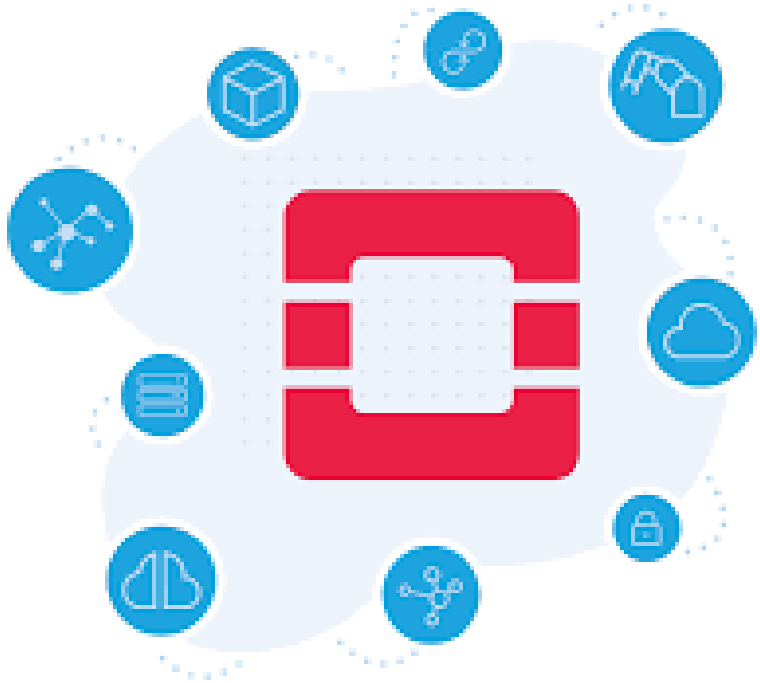
TechyEdz Solutions

Training | Consulting | Developement | Outsourcing



OpenStack

9032803832

9032803832

contact@techyedz.com

www.techyedz.com

OpenStack Certification Training

- **Learning Path:**

I. **Red Hat OpenStack Technical Overview (CL010) – Beginner**

II. **Red Hat OpenStack Administration I: Core Operations for Cloud Operators (CL110) – Intermediate**

III. **Red Hat OpenStack Administration II: Infrastructure Configuration for Cloud Administrators (CL210) - Intermediate**

IV. **Red Hat OpenStack Administration III: Networking & Foundations of NFV (CL310) - Advanced**

1. Red Hat OpenStack Technical Overview (CL010)

- **Course Overview:**

Through this course you will learn about:

- Cloud computing
- Red Hat OpenStack Platform
- Compute, storage, and network in relation to Red Hat OpenStack Platform
- High availability with Red Hat OpenStack Platform
- Deploying Red Hat OpenStack Platform

- **Course Outline:**

1. Red Hat OpenStack Platform technical overview

2. Defining the cloud (with demonstration)

3. Defining the Red Hat OpenStack Platform

4. Use case: Infrastructure-as-a-Service (IaaS) and a private cloud

5. Compute in Red Hat OpenStack Platform (with demonstration)

6. Storage in Red Hat OpenStack Platform

7. Use case: Object storage with streaming video

8. Network in Red Hat OpenStack Platform

9. Use case: Networking for a telecommunication organization

10. Highly available Red Hat OpenStack Platform

11. Deploying Red Hat OpenStack Platform

- **Prerequisites:**

- There are no prerequisites for this course

- **Who Can attend:**

- IT leaders, administrators, engineers, architects, and anyone else seeking a high-level understanding of Red Hat OpenStack Platform capabilities

- **Number of Hours: 30hrs**

- **Certification: CL010**

2. Red Hat OpenStack Administration I: Core Operations for Cloud Operators (CL110)

Course Overview:

Red Hat OpenStack Administration I: Core Operations for Domain Operators (CL110) teaches you how to operate and manage a production Red Hat OpenStack Platform (RHOSP) single-site overcloud. You will learn how to create secure project environments in which to provision resources and manage security privileges that cloud users need to deploy scalable cloud applications. You will learn about OpenShift integration with load balancers, identity management, monitoring, proxies, and storage. You will also develop more troubleshooting and Day 2 operations skills in this course.

This course is based on Red Hat OpenStack Platform 16.0.

Course Outline:

Introduction to Red Hat OpenStack Platform

- Describe OpenStack personas, launch an instance, and describe the OpenStack components and architecture.

Manage application projects in a multitenant cloud

- Create and configure projects with secure user access and sufficient resources to support cloud user application deployment requirements.

Manage OpenStack networking

- Describe how IP networks are implemented in OpenStack, including fundamental TCP/IP stack behavior, software-defined networking elements, and the common types of networks available to self-service cloud users.

Configure resources to launch a non-public instance

- Configure the requisite resource types for launching a basic non-public instance, including vCPUs, memory, and a system disk image, and launch an instance of an application component that runs in a tenant network with no public access.

Configure virtual machine system disks

- Identify the available choices for configuring, storing and selecting block-based virtual machine (VM) system disks, including the choice of ephemeral or persistent disks for specific use cases.

Provide additional storage strategies

- Identify the available choices for additional cloud storage techniques, including object-based storage, network file sharing, and volumes sourced from a file sharing service.

Configure resources to launch an instance with public access

- Identify and configure the additional resource types required to launch instances with public access for specific use cases, including networking and access security elements.

