

Practical Vim, Second Edition: Edit Text At The Speed Of Thought

Pro Vim teaches you the real-world workflows, tips, and tricks of this powerful, terminal-based text editor. This book covers all the essentials, as well as lesser-known but equally powerful features that will ensure you become a top-level performant and professional user, able to jump between multiple sessions while manipulating and controlling with ease many different documents and programming files. With easy-to-digest chapters on all the areas you need to learn, this book is a key addition to your library that will enable you to become a fast, efficient user of Vim. Using this book, you will learn how to properly configure your terminal environment and work without even touching the mouse. You will become an expert in how Vim actually works: how buffers and sessions work, automation through Macros and shell scripting, real-world workflows, and how to work efficiently and fast with plugins and different themes. You will also learn practical, real-world tips on how to best utilize Vim alongside the terminal multiplexer tmux; helping you to manage files across multiple servers and terminal sessions. Avoid common pitfalls and work with best practice ways to efficiently edit and control your files and sessions from the terminal interface. Vim is an advanced power tool that is commonly recognized as being difficult to learn, even for experienced developers. This book shows you how to become an expert by focusing on not only the fundamentals of how Vim works, but also by distilling the author's own experiences learning Vim into an easy-to-understand and follow guide. It's time to bring your programming, editing, and workflow skills up to the professional level - use Pro Vim today. This book, which is free of computer 'geek-speak,' gently explains how to use the UNIX-LINUX 'vi' text editor. It contains tutorials for beginners as well as lots of tips and tricks for experienced users.

From lambda expressions and JavaFX 8 to new support for network programming and mobile development, Java 8 brings a wealth of changes. This cookbook helps you get up to speed right away with hundreds of hands-on recipes across a broad range of Java topics. You'll learn useful techniques for everything from debugging and data structures to GUI development and functional programming. Each recipe includes self-contained code solutions that you can freely use, along with a discussion of how and why they work. If you are familiar with Java basics, this cookbook will bolster your knowledge of the language in general and Java 8's main APIs in particular. Recipes include: Methods for compiling, running, and debugging Manipulating, comparing, and rearranging text Regular expressions for string- and pattern-matching Handling numbers, dates, and times Structuring data with collections, arrays, and other types Object-oriented and functional programming techniques Directory and filesystem operations Working with graphics, audio, and video GUI development, including JavaFX and handlers Network programming on both client and server Database access, using JPA, Hibernate, and JDBC Processing JSON and XML for data storage Multithreading and concurrency

What others in the trenches say about The Pragmatic Programmer... "The cool thing about this book is that it's great for keeping the programming process fresh. The book helps you to continue to grow and clearly comes from people who have been there." -Kent Beck, author of Extreme Programming Explained: Embrace Change "I found this book to be a great mix of solid advice and wonderful analogies!" -Martin Fowler, author of Refactoring and UML Distilled "I would buy a copy, read it twice, then tell all my colleagues to run out and grab a copy. This is a book I would never loan because I would worry about it being lost." -Kevin Ruland, Management Science, MSG-Logistics "The wisdom and practical experience of the authors is obvious. The topics presented are relevant and useful.... By far its greatest strength for me has been the outstanding analogies--tracer bullets, broken windows, and the fabulous helicopter-based explanation of the need for orthogonality, especially in a crisis situation. I have little doubt that this book will eventually become an excellent source of useful information for journeymen programmers and expert mentors alike." -John Lakos, author of Large-Scale C++ Software Design "This is the sort of book I will buy a dozen copies of when it comes out so I can give it to my clients." -Eric Vought, Software Engineer "Most modern books on software development fail to cover the basics of what makes a great software developer, instead spending their time on syntax or technology where in reality the greatest leverage possible for any software team is in having talented developers who really know their craft well. An excellent book." -Pete McBreen, Independent Consultant "Since reading this book, I have implemented many of the practical suggestions and tips it contains. Across the board, they have saved my company time and money while helping me get my job done quicker! This should be a desktop reference for everyone who works with code for a living." -Jared Richardson, Senior Software Developer, iRenaissance, Inc. "I would like to see this issued to every new employee at my company...." -Chris Cleeland, Senior Software Engineer, Object Computing, Inc. "If I'm putting together a project, it's the authors of this book that I want. . . . And failing that I'd settle for people who've read their book." -Ward Cunningham Straight from the programming trenches, The Pragmatic Programmer cuts through the increasing specialization and technicalities of modern software development to examine the core process--taking a requirement and producing working, maintainable code that delights its users. It covers topics ranging from personal responsibility and career development to architectural techniques for keeping your code flexible and easy to adapt and reuse. Read this book, and you'll learn how to Fight software rot; Avoid the trap of duplicating knowledge;

Write flexible, dynamic, and adaptable code; Avoid programming by coincidence; Bullet-proof your code with contracts, assertions, and exceptions; Capture real requirements; Test ruthlessly and effectively; Delight your users; Build teams of pragmatic programmers; and Make your developments more precise with automation. Written as a series of self-contained sections and filled with entertaining anecdotes, thoughtful examples, and interesting analogies, The Pragmatic Programmer illustrates the best practices and major pitfalls of many different aspects of software development. Whether you're a new coder, an experienced programmer, or a manager responsible for software projects, use these lessons daily, and you'll quickly see improvements in personal productivity, accuracy, and job satisfaction. You'll learn skills and develop habits and attitudes that form the foundation for long-term success in your career. You'll become a Pragmatic Programmer.

