

Oracle Linux 7: Advanced Administration

The Oracle Linux 7: Advanced Administration training teaches you how to automate OS installation, recover from boot problems and configure networking and authentication services. Explore shared storage configuration, implement virtualization services implementation, and system resources management. In this course, you will be introduced to the Oracle IaaS Cloud Solution.

Learn To

This Oracle Linux 7: Advanced Administration training is ideal for experienced administrators who need to learn more about Oracle Linux 7. You'll learn how to configure networking services and authentication services, implement virtualization technologies to more effectively manage system resources, perform advanced storage administration tasks, implement shared storage technologies, and develop advanced troubleshooting skills. In this course, you will be introduced to the Oracle IaaS Cloud Solution.

Learn To:

- Configure DNS, DHCP, HTTP, Samba, and other network services.
- Configure LDAP, PAM, and other authentication services.
- Automate installation using Kickstart.
- Recover from boot errors.
- Use advanced package management features.
- Configure network bonding, VLANs, and VPNs.
- Implement Linux Containers, Docker, KVM and other virtualization services.
- Allocate system resources to specific Linux processes.
- Use DTrace to identify performance bottlenecks.
- Configure iSCSI, device multipathing, and OCFS2.
- Gain an understanding of the Oracle IaaS Cloud Solution.

Benefits to You

After taking this course, you will be equipped to use the advanced features of Oracle Linux 7 to get the most out of your systems and applications. You'll learn how to automate Oracle Linux installations and implement networking and authentication services to facilitate the management of a large number of systems. You'll also learn how to use Control Groups, Linux Containers, Docker, and KVM to increase your resource utilization by creating secure, isolated environments on a single host. Become familiar with advanced storage features, including encrypted file systems, disk quotas, iSCSI, device multipathing, and the OCFS2 file system to better use your storage resources.

Gain Hands-On Experience

Extensive hands-on practices will guide you through each concept. You will configure network services and authentication services, configure network storage, shared file system types, and device multipathing. You will also configure different virtualization technologies to better utilize system resources such as CPU, memory, network and I/O bandwidth, and to allocate these system resources to critical processes.

Prerequisites

Suggested Prerequisite

- Oracle Linux 5 & 6 System Administration Ed 2
- Oracle Linux 5 & 6 Advanced Administration Ed 1

Required Prerequisite

- Oracle Linux 7: System Administration Ed 1
- Students should be knowledgeable with the systemd system & service manager and Network interface configuration files and network configuration
- Students should be knowledgeable with Disk partitioning and creation and maintenance of Linux file systems & Software package installation
- Students should be knowledgeable with User and Group administration & Security administration using firewall
- Student should be able to Install Oracle Linux 7

Audience

- Administrator
- Manager
- System Integrator
- Systems Administrator

Course Objectives

- Explore your system using Dynamic Tracing (DTrace)
- Configure server virtualization with KVM
- Configure network addressing and authentication services
- Configure Apache web services
- Automate installation using Kickstart
- Configure resource management using Control Groups (cgroups)
- Configure operating system-level virtualization with Linux Containers (LXC)
- Configure application containers with Docker
- Configure iSCSI shared storage
- Configure Device Mapper Multipathing
- Create Udev rules for persistent device naming
- Configure a shared disk cluster file system using Oracle Cluster File System Version 2 (OCFS2)
- Collect and analyze core dumps
- Configure and use SELinux
- Perform advanced software package management
- Gain an understanding of the Oracle IaaS Cloud Solution

Course Topics

- Course Introduction
- Network Addressing and Name Services
- Authentication and Directory Services
- Pluggable Authentication Modules (PAM)
- Web and Email Services
- Installing Oracle Linux by using Kickstart
- Samba Services
- Advanced Software Package Management
- Advanced Storage Administration
- Advanced Networking
- OCFS2 and Oracle Clusterware
- iSCSI and Multipathing
- Managing Resources with Control Groups (cgroups)
- Virtualization with Linux
- Virtualization with Linux Containers
- Docker
- Security Enhanced Linux (SELinux)
- Core Dump Analysis
- Dynamic Tracking with DTrace
- Oracle Cloud Computing