



Red Hat Certified Engineer (RHCE) in OpenStack



CL110: Red Hat OpenStack Administration I

Outline for this course:

- Course introduction
 - Introduce and review the course.
- Launch an instance
 - Launch an instance and describe the terminology and services used in OpenStack.
- Manage projects and users
 - Manage projects and users using Horizon.
- Manage project quotas
 - Manage project quotas using Horizon.
- Manage flavors
 - Manage flavors using Horizon.
- Manage images
 - Manage images using Horizon.
- Manage networks
 - Manage networks using Horizon.
- Manage floating IP addresses
 - Manage floating IP addresses using Horizon.
- Manage block storage
 - Manage block storage using Horizon.
- Manage security and access
 - Manage security and access to instances using Horizon.
- Manage instances
 - Manage instances using Horizon.
- Install OpenStack
 - Install an OpenStack proof of concept using PackStack.
- Manage the Keystone identity service
 - Manage the Keystone identity service using the command-line interface.
- Prepare to launch instances with the command-line interface
 - Prepare to launch instances and manage instances using the command-line interface.
- Manage instances with the command-line interface
 - Manage instances using the command-line interface.
- Manage block storage with the command-line interface
 - Manage block storage using the command-line interface.
- Comprehensive review of Red Hat OpenStack Administration I
 - Review tasks in the Red Hat OpenStack Administration I course.

CL210: Red Hat OpenStack Administration II

Outline for this course:

- Course introduction
 - Introduce and review the course.
- Keystone identity service
 - Install, configure, and use the Keystone authentication services.
- Manage flavors
 - Manage hardware profiles.
- Manage networks
 - Manage OpenStack networks.
- Manage floating IP addresses
 - Manage floating IP addresses.
- Manage security groups
 - Manage OpenStack security groups and security rules.
- Manage instances
 - Manage instances.

- Add additional compute nodes
 - Add additional compute nodes to OpenStack.
- Build a customized image
 - Build and customize an operating system image.
- Deploy Red Hat OpenStack Platform
 - Deploy Red Hat OpenStack Platform.
- Deploy scalable applications
 - Deploy stacks (applications) that provide scale out/scale back capabilities.
- Comprehensive review
 - Review Red Hat OpenStack Platform II.

CL310: Red Hat OpenStack Administration III

Outline for this course:

- Introduction to Red Hat Ceph Storage
 - Introduce Red Hat Ceph Storage architecture, components, and attributes.
- Describe Red Hat Ceph Storage components and features
 - Describe the components and features of Red Hat Ceph Storage.
- Deploy and access Red Hat Ceph Storage
 - Create snapshots and clones for Red Hat Ceph Storage.
- Create snapshots and clones
 - Manage snapshots and clones of a Ceph Block Device (RBD).
- Ceph with the Glance Image service
 - Integrate Ceph with the Glance image service, the Cinder block storage service,

and the Nova compute service.

- Introduce networking fundamentals
 - Explain standard networking concepts and OpenStack Neutron networking concepts and services.
- Implement virtual bridging
 - Install and manage virtual network bridges.
- Implement virtual network devices
 - Create and deploy virtual network devices.
- Implement network namespaces
 - Manage network interfaces manually (using the ip command) and persistently.
- Manage neutron services
 - Verify and manage the configuration of Neutron networking service.
- Provisioning project networks
 - Provision project networks using VXLAN tunnels, GRE tunnels, and VLANs.
- Implementing load-balancer-as-a-service (LBaaS)
 - Implement LbaaS.
- Troubleshoot Neutron networking services
 - Diagnose and troubleshoot issues with the Neutron networking service.
- Comprehensive Review
 - Review tasks from the Red Hat OpenStack III course.