

Learning The Bash Shell 3rd Edition Oglala Lakota College

A handy book for someone just starting with Unix or Linux, and an ideal primer for Mac and PC users of the Internet who need to know a little about Unix on the systems they visit. The most effective introduction to Unix in print, covering Internet usage for email, file transfers, web browsing, and many major and minor updates to help the reader navigate the ever-expanding capabilities of the operating system.

Over the last few years, Linux has grown both as an operating system and a tool for personal and business use. Simultaneously becoming more user friendly and more powerful as a back-end system, Linux has achieved new plateaus: the newer filesystems have solidified, new commands and tools have appeared and become standard, and the desktop--including new desktop environments--have proved to be viable, stable, and readily accessible to even those who don't consider themselves computer gurus. Whether you're using Linux for personal software projects, for a small office or home office (often termed the SOHO environment), to provide services to a small group of colleagues, or to administer a site responsible for millions of email and web connections each day, you need quick access to information on a wide range of tools. This book covers all aspects of administering and making effective use of Linux systems. Among its topics are booting, package management, and revision control. But foremost in Linux in a Nutshell are the utilities and commands that make Linux one of the most powerful and flexible systems available. Now in its fifth edition, Linux in a Nutshell brings users up-to-date with the current state of Linux. Considered by many to be the most complete and authoritative command reference for Linux available, the book covers all substantial user, programming, administration, and networking commands for the most common Linux distributions. Comprehensive but concise, the fifth edition has been updated to cover new features of major Linux distributions. Configuration information for the rapidly growing commercial network services and community update services is one of the subjects covered for the first time. But that's just the beginning. The book covers editors, shells, and LILO and GRUB boot options. There's also coverage of Apache, Samba, Postfix, sendmail, CVS, Subversion, Emacs, vi, sed, gawk, and much more. Everything that system administrators, developers, and power users need to know about Linux is referenced here, and they will turn to this book again and again.

Shell Programming in Unix, Linux and OS X is a thoroughly updated revision of Kochan and Wood's classic Unix Shell Programming tutorial. Following the methodology of the original text, the book focuses on the POSIX standard shell, and teaches you how to develop programs in this useful programming environment, taking full advantage of the underlying power of Unix and Unix-like operating systems. After a quick review of Unix utilities, the book's authors take you step-by-step through the process of building shell scripts, debugging them, and understanding how they work within the shell's environment. All major features of the shell are covered, and the large number of practical examples make it easy for you to build shell scripts for your particular applications. The book also describes the major features of the Korn and Bash shells. Learn how to... Take advantage of the many utilities provided in the Unix system Write powerful shell scripts Use the shell's built-in decision-making and looping constructs Use the shell's powerful quoting mechanisms Make the most of the shell's built-in history and command editing capabilities Use regular expressions with Unix commands Take advantage of the special features of the Korn and Bash shells Identify the major differences between versions of the shell language Customize the way your Unix system responds to you Set up your shell environment Make use of functions Debug scripts Contents at a Glance 1 A Quick Review of the Basics 2 What Is the Shell? 3 Tools of the Trade 4 And Away We Go 5 Can I Quote You on That? 6 Passing Arguments 7 Decisions, Decisions 8 'Round and 'Round She Goes 9 Reading and Printing Data 10 Your Environment 11 More on Parameters 12 Loose Ends 13 Rolo Revisited 14 Interactive and Nonstandard Shell Features A Shell Summary B For More Information

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"

Shell scripting skills never go out of style. It's the shell that unlocks the real potential of Unix. Shell scripting is essential for Unix users and system administrators—a way to quickly harness and customize the full power of any Unix system. With shell scripts, you can combine the fundamental Unix text and file processing commands to crunch data and automate repetitive tasks. But beneath this simple promise lies a treacherous ocean of variations in Unix commands and standards. Classic Shell Scripting is written to help you reliably navigate these tricky waters. Writing shell scripts requires more than just a knowledge of the shell language, it also requires familiarity with the individual Unix programs: why each one is there, how to use them by themselves, and in combination with the other programs. The authors are intimately familiar with the tips and tricks that can be used to create excellent scripts, as well as the traps that can make your best effort a bad shell script. With Classic Shell Scripting you'll avoid hours of wasted effort. You'll learn not only write useful shell scripts, but how to do it properly and portably. The ability to program and customize the shell quickly, reliably, and portably to get the best out of any individual system is an important skill for anyone operating and maintaining Unix or Linux systems. Classic Shell Scripting gives you everything you need to master these essential skills.

