

Bash Shell Scripting Tutorial

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.

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

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!

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

Unleash the power of shell scripts to solve real-world problems by breaking through the practice of writing tedious code About This Book Learn how to efficiently and effectively build shell scripts and develop advanced applications with this handy book Develop high quality and efficient solutions by writing professional and real-world scripts, and debug scripts by checking and shell tracing A step-by-step tutorial to automate routine tasks by developing scripts from a basic level to very advanced functionality Who This Book Is For This book is ideal for those who are proficient at working with Linux and who want to learn about shell scripting to improve their efficiency and practical skills. 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 Combine the fundamental text and file processing commands to process data and automate repetitive tasks 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 and signals and using dialogs to develop screens Start up a system and customize a Linux system Take an in-depth look at regular expressions and pattern matching to understand the capabilities of scripting In Detail Linux is the one of the most powerful and universally adopted OSes. 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 can read this file and act on the commands as if they were typed on the keyboard. Shell scripting is used to automate day-to-day administration, and for testing or product development tasks. This book covers Bash, GNU Bourne Again SHell, preparing you to work in the exciting world of Linux shell scripting. We start with an introduction to the Shell environment and explain basic commands used in Shell. Next we move on to check, kill, and control the execution of processes in Linux OS. Further, we teach you about the filter tools available in Linux and explain standard output and standard errors devices. Then we will ensure you understand Shell's interpretation of commands and get a firmer grasp so you use them in practice. Next, you'll experience some real-world essentials such as debugging and perform Shell arithmetic fluently. Then you'll take a step ahead and learn new and advanced topics in Shell scripting, such as starting up a system and customizing a Linux system. Finally, you'll get to understand the capabilities of scripting and learn about Grep, Stream Editor, and Awk. Style and approach This practical book will go from the very basics of shell scripting to complex, customized automation. The idea behind this book is to be as practical as possible and give you the look and feel of what real-world scripting is like.

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"

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. 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.

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

A Bourne Shell Programming/Scripting Tutorial for learning about using the Unix shell. Learn Linux / Unix shell scripting by example along with the theory. We'll have you mastering Unix shell scripting in no time! This thorough yet practical tutorial with examples throughout has been written with extensive feedback from literally hundreds of students and professionals in the field, both with and without a Unix or Linux background. From the author of the Wiley book "Shell Scripting - Expert Recipes for Bash, Linux and more" and of "How to Build a LAMP Server," this is his best-read and most popular work to date.

You may be contemplating your first Linux installation. Or you may have been using Linux for years and need to know more about adding a network printer or setting up an FTP server. Running Linux, now in its fifth edition, is the book you'll want on hand in either case. Widely recognized in the Linux community as the ultimate getting-started and problem-solving book, it answers the questions and tackles the configuration issues that frequently plague users, but are seldom addressed in other books. This fifth edition of Running Linux is greatly expanded, reflecting the maturity of the operating system and the teeming wealth of software available for it. Hot consumer topics such as audio and video playback applications, groupware functionality, and spam filtering are covered, along with the basics in configuration and management that always have made the book popular. Running Linux covers basic communications such as mail, web surfing, and instant messaging, but also delves into the subtleties of network configuration--including dial-up, ADSL, and cable modems--in case you need to set up your network manually. The book can make you proficient on office suites and personal productivity applications--and also tells you what programming tools are available if you're interested in contributing to these applications. Other new topics in the fifth edition include encrypted email and filesystems, advanced shell techniques, and remote login applications. Classic discussions on booting, package management, kernel recompilation, and X configuration have also been updated. The authors of Running Linux have anticipated problem areas, selected stable and popular solutions, and provided clear instructions to ensure that you'll have a satisfying experience using Linux. The discussion is direct and complete enough to guide novice users, while still providing the additional information experienced users will need to progress in their mastery of Linux. Whether you're using Linux on a home workstation or maintaining a network server, Running Linux will provide expert advice just when you need it. Learn how to develop powerful and robust shell scripts in order to get the most out of your Unix/Linux system.

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 ...

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.

Bash Scripting Think of a script for a play, or a movie, or a TV show. The script tells the actors what they should say and do. A script for a computer tells the computer what it should do or say. In the context of Bash scripts we are telling the Bash shell what it should do. A Bash script is a plain text file which contains a series of commands. These commands are a mixture of commands we would normally type ourselves on the command line (such as ls or cp for example) and commands we could type on the command line but generally wouldn't (you'll discover these over the next few pages). An important point to remember though is: Anything you can run normally on the command line can be put into a script and it will do exactly the same thing. Similarly, anything you can put into a script can also be run normally on the command line and it will do exactly the same thing. You don't need to change anything. Just type the commands as you would normally and they will behave as they would normally. It's just that instead of typing them at the command line we are now entering them into a plain text file. In this sense, if you know how to do stuff at the command line then you already know a fair bit in terms of Bash scripting. It is convention to give files that are Bash scripts an extension of .sh (myscript.sh for example). As you would be aware (and if you're not maybe you should consider reviewing our Linux Tutorial), Linux is an extensionless system so a script doesn't necessarily have to have this characteristic in order to work.

