Ansible Intermediate Training

Curriculum 3 Days

Day - 1

- **Why you are here?**
  - Introduction of Configuration Management
  - Understand the problems in Servers config management
  - Finding out the solutions for Servers config management
  - What is Ansible
  - Benefits of Ansible
  - Ansible Vs Chef Vs Puppet
- **Let's understand Ansible**
  - Ansible Architecture
  - How Ansible Works?
  - Ansible Terminology
- **Let's get started with Ansible**
  - Introduction to YAML
  - Setup Ansible Development Environment
  - Introduction of Ansible Commands lines
  - Introduction of Ansible Modules
- **Ansible Authentication & Authorization**
  - SSH with password
  - SSH with key
  - SSH with another user and password/key
  - SSH without password/key
- **Let's start with Ansible Adhoc commands**
  - Do one task in ONE MACHINE (localhost)
  - Do one task in ONE REMOTE MACHINE
  - Do one task in MULTIPLE REMOTE MACHINES using Inventory
  - Do one task in MULTIPLE REMOTE MACHINES using group in Inventory
- **Let's write Ansible Inventory**
  - **Inventory group**
  - **Inventory group of groups**
  - **Inventory behavioral parameter**
  - **Inventory directory**
  - **Inventory dynamic inventory**

Day - 2

- **Let's write Ansible Playbook**
  - **Writing a Play Using Modules**
  - **Writing a Playbook**
  - **Writing an Inventory**
  - **Running a Playbook in Local Server**
  - **Running a Playbook in Remote Server**
- **Variables in Ansible**
  - Variables in Ansible Playbook
  - Variables in Ansible Playbook external file
  - Variables in Ansible Playbook include vars into task
  - Register var in Ansible playbook
  - Prompt var in Ansible playbook
  - Command line var in Ansible
  - Variables in Ansible inventory file
  - Variables in Ansible
- **Working with Popular Modules in Ansible**
  - The Setup Module
  - The Command Module
  - The Expect Module
  - The RAW Module
  - The Script Module
  - The Shell Module
  - The File Module
  - The SELinux Module
  - The SEBoolean Module
  - The Copy Module
  - The Cron Module
  - They Include Module
  - The Mount Module
  - The User Module
  - The Group Module
  - The Mail Module
  - The Git Module
  - The Apt Module

○ Introduction of Ansible Play ○ Introduction of Ansible Playbook ○ Introduction of Ansible Configurations ○ Introduction of Ansible Inventory		inventory hostvars • Variables in Ansible inventory groupware • fact variables	○ The Yum Module ○ The Package Module ○ The Service Module

Day - 3

- **Deep Dive into Ansible Playbooks**
  - **Outlining Your Playbook**
  - **Target Section**
  - **Variable Section**
  - **Task Section**
  - **Handler Section**
  - **Lookups**
  - **Understand the factors in Ansible**
  - **Handlers in Ansible**
  - **Includes vs. Imports in Ansible**
  - **Conditions in Ansible**
  - **Loops in Ansible**
  - **Blocks in Ansible**

- **Roles in Ansible**
  - Understand Role Directory Structure
  - Using Ansible Roles
  - Ansible Role Duplication and Execution
  - Ansible Role Default Variables
  - Ansible Role Dependencies
  - Embedding Modules and Plugins in Roles
  - Ansible Role Search Path

- **Ansible Galaxy**
  - Introduction of Ansible Galaxy Website
  - The command line tool

- Files operations in Ansible
- Templating (Jinja2) in Ansible
- Basic Error Handling in Playbooks
- Basic Troubleshooting in Ansible

- **Servers Management in Ansible**
  - Authentications in Ansible
  - SSL and Certificates in Ansible
  - Access and Permission Management
  - Ansible with Docker
  - Ansible with AWS
  - Ansible with Azure
  - Search for Roles
  - Installing Roles from Ansible Galaxy
  - Create roles
  - Authenticate with Galaxy
  - Ansible Galaxy Roles Dependencies
  - Upload Roles

- **Ansible Vault**
  - Use cases of Ansible Vault
  - Creating Encrypted Files
  - Editing Encrypted Files
  - Rekeying Encrypted Files
  - Encrypting Unencrypted Files
  - Decrypting Encrypted Files
  - Viewing Encrypted Files
  - Using Ansible Vaul