Learn Raspberry Pi with Linux will tell you everything you need to know about the Raspberry Pi's GUI and command line so you can get started doing amazing things. You'll learn how to set up your new Raspberry Pi with a monitor, keyboard and mouse, and you'll discover that what may look unfamiliar in Linux is really very familiar. You'll find out how to connect to the internet, change your desktop settings, and you'll get a tour of installed applications. Next, you'll take your first steps toward being a Raspberry Pi expert by learning how to get around at the Linux command line. You'll learn about different shells, including the bash shell, and

commands that will make you a true power user. Finally, you'll learn how to create your first Raspberry Pi projects: Making a Pi web server: run LAMP on your own network Making your Pi wireless: remove all the cables and retain all the functionality Making a Raspberry Pi-based security cam and messenger service: find out who's dropping by Making a Pi media center: stream videos and music from your Pi Raspberry Pi is awesome, and it's Linux. And it's awesome because it's Linux. But if you've never used Linux or worked at the Linux command line before, it can be a bit daunting. Raspberry Pi is an amazing little computer with tons of potential. And Learn Raspberry Pi with Linux can be your first step in unlocking that potential.

This manual seeks to provide hands-on advice and technical tips on how to use the Korn Shell features effectively, to customize the Unix/Linux environment, and write, test and debug Korn Shell scripts. It contains hundreds of examples plus complete ready to run sample scripts.

This updated reference offers a clear description of make, a central engine in many programming projects that simplifies the process of re-linking a program after re-compiling source files. Original. (Intermediate)

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.

The Bash Guide for Beginners (Second Edition) discusses concepts useful in the daily life of the serious Bash user. While a basic knowledge of shell usage is required, it starts with a discussion of shell building blocks and common practices. Then it presents the grep, awk and sed tools that will later be used to create more interesting examples. The second half of the course is about shell constructs such as loops, conditional tests, functions and traps, and a number of ways to make interactive scripts. All chapters come with examples and exercises that will help you become familiar with the theory.

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.

To thoroughly understand what makes Linux tick and why it's so efficient, you need to delve deep into the heart of the operating system--into the Linux kernel itself. The kernel is Linux--in the case of the Linux operating system, it's the only bit of software to which the term "Linux" applies. The kernel handles all the requests or completed I/O operations and determines which programs will share its processing time, and in what order. Responsible for the sophisticated memory management of the whole system, the Linux kernel is the force behind the legendary Linux efficiency. The new edition of Understanding the Linux Kernel takes you on a guided tour through the most significant data structures, many algorithms, and programming tricks used in the kernel. Probing beyond the superficial features, the authors offer valuable insights to people who want to know how things really work inside their machine. Relevant segments of code are dissected and discussed line by line. The book covers more than just the functioning of the code, it explains the theoretical underpinnings for why Linux does things the way it does. The new edition of the book has been updated to cover version 2.4 of the kernel, which is quite different from version 2.2: the virtual memory system is entirely new, support for multiprocessor systems is improved, and whole new classes of hardware devices have been added. The authors explore each new feature in detail. Other topics in the book include: Memory management including file buffering, process swapping, and Direct memory Access (DMA) The Virtual Filesystem and the Second Extended Filesystem Process creation and scheduling Signals, interrupts, and the essential interfaces to device drivers Timing Synchronization in the kernel Interprocess Communication (IPC) Program execution Understanding the Linux Kernel, Second Edition will

acquaint you with all the inner workings of Linux, but is more than just an academic exercise. You'll learn what conditions bring out Linux's best performance, and you'll see how it meets the challenge of providing good system response during process scheduling, file access, and memory management in a wide variety of environments. If knowledge is power, then this book will help you make the most of your Linux system.

