

DevOps Foundation

The **DevOps Foundation Course** is designed to introduce beginners to learn technical skills which are necessary for **DevOps Core**.

Who It's For

- Beginners who want to start a career in **DevOps and Cloud computing**.
- Students or fresh graduates looking to build strong **IT infrastructure fundamentals**
- Developers, testers, or system administrators who want to understand DevOps basics and modern infrastructure tools.
- Anyone interested in learning **how real-world applications run on cloud environments**.

What You'll Learn

- Fundamentals of **computer networking** and how systems communicate.
- Basics of **multi-cloud platforms** and how cloud infrastructure works.

- **Linux fundamentals** and essential command-line skills used in DevOps environments.
- Writing simple **shell scripts** to automate tasks.
- Working with **Nginx web servers, databases, and application configuration files (JSON & YAML)**.
- Understanding **SSL/TLS security, Kafka messaging systems, and core DevOps infrastructure concepts**.

Benefits You'll Gain

- Build a **strong foundation required for DevOps and Cloud roles**.
- Gain practical knowledge of tools and technologies used in **modern application deployment**.
- Improve your ability to **understand system architecture and infrastructure workflows**.
- Prepare yourself for **advanced DevOps tools like Docker, Kubernetes, CI/CD, and automation platforms**.

Course Details

- **Duration:** 30 days (1 hour per day)
- **Mode:** Fully online – attend live
- **Start Date:** Flexible enrollment – begin anytime!

Topics that will be covered

Introduction to DevOps

- ◆ What is DevOps and why it is important
- ◆ Traditional IT vs DevOps culture
- ◆ DevOps lifecycle and workflow
- ◆ Overview of tools used in modern DevOps environments
- ◆ Real-world DevOps architecture overview

Basics of Computer Networking

- ◆ Introduction to computer networks
- ◆ IP Address, Public vs Private IP
- ◆ DNS and Domain name system
- ◆ Ports and protocols (HTTP, HTTPS, FTP, SSH)
- ◆ Load balancing basics
- ◆ Network troubleshooting fundamentals

Basics of Multi-Cloud

- ◆ Introduction to cloud computing
- ◆ Overview of major cloud providers (AWS, Azure, GCP)
- ◆ Cloud service models (IaaS, PaaS, SaaS)
- ◆ Compute, storage, and networking basics in cloud
- ◆ Security groups and firewall basics
- ◆ Understanding cloud infrastructure architecture

Linux Fundamentals

- ◆ Introduction to Linux operating system
- ◆ Linux file system structure
- ◆ Important Linux commands
- ◆ File and directory management
- ◆ User and permission management
- ◆ Process and service management
- ◆ Package installation and updates

Shell Scripting Basics

- ◆ Introduction to shell scripting
- ◆ Variables and basic scripting syntax
- ◆ Conditional statements
- ◆ Loops and automation tasks
- ◆ Writing simple automation scripts
- ◆ Running and debugging shell scripts

Web Server – Nginx

- ◆ Introduction to web servers
- ◆ Installing and configuring Nginx
- ◆ Hosting a static website using Nginx
- ◆ Reverse proxy concepts
- ◆ Load balancing basics using Nginx
- ◆ Monitoring and managing web server logs

Database Fundamentals

- ◆ Introduction to databases
- ◆ Relational vs non-relational databases
- ◆ Basic database concepts (tables, rows, queries)
- ◆ Installing and configuring a database server
- ◆ Basic SQL queries
- ◆ Connecting applications with databases

Security Fundamentals (SSL/TLS)

- ◆ Importance of security in DevOps
- ◆ What is SSL/TLS
- ◆ How HTTPS works
- ◆ Generating SSL certificates
- ◆ Configuring SSL in Nginx
- ◆ Security best practices

Messaging Systems – Kafka

- ◆ Introduction to messaging systems
- ◆ Why distributed systems use messaging platforms
- ◆ Kafka architecture overview
- ◆ Producers and consumers
- ◆ Topics and partitions
- ◆ Basic Kafka workflow

Configuration File Formats

- ◆ Introduction to configuration management
- ◆ Understanding JSON structure
- ◆ Understanding YAML structure
- ◆ Differences between JSON and YAML
- ◆ Writing configuration files for applications
- ◆ Real-world examples used in DevOps tools

Real-World Architecture Overview

- ◆ How modern applications are deployed
- ◆ Connecting networking, Linux, web server, database, and security
- ◆ Understanding infrastructure flow in real projects
- ◆ Preparing for advanced DevOps tools

To Join this Course Contact or Ping on Whatsapp : [93427 37660](https://wa.me/9342737660)