How to Write and Illustrate a Scientific Paper

Pro Vim

Advanced Analytics and Graphics

The Pragmatic Programmer

Vi IMproved, Vim

Linux Pocket Guide

Git Essentials

"Vim is a fast and efficient text editor that will make you a faster and more efficient developer. In more than 120 Vim tips, you'll quickly learn the editor's core functionality and tackle your trickiest editing and writing tasks"--Back cover.

Mastering Vim, reviewed by Bram Moolenaar, the creator of Vim, covers usage of Vim and Neovim, showcases relevant plugins, and teaches Vimscript Key Features Expert Vim and Vimscript techniques to work with Python and other development environment Accomplish end-to-end software development tasks with Neovim and Vim plugins Understand best practices for various facets of projects like version control, building, and testing Book Description Vim is a ubiquitous text editor that can be used for all programming languages. It has an extensive plugin system and integrates with many tools. Vim offers an extensible and customizable development environment for programmers, making it one of the most popular text editors in the world. Mastering Vim begins with explaining how the Vim editor will help you build applications efficiently. With the fundamentals of Vim, you will be taken through the Vim philosophy. As you make your way through the chapters, you will learn about advanced movement, text operations, and how Vim can be used as a Python (or any other language for that matter) IDE. The book will then cover essential tasks, such as refactoring, debugging, building, testing, and working with a version control system, as well as plugin configuration and management. In the concluding chapters, you will be introduced to additional mindset guidelines, learn to personalize your Vim experience, and go above and beyond with Vimscript. By the end of this book, you will be sufficiently confident to make Vim (or its fork, Neovim) your first choice when writing applications in Python and other programming languages. What you will learn Get the most recent Vim, GVim, and Neovim versions installed Become efficient at navigating and editing text Uncover niche Vim plugins and pick the best ones Discover multiple ways of organizing plugins Explore and tailor Vim UI to fit your needs Organize and maintain Vim configuration across environments Write scripts to complement your workflow using Vimscript Who this book is for Mastering Vim is written for beginner, intermediate, and expert developers. The book will teach you to effectively embed Vim in your daily workflow. No prior experience with Python or Vim is required.

You've experienced the shiny, point-and-click surface of your Linux computer--now dive below and explore its depths with the power of the command line. The Linux Command Line takes you from your very first terminal keystrokes to writing full programs in Bash, the most popular Linux shell (or command line). Along the way you'll learn the timeless skills handed down by generations of experienced, mouse-shunning gurus: file navigation, environment configuration, command chaining, pattern matching with regular expressions, and more. In addition to that practical knowledge, author William Shotts reveals the philosophy behind these tools and the rich heritage that your desktop Linux machine has inherited from Unix supercomputers of yore. As you make your way through the book's short, easily-digestible chapters, you'll learn how to:

- Create and delete files, directories, and symlinks*
- Administer your system, including networking, package installation, and process management*
- Use standard input and output, redirection, and pipelines*
- Edit files with Vi, the world's most popular text editor*
- Write shell scripts to automate common or boring tasks*
- Slice and dice text files with cut, paste, grep, patch, and sed*

Once you overcome your initial "shell shock," you'll find that the command line is a natural and expressive way to communicate with your computer. Just don't be surprised if your mouse starts to gather dust.

Many Unix, Linux, and Mac OS X geeks enjoy using the powerful, platform-agnostic text editors vi and Vim, but there are far too many commands for anyone to remember. Author Arnold Robbins has chosen the most valuable commands for vi, Vim, and vi's main clones—vile, elvis, and nvi—and packed them into this easy-to-browse pocket reference. You'll find commands for all kinds of editing tasks, such as programming, modifying system files, and writing and marking up articles. This second edition includes: Command-line options vi commands and set options Input mode shortcuts Substitution and regular expressions ex commands and options Initialization and recovery Enhanced tags and tag stacks A greatly expanded section on Vim commands and options Additional features in vile, elvis, and nvi Internet resources for vi A full index

Pragmatic Guide to Git

Build a software development environment with Vim and Neovim

Bringing classic computing approaches to the Web

Learn Python 3 the Hard Way

A practical guide to Linux command-line, Bash scripting, and Shell programming, 2nd Edition

Edit Like a Pro with Vim Plugins and Scripts

Quantities, Units and Symbols in Physical Chemistry

Statistical Computation for Programmers, Scientists, Quants, Excel Users, and Other Professionals Using the open source R language, you can build powerful statistical models to answer many of your most challenging questions. R has traditionally been difficult for non-statisticians to learn, and most R books assume far too much knowledge to be of help. R for Everyone, Second Edition, is the solution. Drawing on his unsurpassed experience teaching new users, professional data scientist Jared P. Lander has written the perfect tutorial for anyone new to statistical programming and modeling. Organized to make learning easy and intuitive, this guide focuses on the 20 percent of R functionality you'll need to accomplish 80 percent of modern data tasks. Lander's self-contained chapters start with the absolute basics, offering extensive hands-on practice and sample code. You'll download and install R; navigate and use the R environment; master basic program control, data import, manipulation, and

visualization; and walk through several essential tests. Then, building on this foundation, you'll construct several complete models, both linear and nonlinear, and use some data mining techniques. After all this you'll make your code reproducible with LaTeX, RMarkdown, and Shiny. By the time you're done, you won't just know how to write R programs, you'll be ready to tackle the statistical problems you care about most. Coverage includes Explore R, RStudio, and R packages Use R for math: variable types, vectors, calling functions, and more Exploit data structures, including data.frames, matrices, and lists Read many different types of data Create attractive, intuitive statistical graphics Write user-defined functions Control program flow with if, ifelse, and complex checks Improve program efficiency with group manipulations Combine and reshape multiple datasets Manipulate strings using R's facilities and regular expressions Create normal, binomial, and Poisson probability distributions Build linear, generalized linear, and nonlinear models Program basic statistics: mean, standard deviation, and t-tests Train machine learning models Assess the quality of models and variable selection Prevent overfitting and perform variable selection, using the Elastic Net and Bayesian methods Analyze univariate and multivariate time series data Group data via K-means and hierarchical clustering Prepare reports, slideshows, and web pages with knitr Display interactive data with RMarkdown and htmlwidgets Implement dashboards with Shiny Build reusable R packages with devtools and Rcpp Register your product at informit.com/register for convenient access to downloads, updates, and corrections as they become available.

