

Ansible Docker Kubernetes

1) ANSIBLE LEARNING PATH

- 1.1 Introduction to Ansible
- 1.2 Understanding Ansible Architecture
- 1.3 Understanding configuration file and inventory
- 1.4 Installing and configuring Ansible

Total: 1 hours

- 1.5 Introducing Essential Ansible Modules
- 1.6 Using Ad Hoc Commands
- 1.7 Using YAML to write Playbooks, Verifying Playbook Syntax

Total: 1.5 hours

- 1.8 Understanding variables
- 1.9 Understanding and using Jinja2 templates

Total: 1.5 hours

LAB: 1.1-1.9

- 1.10 Using Task Control
- 1.11 Using Loops, Items and Register Variables
- 1.12 Using when to Run Tasks Conditionally
- 1.13 Using Handlers

Total: 2 hours

- 1.14 Understanding Ansible Roles and directory structure
- 1.15 Creating Custom Roles using Ansible Galaxy

Total: 2 hours

- 1.16 Troubleshooting Ansible
- 1.17 Using Debug Module and Check Mode
- 1.18 Managing Ansible Logs
- 1.19 Analyzing Playbook Errors
- 1.20 Ansible Vault

Total: 1 hours

LAB: 1.10-1.20

Overall ANSIBLE LEARNING PATH 20 Lectures 9 Hours total length

2) DOCKER LEARNING PATH

- 2.1 Introduction to container technologies
- 2.2 Docker overview
- 2.3 Docker installation and setup on linux machine

Total 1 hours

- 2.4 Basic docker commands
- 2.5 Docker run and advanced docker run features

Total 1 hours

- 2.6 Docker networks
- 2.7 Docker storage and service exposing
- 2.8 Container logging and other container related commands

Total 2 hours

- 2.9 Docker Images
- 2.10 Understanding entrypoint and command
- 2.11 Creating docker images

Total 1 hours

LAB: 2.1-2.11

Overall DOCKER LEARNING PATH 11 Lectures 5 Hours total length

3) Kubernetes Learning Path

- 3.1 Intro to Kubernetes
- 3.2 Kubernetes cluster architecture
- 3.3 General overview Kubernetes components

Total 2 hours

- 3.4 K8S cluster setup using kubeadm tool
- 3.5 Other kubernetes installation methods

Total 1.5 hours

- 3.6 Using kubectl command
- 3.7 Understanding and discussing container,pod,deployment yaml config files with examples
- 3.8 Running first pod and deployment

Total 1.5 hours

- 3.9 Using configmaps, environment variables
- 3.10 Different Security Context types

3.11 Using secrets and injecting to pod

3.12 Examples of using secrets and configmaps in daily basis

Total 2 hours

3.13 Resource Limitations

3.14 Using multicontainers and init containers

3.15 Understand how to use Labels, Selectors and annotations

3.16 Understanding liveness and readiness probes

Total 2.5 hours

3.17 Understanding and working different service types

Total 1.5 hours

LAB

3.18 Understanding and working with different volume types

3.19 Storage persistence

Total 1 hours

3.20 Deep dive into deployments

3.21 Advanced features of deployments

3.22 Daemonsets, statefullsets and replicaset general overview

Total 1.5 hours

3.23 Understanding ingress

3.24. Installing ingress controller

3.25 Creating ingress rules

3.26 Demonstrate basic understanding of NetworkPolicies

Total 2 hours

3.27 Understanding role basic authentication methods

3.28 Role and RoleBinding

Total 1 hours

LAB

3.29 Deploying k8s dashboard

3.30 Discussing Access methods to dashboard

Total 1.5 hours

OVERALL KUBERNETES LEARNING PATH 30 LECTURES TOTAL LENGTH 18 HOURS