Customizing Ansible

- 4 Days Hands On

Course Overview

This course is designed to move students beyond Ansible Essentials, and joins Ansible with other DevOps skill sets, including: Python scripting, utilizing Ansible Galaxy, running automated solutions with Jenkins, syncing code with Git and GitHub, continuous integration, debugging / linting, and much more! The lessons are built around current concepts observed within enterprises using Ansible.

Review this course online at https://www.alta3.com/courses/mans

Who Should Attend

- DevOps Engineers
- System and Cloud Administrators
- Network Engineers and Developers
- Python Developers

What You'll Learn

- Advanced Ansible skills and tools
- Creating your own collection
- Writing your own Ansible plugin module or other plugins
- Playbook and solution architecture including best practices and solutions throughout industry
- Creating Execution Environments
- ansible-builder
- ansible-runner
- AI LLM prompt engineering for relevant configuration snippets and solutions

Outline

Certification

- Lecture + Lab: Alta3 Research Customizing Ansible Certification

AI Lab Assistance

Software Control Management

- Lecture + Lab: SCM Option #1 - GitHub
- Lecture + Lab: SCM Option #2 - GitLab
- Lecture + Lab: Git Branching

Ansible Review

- Lecture + Lab: Complete Playbook Design Guide

Creating Ansible Plugins

- Lecture + Lab: Getting dir(obj) help() and pydoc
- Lecture + Lab: Dictionaries
- Lecture + Lab: Lists
- Lecture + Lab: Python Data to JSON file
- Lecture + Lab: Python Data to YAML file
- Lecture + Lab: Writing an Ansible Module with Python
- Lecture + Lab: Ansible Lookup Plugin

Collections

- Lecture + Lab: Ansible Collections
- Lecture + Lab: Ansible Galaxy

Dynamic Inventory

- Lecture: Ansible Dynamic Inventory
- Lecture + Lab: YAML, JSON, Dynamic, and Cloud Inventories

Testing

- Lecture + Lab: Ansible Best Practice
- Lecture + Lab: Roles and Molecule
- Lecture + Lab: Ansible Lint

CI CD Tools

- Lecture: Ansible Workflow
- Lecture + Lab: Ansible and CI CD
- Lecture + Lab: Ansible Runner
- Lecture + Lab: ansible-builder
- Lecture + Lab: Building Custom Ansible Execution Environments
- Lecture + Lab: Triggering AWX builds with WebHooks
- Lecture + Lab: Pull Requests
- Lecture + Lab: AWX Playbooks

Ansible and GitLab

- Lecture + Lab: Ansible and CI Workflows with GitLab

AWX Studies

- Lecture + Lab: K8S Pods And Control Plane
- Lecture + Lab: Deploying AWX on Kubernetes

Kubernetes

- Lecture + Lab: K8S Architecture
- Lecture + Lab: Deploying Kubernetes using Ansible

Enterprise

- Lecture + Lab: Reverse Engineering Enterprise Playbooks

Prerequisites

- Coding experience in another language serves as an adequate prerequisite
- Ansible 101 - Ansible Essentials
- Ansible 201 - Python and Ansible for Automation

Certification

- Ansible 301 - Certification Project