Turn Vim into a full-blown development environment using Vim 8's new features and this sequel to the beloved bestseller Practical Vim. Integrate your editor with tools for building, testing, linting, indexing, and searching your codebase. Discover the future of Vim with Neovim: a fork of Vim that includes a built-in terminal emulator that will transform your workflow. Whether you choose to switch to Neovim or stick with Vim 8, you'll be a better developer. A serious tool for programmers and web developers, no other text editor comes close to Vim for speed and efficiency. Make Vim the centerpiece of a Unix-based IDE as you discover new ways to work with Vim 8 and Neovim in more than 20 hands-on tips. Execute tasks asynchronously, allowing you to continue in Vim while linting, grepping, building a project, or running a test suite. Install plugins to be loaded on startup - or on-demand when you need them - with Vim 8's new package support. Save and restore sessions, enabling you to quit Vim and restart again while preserving your window layout and undo history. Use Neovim as a drop-in replacement for Vim - it supports all of the features Vim 8 offers and more, including an integrated terminal that lets you quickly perform interactive commands. And if you enjoy using tmux and Vim together, you'll love Neovim's terminal emulator, which lets you run an interactive shell in a buffer. The terminal buffers fit naturally with Vim's split windows, and you can use Normal mode commands to scroll, search, copy, and paste. On top of all that: Neovim's terminal buffers are scriptable. With Vim at the core of your development environment, you'll become a faster and more efficient developer. What You Need: You'll need a Unix-based environment and an up-to-date release of Vim (8.0 or newer). For the tips about running a terminal emulator, you'll need to install Neovim.

For many users, working in the UNIX environment means using vi, a full-screen text editor available on most UNIX systems. Even those who know vi often make use of only a small number of its features. The vi Editor Pocket Reference is a companion volume to O'Reilly's updated sixth edition of Learning the vi Editor, a complete guide to text editing with vi. New topics in Learning the vi Editor include multi-screen editing and coverage of four vi clones: vim, elvis, nvi, and vile. This small book is a handy reference guide to the information in the larger volume, presenting movement and editing commands, the command-line options, and other elements of the vi editor in an easy-to-use tabular format.

Vim is a fast and efficient text editor that will make you a faster and more efficient developer. It's available on almost every OS, and if you master the techniques in this book, you'll never need another text editor. In more than 120 Vim tips, you'll quickly learn the editor's core functionality and tackle your trickiest editing and writing tasks. This beloved bestseller has been revised and updated to Vim 7.4 and includes three brand-new tips and five fully revised tips. A highly configurable, cross-platform text editor, Vim is a serious tool for programmers, web developers, and sysadmins who want to raise their game. No other text editor comes close to Vim for speed and efficiency; it runs on almost every system imaginable and supports most coding and markup languages. Learn how to edit text the "Vim way": complete a series of repetitive changes with The Dot Formula using one keystroke to strike the target, followed by one keystroke to execute the change. Automate complex tasks by recording your keystrokes as a macro. Discover the "very magic" switch that makes Vim's regular expression syntax more like Perl's. Build complex patterns by iterating on your search history. Search inside multiple files, then run Vim's substitute command on the result set for a project-wide search and replace. All without installing a single plugin! Three new tips explain how to run multiple ex commands as a batch, autocomplete sequences of words, and operate on a complete search match. Practical Vim, Second Edition will show you new ways to work with Vim 7.4 more efficiently, whether you're a beginner or an intermediate Vim user. All this, without having to touch the mouse. What You Need: Vim version 7.4

Practical Microservices

Data Structures and Algorithms with JavaScript

A Hands-On Guide for the Adventurous

Learning the Vi and Vim Editors

A beginner's guide to learning C programming the easy and disciplined way

Linux Essentials

For many users, working in the Unix environment means using vi, a full-screen text editor available on most Unix systems. Even those who know vi often make use of only a small number of its features. Learning the vi Editor is a complete guide to text editing with vi. Topics new to the sixth edition include multiscreen editing and coverage of four vi clones: vim, elvis, nvi, and vile and their enhancements to vi, such as

