

Shell Scripting How To Automate Command Line Tasks Using Bash Scripting And Shell Programming

Master the complexities of Bash shell scripting and unlock the power of shell for your enterprise About This Book 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 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. 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 In Detail 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. Style and approach The book will capture your attention and keep you engaged with the simplicity and clarity of each explanation. Every step is accompanied by screenshots so you can cross-check the results before moving on. Downloading the e ...

Create simple to advanced shell scripts and enhance your system functionality with effective recipes Key Features Automate tedious and repetitive tasks Create several novel applications ranging from a simple IRC logger to a Web Scraper Manage your system efficiently by becoming a seasoned Bash user Book Description In Linux, one of the most commonly used and most powerful tools is the Bash shell. With its collection of engaging recipes, Bash Cookbook takes you through a series of exercises designed to teach you how to effectively use the Bash shell in order to create and execute your own scripts. The book starts by introducing you to the basics of using the Bash shell, also teaching you the fundamentals of generating any input from a command. With the help of a number of exercises, you will get to grips with the automation of daily tasks for sysadmins and power users. Once you have a hands-on understanding of the subject, you will move on to exploring more advanced projects that can solve real-world problems comprehensively on a Linux system. In addition to this, you will discover projects such as creating an application with a menu, beginning scripts on startup, parsing and displaying human-readable information, and executing remote commands with authentication using self-generated Secure Shell (SSH) keys. By the end of this book, you will have gained significant experience of solving real-world problems, from automating routine tasks to managing your systems and creating your own scripts. What you will learn Understand the basics of Bash shell scripting on a Linux system Gain working knowledge of how redirections and pipes interact Retrieve and parse input or output of any command Automate tasks such as data collection and creating and applying a patch Create a script that acts like a program with different features Customize your Bash shell and discover neat tricks to extend your programs Compile and install shell and log commands on your system's console using Syslog Who this book is for The Bash Cookbook is for you if you are a power user or system administrator involved in writing Bash scripts in order to automate tasks. This book is also ideal if you are interested in learning how to automate complex daily tasks.

Break through the practice of writing tedious code with shell scripts Key Features Learn to impeccably build shell scripts and develop advanced applications Create smart solutions by writing and debugging scripts A step-by-step tutorial to automate routine tasks by developing scripts Book Description Linux is the most powerful and universally adopted OS. Shell is a program that gives the user direct interaction with the operating system. Scripts are collections of commands that are stored in a file. The shell reads this file and acts on commands as if they were typed on the keyboard. Learning Linux Shell Scripting covers Bash, GNU Bourne Again Shell, preparing you to work in the exciting world of Linux shell scripting. CentOS is a popular rpm-based stable and secured Linux distribution. Therefore, we have used CentOS distribution instead of Ubuntu distribution. Linux Shell Scripting is independent of Linux distributions, but we have covered both types of distros. We start with an introduction to the Shell environment and basic commands used. Next, we explore process management in Linux OS, real-world essentials such as debugging and perform Shell arithmetic fluently. You'll then take a step ahead and learn new and advanced topics in Shell scripting, such as decision making, starting up a system, and customizing a Linux environment. You will also learn about grep, stream editor, and AWK, which are very powerful text filters and editors. Finally, you'll get to grips with taking backup, using other language scripts in Shell Scripts as well as automating database administration tasks for MySQL and Oracle. By the end of this book, you will be able to confidently use your own shell scripts in the real world. What you will learn Familiarize yourself with the various text filtering tools available in Linux Understand expressions and variables and how to use them practically Automate decision-making and save a lot of time and effort of revisiting code Get to grips with advanced functionality such as using traps, dialogs to develop screens & Database administration such as MySQL or Oracle Start up a system and customize a Linux system Taking backup of local or remote data or important files. Use existing other language scripts such as Python, Perl & Ruby in Shell Scripts Who this book is for Learning Linux Shell Scripting is ideal for those who are proficient at working with Linux and want to learn about shell scripting to improve their efficiency and practical skills. Linux has been one of the widely adopted and popular OS when it comes to leveraging scripting and automating common tasks. With this book, readers will get to grips with shell scripting, automating repetitive tasks, text processing, regular expressions, pattern matching, backup and restore, and much more. The end goal of this book is to get ...