Automate customized cloud application launches

- Configure and deploy a typical multi-tier cloud application stack, defined as an architected template of scalable VM instances, including per-instance launch customizations.

Manage cloud application placement

- Introduce overcloud layouts more complex than a single site, and explain the management resources to control the placement of launched instances, including segregation elements such as cells and availability zones, and placement attributes such as requisite compute node resources.

Prerequisites:

- Become a Red Hat Certified System Administrator (RHCSA) or demonstrate equivalent experience

- For candidates that have not earned their RHCSA, confirmation of the correct skill set knowledge can be obtained by completing a Red Hat Training skills assessment.

Who Can attend:

- This course is designed for cloud users who deploy application instances and stacks, domain operators who manage resources and security for cloud users, and any other cloud personnel interested in, or responsible for, maintaining applications on

private or hybrid OpenStack clouds. Any cloud persona, or personnel with roles that include performing technology evaluation, should attend this course to learn RHOSP operation and application deployment methods. See the HLD for further information.

- **Number of Hours: 40hrs**

- **Certification: CL110**

Red Hat OpenStack Administration II: Infrastructure Configuration for Cloud Administrators (CL210)

- **Course Overview:**

Red Hat OpenStack Administration II: Infrastructure Configuration for Cloud Administrators (CL210) teaches you how to implement a full-featured cloud computing environment using OpenStack. You will learn how to configure, administer, and manage Red Hat® OpenStack Platform infrastructure. The lessons and objectives taught in this course will prepare you for the Red Hat Certified System Administrator in Red Hat OpenStack exam (EX210).

This course is based on Red Hat OpenStack Platform 13.0 and Red Hat® Enterprise Linux® 7.5.

The focus of this course is on managing and using the OpenStack client command-line interface and the director and dashboard graphical web user interfaces to securely manage server instances, compute and storage resources, and user identities.

- **Course Outline:**

Navigate the Red Hat OpenStack Platform architecture

- Describe the classroom environment, support systems, functions of the undercloud components, and more.

Describe the OpenStack control plane

- Identify the shared services running on a controller node and describe service endpoint configuration and security.

Integrate identity management

- Describe the installation and architecture of a Red Hat Identity Management back end for the OpenStack identity service.

Perform image operations

- Build an image using diskimage-builder and customize launched instances during deployment using cloud-init.

Manage storage

- Explain persistent storage options for use in OpenStack, focusing on the expanding capabilities of the default Red Hat® Ceph Storage.

Manage OpenStack networking

- Explain the different network types available to the OpenStack networking service and improve network performance with Open Virtual Network.

Manage compute resources

- Perform common compute node administration tasks, including live migration, evacuation, and enabling and disabling compute nodes.

Automate cloud applications

- Explain the orchestration architecture required to deploy application stacks and write templates using the Heat Orchestration Template (HOT) language.

Troubleshoot OpenStack operations

- Discuss recommended diagnostic and troubleshooting tools and techniques.

Comprehensive review

- Build a custom image and launch an instance using the custom image.

- **Prerequisites:**

- Be a Red Hat Certified System Administrator (RHCSA), or demonstrate equivalent experience by passing the online skills assessment
- Attend Red Hat OpenStack Administration I: Core Operations for Cloud Operators (CL110), or demonstrate equivalent experience

- **Who Can attend:**

- This course is intended for Linux system administrators, cloud administrators, cloud operators, and infrastructure architects interested in, or responsible for, maintaining a private or hybrid cloud.

- **Number of Hours: 40hrs**

- **Certification: CL210**

Red Hat OpenStack Administration III: Networking & Foundations of NFV (CL310)

- **Course Overview:**

Red Hat OpenStack Administration III: Networking & Foundations of NFV (CL310) teaches network engineers, network operators, cloud operators, and cloud administrators how to manage and tune Red Hat® OpenStack Platform for network performance.

This course can also help you prepare for the Red Hat® Certified Engineer (RHCE®) in Red Hat OpenStack exam (EX310).

This offering is based on Red Hat OpenStack version 10.0 and Red Hat Enterprise Linux 7.4.

Course Outline:

Manage networks in Linux

- Administer network interfaces, bridges, and virtual networking devices.

Manage OpenStack networking agents

- Manage the L2, L3, DHCP, and other OpenStack networking agents.

Deploy IPv6 networks

- Set up IPv6 networks in OpenStack.

Provision OpenStack networks

- Provision tenant networks and provider networks.

Implement distributed virtual routing

- Enable distributed virtual routing (DVR) to provide scaling and performance.

Tune NFV performance

- Tune OpenStack networking performance.

Implement NFV data paths

- Execute network functions virtualization (NFV) data paths.

Build software-defined networks with OpenDaylight

- Create software-defined networks with OpenDaylight (ODL).

Comprehensive review of Red Hat OpenStack Administration III

- Configure advanced networking on Red Hat® OpenStack Platform.

Prerequisites:

- Become a Red Hat® Certified System Administrator (RHCSA), or demonstrate equivalent experience
- Complete the Red Hat® Certified System Administrator in Red Hat OpenStack exam (EX210), or demonstrate equivalent experience

Who Can attend:

- This course is designed for network engineers, network operators, cloud administrators, and cloud operators.

Number of Hours: 40hrs

Certification: CL310

Key Features:

- One to One Training
- Online Training
- Fastrack & Normal Track
- Resume Modification
- Mock Interviews

- Video Tutorials
- Materials
- Real Time Projects
- Virtual Live Experience
- Preparing for Certification