

Learn CentOS Operating system

Topics : <u>Centos Server</u> **Written on** <u>March 05, 2024</u>

1. Introduction to Linux and CentOS:

- Overview of Linux distributions
- Introduction to CentOS and its history
- Understanding the CentOS release cycle

2. Installation and Configuration:

- Installing CentOS on a physical machine or virtual environment
- <u>Basic system configuration tasks such as setting hostname, network configuration, etc.</u>
- Disk partitioning and file system management
- <u>Understanding package management with yum or dnf</u>

3. User and Group Management:

- Creating and managing users and groups
- Understanding file permissions and ownership
- Implementing user access control and security

4. File System Administration:

- Working with files and directories
- Managing file system quotas
- $\circ\ \underline{\text{Disk management}}$ and monitoring

5. Networking:

- Configuring network interfaces
- Firewall configuration using iptables or firewalld
- Understanding network services like DNS, DHCP, etc.
- 6. Security:
 - Implementing security best practices
 - <u>Configuring SELinux</u>
 - Managing user authentication and passwords

7. System Monitoring and Performance Tuning:

• Monitoring system performance using tools like top, vmstat, sar, etc.

- Identifying and troubleshooting performance issues
- Tuning system parameters for better performance

8. Shell Scripting:

- Basics of shell scripting
- <u>Writing simple scripts to automate tasks</u>
- <u>Understanding variables, loops, conditionals, etc.</u>

9. Virtualization and Containerization:

- $\circ\,$ Introduction to virtualization concepts
- $\circ~$ Managing virtual machines with tools like KVM or VirtualBox
- Introduction to containerization with Docker or Podman

10. High Availability and Clustering:

- $\circ~$ Introduction to high availability concepts
- Configuring clustering solutions like Pacemaker and Corosync
- $\circ\,$ Implementing failover and load balancing

11. Backup and Recovery:

- Planning and implementing backup strategies
- Understanding tools and utilities for backup and recovery
- $\circ\,$ Testing backup and recovery procedures

12. Advanced Topics (Optional):

- $\circ\,$ Setting up web servers, databases, or other services
- Working with automation tools like Ansible
- $\circ\,$ Exploring cloud integration with CentOS

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