multi-window editing, GUI interfaces, extended regular expressions, and enhancements for programmers. A new appendix describes vi's place in the Unix and Internet cultures. Quickly learn the basics of editing, cursor movement, and global search and replacement. Then take advantage of the more subtle power of vi. Extend your editing skills by learning to use ex, a powerful line editor, from within vi. For easy reference, the sixth edition also includes a command summary at the end of each appropriate chapter. Topics covered include: Basic editing Moving around in a hurry Beyond the basics Greater power with ex Global search and replacement Customizing vi and ex Command shortcuts Introduction to the vi clones' extensions Then vi, elvis, vim, and vile editors Quick reference to vi and ex commands vi and the Internet Master the complexities of Bash shell scripting and unlock the power of shell for your enterprise Key Features Identify high-level steps such as verifying user input Using the command line and conditional statements in creating/executing simple shell scripts Create and edit dynamic shell scripts to manage complex and repetitive tasks Leverage the command-line to bypass GUI and automate common tasks Book Description In this book, you'll discover everything you need to know to master shell scripting and make informed choices about the elements you employ. Grab your favorite editor and start writing your best Bash scripts step by step. Get to grips with the fundamentals of creating and running a script in normal mode, and in debug mode. Learn about various conditional statements' code snippets, and realize the power of repetition and loops in your shell script. You will also learn to write complex shell scripts. This book will also deep dive into file system administration, directories, and system administration like networking, process management, user authentications, and package installation and regular expressions. Towards the end of the book, you will learn how to use Python as a BASH Scripting alternative. By the end of this book, you will know shell scripts at the snap of your fingers and will be able to automate and communicate with your system with keyboard expressions. What you will learn Make, execute, and debug your first Bash script Create interactive scripts that prompt for user input Foster menu structures for operators with little command-line experience Develop scripts that dynamically edit web configuration files to produce a new virtual host Write scripts that use AWK to search and reports on log files Draft effective scripts using functions as building blocks, reducing maintenance and build time Make informed choices by comparing different script languages such as Python with BASH Who this book is for If you are a Linux administrator or a system administrator and are interested in automating tasks in your daily lives, saving time and effort, this book is for you. Basic shell scripting and command-line experience will be required. Familiarity with the tasks you need to automate will be helpful.

Your mouse is slowing you down. The time you spend context switching between your editor and your consoles eats away at your productivity. Take control of your environment with tmux, a terminal multiplexer that you can tailor to your workflow. With this updated second edition for tmux 2.3, you'll customize, script, and leverage tmux's unique abilities to craft a productive terminal environment that lets you keep your fingers on your keyboard's home row. You have a database console, web server, test runner, and text editor running at the same time, but switching between them and trying to find what you need takes up valuable time and breaks your concentration. By using tmux 2.3, you can improve your productivity and regain your focus. This book will show you how. This second edition includes many features requested by readers, including how to integrate plugins into your workflow, how to integrate tmux with Vim for seamless navigation - oh, and how to use tmux on Windows 10. Use tmux to manage multiple terminal sessions in a single window using only your keyboard. Manage and run programs side by side in panes, and create the perfect development environment with custom scripts so that when you're ready to work, your programs are waiting for you. Manipulate text with tmux's copy and paste buffers, so you can move text around freely between applications. Discover how easy it is to use tmux to collaborate remotely with others, and explore more advanced usage as you manage multiple tmux sessions, add custom scripts into the tmux status line, and integrate tmux with your system. Whether you're an application developer or a system administrator, you'll find many useful tricks and techniques to help you take control of your terminal.

The command-line interface is making a comeback. That's because developers know that all the best features of your operating system are hidden behind a user interface designed to help average people use the computer. But you're not the average user, and the CLI is the most efficient way to get work done fast. Turn tedious chores into quick tasks: read and write files, manage complex directory hierarchies, perform network diagnostics, download files, work with APIs, and combine individual programs to create your own workflows. Put down that mouse, open the CLI, and take control of your software development environment. No matter what language or platform you're using, you can use the CLI to create projects, run servers, and manage files. You can even create new tools that fit right in with grep, sed, awk, and xargs. You'll work with the Bash shell and the most common command-line utilities available on macOS, Windows 10, and many flavors of Linux. Create files without opening a text editor. Manage complex directory structures and move around your entire file system without touching the mouse. Diagnose network issues and interact with APIs. Chain several commands together to transform data, and create your own scripts to automate repetitive tasks. Make things even faster by customizing your environment, creating shortcuts, and integrating other tools into your environment. Hands-on activities and exercises will cement your newfound knowledge and give you the confidence to use the CLI to its fullest potential. And if you're worried you'll wreck your system, this book walks you through creating an Ubuntu virtual machine so you can practice worry-free. Dive into the CLI and join the thousands of other devs who use it every day.

What You Need: You'll need macOS, Windows 10, or a Linux distribution like Ubuntu, Fedora, CentOS, or Debian using the Bash shell.

A Practical Guide To Linux

Support for every text editing task

The Linux Command Line, 2nd Edition

Learn C Programming

Essential Vi/vim Editor Skills

Practical Vim

Mastering Vim

There's nothing that hard-core Unix and Linux users are more fanatical about than their text editor. Editors are the subject of adoration and worship, or of scorn and ridicule, depending upon whether the topic of discussion is your editor or someone else's. vi has been the standard editor for close to 30 years. Popular on Unix and Linux, it has a growing following on Windows systems, too. Most experienced system administrators cite vi as their tool of choice. And since 1986, this book has been the guide for vi. However, Unix systems are not what they were 30

years ago, and neither is this book. While retaining all the valuable features of previous editions, the 7th edition of Learning the vi and vim Editors has been expanded to include detailed information on vim, the leading vi clone. vim is the default version of vi on most Linux systems and on Mac OS X, and is available for many other operating systems too. With this guide, you learn text editing basics and advanced tools for both editors, such as multi-window editing, how to write both interactive macros and scripts to extend the editor, and power tools for programmers -- all in the easy-to-follow style that has made this book a classic. Learning the vi and vim Editors includes: A complete introduction to text editing with vi: How to move around vi in a hurry Beyond the basics, such as using buffers vi's global search and replacement Advanced editing, including customizing vi and executing Unix commands How to make full use of vim: Extended text objects and more powerful regular expressions Multi-window editing and powerful vim scripts How to make full use of the GUI version of vim, called gvim vim's enhancements for programmers, such as syntax highlighting, folding and extended tags Coverage of three other popular vi clones -- nvi, elvis, and vile -- is also included. You'll find several valuable appendixes, including an alphabetical quick reference to both vi and ex mode commands for regular vi and for vim, plus an updated appendix on vi and the Internet. Learning either vi or vim is required knowledge if you use Linux or Unix, and in either case, reading this book is essential. After reading this book, the choice of editor will be obvious for you too.

