**DevOps Course**

**Module 1: Fundamentals of DevOps**

* What is DevOps? Detailed Introduction.
* DevOps principles
* DevOps lifecycle
* DevOps delivery pipeline
* DevOps ecosystem and tools

**Module 2: Version Control with Git**

* Introduction to version control
* Basics, installing and configuring Git.
* Branching and merging strategies
* Advanced Git Commands

**Module 3: Continuous Integration with Jenkins**

* Introduction to Continuous Integration (CI)
* Jenkins architecture and setup
* Managing Jenkins plugins and nodes (Cloud Nodes – Pods as Slave Agent)
* Building and deploying Java applications using Jenkins
* Creating and managing Jenkins pipelines using scripts
* Seed Jobs and Job Process DSL
* Pipeline as code with Jenkins
* Jenkins Configuration as code

**Module 4: Containerization with Docker**

* Introduction to Docker
* Docker installation and setup
* Working with Docker images and containers
* Dockerfile and image creation
* Docker networking and storage
* Docker Compose for multi-container applications.

**Module 5: Terraform**

* Introduction
* Architecture and State file and state locking
* Basic Building Block in Terraform
* Variable Block, Data Block, Resource Block and Output Block
* Modules and Custom Modules
* Import & Workspaces
* Best Practices
* AWS CDK using Typescript. On -Demand Basis