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

As an open operating system, Unix can be improved on by anyone and everyone: individuals, companies, universities, and more. As a result, the very nature of Unix has been altered over the years by numerous extensions formulated in an assortment of versions. Today, Unix encompasses everything from Sun's Solaris to Apple's Mac OS X and more varieties of Linux than you can easily name. The latest edition of this bestselling reference brings Unix into the 21st century. It's been reworked to keep current with the broader state of Unix in today's world and highlight the strengths of this operating system in all its various flavors. Detailing all Unix commands and options, the informative guide provides generous descriptions and examples that put those commands in context. Here are some of the new features you'll find in Unix in a Nutshell, Fourth Edition: Solaris 10, the latest version of the SVR4-based operating system, GNU/Linux, and Mac OS X Bash shell (along with the 1988 and 1993 versions of ksh) tsch shell (instead of the original Berkeley csh) Package management programs, used for program installation on popular GNU/Linux systems, Solaris and Mac OS X GNU Emacs Version 21 Introduction to source code management systems Concurrent versions system Subversion version control system GDB debugger As Unix has progressed, certain commands that were once critical have fallen into disuse. To that end, the book has also dropped material that is no longer relevant, keeping it taut and current. If you're a Unix user or programmer, you'll recognize the value of this complete, up-to-date Unix reference. With chapter overviews, specific examples, and detailed command.

LPI Linux Certification in a Nutshell, Second Edition is an invaluable resource for determining what you need to practice to pass the Linux Professional Institute exams. This book will help you determine when you're ready to take the exams, which are technically challenging and designed to reflect the skills that administrators need in real working environments. As more corporations adopt Linux as the networking backbone for their IT systems, the demand for certified technicians will become even greater. Passing the LPI exams will broaden your career options because the LPI is the most widely known and respected Linux certification program in the world. Linux Journal recognized the LPI as the best Training and Certification Program. The exams were developed by the Linux Professional Institute, an international, volunteer-driven organization with affiliates in a dozen countries. The core LPI exams cover two levels. Level 1 tests a basic knowledge of Linux installation, configuration, and command-line skills. Level 2 goes into much more depth regarding system troubleshooting and network services such as email and the Web. The second edition of LPI Linux Certification in a Nutshell is a thoroughly researched reference to these exams. The book is divided into four parts, one for each of the LPI exams. Each part features not only a summary of the core skills you need, but sample exercises and test questions, along with helpful hints to let you focus your energies. Major topics include: GNU and Unix commands Linux installation and package management Devices, filesystems, and kernel configuration Text editing, processing, and printing The X Window System Networking fundamentals and troubleshooting Security, including intrusion detection, SSH, Kerberos, and more DNS, DHCP, file sharing, and other networking infrastructure Email, FTP, and Web services Praise for the first edition: "Although O'Reilly's Nutshell series are intended as 'Desktop Reference' manuals, I have to recommend this one as a good all-round read; not only as a primer for LPI certification, but as an excellent introductory text on GNU/Linux. In all, this is a valuable addition to O'Reilly's already packed stable of Linux titles and I look forward to more from the author." --First Monday

Pro Bash Programming teaches you how to effectively utilize the Bash shell in your programming. The Bash shell is a complete programming language, not merely a glue to combine external Linux commands. By taking full advantage of Shell internals, Shell programs can perform as snappily as utilities written in C or other compiled languages. And you will see how, without assuming Unix lore, you can write professional Bash 4.3 programs through standard programming techniques. This second edition has updated for Bash 4.3, and many scripts have been rewritten to make them more idiomatically Bash, taking better advantage of features specific to Bash. It is easy to read, understand, and will teach you how to get to grips with Bash programming without drowning you in pages and pages of syntax. Using this book you will be able to use the shell efficiently, make scripts run faster using expansion and external commands, and understand how

to overcome many common mistakes that cause scripts to fail. This book is perfect for all beginning Linux and Unix system administrators who want to be in full control of their systems, and really get to grips with Bash programming. Using `csh` & `tcsh` describes from the beginning how to use `csh`--the standard shell on most UNIX systems--interactively. More importantly, it shows the reader how to get work done faster with less typing.

