



FLASH IT LTD

+880 1710-759494
+880 1320-757576

info@flashittd.com

FlashITlimited/

www.flashittd.com

Professional Linux System Administration Program 2026

(Ubuntu + RHEL | Beginner to Enterprise Level)

কোর্সের উদ্দেশ্য

এই কোর্সের লক্ষ্য শিক্ষার্থীদেরকে Linux Foundation থেকে শুরু করে Enterprise Server Administration পর্যন্ত দক্ষ করে তোলা, যাতে তারা কর্পোরেট, ডাটা সেন্টার ও ক্লাউড পরিবেশে কাজ করতে সক্ষম হয়।

Module 1: Introduction to Linux & Open Source

- Operating System Concept
- UNIX & Linux History
- GNU & Linux Kernel
- Linux Architecture
- Different Linux Distributions
- Ubuntu vs RHEL Comparison
- Why Linux for Enterprise?

Module 2: Linux Installation & System Boot

- System Requirements
- MBR vs GPT
- BIOS vs UEFI
- Linux Installation (RHEL & Ubuntu)
- Installation Summary
- Boot Process Overview
- GRUB2 Introduction

Module 3: Virtualization & Lab Setup

- Virtualization Concept
- VMware Workstation Installation





- Virtual Machine Creation
- Snapshot & Clone
- Home Lab Setup

Module 4: Linux Command Line & File Management

- Command Syntax
- File & Directory Management
- Linux Directory Structure
- Hard Link & Soft Link
- Redirection & Pipes

Module 5: Linux Text Processing Tools

- cat, less, head, tail
- grep (Regular Expression)
- find & locate
- wc, sort, uniq
- Standard Input/Output/Error

Module 6: Text Editors & Bash Scripting

- vi / vim / nano
- Editing & Searching
- Bash Shell Introduction
- Variables & Conditions
- Simple Automation Script

Module 7: User & Group Administration

- User Types
- useradd / usermod / userdel
- Group Management
- Password Policy
- SUDO Configuration

Module 8: Linux Permissions & ACL

- File Permissions (rwx)



- Ownership Concept
- ACL Configuration
- SUID, SGID, Sticky Bit
- Security Best Practices

Module 9: File System & Storage Management

- ext4 & XFS
- fdisk / gdisk
- Mount / Unmount
- /etc/fstab
- LVM (PV, VG, LV)
- Disk Resize / Extend

Module 10: Process & Service Management

- systemd
- systemctl
- Process Monitoring (top, ps)
- Kill / Nice
- journalctl
- Root Password Recovery

Module 11: Networking Fundamentals

- IPv4 Concept
- Static IP / DHCP
- Hostname & DNS
- Network Validation

Module 12: Network Management & Firewall

- nmcli & nmtui
- SSH Configuration
- Key-based Authentication
- firewalld
- Port & Service Filtering





Module 13: Package & Repository Management

- RPM Concept
- DNF Usage
- Local Repository
- Offline Repository Setup
- System Update & Patch

Module 14: Enterprise Server Configuration

- Apache Web Server
- Virtual Host
- FTP Server (vsftpd)
- NFS Server
- Secure Web Hosting Setup

Module 15: Linux Security & Hardening

- SELinux Modes & Context
- SELinux Troubleshooting
- Fail2Ban
- Firewall Hardening
- Basic Server Security Policy

Module 16: Automation, Virtualization & Containers

- Cron Jobs
- Log Rotation
- tar & rsync
- Automated Backup Script
- Introduction to KVM
- Virtual Machine Creation
- Docker Introduction
- Container Deployment

