

Day - 1		Day - 2	
<ul style="list-style-type: none"> <li>• <b>Why you are here?</b> <ul style="list-style-type: none"> <li>○ Introduction of Configuration Management</li> <li>○ Understand the problems in Servers config management</li> <li>○ Finding out the solutions for Servers config management</li> <li>○ What is Ansible</li> <li>○ Benefits of Ansible</li> <li>○ Ansible Vs Chef Vs Puppet</li> </ul> </li> <li>• <b>Let's understand Ansible</b> <ul style="list-style-type: none"> <li>○ Ansible Architecture</li> <li>○ How Ansible Works?</li> <li>○ Ansible Terminology</li> </ul> </li> <li>• <b>Let's get started with Ansible</b> <ul style="list-style-type: none"> <li>○ Introduction to YAML</li> <li>○ Setup Ansible Development Environment</li> <li>○ Introduction of Ansible Commands lines</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Ansible Authentication &amp; Authorization</b> <ul style="list-style-type: none"> <li>• SSH with password</li> <li>• SSH with key</li> <li>• SSH with another user and password/key</li> <li>• SSH without password/key</li> </ul> </li> <li>• <b>Let's start with Ansible Adhoc commands</b> <ul style="list-style-type: none"> <li>• Do one task in ONE MACHINE (localhost)</li> <li>• Do one task in ONE REMOTE MACHINE</li> <li>• Do one task in MULTIPLE REMOTE MACHINES using Inventory</li> <li>• Do one task in MULTIPLE REMOTE MACHINES using group in Inventory</li> </ul> </li> <li>• <b>Let's write Ansible Inventory</b> <ul style="list-style-type: none"> <li>• <b>Inventory group</b></li> <li>• <b>Inventory group of groups</b></li> <li>• <b>Inventory behavioral</b></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Let's write Ansible Playbook</b> <ul style="list-style-type: none"> <li>• Writing a Play Using Modules</li> <li>• Writing a Playbook</li> <li>• Writing an Inventory</li> <li>• Running a Playbook in Local Server</li> <li>• Running a Playbook in Remote Server</li> </ul> </li> <li>• <b>Variables in Ansible</b> <ul style="list-style-type: none"> <li>• Variables in Ansible Playbook</li> <li>• Variables in Ansible Playbook external file</li> <li>• Variables in Ansible Playbook include vars into task</li> <li>• Register var in Ansible playbook</li> <li>• Prompt var in Ansible playbook</li> <li>• Command line var in Ansible</li> <li>• Variables in Ansible inventory file</li> <li>• Variables in Ansible inventory hostvars</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Working with Popular Modules in Ansible</b> <ul style="list-style-type: none"> <li>○ The Setup Module</li> <li>○ The Command Module</li> <li>○ The Expect Module</li> <li>○ The RAW Module</li> <li>○ The Script Module</li> <li>○ The Shell Module</li> <li>○ The File Module</li> <li>○ The SELinux Module</li> <li>○ The SEBoolean Module</li> <li>○ The Copy Module</li> <li>○ The Cron Module</li> <li>○ They Include Module</li> <li>○ The Mount Module</li> <li>○ The User Module</li> <li>○ The Group Module</li> <li>○ The Mail Module</li> <li>○ The Git Module</li> <li>○ The Apt Module</li> </ul> </li> </ul>

