

Linux Administration Training

Suresh IT's Coaching Training Center offers a comprehensive Linux Administration course designed to provide participants with in-depth knowledge and practical skills in managing Linux-based systems effectively. This program covers various aspects of Linux administration, including system installation, configuration, user and group management, file system administration, network configuration, and security. By mastering Linux administration, graduates are well-equipped to handle diverse responsibilities in maintaining, securing, and optimising Linux servers and infrastructure.

Course Duration : 2 Months

Course Language : English/Hindi/Telugu

Classroom : Offline/Online Training/Hybrid Training

Description

The Linux Administration course is a comprehensive program designed to provide individuals with the knowledge and skills required to effectively manage and administer Linux-based systems. Geared towards system administrators, IT professionals, and anyone seeking to deepen their understanding of Linux, this course offers practical training in Linux fundamentals, system administration tasks, and advanced topics.

Throughout the course, participants will explore various aspects of Linux administration, including installation, configuration, user management, file system management, package management, and security. They will gain hands-on experience with popular Linux distributions such as Ubuntu, CentOS, and Red Hat Enterprise Linux, learning how to perform common administrative tasks and troubleshoot issues efficiently.

Moreover, the Linux Administration course covers essential topics such as shell scripting, networking, system monitoring, and performance tuning, enabling participants to optimise the performance, reliability, and security of Linux-based systems.

By the end of the course, participants will be equipped with the skills and confidence to manage and administer Linux servers and workstations effectively, empowering them to support critical business operations, deploy robust infrastructure, and mitigate security risks in Linux environments. With their newfound expertise in Linux administration, participants will be well-positioned to pursue career opportunities in system administration, cloud computing, and cybersecurity.

Skills you get

- Linux Command Line Proficiency
- System Performance Monitoring and Optimization
- File System Administration
- User and Group Management
- Security and Permissions Management
- System Performance Monitoring and Optimization

Course Contents

1. HISTORY OF OPERATING SYSTEMS

- History of Unix
- History of Linux
- Difference between Windows and Linux
- Type Of Operating System
- ARCHITECTURE OF UNIX

2. LINUX OPERATING SYSTEM INSTALLATION

- CentOS 7.0
- CentOS 8.0

3. MANAGING THE FILE THROUGH CLI

- Linux file system hierarchy
- Managing files using command-line
- Specifying Files By Name

4. COMMANDS

- Basic Commands
- Filter Commands
- Types Of Files (-,d,l,b,c)
- MAN Command

5. CREATING, VIEWING AND EDITING TEXT FILES

- GUI and CLI Editors
- Gedit command
- Visual Display Editor
- Visual Display Editor Improved
- Redirecting Out Put to Files

6. SYMBOLIC LINK

- Soft Link

- Hard Link

7. LOCAL USER AND GROUP MANAGEMENT

- Creating Local User and Groups
- Adding users into groups
- Password management of User and Groups
- Changing System Defaults settings

8. USER SECURITY WITH SUDO

- Providing SUDO Access to The Normal user
- Deferent Type Of Ex

9. CONTROLLING FILE PERMISSIONS

- Linux File System Permissions
- Managing file system permissions with CLI
- Special Permissions (SUID, SGID, Sticky)

10. ACCESS CONTROL LIST

- ACLs
- Default ACLs

11. MANAGING THE LINUX OS PROCESSES

- Controlling JOBS
- Killing Processes
- Monitoring Processes
- Assignee Priority to the Processes

12. MANAGING SERVICES AND DAEMONS

- Controlling System Services
- With systemctl

13. LOG MANAGEMENT

- Managing rsyslog Services
- Journalctl command

14. NETWORKING CONCEPTS

- Requirements of network implementation
- ISO Layers
- IPV4 Address
- Ip address assignment
- Nmtui and nmcli commands

15. CONFIGURING OPEN SSH

- Open SSH Authentication
- Key Based Authentication
- Generating Public and Private keys

16. ARCHIVING AND BACKUPS

- Compress tar Archiving
- Transferring Files between Systems
- Using scp, ftp, rsync

17. INSTALLING AND UPDATING SOFTWARES

- Installing and updating packages with RPM
- Creating Yum repos
- Installing and updating packages with YUM

18. LINUX FILE SYSTEM

- Identifying File systems
- Mounting and Un mounting File System
- Locating file system

19. DISK MANAGEMENT

- Creating and managing Partitions
- Changing Partition Type (Hexa Code)
- Manage Swap Partitions

20. LOGICAL VOLUME MANAGEMENT

- PV create, VG create, LV create
- LV extend/reduce
- VG extend/reduce
- Migration
- LV snapshots

21. ADVANCED DISK MANAGEMENT

- Managing Layered Storage with Stratis
- Compressing and Deduplication Storage with VDO

22. JOB SCHEDULING

- One time task with AT
- Crontab

23. MANAGING SELINUX POLICIES

- Modes of SELINUX
- Context permissions

24. CONTORTING THE BOOT PROCESS

- Root password recovery
- Changing the targets
- Boot process 6.0,7.0 and 8.0

25. BASIC FIREWALLS CONCEPTS

- Managing firewalld

26. NETWORK FILE SYSTEM (NFS)

- Overview of NFS
- Information required to configure NFS server
- Configuration of NFS server
- Configuration of NFS client

27. SAMBA (SMB) SERVER

- Overview of SAMBA server
- Packages required to configure SAMBA server
- Configuration of samba server
- Configuration of samba client

28. FILE TRANSFER PROTOCOL (FTP) SERVICES

- Overview of FTP
- Files/packages required to configure NFS server
- Configuration of FTP server
- Configuration of FTP client

29. HTTP WEB SERVICE (APACHE)

- Basic Web server configuration
- Name based virtual hosting
- IP based virtual hosting

30. DHCP SERVICES

- Overview of DHCP server
- Information required to configure DHCP server
- Configuration of DHCP server
- Configuration of DHCP client

31. DNS SERVICES

- Overview of DNS server
- Packages required to configure DNS server
- Configuration of DNS server
- Configuration of DNS client

32. MAIL SERVER (SMTP)

- Overview of IMAP and SMTP
- Information required configuring sendmail server
- Configuration of send mail server
- Configuration of control panel for client

33. DATA BASE SERVICES MARIADB (mysql)

- Overview of different kind of databases
- Information required to configure mariadb server
- Configuration of mariadb server
- Creating database users
- Database backup