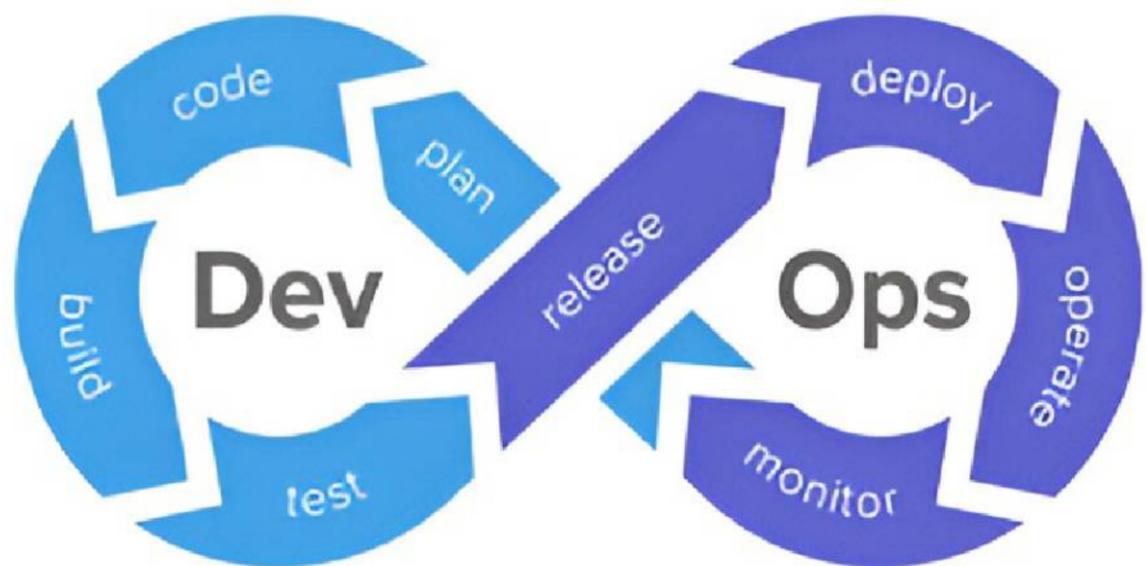


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301, Annapurna Block,
Aditya Enclave, Ameerpet,
Hyderabad – 500016

Ph:+91 7671043906

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Introduction

- History of DevOps
- What is Dev and Ops?
- DevOps definitions
- DevOps & its Life Cycle
- DevOps - Main objectives
- Prerequisites for DevOps
- Cloud intro – SaaS, PaaS, IaaS
- Cloud usage in DevOps
- Introduction to Linux
 - Unix & Linux O/s basics
 - Linux system admin commands
- Tools – Jenkins, Chef, Puppet, Docker
- Continuous Integration
- Continuous Deployment
- Continuous Release & Deployment

DevOps : Implementation

- Traditional methodologies & practices
- DevOps implementation
- DevOps tools

DEVOPS TOOLS

VERSION CONTROL

- Version control system
- Distributed version control system

SVN

- Version Control System
- Centralized & Distributed Systems
- SVN Features
- SVN Server Installation
- Configure SVN with Web server
- Create and Configure Users
- SVN Trunk / Branch / Tag

GIT

- GIT Features
- 3-Tree Architecture
- GIT – Clone /Commit / Push
- GIT Hub Projects
- GIT Hub Management
- Differences between SVN & GIT

BUILD TOOLS

ANT

- ANT Installation
- ANT build pre-requisites
- Creating JAR and WAR files
- Make AND Build

MAVEN

- Maven Installation
- Maven Build requirements
- Maven POM Build

CONTINUOUS INTEGRATION

JENKINS

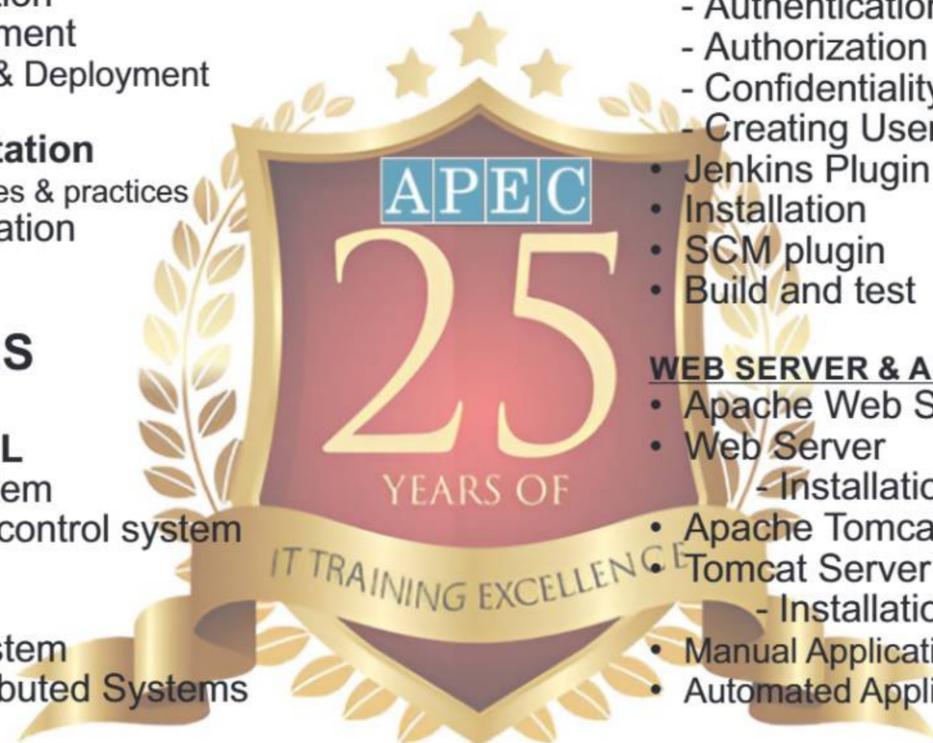
- CI with Jenkins
- Installation of Jenkins
 - Master & Slave
- Configure Jenkins
- Jenkins Management
- Support for GIT version control
- Different types of Jenkins Jobs
- Scheduling build Jobs fi
- Maven Build Scripts
- Securing Jenkins
 - Authentication
 - Authorization
 - Confidentiality
 - Creating Users
- Jenkins Plugin
- Installation
- SCM plugin
- Build and test

