

Day - 1

- Overview of DevOps
- Overview of SRE
- Introduction of Configuration Management
- Why Configuration Management?
- Configuration Management Tools
- What is Chef?
- Chef Products Overview
 - Chef Workstation
 - Chef Infra
 - Chef Infra Server
 - Chef Automate
 - Chef Desktop
 - Chef Habitat
 - Chef in-Spec
 - Chef Supermarket
- Why Chef Infra?

- Why Chef Infra Server?
- Architecture of Chef Infra client & Server?
- Installing Chef Workstation
- Chef Workstation Setup
- Chef Workstation Configure
- Troubleshooting using Chef Workstation
- Working with Chef Cookbooks
 - Understanding Chef infra Resources
 - Writing & Test first Chef Recipe
 - What is Chef Cookbooks?
 - Chef commands
 - Knife commands
 - About chef-repo
 - Understanding Cookbook Directory
 - Attributes
 - Files
 - Libraries
 - metadata.rb
 - Recipes
 - Templates
 - Versioning Cookbooks
 - Working with Chef Cookbook Template
 - Working with Chef Cookbook Attributes
 - Working with Chef Cookbook Libraries
 - Working with Chef Cookbooks Dependencies
 - Top Chef infra Resources

Day - 2

- **Chef Infra Server Overview**
- **Pre requisite of Chef Infra Server**
- **Setup/Install Chef Infra Server**
- **Configure Chef Infra Server**
- **Chef Infra Server Authentication and Authorization**
 - Authentication Methods
 - Authorization Methods
 - Server Users
 - Organizations & Groups

- **Using Chef Infra Server**
 - Uploading the Cookbook
 - Bootstrap Linux Nodes
 - Bootstrap Windows Nodes
 - Running the Cookbooks
- **Working with Chef Supermarket**

Day - 3

- **Deep Dive into Chef Infra**
- **Chef Infra Configurations**
- **Chef Infra Features**

- Chef Solo
- Compliance Phase
- Ohai
- Handlers
- Search

- **Chef Infra Policy**

- About Policy
- About Policyfiles
- Policyfile.rb
- Data Bags
- Run-lists
- Environments
- Roles

- **Chef Infra Integrations**
- **Chef Infra Security**
- **Chef Infra Language**

- Using Conditioning in Recipe
- Using Looping in Recipe
- Operators in Chef Infra Language
- Functions in Chef Infra Language
- Using Dependencies in Recipe
- Checking Platforms
- Cookbook Execution
- Editing Resources
- Logging & Troubleshooting
- Node Tags
- Reading Data Bags
- Reading Registry Keys
- Managing Windows servers using Chef Infra server

Day - 4

- **Chef Infra Server Manage**

- Backup and Restore
- Backend Failure Recovery
- Monitor
- Tuning
- Log Files

- **Understanding Chef Custom Resources**
- **Write a Custom Resource**
- **Extending Chef Infra: Custom Resources**
- **Chef InSpec Overview**

- **Installing Chef InSpec**
- **Chef InSpec for the Cloud**
- **Chef InSpec troubleshooting**
- **Writing Chef InSpec Code**

- InSpec Executable
- Profiles
- Inputs
- Matchers
- Reporters
- Configuration
- Chef InSpec Language
- Profile Style Guide
- Custom Resources
- Plugins
- kitchen-inspec
- InSpec Shell
- Exploring the InSpec Shell
- Viewing and Analyzing Results
- Automation Tools
- Additional InSpec tricks
- Create basic profile

Day - 5

- **Implement Testing tools - Test Kitchen**
- **Implement Testing tools - Cook style**
- **Introduction of Vagrant**
- **Installing and Using Vagrant**
- **Introduction of Jenkins**
- **Setting up CICD using Jenkins & Chef**
- **Chef Integration with Docker**
- **Chef Integration with Kubernetes**
- **Chef Integration with AWS**

- **Getting Started with Chef Automate**
- **Installing Chef Automate**
- **Configuring Chef Automate**
- **Manage Chef Automate**
- **Settings in Chef Automate**
- **Users Management in Chef Automate**
- **Infra management using Chef Automate**
- **Jobs and Node mgmt using Chef Automate**