Server Automation with Ansible

Duration: 5 Days (8Hours Per day)

Hands-On Format: This hands-on class is approximately 80/20 lab to lecture ratio, combining engaging lecture, demos, group activities and discussions with comprehensive machine-based practical programming labs and project work.

Module 1 – Introduction to Ansible

Introduction to Ansible
Installing Ansible
Managing Configuration file
Inventory
AD-Hoc Commands
Playbooks
Variables – in the playbook and call from different file
Notify and Handlers
Loops
Facts
Jinja2 Templates
Ansible Vault
Basic Role

Module 2 – Managing Network Services

Controlling Network Services
Configuring Network Interfaces
Automating Service and Network Interface Configuration

Module 3 – Configuring Link Aggregation

Configure Network Teaming
Managing Network Teaming
Automating Network Teaming

Module 4 – Managing DNS and DNS Servers

Describing the DNS Service
Configuring Name Servers with Bind 9
Automating Name Server Configuration

Module 5 – Managing DHCP and IP Address Assignment

Introduction to DHCP
Configuring IPv4 Address Assignment with DHCP
Automating DHCP Configuring

Module 6 – Configure Email Transmission

Configuring a Send-only Email Service
Automating Postfix Configuration

Module 7 – Configuring MariaDB SQL Databases

Installing a MariaDB Database
Working with SQL in MariaDB
Managing MariaDB Users and Access Rights
Creating and Restoring MariaDB Backups
Automating MariaDB Deployment

Module 8 – Configuring Web Servers

Configuring a Basic Web Server with Apache HTTPD
Configuring and Troubleshooting Virtual Hosts with Apache HTTPD
Configuring HTTPS with Apache HTTPD
Configuring a Web Server with NGINX
Automating Web Server Configuration

Module 9 – Optimizing Web Server Traffic

Caching Static Content with Varnish
Terminating HTTPS Traffic and Load Balancing with HAProxy
Automating Web Service Optimization

Module 10 – Providing File-based Network Storage

Exporting NFS File Systems
Providing SMB File Shares
Automating File-based Storage Provisioning

Module 11 – Accessing Block-based Network Storage

Providing iSCSI Storage
Accessing iSCSI storage
Automating Iscsi Initiator Configuration

Module 12 – OpenVPN

Introduction to OpenVPN
Configure OpenVPN Server
Configure OpenVPN Client