<ul style="list-style-type: none"><li>○ Introduction of Ansible Modules</li><li>○ Introduction of Ansible Play</li><li>○ Introduction of Ansible Playbook</li><li>○ Introduction of Ansible Configurations</li><li>○ Introduction of Ansible Inventory</li></ul>	<ul style="list-style-type: none"><li>parameter</li><li>• <b>Inventory directory</b></li><li>• <b>Inventory dynamic inventory</b></li></ul>	<ul style="list-style-type: none"><li>• Variables in Ansible inventory groupware</li><li>• fact variables</li></ul>	<ul style="list-style-type: none"><li>○ The Yum Module</li><li>○ The Package Module</li><li>○ The Service Module</li></ul>
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Day - 3		Day - 4
<ul style="list-style-type: none"><li>• <b>Deep Dive into Ansible Playbooks</b><ul style="list-style-type: none"><li>○ <b>Outlining Your Playbook</b></li><li>○ <b>Target Section</b></li><li>○ <b>Variable Section</b></li><li>○ <b>Task Section</b></li><li>○ <b>Handler Section</b></li><li>○ <b>Lookups</b></li><li>○ <b>Understand the factors in Ansible</b></li><li>○ <b>Handlers in Ansible</b></li><li>○ <b>Includes vs. Imports in Ansible</b></li><li>○ <b>Conditions in Ansible</b></li><li>○ <b>Loops in Ansible</b></li><li>○ <b>Blocks in Ansible</b></li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>Roles in Ansible</b><ul style="list-style-type: none"><li>• Understand Role Directory Structure</li><li>• Using Ansible Roles</li><li>• Ansible Role Duplication and Execution</li><li>• Ansible Role Default Variables</li><li>• Ansible Role Dependencies</li><li>• Embedding Modules and Plugins in Roles</li><li>• Ansible Role Search Path</li></ul></li><li>• <b>Ansible Galaxy</b><ul style="list-style-type: none"><li>• Introduction of Ansible Galaxy Website</li><li>• The command line tool</li></ul></li></ul>	<ul style="list-style-type: none"><li>• <b>Ansible Tower</b><ul style="list-style-type: none"><li>○ Ansible Tower Installation and Configuration</li><li>○ Ansible Tower Licensing, Updates, and Support</li><li>○ Starting, Stopping, and Restarting Tower</li><li>○ Ansible Tower Organization</li><li>○ Ansible Tower Projects</li><li>○ Ansible Tower Templates</li><li>○ Ansible Tower Jobs</li><li>○ Ansible Tower Inventory</li><li>○ Inventory File Importing</li><li>○ Tower Logfiles</li></ul></li></ul>

<ul style="list-style-type: none"><li>○ <b>Files operations in Ansible</b></li><li>○ <b>Templating (Jinja2) in Ansible</b></li><li>○ <b>Basic Error Handling in Playbooks</b></li><li>○ <b>Basic Troubleshooting in Ansible</b></li><li>● <b>Servers Management in Ansible</b><ul style="list-style-type: none"><li>• Authentications in Ansible</li><li>• SSL and Certificates in Ansible</li><li>• Access and Permission Management</li><li>• Ansible with Docker</li><li>• Ansible with AWS</li><li>• Ansible with Azure</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Search for Roles</li><li>• Installing Roles from Ansible Galaxy</li><li>• Create roles</li><li>• Authenticate with Galaxy</li><li>• Ansible Galaxy Roles Dependencies</li><li>• Upload Roles</li><li>● <b>Ansible Vault</b><ul style="list-style-type: none"><li>• Use cases of Ansible Vault</li><li>• Creating Encrypted Files</li><li>• Editing Encrypted Files</li><li>• Rekeying Encrypted Files</li><li>• Encrypting Unencrypted Files</li><li>• Decrypting Encrypted Files</li><li>• Viewing Encrypted Files</li><li>• Using Ansible Vault</li></ul></li></ul>	<ul style="list-style-type: none"><li>○ Tower Logging and Aggregation</li><li>○ Tower Configuration</li><li>○ Setting up LDAP Authentication</li><li>○ Changing the Default Timeout for Authentication</li><li>○ User Authentication with Kerberos</li><li>○ Working with Session Limits</li><li>○ Backing Up and Restoring Tower</li><li>○ Troubleshooting Tower</li><li>○ Tower Tips and Tricks</li><li>○ Introduction to tower-cli</li></ul>
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- **Developing Ansible Modules**

- Understand Ansible Architecture
- How to Develop Ansible Module
- Types of Ansible Modules
- How Ansible modules are executed
- Developing Ansible Plugins
- Module Ansible Utilities
- Use the developed Modules in Playbook