

DevOps Fundamentals – 2 Days

**Course Outline**

Introduction to DevOps

What is DevOps?

Definition and history,

Core principles: Culture, automation, measurement, and sharing (CAMS), Business benefits, Challenges in traditional software development and operations, DevOps Culture, Collaboration between development and operations teams, Importance of communication and feedback loops, Continuous improvement mindset, Key Concepts, Infrastructure as code (IaC), Continuous integration (CI) and continuous delivery (CD), Automation and configuration management

DevOps Practices and Tools

Version Control, Introduction to Git, Branching strategies, Pull requests and code review, Continuous Integration (CI), Setting up CI pipelines, Automated testing, Build automation, Continuous Delivery (CD), Deployment pipelines, Automated deployment, Canary releases and feature toggles, Infrastructure as Code (IaC), Introduction to tools like Terraform, Ansible, or

CloudFormation, Managing infrastructure declaratively

DevOps Tools,DevOps in Practice, Case studies and real-world examples