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

Provides readers with end-to-end shell scripts that can be used to automate repetitive tasks and solve real-world system administration problems Targets the specific command structure for four popular UNIX systems: Solaris, Linux, AIX, and HP-UX Illustrates dozens of example tasks, presenting the proper command syntax and analyzing the performance gain or loss using various control structure techniques Web site includes all the shell scripts used in the book

Learn how to write shell script effectively with Bash, to quickly and easily write powerful scripts to manage processes, automate tasks, and to redirect and filter program input and output in useful and novel ways. Key Features Demystify the Bash command line Write shell scripts safely and effectively Speed up and automate your daily work Book Description Bash and shell script programming is central to using Linux, but it has many peculiar properties that are hard to understand and unfamiliar to many programmers, with a lot of misleading and even risky information online. Bash Quick Start Guide tackles these problems head on, and shows you the best practices of shell script programming. This book teaches effective shell script programming with Bash, and is ideal for people who may have used its command line but never really learned it in depth. This book will show you how even simple programming constructs in the shell can speed up and automate any kind of daily command-line work. For people who need to use the command line regularly in their daily work, this book provides practical advice for using the command-line shell beyond merely typing or copy-pasting commands into the shell. Readers will learn techniques suitable for automating processes and controlling processes, on both servers and workstations, whether for single command lines or long and complex scripts. The book even includes information on configuring your own shell environment to suit your workflow, and provides a running start for interpreting Bash scripts written by others. What you will learn Understand where the Bash shell fits in the system administration and programming worlds Use the interactive Bash command line effectively Get to grips with the structure of a Bash command line Master pattern-matching and transforming text with Bash Filter and redirect program input and output Write shell scripts safely and effectively Who this book is for People who use the command line on Unix and Linux servers already, but don't write primarily in Bash. This book is ideal for people who've been using a scripting language such as Python, JavaScript or PHP, and would like to understand and use Bash more effectively. Talk directly to your system for a faster workflow with automation capability Linux Command Line and Shell Scripting Bible is your essential Linux guide. With detailed instruction and abundant examples, this book teaches you how to bypass the graphical interface and communicate directly with your computer, saving time and expanding capability. This third edition incorporates thirty pages of new functional examples that are fully updated to align with the latest Linux features. Beginning with command line fundamentals, the book moves into shell scripting and shows you the practical application of commands in automating frequently performed functions. This guide includes useful tutorials, and a desk reference value of numerous examples. The Linux command line allows you to type specific shell commands directly into the system to manipulate files and query system resources. Command line statements can be combined into short programs called shell scripts, a practice increasing in popularity due to its usefulness in automation. This book is a complete guide providing detailed instruction and expert advice working within this aspect of Linux. Write simple script utilities to automate tasks Understand the shell, and create shell scripts Produce database, e-mail, and web scripts Study scripting examples ranging from basic to advanced Whether used as a tutorial or as a quick reference, this book contains information that every Linux user should know. Why not learn to use the system to its utmost capability? Linux is a robust system with tremendous potential, and Linux Command Line and Shell Scripting Bible opens the door to new possibilities.

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.

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.

Create and maintain powerful BASH scripts for automation and administration. About This Book Get up and running with Linux Shell scripting using real-world examples. Leverage command-line techniques and methodologies to automate common yet complex administration tasks. A practical guide with exposure to scripting constructs and common scripting patterns. Who This Book Is For If you are a junior Linux system administrator, Windows system administrator or developer who is interested in automating tasks, then this book is for you. No prior shell scripting experience is needed but in case you do this book will make a pro quickly. Readers should have a basic understanding of the command line. What You Will Learn Understanding Linux basics Understanding Bash basics Understanding shell scripting fundamentals Learn to write simple shell scripts which interact with Linux processes How to build, maintain and deploy scripts in a Linux environment Learn best practices for writing shell scripts Avoiding common pitfalls associated with Bash scripting Having enough experience and the right toolset to write their own (complex) shell scripts In Detail Shell scripts allow us to program commands in chains and have the system execute them as a scripted event, just like batch files. They also allow for far more useful functions, such as command substitution. This book will start with an overview of Linux and Bash shell scripting, and then quickly deep dive into helping you setup your local environment and you will be introduced to tools which are used to write shell scripts. The next set of chapters will focus on helping you understand Linux 'under-the-hood', what Bash provides the user, and you will have started your journey on the command-line. You will now begin writing actual scripts instead of commands, and will be introduced to practical applications for scripts. The last set of chapters will deep dive into the more advanced topics in shell scripting. These advanced topics will take you from simple scripts to reusable, valuable in the real world programs. The final chapter will

