



Managing Infrastructure with Ansible and AAP 2.5

- 5 Days
- Lecture and Hands-on Labs

Course Overview

This 5-day, hands-on course combines foundational Ansible skills with real-world usage of Red Hat Ansible Automation Platform (AAP) 2.5. Participants will begin by learning YAML, playbooks, inventory, variables, and essential modules, and progress into job templates, execution environments, GitHub or GitLab integration, and workflow automation within AAP architecture. Class highlights core AAP technologies including: ansible-runner, ansible-builder, ansible execution environments, automation mesh, Ansible navigator, Tower/AWX, and the Ansible Automation Hub. As students learn not just what these pieces do, but how they interact with the organization's big picture, they can finally leverage the full capabilities of AAP to develop the ultimate in customized automation platforms. By the end of the course, participants will be able to write reusable playbooks, manage infrastructure using AAP, and automate tasks across a variety of environments using best practices.

Review this course online at <https://www.alta3.com/courses/ans-aap>

Who Should Attend

- System Administrators and DevOps Engineers new to Ansible
- IT professionals looking to scale automation using AAP
- Teams preparing to adopt Ansible Tower / AAP in production environments
- Technical Managers and Project Leads exploring automation solutions

What You'll Learn

- Understand core Ansible concepts, YAML, and inventory management.
- Write and optimize playbooks using best practices for automation.
- Implement job templates and workflows within AAP for scalable automation.
- Leverage AAP architecture components to enhance automation capabilities.

Outline

Day 1: Ansible Fundamentals

1. Intro to Ansible and Automation Use Cases
2. Case Study: Ansible Automation Platform (AAP) within an Enterprise
3. The role of the SCM (git and GitHub, GitLab, or BitBucket)
4. YAML Syntax and Ansible Playbook Structure
5. Creating Inventories
6. Writing and Running Playbooks
7. Comprehensive List of Playbook Keywords
8. Configuring ansible.cfg
9. Using Variables and Loops ##### Day 2: Modules, Templates, and Reusability
10. Key Modules every Ansible Developer Needs to Know: copy, get_url, uri, debug, template
11. Triggering Playbooks in AAP

12. Jinja2 Templating
13. Conditional Logic (when) and Tagging
14. Registering variables during execution
15. Ansible Galaxy for Customized Solutions
16. Handlers, Error Handling, Callback Plugins
17. Writing Playbooks for Vendors Your Organization Uses (customized per delivery)
18. Playbook Structuring: Roles and Collections ##### Day 3: Introduction to AAP 2.5
19. AAP Architecture: Automation Hub, Automation Controller, AWX/Tower, Automation Mesh, ansible-runner, and execution environments
20. Creating custom execution environments with ansible-builder
21. Accessing and Navigating the AAP GUI
22. Creating Job Templates and Projects
23. Scheduling Jobs and Job Slicing
24. Using Inventories and Credentials in AAP
25. Webhooks and GitHub or GitLab Integration ##### Day 4: Advanced AAP Automation
26. Workflow Job Templates
27. Understanding Logging and Job Results
28. Triggering multiple Playbooks
29. Writing Playbooks that Recover from Failures
30. Archiving Results and Passing Results to Downstream Jobs
31. Exploring the AAP API for HTTP REST scripting
32. Best Practices for Job Orchestration ##### Day 5: Capstone and Certification
33. Deploying AAP without Deploying AAP
34. Watch Out! What RedHat WILL NOT Tell You about AAP
35. AAP Recovery Options
36. Review of Concepts and Best Practices
37. What Other Tools Work Well with Ansible?
38. Augmenting Ansible with Terraform
39. Student-led Capstone Project: Automate a Multi-Step Job via AAP

Prerequisites

- No prior Ansible experience is required.
- Keyboard proficiency and basic understanding of system administration or scripting is helpful.