that can be applied in almost every game. Python is a widely used general-purpose, high-level programming language. It provides constructs intended to enable clear programs on both a small and large scale. It is the third most popular language whose grammatical syntax is not predominantly based on C. Python is also very easy to code and is also highly flexible, which is exactly what is required for game development. The user-friendliness of this language allows beginners to code games without too much effort or training. Python also works with very little code and in most cases uses the “use cases” approach, reserving lengthy explicit coding for outliers and exceptions, making game development an achievable feat. Python Game Programming by Example enables readers to develop cool and popular games in Python without having in-depth programming knowledge of Python. The book includes seven hands-on projects developed with several well-known Python packages, as well as a comprehensive explanation about the theory and design of each game. It will teach readers about the techniques of game design and coding of some popular games like Pong and tower defense.

Thereafter, it will allow readers to add levels of complexities to make the games more fun and realistic using 3D. At the end of the book, you will have added several GUI libraries like Chimpunk2D, cocos2d, and Tkinter in your tool belt, as well as a handful of recipes and algorithms for developing games with Python. Style and approach This book is an example-based guide that will teach you to build games using Python. This book follows a step-by-step approach as it is aimed at beginners who would like to get started with basic game development. By the end of this book you will be competent game developers with good knowledge of programming in Python.

This book focuses on the popular frontend web framework Vue's latest version, Vue 3.0. You'll explore the Vue ecosystem, discover how you can use it to achieve impressive results in a short space of time, and learn essential Vue 3 concepts by building real-world applications.

An advanced guide to creating powerful high-performance GUIs for modern, media-rich applications in various domains such as business and game development Key Features Gain comprehensive knowledge of Python GUI development using PyQt 5.12 Explore advanced topics including multithreaded programming, 3D animation, and SQL databases Build cross-platform GUIs for Windows, macOS, Linux, and Raspberry Pi Book Description PyQt5 has long been the most powerful and comprehensive GUI framework available for Python, yet there is a lack of cohesive resources available to teach Python programmers how to use it. This book aims to remedy the problem by providing comprehensive coverage of GUI development with PyQt5. You will get started with an introduction to PyQt5, before going on to develop stunning GUIs with modern features. You will then learn how to build forms using QWidgets and learn about important aspects of GUI development such as layouts, size policies, and event-driven programming. Moving ahead, you'll discover PyQt5's most powerful features through chapters on audio-visual programming with QtMultimedia, database-driven software with QtSQL, and web browsing with QtWebEngine. Next, in-depth coverage of multithreading and asynchronous programming will help you run tasks asynchronously and build high-concurrency processes with ease. In later chapters, you'll gain insights into QOpenGLWidget, along with mastering techniques for creating 2D graphics with QPainter. You'll also explore PyQt on a Raspberry Pi and interface it with remote systems using QtNetwork. Finally, you will learn how to distribute your applications using setuptools and PyInstaller. By the end of this book, you will have the skills you need to develop robust GUI applications using PyQt. What you will learn Get to grips with the inner workings of PyQt5 Learn how elements in a GUI application communicate with signals and slots Learn techniques for styling an application Explore database-driven applications with the QtSQL module Create 2D graphics with QPainter Delve into 3D graphics with QOpenGLWidget Build network and web-aware applications with QtNetwork and QtWebEngine Who this book is for This book is for programmers who want to create attractive, functional, and powerful GUIs using the Python language. You'll also find this book useful if you are a student, professional, or anyone who wants to start exploring GUIs or take your skills to the next level. Although prior knowledge of the Python language is assumed, experience with PyQt, Qt, or GUI programming is not required.

