€TRAINING

Red Hat Linux System Administration

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London (UK)
Landmark Office Space

Red Hat Linux System Administration

Course Introduction

A Red Hat Linux System Administration course covers user management, file systems, package installation, and system services. It includes hands-on labs for practical learning, focusing on security measures and preparing participants for certifications like RHCSA.Participants will gain essential skills to effectively administer Red Hat Linux systems, ensuring proficiency in user management, file systems, package installation, and security measures. This knowledge is valuable for roles in IT and system administration, enhancing career opportunities and facilitating success in Red Hat certifications like RHCSA.

Course Objectives

- Installation of Linux Enterprise & Accessing the Command Line
- Managing Files From the Command Line & Getting Help in Linux Enterprise Linux
- Creating, Viewing, Editing Text Files & Managing Local Linux Users and Groups
- Controlling Access to Files with Linux FileSystem Permissions
- Monitoring and Managing Linux Processes & Controlling Services and Daemons
- Configuring and Securing OpenSSH Service
- Managing Red Hat Enterprise Linux Networking, Installing and Updating Software Packages

Targeted Audience

This course is ideal for IT professionals and system administrators seeking expertise in Red Hat Linux system administration. It suits individuals aiming to enhance their skills in user management, file systems, package installation, and overall system security.

Course Outline

Unit 1: Introduction

- Linux System Administration 1
- Installation of Linux Enterprise Linux 7 using vmware workstation

Understanding the Command Line

- Accessing the command line using the Local & remote Console
- Local Console Access
- Access & view the Command Line Using the Desktop
- GNOME 3 Desktop Environment
- Executing & Implementing Commands Using the Bash Shell
- Accessing the Command Line

Unit 2: Operate Files & Directories From the Command Line

- Overview of the Linux File System Hierarchy
- Locating Files by Name
- Locating Files and Directories

- Command-Line Tools
- Matching File Names Using Path Name
- Managing Files with Shell Expansion

Various useful command to get help in RHEL

- man Command
- Using the man Command
- Reading Documentation Using pinfo Command
- Using the pinto Command
- Reading Documentation in /usr/share/doc
- Practice: Viewing Package Documentation
- Getting Help From RedHat
- Creating and Viewing an SoS Repo

Unit 3: Viewing, Creating & and Editing Text Files

- Redirecting Output to a File or Program
- I/0 Redirection
- Editing Text Files
- Editing & viewing file with Vim
- Editing Text Files with a Graphical Editor
- Copying Text Between Windows
- Creating, Viewing, and Editing Text Files

Unit 4: User Management

- Understanding different types of groups and creation of groups
- Creation of users in different groups
- Understanding Passwd, Shadow Files
- Understanding passwd aging
- Creation of quotas for users, groups and file systems
- Understanding users security files
- password aging policy using chage commands
- Troubleshooting

Unit 5: Permissions in Linux

- Linux File System Permissions
- User based Permissions group
- Permission types
- Managing File Security from the Command Line
- Managing Default Permissions and File Access
- Controlling New File Permissions and Ownership
- Special permissions like Setuid, setguid & Sticky bit etc
- Permissions from real IT industry environment.

Linux Processes

- Processes Management
- Controlling Jobs

- Background and Foreground Processes
- Killing Processes
- Monitoring Process Activity
- Monitoring and Managing Linux Processes

Unit 6: Managing Services and Daemons

- Controlling Services and Daemons
- Identifying Automatically Started System Processes
- Identify the Status of systemd Units
- Controlling System Services
- Using systems to Manage & Controlling Services & Daemons

Configuring and Securing SSH Service

- Accessing the Remote Command Line with SSH
- Configuring SSH Key-based Authentication
- Using SSH Key-based Authentication
- Customizing SSH Service Configuration
- Restricting SSH Logins
- Configuring and Securing OpenSSH Service

Unit 7: Analyzing Logs

- System Log Architecture - System Logging
- Understand System Logging Components
- Overview of System log Files
- Finding Log Entries
- Reviewing system Journal Entries
- Finding Events With journal
- Maintaining Accurate Time
- Adjusting System Time
- Analyzing and Storing Logs

Unit 8: Managing Linux Enterprise Linux Networking

- Networking Concepts
- Validating Network Configuration
- Configuring Networking with nmcli
- Editing Network Configuration Files
- Configuring Host Names and Name Resolution
- Managing Red Hat Enterprise Linux Networking

Unit 9: Archiving and Copying Files Between Systems

- Managing Compressed tar Archives
- Backing Up and Restoring Files From a tar Archive
- Copying Files Between Systems Securely
- Copying Files Over the Network With scp
- Synchronizing Files Between Systems Securely
- Synchronizing Two Directories Securely With rsync

- Archiving and Copying Files Between Systems

Installing and Updating Software Packages

- How to attach Systems to Subscriptions for Software Updates
- RPM Software Packages and Yum
- Managing Software Updates with yum
- Enabling yum Software Repositories
- Working with RPM files

Unit 10: Linux File Systems

- Overview
- Identify File Systems and Devices
- Mounting and Unmounting File Systems
- Making Soft & Hard Links Between Files
- Locating Files on the System
- Various Practice Lab Session