leave you with some handy tips and tricks and for the most used commands, a cheat sheet with the most interesting flags and options will also be given. After completing the book, you should feel confident about starting your own shell scripting projects, no matter how simple or complex the task previously seemed.

With the expert techniques discussed in this book, Oracle database administrators can automate routine tasks to save time and money and better monitor the flow of work. Using shell scripts—an indispensable tool on UNIX and Linux—any number of commands can be combined and executed either simultaneously or sequentially. More than 50 working shell scripts for both beginners and experts give Oracle professionals a fantastic head-start on automating their administration duties and are easily modifiable for any environment. Topics include the history of shells and shell scripting, detailed step-by-step instructions on building shell scripts, how to tell when things are working right, and how to effectively monitor the system for failures.

Portable shell scripting is the future of modern Linux, OS X, and Unix command-line access. *Beginning Portable Shell Scripting: From Novice to Professional* teaches shell scripting by using the common core of most shells and expands those principles to all of scripting. You will learn about portable scripting and how to use the same syntax and design principles for all shells. You'll discover about the interaction between shells and other scripting languages like Ruby and Python, and everything you learn will be shown in context for Linux, OS X, bash, and AppleScript. What you'll learn This book will prime you on not just shell scripting, but also the modern context of portable shell scripting. You will learn The core Linux/OS X shell constructs from a portability point of view How to write scripts that write other scripts, and how to write macros and debug them How to write and design shell script portably from the ground up How to use programmable utilities and their inherent portability to your advantage, while pinpointing potential traps Pulling everything together, how to engineer scripts that play well with Python and Ruby, and even run on embedded systems Who this book is for This book is for system administrators, programmers, and testers working across Linux, OS X, and the Unix command line. Table of Contents Introduction to Shell Scripting Patterns and Regular Expressions Basic Shell Scripting Core Shell Features Explained Shells Within Shells Invocation and Execution Shell Language Portability Utility Portability Bringing It All Together Shell Script Design Mixing and Matching

The author focuses solely on how UNIX and Linux system administrators can use well-known tools to automate tasks, even across multiple systems.

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.

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 shell scripting to solve complex shell-related problems and to efficiently automate your day-to-day tasks About This Book Familiarize yourself with the terminal by learning about powerful shell features Automate tasks by writing shell scripts for repetitive work Packed with easy-to-follow, hands-on examples to help you write any type of shell script with confidence Who This Book Is For This book is aimed at administrators and those who have a basic knowledge of shell scripting and who want to learn how to get the most out of writing shell scripts. What You Will Learn Write effective shell scripts easily Perform search operations and manipulate large text data with a single shell command Modularize reusable shell scripts by creating shell libraries Redirect input, output, and errors of a command or script execution to other streams Debug code with different shell debugging techniques to make your scripts bug-free Manage processes, along with the environment variables needed to execute them properly Execute and embed other languages in your scripts Manage creation, deletion, and search operations in files In Detail Shell scripting is a quick method to prototype complex applications or problems. Shell scripts are a collection of commands to automate tasks, usually those for which the user has a repeated need, when working on Linux-based systems. Using simple commands or a combination of them in a shell can solve complex problems easily. This book starts with the basics, including essential commands that can be executed on Linux systems to perform tasks within a few nanoseconds. You'll learn to use outputs from commands and transform them to show the data you require. Discover how to write shell scripts easily, execute script files, debug, and handle errors. Next, you'll explore environment variables in shell programming and learn how to customize them and add a new environment. Finally, the book walks you through processes and how these interact with your shell scripts, along with how to use scripts to automate tasks and how to embed other languages and execute them. Style and approach This book is a pragmatic guide to writing efficient shell programs, complete with hands-on examples and tips.