How to build useful, real-world applications in the Python programming language Key Features Deliver scalable and high-performing applications in Python. Delve into the great ecosystem of Python frameworks and libraries through projects that you will build with this book. This comprehensive guide will help you demonstrate the power of Python by building practical projects. Book Description Python is a very powerful, high-level, object-oriented programming language. It's known for its simplicity and huge community

support. Python Programming Blueprints will help you build useful, real-world applications using Python. In this book, we will cover some of the most common tasks that Python developers face on a daily basis, including performance optimization and making web applications more secure. We will familiarize ourselves with the associated software stack and master asynchronous features in Python. We will build a weather application using command-line parsing. We will then move on to create a Spotify remote control where we'll use OAuth and the Spotify Web API. The next project will cover reactive extensions by teaching you how to cast votes on Twitter the Python way. We will also focus on web development by using the famous Django framework to create an online game store. We will then create a web-based messenger using the new Nameko microservice framework. We will cover topics like authenticating users and, storing messages in Redis. By the end of the book, you will have gained hands-on experience in coding with Python. What you will learn Learn object-oriented and functional programming concepts while developing projects The dos and don'ts of storing passwords in a database Develop a fully functional website using the popular Django framework Use the BeautifulSoup library to perform web scrapping Get started with cloud computing by building microservice and serverless applications in AWS Develop scalable and cohesive microservices using the Nameko framework Create service dependencies for Redis and PostgreSQL Who this book is for This book is for software developers who are familiar with Python and want to gain hands-on experience with web and software development projects. A basic knowledge of Python programming is required.

Discover Golang's GUI libraries such as Go-GTK (GIMP Toolkit) and Go-Qt and build beautiful, performant, and responsive graphical applications Key Features Conceptualize and build state-of-art GUI applications with Golang (Go) Tackle the complexity of varying GUI application sizes with a structured and scalable approach Get hands-on experience of GUI development with Shiny, and labs/ui, Fyne, and Walk Book Description Go is often compared to C++ when it comes to low-level programming and implementations that require faster processing, such as Graphical User Interfaces (GUIs). In fact, many claim that Go is superior to C++ in terms of its concurrency and ease of use. Most graphical application toolkits, though, are still written using C or C++, and so they don't enjoy the benefits of using a modern programming language such as Go. This guide to programming GUIs with Go 1.11 explores the various toolkits available, including UI, Walk, Shiny, and Fyne. The book compares the vision behind each project to help you pick the right approach for your project. Each framework is described in detail, outlining how you can build performant applications that users will love. To aid you further in creating applications using these emerging technologies, you'll be able to easily refer to code samples and screenshots featured in the book. In addition to toolkit-specific discussions, you'll cover more complex topics, such as how to structure growing graphical applications, and how cross-platform applications can integrate with each desktop operating system to create a seamless user experience. By delving into techniques and best practices for organizing and scaling Go-based graphical applications, you'll also glimpse Go's impressive concurrency system. In the concluding chapters, you'll discover how to distribute to the main desktop marketplaces and distribution channels. By the end of this book, you'll be a confident GUI developer who can use the Go language to boost the performance of your applications. What you will learn Understand the benefits and complexities of building native graphical applications Gain insights into how Go makes cross-platform graphical application development simple Build platform-native GUI applications using andlabs/ui Develop graphical Windows applications using Walk Create multiplatform GUI applications using Shiny, Nuklear, and Fyne Use Go wrappers for GTK and Qt for GUI application development Streamline your requirements to pick the correct toolkit strategy Who this book is for This book is designed for Go developers who are interested in building native graphical applications for desktop computers and beyond. Some knowledge of building applications using Go is useful, but not essential. Experience in developing GUIs is not required as the book explores the benefits and challenges they pose. This book will also be beneficial for GUI application developers who are interested in trying Go. Over 90 recipes to help you develop widgets, forms, layouts, charts, and much more using the latest features of Python 3 Key Features Use object-oriented programming to develop impressive GUIs in Python Create interesting charts to visually represent data using Matplotlib Develop GUIs with the latest versions of tkinter, PyQt5, and wxPython frameworks Book Description Python is a multi-domain, interpreted programming language that is easy to learn and implement. With its wide support for frameworks to develop GUIs, you can build interactive and beautiful GUI-based applications easily using Python. This third edition of Python GUI Programming Cookbook follows a task-based approach to help you create effective GUIs with the smallest amount of code. Every recipe in this book builds upon the last to create an entire, real-life GUI application. These recipes also help you solve problems that you might encounter while developing GUIs. This book mainly focuses on using Python's built-in tkinter GUI framework. You'll learn how to create GUIs in Python using simple programming styles and object-oriented programming (OOP). As you add more widgets and expand your GUI, you will learn how to connect to networks, databases, and graphical libraries that greatly enhance the functionality of your GUI. You'll also learn how to use threading to ensure that your GUI doesn't become unresponsive. Toward the end, you'll learn about the versatile PyQt GUI framework, which comes along with its own visual editor that allows you to design GUIs using drag and drop features. By the end of the book, you'll be an expert in designing Python GUIs and be able to develop a variety of GUI applications with ease. What you will learn Create amazing GUIs with Python's built-in tkinter module Customize GUIs using layout managers to arrange GUI widgets Advance from the typical waterfall coding style to an OOP style using Python Develop beautiful charts using the free Matplotlib Python module Use threading in a networked environment to make GUIs responsive Discover ways to connect GUIs to a MySQL database Understand how unit tests can be created and internationalize GUI Delve into the world of GUI creation using PyQt5 Who this book is for If you're a programmer or developer looking to enhance your Python skills by writing powerful GUI applications, this book is for you. Familiarity with the Python programming language is necessary to get the most out of the book.

