

INFOSOFT IT SOLUTIONS

Training | Projects | Placements

Revathi Apartments, Ameerpet, 1st Floor, Opposite Annapurna Block,

Infosoft It solutions, Software Training & Development Institute, **9059683947 | 9182540872**

CentOS Administration

Introduction to CentOS and Linux Basics

1. Overview of CentOS and its role in enterprise environments
2. Linux fundamentals:
 - Command-line basics
 - File system hierarchy
 - Essential commands (ls, cd, mkdir, etc.)

Installation and Initial Configuration

1. Installing CentOS:
 - Installation methods (DVD, USB, network)
 - Partitioning and filesystem selection
2. Initial system setup:
 - User and group management
 - Network configuration (static IP, DHCP, DNS)

Package Management

1. RPM Package Manager:
 - Installing, updating, and removing packages

- Managing repositories
- 2. YUM (Yellowdog Updater Modified):
 - Configuration and usage
 - Working with repositories and package groups

System Administration Tasks

1. Filesystem Administration:
 - Disk management (fdisk, parted)
 - Filesystem types (ext4, XFS)
 - Mounting and unmounting filesystems
2. Process Management:
 - Process monitoring (ps, top, htop)
 - Managing processes (kill, nice, renice)
3. System Monitoring and Performance:
 - Monitoring tools (vmstat, iostat, sar)
 - Performance tuning and optimization

Security and Networking

1. Firewall Configuration:
 - Using firewalld and iptables
 - Configuring rules and zones
2. SSH Server Configuration:
 - SSH keys and authentication
 - Securing SSH access (configuring sshd)
3. SELinux (Security-Enhanced Linux):
 - Overview and basic configuration

- Managing SELinux contexts and policies

Advanced Administration Topics

1. Automation with Shell Scripting:

- Bash scripting fundamentals
- Writing and executing scripts

2. Backup and Recovery:

- Data backup strategies (tar, rsync)
- System recovery techniques

3. Virtualization with KVM:

- Introduction to Kernel-based Virtual Machine
- Installing and managing virtual machines

Web and File Servers

1. Apache HTTP Server:

- Installation and basic configuration
- Managing virtual hosts

2. Samba File Server:

- Setting up file sharing with Samba
- Configuring shares and permissions

Containerization with Docker (Optional)

1. Introduction to Docker:

- Docker architecture and components
- Running and managing containers

2. Docker Networking and Volumes:

- Configuring networks and storage for containers

Troubleshooting and Maintenance

1. System Logs and Log Management:

- Understanding system logs (syslog, journalctl)
- Log rotation and management

2. Diagnosing System Issues:

- Common troubleshooting techniques
- Utilizing system diagnostic tools

:Final Project and Review

1. Integration and Practical Application:

- Project-based assignments
- Review of key concepts and skills