Python is an ideal language for solving problems, especially in Linux and Unix networks. With this pragmatic book, administrators can review various tasks that often occur in the management of these systems, and learn how Python can provide a more efficient and less painful way to handle them. Each chapter in Python for Unix and Linux System Administration presents a particular administrative issue, such as concurrency or data backup, and presents Python solutions through hands-on examples. Once you finish this book, you'll be able to develop your own set of command-line utilities with Python to tackle a wide range of problems. Discover how this language can help you: Read text files and extract information Run tasks concurrently using the threading and forking options Get information from one process to another using network facilities Create clickable GUIs to handle large and complex utilities Monitor large clusters of machines by interacting with SNMP programmatically Master the IPython Interactive Python shell to replace or augment Bash, Korn, or Z-Shell Integrate Cloud Computing into your infrastructure, and learn to write a Google App Engine Application Solve unique data backup challenges with customized scripts Interact with MySQL, SQLite, Oracle, Postgres, Django ORM, and SQLAlchemy With this book, you'll learn how to package and deploy your Python applications and libraries, and write code that runs equally well on multiple Unix platforms. You'll also learn about several Python-related technologies that will make your life much easier.

Covering all major platforms-Linux, Unix, Mac OS X, and Windows-this guide shows programmers and power users how to customize an operating system, automate commands, and simplify administration tasks using shell scripts Offers complete shell-scripting instructions, robust code examples, and full scripts for OS customization Covers shells as a user interface, basic scripting techniques, script editing and debugging, graphing data, and simplifying administrative tasks In addition to Unix and Linux scripting, the book covers the latest Windows scripting techniques and offers a complete tutorial on Mac OS X scripting, including detailed coverage of mobile file systems, legacy applications, Mac text editors, video captures, and the Mac OS X Open Scripting Architecture

Learn how to use bash scripting to automate common tasks on Red Hat Enterprise Linux (RHEL)?one of the most popular Linux distributions. This course covers the foundations of creating and debugging bash scripts, including scripts that accept input via positional arguments, pipes, and file parsing. Plus, learn how to get data out of bash scripts and set up conditional and looping code blocks. Grant also solves some real-world problems, using bash to monitor user space and CPU usage. Note: This course also helps you study to pass the Red Hat Certified Engineer (RHCE) exam?the benchmark certification for Red Hat Enterprise Linux.

A compendium of shell scripting recipes that can immediately be used, adjusted, and applied The shell is the primary way of communicating with the Unix and Linux systems, providing a direct way to program by automating simple-to-intermediate tasks. With this book, Linux expert Steve Parker shares a collection of shell scripting recipes that can be used as is or easily modified for a variety of environments or situations. The book covers shell programming, with a focus on Linux and the Bash shell; it provides credible, real-world relevance, as well as providing the flexible tools to get started immediately. Shares a collection of helpful shell scripting recipes that can immediately be used for various of real-world challenges Features recipes for system tools, shell features, and systems administration Provides a host of plug and play recipes for to immediately apply and easily modify so the wheel doesn't have to be reinvented with each challenge faced Come out of your shell and dive into this collection of tried and tested shell scripting recipes that you can start using right away!