WEB SERVER & APPLICATION SERVER

- Apache Web Server
- Web Server
 - Installation & Configuration
- Apache Tomcat Server
- Tomcat Server
 - Installation & Configuration
- Manual Application deployment
- Automated Application deployment

DOCKERS & CONTAINERS

- What are Containers
- Difference between VM & Container
- Hypervisor Vs Docker Engine
- Docker introduction
- Docker installation
- Images
 - Docker Images Deep Dive
 - DockerHub
 - Pull & Push images
 - Building your own Image with Dockerfile
 - Docker & Jenkins integration
 - Hosting & Managing Images
- Containers
 - Deep Dive
 - Running, Stopping, Deleting, Inspecting
 - Managing containers
 - Docker networking
 - Web server examples
 - Local Development workflow
 - Docker Compose



- Automated WorkFlow
- Continuous delivery of dockers
- *Docker Orchestration with Kubernetes*
 - Microservice Architecture
 - Why Containers for microservices
 - Kubernetes Intro & Architecture
 - Kubernetes setup, Kubectl, Pod, Service
 - Running docker containers on Kubernetes
 - Replication controller & Set
 - Deployment
- Whats Next in Container world

CONFIGURATION MANAGEMENT

CHEF

- Overview of Chef
- Introduction
- Chef Client-server architecture
- Chef-solo introduction
- Chef recipes, cookbooks
- Chef-role, environments
- Chef runlist and databags
- Chef Server and workstation setup
 - Chef server & workstation
 - Knife configuration
- Chef solo setup
- Chef implementation with examples
- Create & configure organization
 - Create the organization
 - Create environment, role, bags
 - Adding node to organization.
 - Mapping Environment
 - Mapping Roles & Databags
- Chef-server, Chef-Repo
- Chef-client, Chef-solo
- Bootstrapping/ adding nodes
- Berkshelf
- Chef supermarket
- Managing chef from Chef UI

Advanced Chef

- Food Critic
- TestKitchen
- Improve & expand on existing recipes

PUPPET

- Introduction to Puppet

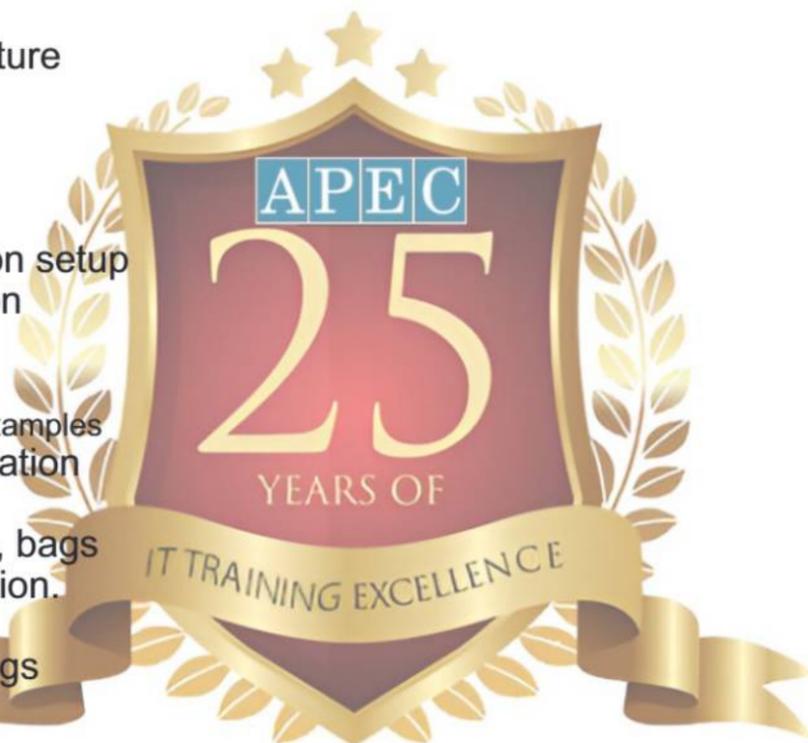
ANSIBLE

- Configuration Management & Automation
- Ansible & its features
- Ansible setup on local & cloud
- Ansible architecture & Execution
- Inventory
- Automating change Management with Ad Hoc commands

- Playbook Introduction
- Ansible configuration (ansible.cfg)
- Ansible documentation
- Modules
- Writing playbook for webserver & DB server deployments

DEVOPS - MONITORING NAGIOS

- Nagios introduction
- Setup Nagios
- Nagios - installation & configuration
- How to check events?
- CPU, Memory & other events





JAVA / PYTHON / .NET
FULL STACK



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