

CL110

Red Hat OpenStack Administration I: Core Operations for Cloud Operators

- **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.