OpenStack Intermediate Training

DevOpsSchool
Lets Learn, Share & Practice DevOps

Curriculum 4 Days

Day - 1

- **Introduction to Openstack**
  - Introduction and Welcome
  - Next Gen OpenStack Data Centers
  - Understand the components that make up the cloud
- **Architecture components of OpenStack**
  - What OpenStack is not? (The History)
  - Architecture Workflow
  - Nova - Compute
  - Swift - Storage

Day - 2

- **OpenStack Demonstrations**
  - OpenStack Hypervisors
  - Choosing your Distribution platform
  - Creating your Own OpenStack with DevStack
- **Dashboard**
  - Verify operation of the Dashboard
  - Manage/Create projects, users, and roles
  - Manage Keystone catalogue services and endpoints
  - Create roles and rules for the environment
  - Verify operation of the Identity service
  - Live Lab: Creating Projects, Users, and Roles

Day - 3	Day - 4

Dashboard
  ○ Verify operation of the Dashboard
 	
Compute
  ○ Nova Compute Components and OpenStack Terms
  ○ Verify operation of Compute services
  ○ Manage Nova user keypairs
  ○ Manage Flavors
  ○ Manage quotas
  ○ Manage project security group rules
  ○ Launch a new Instance
  ○ Assign security group to Instance
  ○ Configure an Instance with a Floating IP address
  ○ Access an Instance using a keypair
  ○ Shutdown an Instance
  ○ Terminate Instance
  ○ Manage instance snapshots
  ○ Live Lab: Managing Flavors and Quotas
  ○ Live Lab: Launching Instances from the CLI
  ○ Live Lab: Launching Instances from Horizon
  ○ Live Lab: Configure Access and Security for Instances
	Block Storage
	  ○ Block Storage - Cinder Overview
	  ○ Create volume group for block storage
	  ○ Manage volume
	  ○ Create a new Block Storage Volume and mount it to a Nova Instance
	  ○ Manage quotas
	  ○ Snapshot volume
	  ○ Manage volumes backups
	  ○ Manage volumes encryption
	  ○ Live Lab: Create a new Block Storage Volume and mount it to a Nova Instance
	  ○ Live Lab: Create a Volume Snapshot and Backup
	  ○ Live Lab: Create an Encrypted Volume
	
	Object Storage
	  ○ Swift - Object Storage Overview
	  ○ The Ring
	  ○ Account, Proxy, Object, and Container Servers
	  ○ Replication
	  ○ Manage access to object storage
	  ○ Manage expiring objects
	  ○ Live Lab: Set Expire Times on Objects