MVC and CRUD make software easier to write, but harder to change. Microservice-based architectures can help even the smallest of projects remain agile in the long term, but most tutorials meander in theory or completely miss the point of what it means to be microservice-based. Roll up your sleeves with real projects and learn the most important concepts of evented architectures. You'll have your own deployable, testable project and a direction for where to go next. Much ink has been spilled on the topic of microservices, but all of this writing fails to accurately identify what makes a system a monolith, define what microservices are, or give complete, practical examples, so you're probably left thinking they have nothing to offer you. You don't have to be at Google or Facebook scale to benefit from a microservice-based architecture. Microservices will keep even small and medium teams productive by keeping the pieces of your system focused and decoupled. Discover the basics of message-based architectures, render the same state in different shapes to fit the task at hand, and learn what it is that makes something a monolith (it has nothing to do with how many machines you deploy to). Conserve resources by performing background jobs with microservices. Deploy specialized microservices for registration, authentication, payment processing, e-mail, and more. Tune your services by defining appropriate service boundaries. Deploy your services effectively for continuous integration. Master debugging techniques that work across different services. You'll finish with a deployable system and skills you can apply to your current project. Add the responsiveness and flexibility of microservices to your project, no matter what the size or complexity. What You Need: While the principles of this book transcend programming language, the code examples are in Node.js because JavaScript, for better or worse, is widely read. You'll use PostgreSQL for data storage, so familiarity with it is a plus. The book does provide Docker images to make working with PostgreSQL a bit easier, but extensive Docker knowledge is not required.

Real Linux users don't use GUIs. No matter how popular, slick and sophisticated the interfaces become for Linux and UNIX, you'll always need to be able to navigate in a text editor. The vi editor is the original standard UNIX full screen editor. It's been around almost since UNIX began and it has changed very little. To get around the limitations of vi the people at Bram Moolenaar created the vim editor (the name stand for VI iMproved). It contains many more features than the old vi editor including: help, multiple windows, syntax highlighting, programmer support, and HTML support. All of the books published to date focus on vi alone not the expanded vim shipping with every major Linux distribution. In true New Riders' form, the vim reference will be a definitive, concise reference for the professional Linux user and developer. This tutorial takes a task oriented approach allowing you to learn only the commands that make your job easier.

Build on your editor's capabilities and tailor your editing experience with VimL, the powerful scripting language built into Vim. With VimL you can configure basic settings or add entirely new functionality. Use this quick and easy introduction to create your own Vim plugin while learning the concepts and syntax of VimL. VimL is the scripting language of the Vim editor. If you've ever edited or saved a vimrc file, you've written VimL. And VimL can do much more than simply configure settings and specify option values--you can write entire plugins in VimL. But without a background in scripting Vim, it can be hard to know where to start. The VimL Primer gives you the tools and confidence you need. It gets you comfortable in VimL quickly, walking you through creating a working plugin that you can run yourself as you write it in Vim. You'll learn how to script common commands and buffer interaction, work with windows and buffers from within a plugin script, and how to use autocommands to have Vim recognize entirely new filetypes. You'll discover how to declare filetype-specific settings and define your own syntax elements for use with Vim's syntax highlighting. And you'll see how you can write your own command-line commands and define new mappings to call them. With this introduction to scripting Vim, your own Vim extensions are only plugins away. Take control of your editor! What You Need:: Vim version 7 or later is required, and it's available on any of the major operating systems. This book uses the "Huge" version of Vim 7.4.

Harness the Combinatoric Power of Command-Line Tools and Utilities

Edit Text at the Speed of Thought

Learning the Vi Editor

Practical Vim, 2nd Edition

Learning the bash Shell

Data Wrangling with Pandas, NumPy, and IPython

A Complete Introduction

The first IUPAC Manual of Symbols and Terminology for Physicochemical Quantities and Units (the Green Book) of which this is the direct successor, was published in 1969, with the object of 'securing clarity and precision, and wider agreement in the use of symbols, by

*chemists in different countries, among physicists, chemists and engineers, and by editors of scientific journals'. Subsequent revisions have taken account of many developments in the field, culminating in the major extension and revision represented by the 1988 edition under the simplified title *Quantities, Units and Symbols in Physical Chemistry*. This 2007, Third Edition, is a further revision of the material which reflects the experience of the contributors with the previous editions. The book has been systematically brought up to date and new sections have been added. It strives to improve the exchange of scientific information among the readers in different disciplines and across different nations. In a rapidly expanding volume of scientific literature where each discipline has a tendency to retreat into its own jargon this book attempts to provide a readable compilation of widely used terms and symbols from many sources together with brief understandable definitions. This is the definitive guide for scientists and organizations working across a multitude of disciplines requiring internationally approved nomenclature.*

As an experienced JavaScript developer moving to server-side programming, you need to implement classic data structures and algorithms associated with conventional object-oriented languages like C# and Java. This practical guide shows you how to work hands-on with a variety of storage mechanisms—including linked lists, stacks, queues, and graphs—within the constraints of the JavaScript environment. Determine which data structures and algorithms are most appropriate for the problems you're trying to solve, and understand the tradeoffs when using them in a JavaScript program. An overview of the JavaScript features used throughout the book is also included. This book covers: Arrays and lists: the most common data structures Stacks and queues: more complex list-like data structures Linked lists: how they overcome the shortcomings of arrays Dictionaries: storing data as key-value pairs Hashing: good for quick insertion and retrieval Sets: useful for storing unique elements that appear only once Binary Trees: storing data in a hierarchical manner Graphs and graph algorithms: ideal for modeling networks Algorithms: including those that help you sort or search data Advanced algorithms: dynamic programming and greedy algorithms

