

Part 1 : Getting Familiar with Linux		
Chapter 1 : Getting started with Red Hat Enterprise Linux	Hours	
		Linux, Open Source, and Red Hat Origins of Linux Distributions Fedora Red Hat Enterprise Linux and Related Products Red Hat Enterprise Linux Server Edition Red Hat Enterprise Linux Workstation Edition Red Hat Add-Ons Red Hat Directory Server Red Hat Enterprise Virtualization JBoss Enterprise Middleware Red Hat Cloud Installing Red Hat Enterprise Linux Server Exploring the GNOME User Interface Exploring the Applications Menu Exploring the Places Menu Exploring the System Menu
Chapter 2 Finding Your Way on the Command Line		Working with the Bash Shell Getting the Best of Bash Useful Bash Key Sequences Working with Bash History Performing Basic File System Management Tasks Working with Directories Working with Files Piping and Redirection Piping Redirection Finding Files Working with an Editor Vi Modes Saving and Quitting Cut, Copy, and Paste Deleting Text Replacing Text Using sed for the Replacement of Text Getting Help Using man to Get Help Using the --help Option Getting Information on Installed Packages
Part II : Administering Red Hat Enterprise Linux		
Chapter 3 Performing Daily System Administration Tasks		Performing Job Management Tasks System and Process Monitoring and Management Managing Processes with ps Sending Signals to Processes with the kill Command Using top to Show Current System Activity Managing Process Niceness Scheduling Jobs Mounting Devices Working with Links Creating Backups

		<ul style="list-style-type: none"> Managing Printers Setting Up System Logging Setting Up Rsyslog Common Log Files Setting Up Logrotate
Chapter 4 Managing Software		<ul style="list-style-type: none"> Understanding RPM Understanding Meta Package Handlers Creating Your Own Repositories Managing Repositories RHN and Satellite Installing Software with Yum Querying Software Extracting Files from RPM Packages
Chapter 5 Configuring and Managing Storage		<ul style="list-style-type: none"> Understanding Partitions and Logical Volumes Creating Partitions Creating File Systems File Systems Overview Creating File Systems Changing File System Properties Checking the File System Integrity Mounting File Systems Automatically Through fstab Working with Logical Volumes Creating Logical Volumes Resizing Logical Volumes Working with Snapshots Replacing Failing Storage Devices Creating Swap Space Working with Encrypted Volumes
Chapter 6 Connecting to the Network		<ul style="list-style-type: none"> Understanding NetworkManager Working with Services and Runlevels Configuring the Network with NetworkManager Working with system-config-network Understanding NetworkManager Configuration Files Understanding Network Service Scripts Configuring Networking from the Command Line Troubleshooting Networking Setting Up IPv6 Configuring SSH Enabling the SSH Server Using the SSH Client Using PuTTY on Windows Machines Configuring Key-Based SSH Authentication Using Graphical Applications with SSH Using SSH Port Forwarding Configuring VNC Server Access
Part III : Securing Red Hat Enterprise Linux		
Chapter 7 Working with Users, Groups, and Permissions		<ul style="list-style-type: none"> Managing Users and Groups Commands for User Management Managing Passwords Modifying and Deleting User Accounts Behind the Commands: Configuration Files Creating Groups Using Graphical Tools for User

		<ul style="list-style-type: none"> and Group Management Using External Authentication Sources Understanding the Authentication Process Understanding sssd Understanding nsswitch Understanding Pluggable Authentication Modules Managing Permissions Understanding the Role of Ownership Basic Permissions: Read, Write, and Execute Advanced Permissions Working with Access Control Lists Setting Default Permissions with umask Working with Attributes
Chapter 8 Understanding and Configuring SELinux		<ul style="list-style-type: none"> Understanding SELinux What Is SELinux? Understanding the Type Context Selecting the SELinux Mode Working with SELinux Context Types Configuring SELinux Policies Working with SELinux Modules Setting Up SELinux with system-config-selinux Troubleshooting SELinux
Chapter 9 Working with KVM Virtualization		<ul style="list-style-type: none"> Understanding the KVM Virtualization Architecture Red Hat KVM Virtualization Red Hat Enterprise Virtualization Preparing Your Host for KVM Virtualization Installing a KVM Virtual Machine Managing KVM Virtual Machines Managing Virtual Machines with Virtual Machine Manager Managing Virtual Machines from the virsh Interface Understanding KVM Networking
Chapter 10 Securing Your Server with iptables		<ul style="list-style-type: none"> Understanding Firewalls Setting Up a Firewall with system-config-firewall Allowing Services Trusted Interfaces Masquerading Configuration Files Setting Up a Firewall with iptables Understanding Tables, Chains, and Rules Understanding How a Rule Is Composed Configuration Example Advanced iptables Configuration Configuring Logging The Limit Module Configuring NAT
Chapter 11 Setting Up cyptographic Services		<ul style="list-style-type: none"> Introducing SSL Proof of Authenticity: the Certificate Authority Managing Certificates with openssl Creating a Signing Request Working with GNU Privacy Guard Creating GPG Keys Key Transfer

