



Ansible 203 - Windows Server Automation

- 5 Days
- Lecture and Hands-on Labs

Course Overview

Continue your studies of Ansible, with a focus on automating servers and applications. In addition to Ansible, students will study enough Python to understand Ansible's plugin architecture.

Lessons and labs focus on using both Python and Ansible to interact with and configure your Windows servers, as well as common applications. At the conclusion of this course you will return to work empowered with skills necessary to create or improve Ansible solutions. This class is a combination of live demonstrations and hands-on labs with virtual network devices and endpoints as targets for your configuration.

For many of the lessons, we will focus on tasks targeting Windows.

- Students looking for Ansible for network applications should see: Ansible 201 (Networking)
- Students looking for Ansible for Linux server applications should see: Ansible 202 (Linux Server)

Review this course online at https://www.alta3.com/courses/ansible-203-windows

Who Should Attend

- Network Administrators
- Ansible Developers
- Python Developers
- Administrators interested in Automation
- Individuals interested in devops, specifically for networking

What You'll Learn

- Version controlling code with Git
- Controlling winrm sessions and passing commands to remote servers
- Basic Python for automation applications
- Ansible collections for server automation
- Understanding plugin architecture of Ansible modules written with Python
- Best practices for automation
- AI LLM prompt engineering for generating Ansible solutions applicable to Windows scenarios

Outline

LLM AI Toolkit

• \blacksquare Lecture + Lab: Large Language Model toolkit for AI Solution Assistance

Software Control Management

- 🖳 Lecture + Lab: SCM Option #1 GitHub
- \blacksquare Lecture + Lab: SCM Option #2 GitLab

Ansible and Windows Setup

- \blacksquare Lecture + Lab: Ansible Windows Ping and Inventory
- 🖳 Lecture + Lab: Ansible Windows gather_facts
- \Box Lecture + Lab: ansible.cfg setup

Ansible and Windows

- 🖳 Lecture + Lab: Update Windows with Ansible
- 🖳 Lecture + Lab: Ansible Windows and Downloading Resources
- 🖳 Lecture + Lab: Checking Windows Services with Ansible
- 🖳 Lecture + Lab: Automating Windows MSI Files
- \blacksquare Lecture + Lab: Ansible Module ansible.builtin.uri
- \bullet \P Challenge: Write a Windows Playbook

Ansible and Windows Scripting

- 🖳 Lecture + Lab: Ansible and Windows Commands
- 🖳 Lecture + Lab: Ansible and Windows PowerShell

Jinja Templating and Files

- 💭 Lecture: Templating with Jinja
- 🖳 Lecture + Lab: Jinja Templating for Windows
- 🖳 Lecture + Lab: Using Ansible to Copy Files to Windows

Prechecks and Postchecks

• \blacksquare Lecture + Lab: Windows Assertions and Prechecks

Windows System

- 🖳 Lecture + Lab: Ansible and Windows Environmental Variables
- 🖳 Lecture + Lab: Automating Windows Users with Ansible
- 🖳 Lecture + Lab: Ansible and Windows Registry Editor

Ansible and Windows Chocolatey

• \blacksquare Lecture + Lab: Ansible and Windows Chocolatey

Increasing Complexity and Maintainability

• 🖳 Lecture + Lab: Organizing Playbooks with import_tasks

Cloud and Hypervisors

- 🖳 Lecture + Lab: Ansible for VMWare VCenter
- \blacksquare Lecture + Lab: VMWare ESXi and Dell PowerStore

Security

• 🖳 Lecture + Lab: Complete Ansible Vault

CI CD Tools

- \blacksquare Lecture: Ansible Workflow
- \blacksquare Lecture + Lab: Ansible and CI CD
- \blacksquare Lecture + Lab: Ansible Runner
- \Box Lecture + Lab: ansible-builder
- 🖳 Lecture + Lab: Building Custom Ansible Execution Environments
- \Box Lecture + Lab: Windows Scripting

Customizing Ansible

- 🖳 Lecture + Lab: Dynamic Inventory Plugins VMWare
- \blacksquare Lecture + Lab: Writing an Ansible Module with Python

Prerequisites

Next Courses

- Ansible 301 Customizing Ansible (https://alta3.com/courses/mans)
- Git and GitHub (https://alta3.com/courses/github)
- Git and GitLab CI/CD (https://alta3.com/courses/gitlab)