

Ansible Course Contents (3 days).

Prerequisite: Python Object Oriented Scripting

Day 1

- **Introduction to Ansible**
- How Ansible Works?
- Push-Based
- Ansible Scales Down
- Built-in Modules
- **Prerequisites for Ansible**
- **Installing Ansible and Managing Servers**
- Setting Up a Server for Testing
- Using Vagrant to Set Up a Test Server
- Telling Ansible About Your Test Server
- Simplifying with the ansible.cfg File
- **Basic: Running Commands**
- **Modules**
- **Playbooks: A Beginning**
- Specifying an nginx Config File
- Creating a Custom Homepage
- Creating a Webservers Group
- Running the Playbook
- **Handlers**
- **Playbooks Are YAML**
- Start of File
- Comments
- Strings
- Booleans
- Lists
- Dictionaries
- Line Folding
- **Anatomy of a Playbook**

- Plays
- Tasks
- Modules

Lab Exercise using Playbooks

Day 2

- **TLS Support**
- Generating TLS certificate
- Variables
- Generating the Nginx Configuration Template
- Handlers
- Running the Playbook
- **Inventory: Describing Your Servers.**
- The Inventory File
- Preliminaries: Multiple Vagrant Machines
- Behavioral Inventory Parameters
- Groups and Groups and Groups
- Aliases and Ports
- Groups of Groups
- **Dynamic Inventory**
- The Interface for a Dynamic Inventory Script Writing a Dynamic Inventory Script
Pre-Existing Inventory Scripts
- Breaking Out the Inventory into Multiple Files Adding Entries at Runtime with
add_host and group_by
- add_host group_by
- **Variables and Facts.**
- Defining Variables in Playbooks
- Viewing the Values of Variables
- Registering Variables Facts
- Viewing All Facts Associated with a Server Viewing a Subset of Facts Any Module
Can Return Facts Local Facts
- Using set_fact to Define a New Variable Built-in Variables
- hostvars inventory_hostname Groups
- Setting Variables on the Command Line Precedence

- **Lab Exercise using Playbooks**

Day 3

- **Introducing Mezzanine**
- Why Deploying to Production Is Complicated PostgreSQL: The Database Unicorn: The Application Server Nginx: The Web Server
- Supervisor: The Process Manager
- **Deploying Mezzanine with Ansible**
- Listing Tasks in a Playbook Organization of Deployed Files Variables and Secret Variables Using Iteration (with_items) to Install Multiple Packages Adding the Sudo Clause to a Task
- Updating the Apt Cache Checking Out the Project Using Git Installing Mezzanine and Other Packages into a virtualenv Complex Arguments in Tasks: A Brief Digression
- **Creating the Database and Database User**
- Generating the local_settings.py File from a Template
- Running django-manage Commands
- Running Custom Python Scripts in the Context of the Application
- Setting Service Configuration Files
- Enabling the Nginx Configuration
- Installing TLS Certificates
- Installing Twitter Cron Job
- **The Full Playbook**
- Running the Playbook Against a Vagrant Machine
- Deploying Mezzanine on Multiple Machines
- **Lab Exercise using Django and Mezzanine.**