Save when you buy this two book bundle - Linux for Beginners AND Command Line Kung FuLinux for Beginners information:If you want to learn how to use Linux, but don't know where to start read on. Knowing where to start when learning a new skill can be a challenge, especially when the topic seems so vast. There can be so much information available that you can't even decide where to start. Or worse, you start down the path of learning and quickly discover too many concepts, commands, and nuances that aren't explained. This kind of experience is frustrating and leaves you with more questions than answers. Linux for Beginners doesn't make any assumptions about your background or knowledge of Linux. You need no prior knowledge to benefit from this book. You will be guided step by step using a logical and systematic approach. As new concepts, commands, or jargon are encountered they are explained in plain language, making it easy for anyone to understand. Here is what you will learn by reading Linux for Beginners: How to get access to a Linux server if you don't already. What a Linux distribution is and which one to choose. What software is needed to connect to Linux from Mac and Windows computers. Screenshots included. What SSH is and how to use it, including creating and using SSH keys. The file system layout of Linux systems and where to find programs, configurations, and documentation. The basic Linux commands you'll use most often. Creating, renaming, moving, and deleting directories. Listing, reading, creating, editing, copying, and deleting files. Exactly how permissions work and how to decipher the most cryptic Linux permissions with ease. How to use the nano, vi, and emacs editors. Two methods to search for files and directories. How to compare the contents of files. What pipes are, why they are useful, and how to use them. How and why to redirect input and output from applications. How to customize your shell prompt. How to be efficient at the command line by using aliases, tab completion, and your shell history. How to schedule and automate jobs using cron. How to switch users and run processes as others. Where to go for even more in-depth coverage on each topic.

Command Line Kung Fu information:Become a Linux Ninja with Command Line Kung Fu!Do you think you have to lock yourself in a basement reading cryptic man pages for months on end in order to have ninja like command line skills?In reality, if you had someone share their most powerful command line tips, tricks, and patterns you'd save yourself a lot of time and frustration. What if you could look over the shoulder of a good friend that just happened to be a command line guru? What if they not only showed you the commands they were using, but why they were using them and exactly how they worked? And what if that friend took the time to write all of it down so you can refer to it whenever you liked?Well, a friend did just that. Command Line Kung Fu is packed with dozens of tips and over 100 practical real-world examples.

You won't find theoretical examples in this book. The examples demonstrate how to solve actual problems and accomplish worthwhile goals. The tactics are easy to find, too. Each chapter covers a specific topic and groups related tips and examples together. For example, if you need help extracting text from a file look in the "Text Processing and Manipulation" chapter. Also, a comprehensive index is included. If you want to find every example where a given command is used -- even if it's not the main subject of the tip -- look in the index. It will list every single place in the book where that command appears.

This book is an exploration of Shell programming, also referred to as Bash Scripting. It begins by guiding you on how to automate the various tasks in UNIX by using the Shell scripts. The book also guides you on the effective steps on how to write the Shell scripts. In UNIX, we should come up with an effective mechanism for management of file systems and software packages. This book guides you on the effective way to do this in Shell. You are also guided on how to use the various UNIX editors such as the Vim editor, nano, and GNOME. You will learn how to use the various shortcuts provided by these text editors, as well as how to navigate within your file opened in the text editor. Structured commands, which are very common in Shell, are discussed in detail. You will learn how to use such statements for decision-making as well as for looping through your program. You are also guided on how to manipulate your text, as well as how to use regular expressions. In some programs, it is good for you to implement a mechanism for accepting user input and then making a decision based on that input. This book clearly guides you on how to do this in Bash scripting. Command line arguments have also been explored in detail. The following topics are discussed in this book: - Automate Tasks with Simple Script Utilities - Creating Shell Scripts - Manage Filesystems and Software Packages - Work with nano, KDE, and GNOME editors - Structured Commands, Text Manipulation, and Regular Expressions - Keyboard Input - Command Line Arguments

A quick and straightforward approach to writing shell scripts to accomplish different types of tasks on a Linux system. About This Book Understand expressions and variables and how to use them practically Familiarize yourself with the various text filtering tools available in Linux A fast-paced and concise guide that gets you well versed with linux shell scripting. Who This Book Is For This book is for both 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. What You Will Learn Get acquainted with the basics of a shell script to serve as a refresher for more advanced topics Learn different ways to create and run a script Discuss the passing and verification of parameters, along with the verification of other items. Understand the different forms of conditions and loops, and go over the sleep command in detail Learn about different ways to handle the reporting of return codes Create an interactive script by reading the keyboard and use subroutines and interrupts Create scripts to perform backups and go over the use of encryption tools and checksums Use wget and curl in scripts to get data directly from the Internet In Detail Linux Shell Scripting Bootcamp is all about learning the essentials of script creation, validating parameters, and checking for the existence of files and other items needed by the script. We will use scripts to explore iterative operations using loops and learn different types of loop statements, with their differences. Along with this, we will also create a numbered backup script for backup files. Further, you will get well-versed with how variables work on a Linux system and how they relate to scripts. You'll also learn how to create and call subroutines in a script and create interactive scripts. The most important archive commands, zip and tar, are also discussed for performing backups. Later, you will dive deeper by understanding the use of wget and curl scripts and the use of checksum and file encryption in further chapters. Finally, you will learn how to debug scripts and scripting best practices that will enable you to write a great code every time! By the end of the book, you will be able to write shell scripts that can dig data from the web and process it efficiently. Style and approach This book is all about fast and intensive learning. This means we don't waste time in helping readers get started. The new content is basically about filling in with highly-effective examples to build new things, solving problems in newer and unseen ways, and solving real-world examples.