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.

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.

By its very nature, Unix is a "power tools" environment. Even beginning Unix users quickly grasp that immense power exists in shell programming, aliases and history mechanisms, and various editing tools. Nonetheless, few users ever really master the power available to them with Unix. There is just too much to learn! Unix Power Tools, Third Edition, literally contains thousands of tips, scripts, and techniques that make using Unix easier, more effective, and even more fun. This book is organized into hundreds of short articles with plenty of references to other sections that keep you flipping from new article to new article. You'll find the book hard to put down as you uncover one interesting tip after another. With the growing popularity of Linux and the advent of Mac OS X, Unix has metamorphosed into something new and exciting. With Unix no longer perceived as a difficult operating system, more and more users are discovering its advantages for the first time. The latest edition of this best-selling favorite is loaded with advice about almost every aspect of Unix, covering all the new technologies that users need to know. In addition to vital information on Linux, Mac OS X, and BSD, Unix Power Tools, Third Edition, now offers more coverage of `bcash`, `zsh`, and new shells, along with discussions about modern utilities and applications. Several sections focus on security and Internet access, and there is a new chapter on access to Unix from Windows, addressing the heterogeneous nature of systems today. You'll also find expanded coverage of software installation and packaging, as well as basic information on Perl and Python. The book's accompanying web site provides some of the best software available to Unix users, which you can download and add to your own set of power tools. Whether you are a newcomer or a Unix power user, you'll find yourself thumbing through the gold mine of information in this new edition of Unix Power Tools to add to your store of knowledge. Want to try something new? Check this book first, and you're sure to find a tip or trick that will prevent you from learning things the hard way. Carries readers from the beginning through the proficient stages of learning the GNU Emacs editor, covering everything from simple text editing to moderately complicated customization and programming. Original. (Advanced).

For system administrators, programmers, and end users, shell command or carefully crafted shell script can save you time and effort, or facilitate consistency and repeatability for a variety of common tasks. This cookbook provides more than 300 practical recipes for using bash, the popular Unix shell that enables you to harness and customize the power of any Unix or Linux system. Ideal for new and experienced users alike—including proficient Windows users and sysadmins—this updated second edition helps you solve a wide range of problems. You'll learn ways to handle input/output, file manipulation, program execution, administrative tasks, and many other challenges. Each recipe includes one or more scripting examples and a discussion of why the solution works. You'll find recipes for problems including:

Standard output and input, and executing commands Shell variables, shell logic, and arithmetic Intermediate shell tools and advanced scripting Searching for files with find, locate, and slocate Working with dates and times Creating shell scripts for various end-user tasks Working with tasks that require parsing Writing secure shell scripts Configuring and customizing bash

Advance your understanding of the Linux command line with this invaluable resource Linux Command Line and Shell Scripting Bible, 4th Edition is the newest installment in the indispensable series known to Linux developers all over the world. Packed with concrete strategies and practical tips, the latest edition includes brand-new content covering: Understanding the Shell Writing Simple Script Utilities Producing Database, Web & Email Scripts Creating Fun Little Shell Scripts Written by accomplished Linux professionals Christine Bresnahan and Richard Blum, Linux Command Line and Shell Scripting Bible, 4th Edition teaches readers the fundamentals and advanced topics necessary for a comprehensive understanding of shell scripting in Linux. The book is filled with real-world examples and usable scripts, helping readers navigate the challenging Linux environment with ease and convenience. The book is perfect for anyone who uses Linux at home or in the office and will quickly find a place on every Linux enthusiast's bookshelf.

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

Software -- Operating Systems.

