



## Hands-on Ansible Essentials | Introduction to Automation with Ansible

Explore Core Ansible | Automatic Provisioning, Configuration Management, Service Deployment, Operational Processes & More

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### Course Snapshot

- **Course:** TTDV7580: Hands-on Ansible Essentials | Introduction to Automation with Ansible
- **Duration:** 3 days
- **Audience & Skill-Level:** Introductory level for Linux system administrators, DevOps engineers, infrastructure automation engineers, and systems design engineers.
- **Hands-on Learning:** This course is approximately 50% hands-on lab to lecture ratio, combining engaging expert lessons, demos and group discussions with real-world, skills-focused machine-based labs and exercises. Student machines are required.
- **Delivery Options:** This course is available for **onsite private classroom presentation, live online virtual presentation**, or can be presented in a **blended learning format**. Please also ask about our **Self-Paced / Video / QuickSkills** or **Mini-Camp / Short Course** flexible delivery options.
- **Public Schedule:** This course has active dates on our live-online open enrollment **Public Schedule**.
- **Customizable:** This course agenda, topics and labs can be further adjusted to target your specific training skills objectives, tools and learning goals. Please ask for details.

### Overview

**Hands-on Ansible / Introduction to Automation with Ansible** is a three-day, lab-intensive course geared for toward those responsible for automation of configuration management; consistent and repeatable application deployment; provisioning and deployment of development, testing, and production servers; and (optionally) integration with DevOps CI/CD workflows. Throughout the course participants will explore core Ansible features such as automatic provisioning, configuration management, service deployment and operational processes. This course also covers enterprise topics such as managing sensitive data (Ansible Vault), Ansible Tower, and integrating with Docker (optional). Attendees might include Linux system administrators, DevOps engineers, infrastructure automation engineers, and systems design engineers.

### Learning Objectives

This course is approximately **50% hands-on**, combining expert lecture, real-world demonstrations and group discussions with machine-based practical labs and exercises. Working in a hands-on learning environment led by our expert practitioner attendees will explore how to:

- Describe Ansible concepts and install Red Hat Ansible Engine (optional – we can pre-install is as well if desired, depending on the audience)
- Deploy Ansible and Configure Ansible to manage hosts and run ad hoc Ansible commands.
- Implement playbooks
- Write a simple Ansible playbook and run it to automate tasks on multiple managed hosts.
- Manage variables and facts
- Write playbooks that use variables to simplify management of the playbook and facts to reference information about managed hosts.
- Implement task control; Manage task control, handlers, and task errors in Ansible playbooks.
- Deploy files to managed hosts
- Deploy, manage, and adjust files on hosts managed by Ansible.
- Manage large projects
- Write playbooks that are optimized for larger, more complex projects.
- Simplify playbooks with roles
- Use Ansible roles to develop playbooks more quickly and to reuse Ansible code.
- Troubleshoot Ansible
- Troubleshoot playbooks and managed hosts.
- Automate Linux administration tasks
- Automate common Linux system administration tasks with Ansible.

**Need different skills or topics?** If your team requires different topics or tools, additional skills or custom approach, this course may be further adjusted to accommodate. We offer additional Ansible, DevOps, containers, automation / test-automation, networking, programming / scripting, Python and other related topics that may be blended with this course for a track that best suits your needs.

### Audience & Pre-Requisites

This is an Introductory level course for experienced **Linux** system administrators, DevOps engineers, infrastructure automation engineers, and systems design engineers. Ideally students should have familiarity with basic Python scripting. Attendees without programming skills can follow along with the scripting portion of the labs.

**Take Before** Attendees should have incoming experience similar to the topics listed in the course(s) below or should have attended these as a pre-requisite:

- TTPS4800 Introduction to Python Programming Basics – 3 days
- TT2103 Introduction to Linux – 3 days

**Enhanced Learning Services:** Please also ask about our **Pre-Training Class OnRamp & Prep / Primer** offerings, **Skills Gap Assessment Services, Case Studies, Knowledge Check Quizzes, Skills Immersion Programs & Camps, Collaborative Mentoring Services and Extended Learning Support & Post Training** services.

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### Course Topics / Agenda

*Please note that this list of topics is based on our standard course offering, evolved from typical industry uses and trends. We will work with you to tune this course and level of coverage to target the skills you need most. Topics, agenda and labs are subject to change, and may adjust during live delivery based on audience interests, participation and skill-level.*

#### Ansible Overview

- Overview of Architecture
- Overview of Deployments
- Inventory

#### Deploying Ansible

- Installing
- Configuration Files
- Running Ad Hoc Commands
- Dynamic Inventory

#### Playbooks

- Writing YAML Files
- Modules

#### Variables and Inclusions

- Variables
- Facts
- Inclusions

#### Task Control

- Constructing Flow Control
- Handlers
- Tags
- Handling Errors

#### Jinja2 Templates

- Jinja2 Templates
- Jinja2 Templates

#### Roles

- Role Structure
- Creating Roles
- Deploying Roles with Ansible Galaxy

#### Optimizing Ansible

- Configuring Connection Types
- Configuring Delegation
- Configuring Parallelism

#### Ansible Vault

- Configuring Ansible Vault
- Executing with Ansible Vault

#### Troubleshooting Ansible

- Troubleshooting Playbooks
- Troubleshooting Managed Hosts

#### Ansible Tower

- Ansible Tower overview
- Installing
- Account management
- Hosts
- Jobs

#### Optional: Ansible in a DevOps Environment

- Provisioning Vagrant Machines
- Deploying Vagrant in a DevOps Environment
- Deploying Docker in a DevOps Environment

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### Student Materials & Lab Environment

All course software (limited versions, for course use only), digital courseware files or course notes, labs / data sets and solutions (as applicable) are provided for you in our “easy access / no install required” high-speed remote lab environment. Our tech team works with every student to ensure everyone is set up with working access and ready to go prior to every course start date, ensuring a smooth delivery and great hands-on experience. Please ask for details.

## For More Information

All courses can be presented **onsite** or **online**, or in a **combined / flex / blended learning format**, tailored to target your specific audience, needs and learning goals. We also offer focused, flexible **short courses**, **self-paced learning** options, **recorded sessions** and more. We train beginner to advanced skills in all areas we cover, and offer **New Hire / Cohort Training**, **Boot Camps**, **Skills Immersion Programs**, **Reskilling Programs**, **Skills Migration & Transition Programs**, and more. We collaborate with you to ensure all courses are truly targeted to meet your specific needs and learning skills, maximizing your valuable training time, as well as your important budget.

Please also visit our extensive **Public Training Schedule** for training for smaller groups or individuals. Please contact us for course details, **Corporate Rates** and **Special Discount Offers**.

For more information about our dedicated training services, collaborative coaching services, courseware licensing options, public course schedule, training management services, partner programs, or to see our complete list of course offerings and special offers please visit us at [www.triveratech.com](http://www.triveratech.com), email [Info@triveratech.com](mailto:Info@triveratech.com) or call us toll free at **844-475-4559**. Our pricing and services are always satisfaction guaranteed.

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