

Day 1: Introduction to Linux and Basic Commands

1. Session 1: Introduction to Linux

- 1.1 Overview of Linux
- 1.2 History and Evolution
- 1.3 Linux Distributions

2. Session 2: Getting Started with Linux

- 2.1 Installing Linux (Hands-on)
- 2.2 Accessing the Terminal
- 2.3 Basic Command Structure

3. Session 3: File System Navigation and Manipulation

- 3.1 Understanding File Systems
- 3.2 Navigating Directories
- 3.3 Basic File and Directory Operations

Day 2: Users, Permissions, and Shell Scripting

4. Session 4: User Management

- 4.1 User Accounts and Groups
- 4.2 Adding and Managing Users
- 4.3 Password Management

5. Session 5: Permissions and Ownership

- 5.1 Understanding File Permissions
- 5.2 Changing Permissions
- 5.3 Ownership and Group Management

6. Session 6: Introduction to Shell Scripting

- 6.1 Basics of Shell Scripts
- 6.2 Writing Simple Scripts
- 6.3 Executing Scripts

Day 3: System Administration Basics

7. Session 7: Package Management

- 7.1 Package Managers Overview
- 7.2 Installing and Removing Software
- 7.3 Updating the System

8. Session 8: System Monitoring and Performance

- 8.1 Basic System Monitoring Tools
- 8.2 Resource Usage Analysis
- 8.3 Troubleshooting Basics

9. Session 9: Networking Basics

- 9.1 Network Configuration

- 9.2 Basic Networking Commands
- 9.3 Troubleshooting Network Issues

Day 4: Advanced Topics and Hands-On Projects

10. Session 10: Advanced File System Features

- 10.1 Symbolic Links
- 10.2 Disk Quotas
- 10.3 Filesystem Hierarchy Standard (FHS)

11. Session 11: Security Basics

- 11.1 Firewalls and Security Policies
- 11.2 Secure Shell (SSH)
- 11.3 Introduction to Encryption

12. Session 12: Final Project and Review

- 12.1 Recap of Key Concepts
- 12.2 Hands-on Project: Applying Linux Skills
- 12.3 Q&A and Feedback