

# Read Book Forouzan Unix Shell Programming Pdf For Free

UNIX Shell Programming Shell Programming in Unix, Linux and OS X  
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UNIX power users and programmers will be guided through the intricacies of writing efficient and effective UNIX shells. If you are planning to customize your UNIX environment with the latest techniques in shell scripting, this hands-on guide is essential for you. Included is complete coverage of the emerging IEEE standard for UNIX shell programming, up-to-the-minute data on facilitating windowing, systems documentation, desktop publishing, and hypermedia within the UNIX environment, many helpful real-world examples of UNIX shell scripts, and all aspects of shell commands, syntax, and control structures. 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 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. 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. \*Author is active and well-known within the community \*Comprehensive and example-driven, for faster completion of administration tasks \*Scripts are POSIX-compliant; supported by all mainstream shells \*All examples contain the problem, the solution, and the code needed to implement the solution. Finally, Learning the bash Shell, Second Edition, shows you how to acquire, install, configure, and customize bash, and gives advice to system administrators managing bash for their user community. 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  
This useful, how-to book features a collection of useful shell scripts that solve problems and help UNIX and Linux users customize their computing environment.  
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. Unix. Possibly, The Longest Living Entity In The Computer Land Where Nothing Survives More Than A Couple Of Years, A Decade At The Most. It Has Been Around For More Than Two Decades, Owing Its Longevity To The Ruggedness Built Into It And Its Commands. This Book Comes In Two Parts. The First Part Is A Journey Into The Vast Expanse That Is Unix. The Intent Is To Make You Aware Of The Underlying Philosophy Used In Development Of Myriads Of Unix Commands Rather Than Telling You All The Variations Available With Them. 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. Explains how to develop programs in the UNIX operating system, discussing how to perform tasks including building, debugging, and understanding how shell scripts work. Teach Yourself Shell Programming in 14 Days is a true beginning level guide to the Bourne Shell. Everyone who works in UNIX uses one of its three shells. This tutorial shows uses how to exploit the Bourne Shell to optimize their system, increase productivity, and work more efficiently. Describes how to create and customize shell scrips for UNIX. 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 FeaturesDemystify the Bash command lineWrite shell scripts safely and effectivelySpeed up and automate your daily workBook 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 learnUnderstand where the Bash shell fits in the system administration and programming worldsUse the interactive Bash command line effectivelyGet to grips with the structure of a Bash command lineMaster pattern-matching and transforming text with BashFilter and redirect program input and outputWrite shell scripts safely and effectivelyWho 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. 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! CD-ROM contains: all source code and datafiles from the book Learn how to create and develop shell scripts in a step-by-step manner increasing your knowledge as you progress through the book. Learn how to work the shell commands so you can be more productive and save you

time. Introduction to Unix and Shell Programming is designed to be an introductory first-level book for a course on Unix. Organised into twelve simple chapters, the book guides the students from the basic introduction to the Unix operating system and ext. 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 SHELL SCRIPTING , UNIX , LINUX This book is for all those who are willing to learn UNIX like operating system and shell scripting. You can start reading this book without any knowledge of programming / scripting or any knowledge of any Linux/ UNIX operating system. All of the programs / scripts in this book are explained as a step by step program with clear instructions. Each chapter will contain a certain number of relevant topics with illustrations and exercises where necessary, this will all be finished off

with an end of chapter quiz for an easy and enjoyable learning. In this book you will find the following topics: wildcards, functions, text processing, text searching, loops, troubleshooting and debugging. At the end of this book you will learn how to write more complex scripts using variables, functions and loops. If you are Linux new user, so this book is good for you, keep in mind this is not about Linux system administration. **CLICK ADD TO CART TO GET THIS AMAZING BOOK!** 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! 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. The Most Useful Tutorial and Reference, with Hundreds of High-Quality Examples for Every Popular Linux Distribution "First Sobell taught people how to use Linux . . . now he teaches you the power of Linux. A must-have book for anyone who wants to take Linux to the next level." -Jon "maddog" Hall, Executive Director, Linux International Discover the Power of Linux—Covers macOS, too! Learn from hundreds of realistic, high-quality examples, and become a true command-line guru Covers MariaDB, DNF, and Python 3 300+ page reference section covers 102 utilities, including macOS commands For use with all popular versions of Linux, including Ubuntu,<sup>™</sup> Fedora,<sup>™</sup> openSUSE,<sup>™</sup> Red Hat,<sup>®</sup> Debian, Mageia, Mint, Arch, CentOS, and macOS Linux is today's dominant Internet server platform. System administrators and Web developers need deep Linux fluency, including expert knowledge of shells and the command line. This is the only guide with everything you need to achieve that level of Linux