Get complete instructions for manipulating, processing, cleaning, and crunching datasets in Python. Updated for Python 3.6, the second edition of this hands-on guide is packed with practical case studies that show you how to solve a broad set of data analysis problems effectively. You'll learn the latest versions of pandas, NumPy, IPython, and Jupyter in the process. Written by Wes McKinney, the creator of the Python pandas project, this book is a practical, modern introduction to data science tools in Python. It's ideal for analysts new to Python and for Python programmers new to data science and scientific computing. Data files and related material are available on GitHub. Use the IPython shell and Jupyter notebook for exploratory computing Learn basic and advanced features in NumPy (Numerical Python) Get started with data analysis tools in the pandas library Use flexible tools to load, clean, transform, merge, and reshape data Create informative visualizations with matplotlib Apply the pandas groupby facility to slice, dice, and summarize datasets Analyze and manipulate regular and irregular time series data Learn how to solve real-world data analysis problems with thorough, detailed examples

Learn Linux, and take your career to the next level! Linux Essentials, 2nd Edition provides a solid foundation of knowledge for anyone considering a career in information technology, for anyone new to the Linux operating system, and for anyone who is preparing to sit for the Linux Essentials Exam. Through this engaging resource, you can access key information in a learning-by-doing style. Hands-on tutorials and end-of-chapter exercises and review questions lead you in both learning and applying new information—information that will help you achieve your goals! With the experience provided in this compelling reference, you can sit down for the Linux Essentials Exam with confidence. An open source operating system, Linux is a UNIX-based platform that is freely updated by developers. The nature of its development means that Linux is a low-cost and secure alternative to other operating systems, and is used in many different IT environments. Passing the Linux Essentials Exam prepares you to apply your knowledge regarding this operating system within the workforce. Access lessons that are organized by task, allowing you to quickly identify the topics you are looking for and navigate the comprehensive information presented by the book Discover the basics of the Linux operating system, including distributions, types of open source applications, freeware, licensing, operations, navigation, and more Explore command functions, including navigating the command line, turning commands into scripts, and more Identify and create user types, users, and groups Linux Essentials, 2nd Edition is a critical resource for anyone starting a career in IT or anyone new to the Linux operating system.

From Journeyman to Master

A Very Simple Introduction to the Terrifyingly Beautiful World of Computers and Code

Linux System Programming

The Book of Ruby

Mastering Linux Shell Scripting,

Vi(1) Tips

R for Everyone

O'Reilly's bestselling book on Linux's bash shell is at it again. Now that Linux is an established player both as a server and on the desktop Learning the bash Shell has been updated and refreshed to account for all the latest changes. Indeed, this third edition serves as the most valuable guide yet to the bash shell. As any good programmer knows, the first thing users of the Linux operating system come face to face with is the shell the UNIX term for a user interface to the system. In other words, it's what lets you communicate with the computer via the keyboard and display. Mastering the bash shell might sound fairly simple but it isn't. In truth, there are many complexities that need careful explanation, which is just what Learning the bash Shell provides. If you are new to shell programming, the book provides an excellent introduction, covering everything from the most basic to the most advanced features. And if you've been writing shell scripts for years, it offers a great way to find out what the new shell offers. Learning the bash Shell is also full of practical examples of shell commands and programs that will make everyday use of Linux that much easier. With this book, programmers will learn: How to install bash as your login shell The basics of interactive shell use, including UNIX file and directory structures, standard I/O, and background jobs Command line editing, history substitution, and key bindings How to customize your shell environment without programming The nuts and bolts of basic shell programming, flow control structures, command-line options and typed variables Process handling, from job control to processes, coroutines and subshells Debugging techniques, such as trace and verbose modes Techniques for implementing system-wide shell customization and features related to system security

Need to learn how to wrap your head around Git, but don't need a lot of hand holding? Grab this book if you're new to Git, not to the world of programming. Git tasks displayed on two-page spreads provide all the context you need, without the extra fluff.

You've experienced the shiny, point-and-click surface of your Linux computer—now dive below and explore its depths with the power of the command line. The Linux Command Line takes you from your very first terminal keystrokes to writing full programs in Bash, the most popular Linux shell. Along the way you'll learn the timeless skills handed down by generations of gray-bearded, mouse-shunning gurus: file navigation, environment configuration, command chaining, pattern matching with regular expressions, and more. In addition to that practical knowledge, author William Shotts reveals the philosophy behind these tools and the rich heritage that your desktop Linux machine has inherited from Unix supercomputers of yore. As you make your way through the book's short, easily-digestible chapters, you'll learn how to: * Create and delete files, directories, and symlinks * Administer your system, including networking, package installation, and process management * Use standard input and output, redirection, and pipelines * Edit files with Vi, the world's most popular text editor * Write shell scripts to automate common or boring tasks * Slice and dice text files with cut, paste, grep, patch, and sed Once you overcome your initial "shell shock," you'll find that the command line is a natural and expressive way to communicate with your computer. Just don't be surprised if your mouse starts to gather dust. A featured resource in the Linux Foundation's "Evolution of a SysAdmin"

The authors have revised and updated this bestseller to include both the Oracle8i and new Oracle9i Internet-savvy database products.

