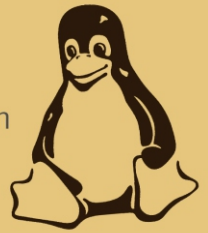


COURSE OUTLINE

LINUX
Advance Administration



Course Description

The course will provide a comprehensive hands - on walkthrough in the different tools, features, and configuration mechanics in operating Linux-based system to help system administrators gain the proper skill and knowledge

Learning Outcomes

- Understand the different features and tools of the Linux System
- Learn how to identify errors and other issues, and how to properly address them
- Learn how to configure the network system as well as properly monitoring it

Teaching Methods

This course will use lecture-discussion with visual presentation and demonstration, hands - on exercises and practices.

Course Outline

Introductionto Linux

- Basic Concepts in Linux Networking
- Introduction to the OSI Model and Upper Layers
- Understanding the Network Topology
- Managng the System Services

Configuring the Network

- Runtime Network Configuration
- Boot Time Network Configuration
- Introduction to OpenVPN

Troubleshooting and Monitoring

- Identifying and solving issues with the Network
- Identifying and solving issues in Client-Side
- Identifying and solving issues in Server-Side
- Monitoring the network

UnderstandingRemote Access

- Remote Access History
- Introductionto Cryptography
- Secure Remote Access
- Remote Graphics

Overview of the Domain Name Service

- BIND (named) Server
- BIND Zone Configuration

HTTP Servers

- Understanding and working with Apache

Working withEmail Servers

- Postfix
- Dovecot

HTTP Caching

- Squid Configuration

File Sharing

- File Sharing in Linux
- SSH Based Protocols
- Other Protocols

Network File Systems

- NFS
- SMB/CIFS
- Other Network File Systems

Introduction to Network Security

- Basic concepts and practices
- Identifying and working with Security Tools

Firewalls

- Identifying and working with Firewalls
- UsingAdvanced Firewalls

Virtualization Overview

- Virtualization History
- libvirt
- Docker Example

High Availability

System log

Package Management

- UnderstandingPackage Management Systems
- Building Package Management System
- Building Debian Packages

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