		<ul style="list-style-type: none"> Managing GPG Keys Encrypting Files with GPG GPG Signing Signing RPM Files
Part IV : Networking Red Hat Enterprise Linux		
Chapter 12 Configuring OpenLDAP		<ul style="list-style-type: none"> Understanding OpenLDAP Types of Information in OpenLDAP The LDAP Name Scheme Replication and Referrals Configuring a Base OpenLDAP Server Installing and Configuring OpenLDAP Populating the OpenLDAP Database Creating the Base Structure Understanding the Schema Managing Linux Users and Groups in LDAP Using OpenLDAP for Authentication
Chapter 13 Configuring Your Server for File Sharing		<ul style="list-style-type: none"> Configuring NFS4 Setting Up NFSv4 Mounting an NFS Share Making NFS Mounts Persistent Configuring Automount Configuring Samba Setting Up a Samba File Server Samba and SELinux Samba Advanced Authentication Options Accessing Samba Shares Offering FTP Services File Sharing and SELinux
Chapter 14 Configuring DNS and DHCP		<ul style="list-style-type: none"> Understanding DNS The DNS Hierarchy DNS Server Types The DNS Lookup Process DNS Zone Types Setting Up a DNS Server Setting Up a Cache-Only Name Server Setting Up a Primary Name Server Setting Up a Secondary Name Server Understanding DHCP Setting Up a DHCP Server
Chapter 15 Setting Up a Mail Server		<ul style="list-style-type: none"> Using the Message Transfer Agent Understanding the Mail Delivery Agent Understanding the Mail User Agent Setting Up Postfix as an SMTP Server Working with Mutt Basic Configuration Internet Configuration Configuring Dovecot for POP and IMAP
Chapter 16 Configuring Apache on Red Hat Enterprise Linux		<ul style="list-style-type: none"> Configuring the Apache Web Server Creating a Basic Website Understanding the Apache Configuration Files Apache Log Files Apache and SELinux

		<ul style="list-style-type: none"> Getting Help Working with Virtual Hosts Securing the Web Server with TLS Certificates Configuring Authentication Setting Up Authentication with .htpasswd Configuring LDAP Authentication Setting Up MySQL
Part V Advanced Red Hat Enterprise Linux Configuration		
Chapter 17 Monitoring and Optimizing Performance		<ul style="list-style-type: none"> Interpreting What's Going On: The top Utility CPU Monitoring with top Memory Monitoring with top Process Monitoring with top Analyzing CPU Performance Understanding CPU Performance Context Switches and Interrupts Using vmstat Analyzing Memory Usage Page size Active vs. Inactive Memory Kernel Memory Using ps for Analyzing Memory Monitoring Storage Performance Understanding Disk Activity Finding Most Busy Processes with iotop Setting and Monitoring Drive Activity with hdparm Understanding Network Performance Optimizing Performance Using a Simple Performance Optimization Test CPU Tuning Tuning Memory Optimizing Interprocess Communication Tuning Storage Performance Network Tuning Optimizing Linux Performance Using cgroups
Chapter 18 Introducing Bash Shell Scripting		<ul style="list-style-type: none"> Elements of a Good Shell Script Executing the Script Working with Variables and Input Understanding Variables Variables, Subshells, and Sourcing Working with Script Arguments Asking for Input Using Command Substitution Substitution Operators Changing Variable Content with Pattern Matching Performing Calculations Using Control Structures Using if...then...else Using case Using while loop Using until Using for loop
Chapter 19 Understanding and Troubleshooting the Boot Procedure		<ul style="list-style-type: none"> Introduction to Troubleshooting the Boot Procedure Configuring Booting with GRUB Understanding the grub.conf Configuration File Changing Boot Options

		<ul style="list-style-type: none"> Using the GRUB Command Line Reinstalling GRUB GRUB behind the Scenes Common Kernel Management Tasks Analyzing Availability of Kernel Modules Loading and Unloading Kernel Modules Loading Kernel Modules with Specific Options Upgrading the Kernel Configuring Service Startup with Upstart Basic Red Hat Enterprise Linux Troubleshooting
Chapter 20 Introducing High-Availability Clustering		<ul style="list-style-type: none"> Understanding High-Availability Clustering The Workings of High Availability High-Availability Requirements Red Hat High-Availability Add-on Software Components Configuring Cluster-Based Services Setting Up Bonding Setting Up Shared Storage Building the Initial State of the Cluster Configuring Additional Cluster Properties Configuring a Quorum Disk Setting Up Fencing Creating Resources and Services Troubleshooting a Nonoperational Cluster
Chapter 21 Setting Up an Installation Server		<ul style="list-style-type: none"> Configuring a Network Server As an Installation Server Setting Up a TFTP and DHCP Server for PXE Boot Installing the TFTP Server Configuring DHCP for PXE Boot Creating the TFTP PXE Server Content Creating a Kickstart File Using a Kickstart File to Perform an Automated Installation Modifying the Kickstart File with system-config-kickstart Making Manual Modifications to the Kickstart File
Chapter 22 Setting Up iSCSI Storage Server		<ul style="list-style-type: none"> Understanding iSCSI Storage Configure iSCSI Target Configure iSCSI Initiator Configure iSCSI Initiator (windows) Configuring iSCSI multi pathing
Chapter 23 Vagrant Devops tool for automating infra for development.		<ul style="list-style-type: none"> Understanding Virtualbox Understanding Vagrant Command line interface Vagrant Share Vagrantfile Boxes Provisioning Networking Synced Folders Multi-Machine Providers - Virtualbox