Python for Data Analysis

Craft Your Development Environment with Vim 8 and Neovim

Practical Data Science Cookbook

The VimL Primer

Tips, Tricks, and Techniques (and Tutorials Too!)

Solutions and Examples for Java Developers

Talking Directly to the Kernel and C Library

UNIX, UNIX LINUX & UNIX TCL/TK. Write software that makes the most effective use of the Linux system, including the kernel and core system libraries. The majority of both Unix and Linux code is still written at the system level, and this book helps you focus on everything above the kernel, where applications such as Apache, bash, cp, vim, Emacs, gcc, gdb, glibc, ls, mv, and X exist. Written primarily for engineers looking to program at the low level, this updated edition of Linux System Programming gives you an understanding of core internals that makes for better code, no matter where it appears in the stack. -- Provided by publisher.

You Will Learn Python 3! Zed Shaw has perfected the world's best system for learning Python 3. Follow it and you will succeed—just like the millions of beginners Zed has taught to date! You bring the discipline, commitment, and persistence; the author supplies everything else. In Learn Python 3 the Hard Way, you'll learn Python by working through 52 brilliantly crafted exercises. Read them. Type their code precisely. (No copying and pasting!) Fix your mistakes. Watch the programs run. As you do, you'll learn how a computer works; what good programs look like; and how to read, write, and think about code. Zed then teaches you even more in 5+ hours of video where he shows you how to break, fix, and debug your code—live, as he's doing the exercises. Install a complete Python environment Organize and write code Fix and break code Basic mathematics Variables Strings and text Interact with users Work with files Looping and logic Data structures using lists and dictionaries Program design Object-oriented programming Inheritance and composition Modules, classes, and objects Python packaging Automated testing Basic game development Basic web development It'll be hard at first. But soon, you'll just get it—and that will feel great! This course will reward you for every minute you put into it. Soon, you'll know one of the world's most powerful, popular programming languages. You'll be a Python programmer. This Book Is Perfect For Total beginners with zero programming experience Junior developers who know one or two languages Returning professionals who haven't written code in years Seasoned professionals looking for a fast, simple, crash course in Python 3

Ruby is famous for being easy to learn, but most users only scratch the surface of what it can do. While other books focus on Ruby's trendier features, The Book of Ruby reveals the secret inner workings of one of the world's most popular programming languages, teaching you to write clear, maintainable code. You'll start with the basics—types, data structures, and control flows—and progress to advanced features like blocks, mixins, metaclasses, and beyond. Rather than bog you down with a lot of theory, The Book of Ruby takes a hands-on approach and focuses on making you productive from day one. As you follow along, you'll learn to: –Leverage Ruby's succinct and flexible syntax to maximize your productivity –Balance Ruby's functional, imperative, and object-oriented features –Write self-modifying programs using dynamic programming techniques –Create new fibers and threads to manage independent processes concurrently –Catch and recover from execution errors with robust exception handling –Develop powerful web applications with the Ruby on Rails framework Each chapter includes a "Digging Deeper" section that shows you how Ruby works under the hood, so you'll never be caught off guard by its deceptively simple scoping, multithreading features, or precedence rules. Whether you're new to programming or just new Ruby, The Book of Ruby is your guide to rapid, real-world software development with this unique and elegant language.

Over 85 recipes to help you complete real-world data science projects in R and Python About This Book Tackle every step in the data science pipeline and use it to acquire, clean, analyze, and visualize your data Get beyond the theory and implement real-world projects in data science using R and Python Easy-to-follow recipes will help you understand and implement the numerical computing concepts Who This Book Is For If you are an aspiring data scientist who wants to learn data science and numerical programming concepts through hands-on, real-world project examples, this is the book for you. Whether you are brand new to data science or you are a seasoned expert, you will benefit from learning about the structure of real-world data science projects and the programming examples in R and Python. What You Will Learn Learn and understand the installation procedure and environment required for R and

Python on various platforms Prepare data for analysis by implement various data science concepts such as acquisition, cleaning and munging through R and Python Build a predictive model and an exploratory model Analyze the results of your model and create reports on the acquired data Build various tree-based methods and Build random forest In Detail As increasing amounts of data are generated each year, the need to analyze and create value out of it is more important than ever. Companies that know what to do with their data and how to do it well will have a competitive advantage over companies that don't. Because of this, there will be an increasing demand for people that possess both the analytical and technical abilities to extract valuable insights from data and create valuable solutions that put those insights to use. Starting with the basics, this book covers how to set up your numerical programming environment, introduces you to the data science pipeline, and guides you through several data projects in a step-by-step format. By sequentially working through the steps in each chapter, you will quickly familiarize yourself with the process and learn how to apply it to a variety of situations with examples using the two most popular programming languages for data analysis—R and Python. Style and approach This step-by-step guide to data science is full of hands-on examples of real-world data science tasks. Each recipe focuses on a particular task involved in the data science pipeline, ranging from readying the dataset to analytics and visualization

The Linux Command Line

Oracle PL/SQL Programming

Unix Shell Programming

Modern Vim

Tmux 2

Small, Sharp Software Tools

Java Cookbook

This second edition of How to Write and Illustrate a Scientific Paper will help both first-time writers and more experienced authors, in all biological and medical disciplines, to present their results effectively. Whilst retaining the easy-to-read and well-structured approach of the previous edition, it has been broadened to include comprehensive advice on writing compilation theses for doctoral degrees, and a detailed description of preparing case reports. Illustrations, particularly graphs, are discussed in detail, with poor examples redrawn for comparison. The reader is offered advice on how to present the paper, where and how to submit the manuscript, and finally, how to correct the proofs. Examples of both good and bad writing, selected from actual journal articles, illustrate the author's advice - which has been developed through his extensive teaching experience - in this accessible and informative guide.

