

Ansible Course

Course Duration: 40 Hours

| Class No | Module Details | Duration |
|---|--|----------|
| Module Name: Introduction to Ansible | | |
| 01 | <ul style="list-style-type: none"> • What is Ansible? • Why do we require Ansible? • Ansible Architecture • How Ansible works? • Benefits of using Ansible • Push Based VS Pull Based approach • | 02 Hours |
| Module Name: Installation & Configuration | | |
| 02 | <ul style="list-style-type: none"> • Install and configure Ansible control node • Ansible configuration files • Configure nodes with passwordless authentication • Create and update inventory file • Creating Inventory Groups • Hands on Lab 01 | 03 Hours |
| Module Name: Ansible command line tool | | |
| 03 | <ul style="list-style-type: none"> • Ansible common terms • Ansible ad-hoc commands • Why use ad hoc commands? • Use cases for ad hoc tasks • How to execute ad-hoc commands. • Ad-hoc command syntax • Hands on Lab 02 | 03 Hours |
| Module Name: Ansible Modules | | |
| 04 | <ul style="list-style-type: none"> • What is Ansible Module • List of Ansible Modules • Ansible commands using different modules • Overview of YAML syntax • Hands on Lab 03 | 03 Hours |
| Module Name: Ansible Playbooks | | |
| 05 | <ul style="list-style-type: none"> • What is Ansible Playbooks • How to write Playbooks | |

| | | |
|--------------------------------------|--|----------|
| | <ul style="list-style-type: none"> • Various example of Playbooks • Executing Playbooks • Hands on Lab 04 | 03 Hours |
| Module Name: Variables and Facts | | |
| 06 | <ul style="list-style-type: none"> • Using variables • Creating valid variable names • Different types of variables • Applying Variables to Groups and Hosts • Variable Scope • Using Variables to Control Tasks • Ansible Facts • Hands on Lab 05 | 03 Hours |
| Module Name: Script and Shell module | | |
| 07 | <ul style="list-style-type: none"> • Execute shell commands on targets • Writing a bash script • Runs a local script on a remote nodes • Install PHP and Apache2 server on a remote node using the Script Module • Run a Python script on a remote node using the Script Module • Hands on Lab 06 | 02 Hours |
| Module Name: Condition and looping | | |
| 08 | <ul style="list-style-type: none"> • What is looping in Ansible? • What is the condition in Ansible? • How to use condition and looping in Playbooks • Ansible tags • Hands on Lab 07 | 02 Hours |
| Module Name: Ansible vault | | |
| 09 | <ul style="list-style-type: none"> • Ansible Vault Purpose • Encrypt and Decrypt Files • Create Vault Password Files • Encrypting existing files • Viewing encrypted files • Editing encrypted files | 02 Hours |

| | | |
|--|--|----------|
| | <ul style="list-style-type: none"> ● Hands on Lab 08 | |
| Module Name: Error Handling | | |
| 10 | <ul style="list-style-type: none"> ● Tasks and Handler in Playbooks ● Handling errors in Ansible ● Ignoring failed commands ● Ignoring unreachable host errors ● Aborting a play on all hosts ● Hands on Lab 09 | 02 Hours |
| Module Name: File separation & Special variables | | |
| 11 | <ul style="list-style-type: none"> ● Ansible File Separation ● Special Variables ● Magic Variables ● List of magic variables ● Connection Variables ● Hands on Lab 10 | 03 Hours |
| Module Name: Ansible Roles | | |
| 12 | <ul style="list-style-type: none"> ● Create and Use Roles ● Getting Roles from Ansible Galaxy ● Using Role Handlers, Files, and Templates ● Hands on Lab 11 | 03 Hours |
| Module Name: Ansible with docker container | | |
| 13 | <ul style="list-style-type: none"> ● Build Docker image using Ansible ad hoc command ● Run Docker Container using Ansible ad hoc command ● Build and Run Docker container using Playbook ● Modify container configuration using Playbook ● Ansible Docker Connector ● Hands on Lab 12 | 03 Hours |
| Module Name: Ansible for provisioning Infrastructure | | |
| 14 | <ul style="list-style-type: none"> ● Launch instances in AWS Cloud and install Ansible ● Create IAM Role, SSH Key Pair, attached with Node ● Write Playbooks for launching instances. ● Write Playbooks to start and stop instances. ● Hands on Lab 13 | 03 Hours |
| Module Name: Application deployment with Ansible | | |

| | | |
|---------|--|----------|
| 15 | <ul style="list-style-type: none">• Hands on Lab 15: Demo CICD with jenkins, Ansible, Docker and github | 03 Hours |
| Details | | |
| | Total Course Length | 40 Hours |
| | | |