

## Oracle Linux 9 Administration

**Duration: 5 Days    Course Code: OLA    Delivery Method: Company Event**

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### Overview:

#### Oracle Linux 9 Administration Course Overview

This highly practical instructor led Oracle Linux 9 Administration training course is designed to give delegates practical experience in the advanced concepts and use of Linux Administration. With a strong emphasis on practical hands on training using the command line, this course will teach advanced System Administration techniques to perform administration of Oracle Linux systems.

Although this Oracle Linux 9 Administration course is based on the Oracle Linux distribution, the delegate should be able to apply the concepts covered on this course to other Linux based distributions including, but not limited to Red Hat (RHEL), Fedora, CentOS and Amazon Linux amongst others.

Similarly, the course is targeted to closely follow the official Oracle Linux curriculum for certification.

Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

#### Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

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### Target Audience:

#### Who will the Course Benefit?

This Oracle Linux 9 Administration course is suitable for novice Linux System Administrators, DevOps teams, Managers and systems support personnel to administer, deploy, configure and maintain Oracle Linux and other Red Hat-based Linux distributions.

The course would benefit Administrators who have acquired basic Unix/Linux command line skills to the level covered on the Linux Introduction course.

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### Objectives:

#### ■ Course Objectives

- On completion of this Oracle Linux 9 Administration course, the delegate will have gained practical experience of the skills required to configure, run and maintain Oracle Linux systems and other Red Hat-based Linux distributions within an enterprise environment.
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### Prerequisites:

■ This Oracle Linux 9 Administration course assumes good knowledge of the Oracle Linux operating system in an Enterprise environment to the level covered in the Linux Introduction course. Alternatively, relevant experience of UNIX or Linux servers is required, preferably within an enterprise environment.

Knowledge of Linux Shell Programming to the level covered on the Linux Shell Programming course would also be beneficial.

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## Follow-on-Courses:

### Further Learning

- Oracle Linux 9 Advanced Administration
  - Linux Automation with Ansible
  - Linux System Security
  - Apache Web Server
  - Oracle SQL
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## Content:

### Oracle Linux 9 Administration Training Course Course Contents - DAY 1

#### Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

#### Session 1: BOOT CONFIGURATION AND DEVICES

- GRUB2 configuration
- System information
- Viewing Linux devices
- The /etc/sysconfig directory
- The /proc and /sys filesystems
- Systemd Control Groups
- Exercise

#### Session 2: MANAGING USERS AND GROUPS

- Creating, modifying and deleting user accounts
- Creating and modifying Linux groups
- Managing Linux passwords and hashing methods
- Managing users with Cockpit
- Configuring and retaining command history
- Exercise

#### Session 3: MANAGING FILESYSTEMS

- Viewing block devices
- Partitioning devices with gdisk and parted
- Filesystem comparison
- Creating XFS and EXT4 filesystems
- Mounting filesystems temporarily and permanently
- Configuring filesystem labels and UUIDs
- Exercise Oracle Linux 9 Administration Training Course Course Contents - DAY 2

#### Session 4: FURTHER FILESYSTEM OPERATIONS

- EXT and XFS filesystem maintenance
- Creating and extending Btrfs filesystems
- Creating and managing swap files and partitions
- Exercise

#### Session 5: ENHANCED FILE SYSTEM ATTRIBUTES

- Extended permissions
- Extended file attributes
- Creating and modifying Access Control Lists (ACLs)
- SELinux overview
- Viewing SELinux denials
- Exercise

#### Session 6: LOGICAL VOLUMES

- NFS overview
- Configuring an NFS server and client
- Configuring AutoFS - The Automounter
- Samba overview
- Configuring a Samba server and client
- Configuring SELinux for Samba
- Exercise Oracle Linux 9 Administration Training Course Course Contents - DAY 3

#### Session 7: SOFTWARE PACKAGE MANAGEMENT

- Querying installed and uninstalled packages with RPM
- Verifying packages and finding documentation
- The DNF package manager
- Further DNF options and history
- Further DNF options and history
- Exercise

#### Session 8: LINUX NETWORKING

- Configuring the system hostname
- Configuring IPv4 dynamic and static networking
- Configuring IPv6 addresses
- Capturing and analysing network packets
- Creating Wireshark filters
- Exercise

#### Session 9: NETWORK SERVICES

- Configuring a secure NTP and PTP client
- NTP vs PTP
- Configuring an SSH server and client
- Configuring public/private key authentication
- X11 forwarding
- Viewing firewalld services
- Configuring firewalld services and ports
- Exercise

#### Session 10: LINUX LOGGING

- Viewing Linux log files
- Configuring local and remote logging
- Managing log rotation
- Viewing and configuring the system journal
- Exercise Oracle Linux 9 Administration Training Course Course Contents - DAY 4

#### Session 11: BUILDING A VIRTUAL MACHINE

- Virtualisation concepts
- Checking for supported hardware
- Installing a virtual system

#### Session 13: MANAGING PROCESSES AND UNITS

- Time-sharing
- Anatomy of a process
- Monitoring processes via the command line and top
- Killing processes
- Creating systemd service, timer and mount units
- Exercise

#### Session 14: LOCALISATION

- Localisation overview
- Viewing locale variables
- Setting the locale and keymap
- Configuring the system and user time zones
- Converting character sets and encoding
- Exercise Oracle Linux 9 Administration Training Course Course Contents - DAY 5

#### Session 15: BACKUP AND RESTORE

- Creating and extracting archived files
- Local and remote copying tools
- Compression utilities
- Viewing compressed files
- Cloning disks and partitions
- Exercise

#### Session 16: LINUX CONTAINERS

- Containers overview
- Containers vs Virtualization
- Docker overview
- Creating and managing Podman containers
- Attaching storage volumes
- Committing changes and exporting container images
- Exercise

#### Session 17: INSTALLING LINUX

- Downloading Oracle Linux
- The installation process
- Software selection and disk partitioning
- Configuring networking and users
- Logging in

- Managing virtual systems via the command line or GUI
- Exercise

#### Session 12: AUTOMATING TASKS

- Using at to manage one-off tasks and scripts
- Managing tasks with cron
- Managing system crontab files
- Restricting access to at and cron
- Configuring tasks with anacron
- Exercise

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### Further Information:

For More information, or to book your course, please call us on 0800/84.009

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[www.globalknowledge.com/en-be/](http://www.globalknowledge.com/en-be/)