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.

Experience an in-depth exploration of logical volume management and the use of file managers to manipulate files and directories and the critical concept that, in Linux, everything is a file and some fun and interesting uses of the fact that everything is a file. This book builds upon the skills you learned in Volume 1 of this course and it depends upon the virtual network and virtual machine created there. More experienced Linux users can begin with this volume and download the assigned script that will set up the VM for the start of Volume 2. Instructions with the script will provide specifications for configuration of the virtual network and the virtual machine. Refer to the volume overviews in the book's introduction to select the volume of this course most appropriate for your current skill level. You'll see how to manage and monitor running processes, discover the power of the special filesystems, monitor and tune the kernel while it is running – without a reboot. You'll then turn to regular expressions and the power that using them for pattern matching can bring to the command line, and learn to manage printers and printing from the command line and unlock the secrets of the hardware on which your Linux operating system is running. Experiment with command line programming and how to automate various administrative tasks, networking, and the many services that are required in a Linux system. Use the logs and journals to look for clues to problems and confirmation that things are working correctly, and learn to enhance the security of your Linux systems and how to perform easy local and remote backups. What You Will Learn Understand Logical Volume Management, using file managers, and special filesystems Exploit everything in a file Perform command line programming and basic automation Configure printers and manage other hardware Manage system services with systemd, user management, security, and local and remote backups using simple and freely available tools Who This Book Is For Anyone who wants to continue to learn Linux in depth as an advanced user and system administrator at the command line while using the GUI desktop to leverage productivity.

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.

Shell scripts are an efficient way to interact with your machine and manage your files and system operations. With just a few lines of code, your computer will do exactly what you want it to do. But you can also use shell scripts for many other essential (and not-so-essential) tasks. This second edition of Wicked Cool Shell Scripts offers a collection of useful, customizable, and fun shell scripts for solving common problems and personalizing your computing environment. Each chapter contains ready-to-use scripts and explanations of how they work, why you'd want to use them, and suggestions for changing and expanding them. You'll find a mix of classic favorites, like a disk backup utility that keeps your files safe when your system crashes, a password manager, a weather tracker, and several games, as well as 23 brand-new scripts, including: – ZIP code lookup tool that reports the city and state – Bitcoin address information retriever – suite of tools for working with cloud services like Dropbox and iCloud – for renaming and applying commands to files in bulk – processing and editing tools Whether you want to save time managing your system or just find new ways to goof off, these scripts are wicked cool!

Master the complexities of Bash shell scripting and unlock the power of shell for your enterprise About This Book Identify the high level steps such as verifying user input, using command lines and conditional statements in creating and executing simple shell scripts Create and edit dynamic shell scripts to manage complex and repetitive tasks Learn about scripting in Perl and programming in Python as a BASH scripting alternative with this practical, step-by-step guide Who This Book Is For Mastering Linux Shell Scripting has been written for Linux administrators who want to automate tasks in their daily lives, saving time and effort. You'll need to have command-line experience and be familiar with the tasks that you need to automate. What You Will Learn Use the type command to identify the order of command evaluation 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 Perl and Python with BASH In Detail Shell scripting is a quick method to prototype a complex application or a problem by automating tasks when working on Linux-based systems. Using both simple one-line commands and command sequences complex problems can be solved with ease, from text processing to backing up sysadmin tools. In this book, you'll discover everything you need to know to master shell scripting and make informed choices about the elements you employ. 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. Implement functions and edit files using the Stream Editor, script in Perl, program in Python – as well as complete coverage of other scripting languages to ensure you can choose the best tool for your project. Style and approach The book will capture your attention and keep you engaged with the simplicity and clarity of each explanation. Every step is accompanied with screen captures so you can cross-check the results before moving on.

