

CentOS 9 Linux Administration-II

Duration: 5days (8hrs/day)

Prerequisites: Basic knowledge of Unix Linux.

Course Objective: Gain sufficient skill to perform core system administration tasks on CentOS 9 Linux Administration.

Lab Requirement: Koenig-DC (CentOS 9)

Module 1 - An Introduction to Bash Shell Scripting

Understanding Shell Scripting Core Elements

Using Variables and Input

Lab: Using variables and Input

Using Conditional Loops

Lab: Using conditional loops

Module 2 - Scheduling Tasks

Configuring Cron to Automate Recurring Tasks

Lab: Using Cron to automate jobs

Configuring at to Schedule Future Tasks

Lab: Using AT to schedule jobs

Module 3 - Basic Kernel Management

Understanding the Role of the Linux Kernel

Working with Kernel Modules

Lab: Managing kernel modules

Upgrading the Linux Kernel

Tuned

Lab: Using tuned for system performance

Module 4 - Managing Storage

Understanding MBR and GPT Partitions

Managing Partitions and File Systems

Lab: Creating partitions

Mounting File Systems

Lab: Mounting partitions

Module 5 - Managing Advanced Storage

Understanding LVM

Creating LVM Logical Volumes

Lab: Creating LVM

Resizing LVM Logical Volumes

Lab: Resizing LVM

Configuring Stratis

Lab: Configure Stratis

Configuring VDO

Lab: Configure VDO

Module 6 - Managing and Understanding the Boot Procedure

Managing Systemd Targets

Lab: Managing Targets

Working with GRUB 2

Lab: Working with GRUB2

Module 7 - Essential Troubleshooting Skills

Understanding the CentOS 9 Boot Procedure

Passing Kernel Boot Arguments

Lab: Passing Kernel boot arguments

Using a Rescue Disk

Lab: Using rescue disk

Fixing Common Issues

Recovering Access to a Virtual Machine

Lab: Recovering access to a virtual machine

Module 8 - Managing Apache HTTP Services

Configuring a Basic Apache Server

Lab: Apache Web Server Configuration

Understanding Apache Configuration Files

Creating Apache Virtual Hosts

Lab: Apache virtual web hosting

Module 9 - Managing SELinux

Understanding SELinux Working and Modes

Lab: Managing selinux modes

Understanding Context Settings and the Policy

Restoring Default File Contexts

Lab: Manage file contexts

Using Boolean Settings to Modify SELinux Settings

Lab: Managing Booleans

Diagnosing and Addressing SELinux Policy Violations

Lab: Selinux diagnosing

Module 10 - Configuring a Firewall

Understanding Linux Firewalling

Working with FirewallD

Lab: Managing firewallD

Module 11 - Accessing Network Storage

Using NFS Services

Lab: Configure NFS Server

Using CIFS Services

Lab: Configure SAMBA Server

Mounting Remote File Systems Through fstab

Lab: Persistent Mounting of remote file system

Using Automount to Mount Remote File Systems

Lab: Configure Autofs