The bash shell is a complete programming language, not merely a glue to combine external Linux commands. By taking full advantage of shell internals, shell programs can perform as snappily as utilities written in C or other compiled languages. And you will see how, without assuming Unix lore, you can write professional bash 4.0 programs through standard programming techniques. Complete bash coverage Teaches bash as a programming language Helps you master bash 4.0 features Provides information on writing a driver in Linux, covering such topics as character devices, network interfaces, driver debugging, concurrency, and interrupts.

It's simple: if you want to interact deeply with Mac OS X, Linux, and other Unix-like systems, you need to know how to work with the Bash shell. This concise little book puts all of the essential information about Bash right at your fingertips. You'll quickly find answers to the annoying questions that generally come up when you're writing shell scripts: What characters do you need to quote? How do you get variable substitution to do exactly what you want? How do you use arrays? Updated for Bash version 4.4, this book has the answers to these and other problems in a format that makes browsing quick and easy. Topics include: Invoking the shell Syntax Functions and variables Arithmetic expressions Command history Programmable completion Job control Shell options Command execution Coprocesses Restricted shells Built-in commands

'Approximately 50,000 Canadians move to the U.S. every year. Already, there are hundreds of thousands of ex-Canadians living south of the border. The similarity in language, currency, culture, services, and products of these two countries can lead Canadians in the U.S. to mistakenly think that its laws and customs are also the same. It is these areas where The Canadian in America will be crucial to anyone either contemplating a move or already living in the U.S. Can a Canadian qualify for U.S. Medicare at age 65? Is a Canadian will valid in the

Don't neglect the shell - this book will empower you to use simple commands to perform complex tasks. Whether you're a casual or advanced Linux user, the cookbook approach makes it all so brilliantly accessible and, above all, useful. Overview Master the art of crafting one-liner command sequence to perform text processing, digging data from files, backups to sysadmin tools, and a lot more And if powerful text processing isn't enough, see how to make your scripts interact with the web-services like Twitter, Gmail Explores the possibilities with the shell in a simple and elegant way - you will see how to effectively solve problems in your day to day life In Detail The shell remains one of the most powerful tools on a computer system - yet a large number of users are unaware of how much one can accomplish with it. Using a combination of simple commands, we will see how to solve complex problems in day to day computer usage. Linux Shell Scripting Cookbook, Second Edition will take you through useful real-world recipes designed to make your daily life easy when working with the shell. The book shows the reader how to effectively use the shell to accomplish complex tasks with ease. The book discusses basics of using the shell, general commands and proceeds to show the reader how to use them to perform complex tasks with ease. Starting with the basics of the shell, we will learn simple commands with their usages allowing us to perform operations on files of different kind. The book then proceeds to explain text processing, web interaction and concludes with backups, monitoring and other sysadmin tasks. Linux Shell Scripting Cookbook, Second Edition serves as an excellent guide to solving day to day problems using the shell and few powerful commands together to create solutions. What you will learn from this book Explore a variety of regular usage tasks and how it can be made faster using shell command Write shell scripts that can dig data from web and process it with few lines of code Use different kinds of tools together to create solutions Interact with simple web API from scripts Perform and automate tasks such as automating

backups and restore with archiving tools Create and maintain file/folder archives, compression formats and encrypting techniques with shell Set up Ethernet and Wireless LAN with the shell script Monitor different activities on the network using logging techniques Approach This book is written in a Cookbook style and it offers learning through recipes with examples and illustrations. Each recipe contains step-by-step instructions about everything necessary to execute a particular task. The book is designed so that you can read it from start to end for beginners, or just open up any chapter and start following the recipes as a reference for advanced users. Who this book is written for This book is both for the casual GNU/Linux users who want to do amazing things with the shell, and for advanced users looking for ways to make their lives with the shell more productive. You can start writing scripts and one-liners by simply looking at the similar recipe and its descriptions without any working knowledge of shell scripting or Linux. Intermediate/advanced users as well as system administrators/ developers and programmers can use this book as a reference when they face problems while coding.