Shell Scripting Made Easy If you want to learn how to write shell scripts like a pro, solve real-world problems, or automate repetitive and complex tasks, read on. Hello. My name is Jason Cannon and I'm the author of Linux for Beginners, Python Programming for Beginners, and an instructor to thousands of satisfied students. I started my IT career in the late 1990's as a Unix and Linux System Engineer and I'll be sharing my real-world shell scripting and bash programming experience with you throughout this book. By the end of this book you will be able to create shell scripts with ease. You'll learn how to take tedious and repetitive tasks and turn them into programs that will save you time and simplify your life on Linux, Unix, or MAC systems. Here is what you will get and learn by reading this Shell Scripting book: A step-by-step process of writing shell scripts that solve real-world problems. The #1 thing you must do every time you create a shell script. How to quickly find and fix the most shell scripting errors. How to accept input from a user and then make decisions on that input. How to accept and process command line arguments. What special variables are available, how to use them in your shell scripts, and when to do so. A shell script creation check list -- You'll never have to guess what to include in each of your shell scripts again. Just use this simple check list. A shell script template (boilerplate). Use this format for each of your shell scripts. It shows exactly what to include and where everything goes. Eliminate guesswork! Practice exercises with solutions so you can start using what you learn right away. Real-world examples of shell scripts from my personal collection. A download that contains the scripts used in the book and lessons. You'll be able to look at and experiment with everything you're learning. Learn to Program Using Any Shell Scirpting Language What you learn in this book can be applied to any shell, however the focus is on the bash shell and you'll learn some really advanced bash features. Again, whether you're using bash, bourne (sh), KornShell (ksh), C shell (csh), Z shell (zsh), or even the tcsh shell, you'll be able to put what you learn in this book to good use. Perfect for Linux, Unix, Mac and More! Also, you'll be able to use these scripts on any Linux environment including Ubuntu, Debian, Linux Mint, RedHat, Fedora, OpenSUSE, Slackware, Kali Linux and more. You're scripts will even run on other operating systems such as Apple's Mac OS X, Oracle's Solaris, IBM's AIX, HP's HP-UX, FreeBSD, NetBSD, and OpenBSD. Scroll up, click the Buy Now With 1 Click button and get started learning Linux today!

System administrators need libraries of solutions that are ingenious but understandable. They don't want to reinvent the wheel, but they don't want to reinvent filesystem management either! Expert Shell Scripting is the ultimate resource for all working Linux, Unix, and OS X system administrators who would like to have short, succinct, and powerful shell implementations of tricky system scripting tasks. Automating small to medium system management tasks Analyzing system data and editing configuration files Scripting Linux, Unix, and OS X applications using bash, ksh, et al.

Linux is a Unix-like operating system that is one of the most popular open source operating systems on the planet. It is the heart of countless software products, from enterprise operating systems like Android and Red Hat Enterprise Linux, to hobbyist projects on a wide range of devices. Linux by Jason Cannon will teach you the basics of interacting with Linux, such as viewing and editing files and directories through the command line, and how to modify permissions. More advanced topics covered include I/O streams, sorting and comparing files and directories, and installing additional software. This updated and expanded second edition of Book provides a user-friendly introduction to the subject, Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of concepts. This succinct and enlightening overview is a required reading for all those interested in the subject . We hope you find this book useful in shaping your future career & Business.

UNIX expert Randal K. Michael guides you through every detail of writing shell scripts to automate specific tasks. Each chapter begins with a typical, everyday UNIX challenge, then shows you how to take basic syntax and turn it into a shell scripting solution. Covering Bash, Bourne, and Korn shell scripting, this updated edition provides complete shell scripts plus detailed descriptions of each part. UNIX programmers and system administrators can tailor these to build tools that monitor for specific system events and situations, building solid UNIX shell scripting skills to solve real-world system administration problems.

