1) DevOps Terminology 5 Days]

Design Thinking, SDLC, AGILE, Operations support, Developer thinking, JIRA and Devops Definition.

2) Cloud Computing [1 Day + Self Learning]

Why Cloud is needed, and how it's related to DevOps.

3) Monitoring, Ansible and SRE [3 Days]

4) CICD [8 Days]

GIT, GitHub, Gerrit, Jenkins, artifactory, SonarQube, Maven, Testing

5) Containers [8 Days]

Docker, K8s and Helm

6) IAC [3 Days]

Terraform, Packer and Golden Image

7) DevSecOps [1 Day]

8) Future Guidance and RoadMap to become Expert [1 Day]

Detailed outline-

Introduction to DevOps Concepts: Define DevOps

- Design thinking and Architectural concepts
- What is application and it's need.
- Monolithic, microservice application, and cloud native application design.
- SDLC models, Lean, ITIL, Agile.
- History of DevOps [with respect to Agile], and Why DevOps?
- Devops Principles
- DevOps pillars [Communication, Automation, Containerization, IAC and SRE]
- DevOps Goals
- Devops transformation
- Devops tools
- Devops and Cloud Relationship.

Introduction to Cloud Computing: What is Cloud Computing

- Design and operation of data centre.
- What is cloud computing.
- Cloud computing vs traditional setup.
- why we need cloud computing.
- Deployment models [IAAS, PAAS and SAAS].
- Private, public, hybrid and community cloud model.

Infrastructure management

- Infrastructure creation and management terminology
- Manual management of infrastructure.
- Golden images and their needs
- Packer
- Terraform
- Infrastructure management by Ansible
- Chef, Puppet and BladeLogic.

Containerization

- Why we need containerization.
- Docker, and it's role in containerization.
- Kubernetes, and it's role in containerization.
- OpenShift, and it's role in containerization.

CI-CD Engine

- What is Deployment [Host deployment]
- Deployment technique [Green blue, Canary and Rolling upgrades]
- Continuous integration, Continuous delivery and continuous deployment.
- Version control system [GIT]
- Github, Gitlab and Gerrit
- Automation server [Jenkins]
- Artifactory and SonarQube.
- Pipelines [CICD pipelines with Gradle and maven]

SRE [Site reliability Engineering]

- What is monitoring and why we need monitoring
- Alerting mechanism and its priority setup
- ELK Monitoring tool
- Splunk Monitoring tool
- SRE and its implementation.

Devsecops

- Importance of security
- Devsecops Principles
- DevSecOps Implementation