Geometry Management, Event Handling, and more Key Features A Practical, guide to learn the application of Python and GUI programming with tkinter Create multiple cross-platform real-world projects by integrating host of third party libraries and tools Learn to build beautiful and highly interactive user interfaces, targeting multiple devices. Book Description Tkinter is the built-in GUI package that comes with standard Python distributions. It is a cross-platform package, which means you build once and deploy everywhere. It is simple to use and intuitive in nature, making it suitable for programmers and non-programmers alike. This book will help you master the art of GUI programming. It delivers the bigger picture of GUI programming by building real-world, productive, and fun applications such as a text editor, drum machine, game of chess, audio player, drawing application, piano tutor, chat application, screen saver, port scanner, and much more. In every project, you will build on the skills acquired in the previous project and gain more expertise. You will learn to write multithreaded programs, network programs, database-driven programs, asyncio based programming and more. You will also get to know the modern best practices involved in writing GUI apps. With its rich source of sample code, you can build upon the knowledge gained with this book and use it in your own projects in the discipline of your choice. What you will learn -A Practical, guide to help you learn the application of Python and GUI programming with Tkinter - Create multiple, cross-platform, real-world projects by integrating a host of third-party libraries and tools - Learn to build beautiful and highly interactive user interfaces, targeting multiple devices. Who this book is for This book is for a beginner to intermediate-level Pythonists who want to build modern, cross-platform GUI applications with the amazingly powerful Tkinter. Prior knowledge of Tkinter is required.

This book includes full documentation for Tkinter, and also offers extensive examples for many real-world Python/Tkinter applications that will give programmers a quick start on their own projects. Third Edition: thoroughly revised and expanded! Over 20% new material. Updated for Python 3.9. Quickly learn the right way to build attractive and modern graphical user interfaces with Python and Tkinter. You know some Python. You want to create a user interface for your application. You don't want to waste time messing around with things you don't need. Enter Tkinter. It's built right into Python. Everything you need is included in the standard Python distributions. No extra downloads. Your Python and Tkinter scripts will work on Windows, Mac and Linux. Tkinter has a simple, clean, Pythonic API and takes care of much of the housekeeping needed in GUI programming. You can focus on what's unique in your application. One HUGE Problem. Tkinter has been around for a very long time. There's a lot of documentation, much of it created years ago. Nearly everything you'd find in that documentation still works today. But it's all wrong. Tkinter has a reputation for ugly and outdated user interfaces that don't fit in with modern systems. And if you follow the old documentation, that's exactly what you'll get. Because Tkinter has taken a quantum leap forward since all that documentation was written. There are new and better ways to build your user interface. Your program needs to be written differently to take advantage of that. Modern Tkinter shows you the right way to do it. You'll learn all the modern best practices. You'll build your user interface the right way the first time, without having to learn anything extra or irrelevant. It starts at the beginning, shows you what you need to know, and covers all the essential elements of building your modern user interface. This includes: all the standard GUI widgets attractively laying out your user interface managing menus, windows, and standard dialogs organizing more complex user interfaces Tkinter's powerhouse widgets: canvas and text customizing the look of your user interface making it all work on Mac, Windows, and Linux You may have been using older documentation, or are trying to update a Tkinter program written years ago. If so, you'll find warnings of what to avoid using, and how to replace it with a modern solution. There's even a full case study of modernizing the user interface of a seriously out-of-date Tkinter application you may be familiar with. Who this book is for This book is for everyday Python programmers looking to quickly create desktop user interfaces. You may be new to Tkinter, or want to bring your knowledge up to date. You don't need to be an expert on OOP, MVC architecture, multithreading or any other advanced topics. In fact, you're not going to see any of those things in this book. This book uses Python 3.9, but everything you learn will apply (with small tweaks) to any Python 3.x version. It won't help you if you're using Python 2.x. Let veteran software developer Mark Roseman show you the right way to build user interfaces with Python and Tkinter. He's been using and Tk (the technology behind Tkinter) since its early days and has shipped dozens of open source tools and commercial applications based on it. He's also the author of the multi-lingual TkDocs website, the de facto reference for building modern Tk user interfaces. This book brings together Python-specific information from that site and supports its further development.