Do amazing things with the shell About This Book Become an expert in creating powerful shell scripts and explore the full possibilities of the shell Automate any administrative task you could imagine, with shell scripts Packed with easy-to-follow recipes on new features on Linux, particularly, Debian-based, to help you accomplish even the most complex tasks with ease Who This Book Is For If you are a beginner or an intermediate Linux user who wants to master the skill of quickly writing scripts and automate tasks without reading the entire man pages, then this book is for you. You can start writing scripts and one-liners by simply looking at the relevant recipe and its descriptions without any working knowledge of shell scripting or Linux. Intermediate / advanced users, system administrators / developers, and programmers can use this book as a reference when they face problems while coding. What You Will Learn Interact with websites via scripts Write shell scripts to mine and process data from the Web Automate system backups and other repetitive tasks with crontab Create, compress, and encrypt archives of your critical data. Configure and monitor Ethernet and wireless networks Monitor and log network and system activity Tune your system for optimal performance Improve your system's security Identify resource hogs and network bottlenecks Extract audio from video files Create web photo albums Use git or fossil to manage revision control and interact with FOSS projects Create and maintain Linux containers and Virtual Machines

Run a private Cloud server In Detail The shell is the most powerful tool your computer provides. Despite having it at their fingertips, many users are unaware of how much the shell can accomplish. Using the shell, you can generate databases and web pages from sets of files, automate monotonous admin tasks such as system backups, monitor your system's health and activity, identify network bottlenecks and system resource hogs, and more. This book will show you how to do all this and much more. This book, now in its third edition, describes the exciting new features in the newest Linux distributions to help you accomplish more than you imagine. It shows how to use simple commands to automate complex tasks, automate web interactions, download videos, set up containers and cloud servers, and even get free SSL certificates. Starting with the basics of the shell, you will learn simple commands and how to apply them to real-world issues. From there, you'll learn text processing, web interactions, network and system monitoring, and system tuning. Software engineers will learn how to examine system applications, how to use modern software management tools such as git and fossil for their own work, and how to submit patches to open-source projects. Finally, you'll learn how to set up Linux Containers and Virtual machines and even run your own Cloud server with a free SSL Certificate from letsencrypt.org. Style and approach This book will take you through useful real-world recipes designed to make your daily life easier when working with the shell.

Create and maintain powerful Bash scripts for automation and administration. Key Features Get up and running with Linux shell scripting using real-world examples Leverage command-line techniques and methodologies to automate common yet complex administration tasks A practical guide with exposure to scripting constructs and common scripting patterns Book Description Shell scripts allow us to program commands in chains and have the system execute them as a scripted event, just like batch files. This book will start with an overview of Linux and Bash shell scripting, and then quickly deep dive into helping you set up your local environment, before introducing you to tools that are used to write shell scripts. The next set of chapters will focus on helping you understand Linux under the hood and what Bash provides the user. Soon, you will have embarked on your journey along the command line. You will now begin writing actual scripts instead of commands, and will be introduced to practical applications for scripts. The final set of chapters will deep dive into the more advanced topics in shell scripting. These advanced topics will take you from simple scripts to reusable, valuable programs that exist in the real world. The final chapter will leave you with some handy tips and tricks and, as regards the most frequently used commands, a cheat sheet containing the most interesting flags and options will also be provided. After completing this book, you should feel confident about starting your own shell scripting projects, no matter how simple or complex the task previously seemed. We aim to teach you how to script and what to consider, to complement the clear-cut patterns that you can use in your daily scripting challenges. What you will learn Understand Linux and Bash basics as well as shell scripting fundamentals Learn to write simple shell scripts that interact with Linux operating system Build, maintain, and deploy scripts in a Linux environment Learn best practices for writing shell scripts Avoid common pitfalls associated with Bash scripting Gain experience and the right toolset to write your own complex shell scripts Who this book is for This book targets new and existing Linux system administrators, Windows system administrators or developers who are interested in automating administrative tasks. No prior shell scripting experience is needed but in case you do this book will make a pro quickly. Readers should have a basic understanding of the command line.

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.

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