DevOps Solution Architect

Introduction to DevOps

- What is DevOps?
- History of DevOps
- Dev and Ops
- DevOps definitions
- DevOps and Software Development Life Cycle
- DevOps main objectives
- Infrastructure As A Code
- IaaS Overview
- Paas Overview
- DevOps on the Cloud
- Prerequisites for DevOps
- Tools (Jenkins, Ansible, Docker, Vagrant and so on.)
- Continuous Testing and Integration
- Continuous Release and Deployment
- Continuous Application Monitoring

Cloud Computing with AWS

- Amazon EC2
- Amazon Elastic Load Balancer
- Amazon Route 53
- Amazon VPC
- Amazon Simple Storage Service (Amazon S3)
- Amazon Elastic Block Store (Amazon EBS)
- Amazon CloudWatch
- Amazon CloudTrail
- AWS Identity and Access Management (IAM)

Container - Docker

- Docker overview
- Installing docker and docker-compose
- Pulling images (docker pull)
- Running images (docker run)
- Connecting to running images (docker exec)
- Exposing volumes and ports
- Inspecting system (docker ps, docker status)
- Using docker-compose to connect containers
- Exposing volumes and ports
- Docker build and deployment

Version Control Tool (GIT)

- Importance of Version Control
- Introduction to Git
- Git Workflow
- Git Commands
- Git Setup and configuration
- Creating Repositories

- Concept of Git Branching, Merging and Tagging

Build Automation (Jenkins)

- Introduction
- Installation of Jenkins.
- Setting up Jenkins
- Configuration of Job
- Plugins
- User & Project Administration.

Vagrant

- Vagrant Introduction
- Setting up Vagrant
- Using Vagrant
- Automated Provisioning

Zabbix Monitoring

- Zabbix architecture and functionality
- Server, frontend, proxy and agent installation
- Zabbix administration - users, user group membership, permission system
- Hosts, items, triggers
- Using host templates
- Web monitoring
- Escalations and repeated notifications

Ansible for Configuration Management and Deployments

- Introduction to Ansible
- Setup and Configuration
- Ansible Playbooks
- Ansible Modules
- Ansible Command Line Usage
- Use Cases

Python Programming

- Introduction to Python
- Expressions
- Control and looping statements
- Strings
- Lists
- Tuples
- Dictionaries
- Functions
- File and Exceptions
- Data Base Connection
- Python in System Administration