Learn how to use, deploy, and maintain Apache Spark with this comprehensive guide, written by the creators of the open-source cluster-computing framework. With an emphasis on improvements and new features in Spark 2.0, authors Bill Chambers and Matei Zaharia break down Spark topics into distinct sections, each with unique goals. You'll explore the basic operations and common functions of Spark's structured APIs, as well as Structured Streaming, a new high-level API for building end-to-end streaming applications. Developers and system administrators will learn the fundamentals of monitoring, tuning, and debugging Spark, and explore machine learning techniques and scenarios for employing MLlib, Spark's scalable machine-learning library. Get a gentle overview of big data and Spark Learn about DataFrames, SQL, and Datasets—Spark's core APIs—through worked examples Dive into Spark's low-level APIs, RDDs, and execution of SQL and DataFrames Understand how Spark runs on a cluster Debug, monitor, and tune Spark clusters and applications Learn the power of Structured Streaming, Spark's stream-processing engine Learn how you can apply MLlib to a variety of problems, including classification or recommendation Describes the concepts of programming with Linux, covering such topics as shell programming, file structure, managing memory, using MySQL, debugging, processes and signals, and GNOME.

The key to mastering any Unix system, especially Linux and Mac OS X, is a thorough knowledge of shell scripting. Scripting is a way to harness and customize the power of any Unix system, and it's an essential skill for any Unix users, including system administrators and professional OS X developers. But beneath this simple promise lies a treacherous ocean of variations in Unix commands and standards. bash Cookbook teaches shell scripting the way Unix masters practice the craft. It presents a variety of recipes and tricks for all levels of shell programmers so that anyone can become a proficient user of the most common Unix shell -- the bash shell -- and cygwin or other popular Unix emulation packages. Packed full of useful scripts, along with examples that explain how to create better scripts, this new cookbook gives professionals and power users everything they need to automate routine tasks and enable them to truly manage their systems -- rather than have their systems manage them.

Unix. Possibly, The Longest Living Entity In The Computer Land Where Nothing Survives More Than A Couple Of Years, A Decade At The Most. It Has Been Around For More Than Two Decades, Owing Its Longevity To The Ruggedness Built Into It And Its Commands. This Book Comes In Two Parts. The First Part Is A Journey Into The Vast Expanse That Is Unix. The Intent Is To Make You Aware Of The Underlying Philosophy Used In Development Of Myriads Of Unix Commands Rather Than Telling You All The Variations Available With Them.

This Nutshell Handbook® is a thorough introduction to the Korn shell, both as a user interface and as a programming language. The Korn shell, like the C and Bourne shells, is a program that interprets UNIX commands. It has many features that aren't found in other shells, including command history (the ability to recall and edit previous commands). The Korn shell is also faster; several of its features allow you to write programs that execute more quickly than their Bourne or C shell equivalents. This book provides a clear and concise explanation of the Korn shell's features. It explains ksh string operations, co-processes, signals and signal handling, and one of the worst "dark corners" of shell programming: command-line interpretation. It does this by introducing simple real-life examples and then adding options and complexity in later chapters, illustrating the way real-world script development generally proceeds. An additional (and unique) programming aid, a Korn shell debugger (kshdb), is also included. Learning the Korn Shell is an ideal resource for many UNIX users and programmers, including software developers who want to "prototype" their designs, system administrators who want to write tools for their own use, and even novices who just want to use some of ksh's more advanced interactive features.

Unix Shell Programming is a tutorial aimed at helping Unix and Linux users get optimal performance out of their operating out of their operating system. It shows them how to take control of their systems and work efficiently by harnessing the power of the shell to solve common problems. The reader learns everything he or she needs to know to customize the way a Unix system responds. The vast majority of Unix users utilize the Korn shell or some variant of the Bourne shell, such as bash. Three are covered in the third edition of Unix Shell Programming. It begins with a generalized tutorial of Unix and tools and then moves into detailed coverage of shell programming. Topics covered include: regular expressions, the kernel and the utilities, command files, parameters, manipulating text filters, understanding and debugging shell scripts, creating and utilizing variables, tools, processes, and customizing the shell.

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

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