




## Ansible

	Level	Duration
	Introduction	1 day

## Course Description

- The main objective of this course is to learn Ansible and how to use it as configuration management tool to manage a large number of machines.

## Audience and prerequisites

- This course is mainly for DevOps engineers

## Main Goals

- Understand the basics of Ansible, its architecture, and how it works
- How to use it for managing multiple machines
- Apply recommended practices for effective and efficient automation with Ansible.
- Perform automation operations as rolling updates.
- Create automation execution environments to contain and scale Ansible Automation.
- Leverage capabilities of the automation content navigator to develop Ansible Playbooks.

Module	Content
Intro	<ul style="list-style-type: none"> <li>◆ Introduction To Ansible</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Installing &amp; Configuring Ansible</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Features Of Ansible</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Ansible Architecture</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Nodes / Hosts</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Children</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Modules</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Configuration</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Ansible Terminologies</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Use Cases Of Ansible</li> </ul>
	<ul style="list-style-type: none"> <li>◆ What Can Do In Production Environment</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Ansible Documentation</li> </ul>
	<ul style="list-style-type: none"> <li>◆ How Ansible Is Different From Configuration Management Tools</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Differences between Ansible to IAC (ex: Terraform)</li> </ul>
Basics/Inventory	
	<ul style="list-style-type: none"> <li>◆ Facts</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Representation Of Dictionary</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Inventory Management</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Non-group Inventory File</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Group Inventory File</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Ansible Inventory Parameters</li> </ul>
Ansible CLI	
	<ul style="list-style-type: none"> <li>◆ ansible</li> </ul>
	<ul style="list-style-type: none"> <li>◆ ansible</li> </ul>
	<ul style="list-style-type: none"> <li>◆ ansible-playbook</li> </ul>
	<ul style="list-style-type: none"> <li>◆ ansible-galaxy</li> </ul>
	<ul style="list-style-type: none"> <li>◆ ansible-playbook</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Variables</li> </ul>
Filters / Plugins	
	<ul style="list-style-type: none"> <li>◆ Populate, manipulate and manage data in variables using filters and plugins.</li> </ul>
Modules	
	<ul style="list-style-type: none"> <li>◆ Introduction to modules</li> </ul>

Module	Content
	◆ Modules in playbooks
	◆ Creating a custom module (using <code>ansible-core</code> & <code>python</code> )
	◆ Testing our module using Playbook
<b>Playbooks</b>	
	◆ Sample Ansible Playbook
	◆ Ansible Playbook Format
	◆ Ansible Modules
	◆ Ansible Tasks
	◆ Packages
	◆ Commands:
	◆ How To Run A Playbook
	◆ How to check the syntax of a Playbook
	◆ How to Run a playbook on multiple hosts/target hosts
	◆ CI/CD with Ansible
<b>Roles</b>	
	◆ What are role
	◆ Define and build roles
	◆ Using Roles in Playbooks
	◆ Define
	◆ Execute
	◆ Manage Roles
<b>Templates</b>	
	◆ Template introduction
	◆ Jinja2 templates
	◆ Conditions
	◆ Facts
	◆ Loops
	◆ Variables
<b>Galaxy</b>	
<b>Hand-On</b>	
	Hands-on during the different modules

