

Red Hat OpenStack Administration I (CL 110)

COURSE OVERVIEW:

The focus of Red Hat OpenStack Administration I: Core Operations for Cloud Operators (CL110) will be managing OpenStack using both the web-based dashboard and the command-line interface, in addition to managing instances and installing a proof-of-concept environment using Red Hat OpenStack Platform (RHOSP) director. Essential skills covered in the course include configuring Red Hat OpenStack Platform (using the director UI); managing users, projects, flavors, roles, images, networking, and block storage; setting quotas; and configuring images at instantiation.

- Launch an instance.
- Manage projects, quotas, and users.
- Manage networks, subnets, routers, and floating IP addresses.
- Create and manage block and object storage in the OpenStack framework.
- Customize instances with cloud-init.
- Deploy scalable stacks.
- Deploy Red Hat OpenStack Platform using RHOSP director.

TARGET AUDIENCE:

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

PREREQUISITES:

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

OBJECTIVES:

As a result of attending this course, you will understand the architecture of a private or hybrid OpenStack cloud infrastructure and will be able to create, manage, and troubleshoot software-defined network services, resources, servers, and applications for dynamically scalable business environments.

You should also be able to demonstrate these skills:

- Design and implement on-demand projects, software-defined networks, and virtual machine instances.
- Deploy a proof-of-concept OpenStack installation for practice, development, demonstration, and testing, back in your own home or business computing environment.
- Manage software-defined networks such as subnets, routers, floating IP addresses, images, flavors, security groups/rules, and block and object storage.
- Create and customize advanced VM instances as applications, customize on deploy, and create scalable stacks of multiple VM applications.

COURSE OUTLINE:

Introduce launching an instance

- Launch an instance and describe the OpenStack architecture and use cases.

Organize people and resources

- Manage projects, users, roles, and quotas.

Describe cloud computing

- Describe the changes in technology and processes for cloud computing.

Manage Linux networks

- Administer Linux networks and bridges.

Prepare to deploy an instance with public access

- Manage images, flavors, and private networks in preparation for launching an instance.

Deploy an instance

- Launch and verify an instance.

Manage block storage

- Manage ephemeral and persistent block storage.

Manage object storage

- Administer object storage.

Prepare to deploy an external instance

- Manage external networks and security in preparation for launching an instance with public access.

Deploy an instance with public access

- Launch and verify an instance with public access.

Customize instances

- Customize an instance with cloud-init.

Deploy scalable stacks

- Deploy a stack and configure autoscaling.

Install an OpenStack overcloud

- Install an OpenStack proof of concept using the director UI and provisioning service templates.

Lab: Comprehensive review of CL110

- Review tasks in the Red Hat OpenStack Administration I: Core Operations for Cloud Operators course.

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Sunset Learning Institute (SLI) has been an innovative leader in developing and delivering authorized technical training since 1996. Our goal is to help our customers optimize their cloud technology investments by providing convenient, high quality technical training that our customers can rely on. We empower students to master their desired technologies for their unique environments.

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