mastery. Renowned Linux expert Mark Sobell has brought together comprehensive, insightful guidance on the tools sysadmins, developers, and power users need most, and has created an outstanding day-to-day reference, updated with assistance from new coauthor Matthew Helmke. This title is 100 percent distribution and release agnostic. Packed with hundreds of high-quality, realistic examples, it presents Linux from the ground up: the clearest explanations and most useful information about everything from filesystems to shells, editors to utilities, and programming tools to regular expressions. Use a Mac? You'll find coverage of the macOS command line, including macOS-only tools and utilities that other Linux/UNIX titles ignore. A Practical Guide to Linux® Commands, Editors, and Shell Programming, Fourth Edition, is the only guide to deliver A MariaDB chapter to get you started with this ubiquitous relational database management system (RDBMS) A masterful introduction to Python for system administrators and power users In-depth coverage of the bash and tcsh shells, including a complete discussion of environment, inheritance, and process locality, plus coverage of basic and advanced shell programming Practical explanations of core utilities, from aspell to xargs, including printf and sshfs/curlftpfs, PLUS macOS-specific utilities from ditto to SetFile Expert guidance on automating remote backups using rsync Dozens of system security tips, including step-by-step walkthroughs of implementing secure communications using ssh and scp Tips and tricks for customizing the shell, including step values, sequence expressions, the eval builtin, and implicit command-line continuation High-productivity editing techniques using vim and emacs A comprehensive, 300-plus-page command reference section covering 102 utilities, including find, grep, sort, and tar Instructions for updating systems using apt-get and dnf And much more, including coverage of BitTorrent, gawk, sed, find, sort, bzip2, and regular expressions 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. "Learning the Korn Shell" is the key to the Korn shell and becoming adept at using it as an interactive command and scripting language. Readers will learn how to write many applications more easily and quickly than with other high-level languages. This newly revised title inherits a long tradition of trust among computer professionals. 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! 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. The bash shell is a complete programming language, not merely a glue to combine external Linux commands. By taking full advantage of shell internals, shell programs can perform as snappily as utilities written in C or other compiled languages. And you will see how, without assuming Unix lore, you can write professional bash 4.0 programs through standard programming techniques. Complete bash coverage Teaches bash as a programming language Helps you master bash 4.0 features 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. The only book available that covers the powerful Bash shell and associated tools that are essential to any Linux programming professional. One element that the Korn shell does not contain is portability. Bruce Blinn focuses on shells that are portable, known as Bourne Shells. This practical book treats the shell like a programming language. Lists over 250 major shell examples. 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. 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. Filled with over 150 essential, practical recipes that empower Unix users to regain lost timespent creating and testing shell scripts. The majority of scripts included are POSIX-compliantand supported by many of the major shell variants, including Bash, ksh, and sh.Each real-world example recipe follows the same problem-solution structure, meaningcross-referencing is easy and fast. Recipe topics include file conversion (DOS, UNIX, andMac), system administration, resource monitoring, filename management, complex datecalculations, screen control capabilities, and much more. Completely updated for this second

edition and taking all the changes of the past tenyears into account, every recipe in this book is now relevant for a modern audience. AuthorsChris Johnson's and Jayant Varma's code is clear, direct, and applicable. Add this excellentreference to your library today. 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. Learn how to develop powerful and robust shell scripts in order to get the most out of your Unix/Linux system. 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