

OpenStack Administration

Course 6937 – 24 Hours

Overview

This course is designed to introduce you to:

- Understand OpenStack architecture and its main components
- Plan an OpenStack Deployment

On Completion, Delegates will be able to

Be in position to deploy and manage private cloud environment based on OpenStack
Understand the OpenStack building blocks such as: compute, networking and storage

Who Should Attend

This course is designed for IT administrators and operators seeking to obtain a solid foundation of Hadoop architecture and the essential skills to administer OpenStack

Prerequisites

- Some familiarity with basic Linux operations.
- The course assumes no prior knowledge of OpenStack

Course Contents

Module 1: Introduction

- Cloud computing Characteristics
- Introduction to OpenStack Components
- What Is the OpenStack Project?
- OpenStack Technical Overview
- OpenStack Releases
- OpenStack Distributions

Module 2: OpenStack Identity

- Keystone Concepts
- Keystone Architecture
- Getting to know the API
- Lab -Keystone Installation and Configuration

Module 3: OpenStack Image Service

- Selecting Hadoop Distribution and Version
- Glance Concepts

- Glance Architecture
- Getting to know the API
- Lab -Glance Installation and Configuration

Module 4: OpenStack Block Storage

- Cinder Concepts
- Cinder Architecture
- Getting to know the API
- Lab -Cinder Installation and Configuration

Module 5: OpenStack Networking

- YARN configuration
- Neutron Concepts
- Neutron Architecture
- Getting to know the API
- Lab -Neutron Installation and Configuration

Module 6: OpenStack Compute

- Nova Concepts
- Nova Architecture
- Console Services
- Getting to know the API
- Lab -Nova Installation and Configuration

Module 7: OpenStack Object Storage

- Swift Concepts
- Swift Architecture
- Getting to know the API
- Lab -Swift Installation and Configuration

Module 8: OpenStack Dashboard

- Horizon Concepts
- Horizon Architecture
- Lab -Horizon Installation

Module 9: OpenStack Orchestration

- Heat Concepts
- Heat Architecture
- Getting to know the API
- Lab -Heat Installation

Module 10: OpenStack Metering

- Ceilometer Concepts
- Ceilometer Architecture
- Lab -Ceilometer Installation and configuration

Module 11 Troubleshooting

- Understanding logging
- Checking OpenStack services
- Troubleshooting OpenStack Compute services
- Troubleshooting the OpenStack Object Storage services
- Troubleshooting OpenStack Dashboard
- Troubleshooting OpenStack Authentication
- Troubleshooting OpenStack Networking

Module 12 OpenStack High Availability

- Introduction to OpenStack High Availability
- Highly available MySQL
- Highly available RabbitMQ

Module 13 OpenStack Deployment

- PackStack
- Foreman