The second edition of this best-selling Python book (over 500,000 copies sold!) uses Python 3 to teach even the technically uninclined how to write programs that do in minutes what would take hours to do by hand. There is no prior programming experience required and the book is loved by liberal arts majors and geeks alike. If you've ever spent hours renaming files or updating hundreds of spreadsheet cells, you know how tedious tasks like these can be. But what if you could have your computer do them for you? In this fully revised second edition of the best-selling classic Automate the Boring Stuff with Python, you'll learn how to use Python to write programs that do in minutes what would take you hours to do by hand--no prior programming experience required. You'll learn the basics of Python and explore Python's rich library of modules for performing specific tasks, like scraping data off websites, reading PDF and Word documents, and automating clicking and typing tasks. The second edition of this international fan favorite includes a brand-new chapter on input validation, as well as tutorials on automating Gmail and Google Sheets, plus tips on automatically updating CSV files. You'll learn how to create programs that effortlessly perform useful feats of automation to:

- Search for text in a file or across multiple files
- Create, update, move, and rename files and folders
- Search the Web and download online content
- Update and format data in Excel spreadsheets of any size
- Split, merge, watermark, and encrypt PDFs
- Send email responses and text notifications
- Fill out online forms

Step-by-step instructions walk you through each program, and updated practice projects at the end of each chapter challenge you to improve those programs and use your newfound skills to automate similar tasks. Don't spend your time doing work a well-trained monkey could do. Even if you've never written a line of code, you can make your computer do the grunt work. Learn how in Automate the Boring Stuff with Python, 2nd Edition.

Discover solutions to all your Tkinter and Python GUI development problems Key Features Integrate efficient Python GUI programming techniques with Tkinter Efficiently implement advanced MVC architectures in your Python GUI apps Solve all your problems related to Tkinter and Python GUI development Book Description As one of the more versatile programming languages, Python is well-known for its batteries-included philosophy, which includes a rich set of modules in its standard library; Tkinter is the library included for building desktop applications. Due to this, Tkinter is a common choice for rapid GUI development, and more complex applications can benefit from the full capabilities of this library. This book covers all of your Tkinter and Python GUI development problems and solutions. Tkinter GUI Application Development Cookbook starts with an overview of Tkinter classes and at the same time provides recipes for basic topics, such as layout patterns and event handling. Next, we cover how to develop common GUI patterns, such as entering and saving data, navigating through menus and dialogs, and performing long-running actions in the background. You can then make your apps leverage network resources effectively and perform graphical operations on a canvas and related tasks such as detecting collisions between items. Finally, this book covers using themed widgets, an extension of Tk widgets that have a more native look and feel. Finally, this book covers using the canvas and themed widgets. By the end of the book, you will have an in-depth knowledge of Tkinter classes, and will know

how to use them to build efficient and rich GUI applications. What you will learn Add widgets and handle user events Lay out widgets within windows using frames and the different geometry managers Configure widgets so that they have a customized appearance and behavior Improve the navigation of your apps with menus and dialogs Apply object-oriented programming techniques in Tkinter applications Use threads to achieve responsiveness and update the GUI Explore the capabilities of the canvas widget and the types of items that can be added to it Extend Tkinter applications with the TTK (themed Tkinter) module Who this book is for This book is for Python developers who are familiar with the basics of the language syntax, data structures, and OOP. You do not need previous experience with Tkinter or other GUI development libraries.