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.

Shell Scripting Tutorial>CreateSpace

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!

Summary This comprehensive and authoritative book about bash programming is a must-have book for any Linux/Unix professionals. It is both a tutorial and a reference on shell scripting with Bash.It assumes no previous knowledge of scripting or programming, but progresses rapidly toward an intermediate/advanced level of instruction . . . all the while sneaking in little nuggets of UNIX® wisdom and lore. It serves as a textbook, a manual for self-study, and as a reference and source of knowledge on shell scripting techniques. The exercises and heavily-commented examples invite active reader participation, under the premise that the only way to really learn scripting is to write scripts. This book is suitable for classroom use as a general introduction to programming concepts. Notes: this book has been splited into Volume 1 and Volume 2.Volume 1 contains all content except appdendixes. (<https://www.amazon.com/dp/170640039X>) Volume 2 contains all appdendixes. (<https://www.amazon.com/dp/1707048916>) Table of Contents of Volume 1 Part 1. Introduction 1. Shell Programming! 2. Starting Off With a Sha-Bang Part 2. Basics 3. Special Characters 4. Introduction to Variables and Parameters 5. Quoting 6. Exit and Exit Status 7. Tests 8. Operations and Related Topics Part 3. Beyond the Basics 9. Another Look at Variables 10. Manipulating Variables 11. Loops and Branches 12. Command Substitution 13. Arithmetic Expansion 14. Recess Time Part 4. Commands 15. Internal Commands and Builtins 16. External Filters, Programs and Commands 17. System and Administrative Commands Part 5. Advanced Topics 18. Regular Expressions 19. Here Documents 20. I/O Redirection 21. Subshells 22. Restricted Shells 23. Process Substitution 24. Functions 25. Aliases 26. List Constructs 27. Arrays 28. Indirect References 29. /dev and /proc 30. Network Programming 31. Of Zeros and Nulls 32. Debugging 33. Options 34. Gotchas 35. Scripting With Style 36. Miscellany 37. Bash, versions 2, 3, and 4 38. Endnotes 38.1. Author's Note 38.2. About the Author 38.3. Where to Go For Help 38.4. Tools Used to Produce This Book 38.5. Credits 38.6. Disclaimer Bibliography

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.

Beginning Linux Programming, Fourth Edition continues its unique approach to teaching UNIX programming in a simple and structured way on the Linux platform. Through the use of detailed and realistic examples, students learn by doing, and are able to move from being a Linux beginner to creating custom applications in Linux. The book introduces fundamental concepts beginning with the basics of writing Unix programs in C, and including material on basic system calls, file I/O, interprocess communication (for getting programs to work together), and shell programming. Parallel to this, the book introduces the toolkits and libraries for working with user interfaces, from simpler terminal mode applications to X and GTK+ for graphical user interfaces. Advanced topics are covered in detail such as processes, pipes, semaphores, socket programming, using MySQL, writing applications for the GNOME or the KDE desktop, writing device drivers, POSIX Threads, and kernel programming for the latest Linux Kernel.

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 to compress files to save space and make transferring data easy. 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. What you learn in "Linux for Beginners" applies to any Linux environment including Ubuntu, Debian, Linux Mint, RedHat, Fedora, OpenSUSE, Slackware, and more. Scroll up, click the Buy Now With 1 Click button and get started learning Linux today!

Giving you the confidence you need to take on Docker in the real world, this guide is the ultimate book for learning Docker, brought to you by Docker Captain and leading educator in the container ecosystem. --

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.

This volume is the official reference manual for GNU Bash, the standard GNU command-line interpreter.

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.

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.

This guide aims to aid people interested in learning to work with BASH. It aspires to teach good practice techniques for using BASH, and writing simple scripts. This guide is targeted at beginning users. It assumes no advanced knowledge -- just the ability to login to a Unix-like system and open a command-line (terminal) interface. It will help if you know how to use a text editor; we will not be covering editors, nor do we endorse any particular editor choice. Familiarity with the fundamental Unix tool set, or with other programming languages or programming concepts, is not required, but those who have such knowledge may understand some of the examples more quickly.

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

A step-by-step tutorial that will teach you, through real-world examples, how to configure and use `zsh` and its various features. If you are a system administrator, developer, or computer professional involved with UNIX who are looking to improve on their daily tasks involving the UNIX shell, Learning Shell Scripting with `zsh` will be great for you. It's assumed that you have some familiarity with an UNIX command-line interface and feel comfortable with editors such as Emacs or `vi`.

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

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

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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.

A tutorial designed for anyone needing to create simple Kornshell scripts--system administrators, programmers at various levels and UNIX users. Rosenberg has given us a book that is 85% examples-oriented. This unique format allows readers to learn Kornshell Script programming in the shortest amount of time.

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.

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.

Unix Shell Programming is a tutorial aimed at helping Unix and Linux users get optimal performance 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.

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