O'Reilly's Pocket Guides have earned a reputation as inexpensive, comprehensive, and compact guides that have the stuff but not the fluff. Every page of Linux Pocket Guide lives up to this billing. It clearly explains how to get up to speed quickly on day-to-day Linux use. Once you're up and running, Linux Pocket Guide provides an easy-to-use reference that you can keep by your keyboard for those times when you want a fast, useful answer, not hours in the man pages. Linux Pocket Guide is organized the way you use Linux: by function, not just alphabetically. It's not the 'bible of Linux; it's a practical and concise guide to the options and commands you need most. It starts with general concepts like files and directories, the shell, and X windows, and then presents detailed overviews of the most essential commands, with clear examples. You'll learn each command's purpose, usage, options, location on disk, and even the RPM package that installed it. The Linux Pocket Guide is tailored to Fedora Linux--the latest spin-off of Red Hat Linux--but most of the information applies to any Linux system. Throw in a host of valuable power user tips and a friendly and accessible style, and you'll quickly find this practical, to-the-point book a small but mighty resource for Linux users.

No Unix-class system administrator or user will get far without learning the basics of vi(1), the widespread visual text-mode editor. Learning it has just gotten easier with "vi(1) Tips," the first book on vi(1) that doesn't scare the reader with unfamiliar terminology. We designed this book to get you up to speed with vi(1) in the least possible amount of time. And yes, the skills you learn in this book can be applied to all vi(1) implementations, including vim. Jacek Artymiak owns and runs devGuide.net, an Open Source publishing and training company. He has written over 100 articles and over 20 books on Drupal, Google Docs, Linux, OpenBSD, OpenOffice.org, Open Source, firewalls, networking, security, and system administration.

Practical Vim Edit Text at the Speed of Thought Pragmatic Bookshelf

How to Use the UNIX-LINUX Vi Text Editor

vi Editor Pocket Reference

Build Event-Driven Architectures with Event Sourcing and CQRS

vi and Vim Editors Pocket Reference

Productive Mouse-Free Development

If you are a software developer with little or no experience of versioning systems, or are familiar with other centralized versioning systems, then this book is for you. If you have some experience working with command lines or using Linux admin or just using Unix and want to know more about Git, then this book is ideal for you.

Vim is a fast and efficient text editor that will make you a faster and more efficient developer. It's available on almost every OS--if you master the techniques in this book, you'll never need another text editor. Practical Vim shows you 120 vim recipes so you can quickly learn the editor's core functionality and tackle your trickiest editing and writing tasks. Vim, like its classic ancestor vi, is a serious tool for programmers, web developers, and sysadmins. No other text editor comes close to Vim for speed and efficiency; it runs on almost every system imaginable and supports most coding and markup languages. Learn how to edit text the "Vim way:" complete a series of repetitive changes with The Dot Formula, using one keystroke to strike the target, followed by one keystroke to execute the change. Automate complex tasks by recording your keystrokes as a macro. Run the same command on a selection of lines, or a set of files. Discover the "very magic" switch, which makes Vim's regular expression syntax more like Perl's. Build complex patterns by iterating on your search history. Search inside multiple files, then run Vim's substitute command on the result set for a project-wide search and replace. All without installing a single plugin! You'll learn how to navigate text documents as fast as the eye moves--with only a few keystrokes. Jump from a method call to its definition with a single command. Use Vim's jumplist, so that you can always follow the breadcrumb trail back to the file you were working on before. Discover a multilingual spell-

checker that does what it's told. Practical Vim will show you new ways to work with Vim more efficiently, whether you're a beginner or an intermediate Vim user. All this, without having to touch the mouse. What You Need: Vim version 7

Get started with writing simple programs in C while learning the skills that will help you work with practically any programming language

Key Features

- Learn essential C concepts such as variables, data structures, functions, loops, and pointers
- Get to grips with the core programming aspects that form the base of many modern programming languages
- Explore the expressiveness and versatility of the C language with the help of sample programs

Book Description C is a powerful general-purpose programming language that is excellent for beginners to learn. This book will introduce you to computer programming and software development using C. If you're an experienced developer, this book will help you to become familiar with the C programming language. This C programming book takes you through basic programming concepts and shows you how to implement them in C. Throughout the book, you'll create and run programs that make use of one or more C concepts, such as program structure with functions, data types, and conditional statements. You'll also see how to use looping and iteration, arrays, pointers, and strings. As you make progress, you'll cover code documentation, testing and validation methods, basic input/output, and how to write complete programs in C. By the end of the book, you'll have developed basic programming skills in C, that you can apply to other programming languages and will develop a solid foundation for you to advance as a programmer.

What you will learn

- Understand fundamental programming concepts and implement them in C
- Write working programs with an emphasis on code indentation and readability
- Break existing programs intentionally and learn how to debug code
- Adopt good coding practices and develop a clean coding style
- Explore general programming concepts that are applicable to more advanced projects
- Discover how you can use building blocks to make more complex and interesting programs
- Use C Standard Library functions and understand why doing this is desirable

Who this book is for This book is written for two very diverse audiences. If you're an absolute beginner who only has basic familiarity with operating a computer, this book will help you learn the most fundamental concepts and practices you need to know to become a successful C programmer. If you're an experienced programmer, you'll find the full range of C syntax as well as common C idioms. You can skim through the explanations and focus primarily on the source code provided.