PYTHON FOR DESKTOP APPLICATIONS How to develop, pack and deliver Python applications with TkInter and Kivy. Chapter 1, Introduction shows you some fundamental concepts of Python such as pip, wheel, virtual environment, GIL, CLI and GUI, which tools we will use, how to set them up. Chapter 2, Create a File Downloader with TKInter introduces how to develop a Python file downloader application with simple GUI using TKInter library. This chapter also guides you how to pack your application using PyInstaller and make a setup using NSIS. Chapter 3, Create a Music Player with Kivy walks through how make a music player with Kivy. We will start with a very simple Kivy application then eventually build a more complex one. We also pack our music player up using PyInstaller. Chapter 4, Debugging shows you how to debug your applications if something wrong. Useful tips and handy DependencyWalker debug tool guide. In this chapter, you will also be introduced to cx_Freeze to build/freeze a wx_Python application.

Geometry Management, Event Handling, and more About This Book A Practical, guide to learn the application of Python and GUI programming with tkinter Create multiple cross-platform real-world projects by integrating host of third party libraries and tools Learn to build beautiful and highly interactive user interfaces, targeting multiple devices. Who This Book Is For This book is for a beginner to intermediate-level Pythonists who want to build modern, cross-platform GUI applications with the amazingly powerful Tkinter. Prior knowledge of Tkinter is required. What You Will Learn A Practical, guide to help you learn the application of Python and GUI programming with Tkinter Create multiple, cross-platform, real-world projects by integrating a host of third-party libraries and tools Learn to build beautiful and highly interactive user interfaces, targeting multiple devices. In Detail Tkinter is the built-in GUI package that comes with standard Python distributions. It is a cross-platform package, which means you build once and deploy everywhere. It is simple to use and intuitive in nature, making it suitable for programmers and non-programmers alike. This book will help you master the art of GUI programming. It delivers the bigger picture of GUI programming by building real-world, productive, and fun applications such as a text editor, drum machine, game of chess, audio player, drawing application, piano tutor, chat application, screen saver, port scanner, and much more. In every project, you will build on the skills acquired in the previous project and gain more expertise. You will learn to write multithreaded programs, network programs, database-driven programs, asyncio based programming and more. You will also get to know the modern best practices involved in writing GUI apps. With its rich source of sample code, you can build upon the knowledge gained with this book and use it in your own projects in the discipline of your choice. Style and approach An easy-to-follow guide, full of hands-on examples of real-world GUI programs. The first chapter is a must-read as it explains most of the things you need to get started with writing GUI programs with Tkinter. Each subsequent chapter is a stand-alone project that discusses some aspects of GUI programming in detail. These chapters can be read sequentially or randomly, depending on the reader's experience with Python. Downloading the example code for this book You can download the example code files ...

If you are new to C++ programming, C++ Primer Plus, Fifth Edition is a friendly and easy-to-use self-study guide. You will cover the latest and most useful language enhancements, the Standard Template Library and ways to streamline object-oriented programming with C++. This guide also illustrates how to handle input and output, make programs perform repetitive tasks, manipulate data, hide information, use functions and build flexible, easily modifiable programs. With the help of this book, you will: Learn C++ programming from the ground up. Learn through real-world, hands-on examples. Experiment with concepts, including classes, inheritance, templates and exceptions. Reinforce knowledge gained through end-of-chapter review questions and practice programming exercises. C++ Primer Plus, Fifth Edition makes learning and using important object-oriented programming concepts understandable. Choose this classic to learn the fundamentals and more of C++ programming.

This is a tutorial-style book that helps you to perform Geospatial and GIS analysis with Python and its tools/libraries. This book will first introduce various Python-related tools/packages in the initial chapters before moving towards practical usage, examples, and implementation in specialized kinds of Geospatial data analysis. This book is for anyone who wants to understand digital mapping and analysis and who uses Python or another scripting language for automation or crunching data manually. This book primarily targets Python developers, researchers, and analysts who want to perform Geospatial, modeling, and GIS analysis with Python.

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