

# Ansible Fundamentals (FI-AAF)

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## Course Description

This course is intended for beginners who are starting out with Ansible. This course is designed to get you up and running with the basics of Ansible quickly and to lay a foundation for building upon. It starts with installing and configuring Ansible itself, an overview of the YAML language, then we discuss what a play and playbooks are. Some key Ansible features, and modules will be explained and demonstrated with use cases in the practice labs.

## Course Duration:

2 days

## Prerequisites:

Good understanding of Ansible core components (playbooks, tasks, modules, variables, inventories)

## Objectives:

In the process of learning we will show you some easy ways to learn Ansible that will give you at the end of the course a firm understanding of core ansible techniques and key features like::

- Use Ansible ad hoc commands to quickly run tasks on multiple servers
- Read and understand Ansible inventory files and playbooks
- Write their own playbooks for automating simple tasks

## Course Outline:

### Chapter 01: Introduction to Ansible

- What is Automation and why it is important?
- What is Ansible?
- Ansible in DevOps World
- What Ansible Automates
- Ansible vs. Chef, Puppet and SaltStack
- Ansible History
- Installing Ansible

### Chapter 02: Running Ad Hoc Commands

- Ansible Architecture
- Automation Engine
- Ansible Configuration File overview
- Ansible command syntax
- Authenticating Ansible Connections

### Chapter 03: Host Inventories

- Creating and using a dedicated user
- Configuring key-based authentication walkthrough
- Working with static host inventories

#### Chapter 04: Exploring YAML with Basic Playbooks

- YAML overview
- Modules, Tasks, Plays, Playbooks
- General Playbook Structure
- Commonly used Modules (Service, Copy, Debug, File, Git, User, etc.)

#### Chapter 05: Ansible Playbooks using Loops and Conditions

- What are Facts and Fact Gathering
- Variable definition
- What are Loops
- Using Conditions
- Multiple Conditions
- Combining Loops and Conditions

#### Chapter 06: Advanced Ansible Modules

- An in-depth approach to modules
- Idempotent playbooks

#### Chapter 07: Facts. Variables. Jinja2 Templates

- Templates Basics
- Template Module with examples
- Filters
- Checking a Template

#### Chapter 08: Ansible Vault

- Ansible Vault with encrypted files
- Using Playbooks with Vault
- Managing Vault Files
- Roles. Organizing Ansible Contents
- Directory Layout best practices
- Role Structure, Variables and Location

#### Chapter 09: Ansible Galaxy

- Ansible Galaxy – Website and command line tool
- Authenticate with Galaxy
- Import and delete a role with Ansible Galaxy
- Hands-on laboratory at each chapter

### Who Should Attend

- DevOps engineers
- Linux system administrators
- Release engineers
- Infrastructure automation engineers
- Systems design engineers