



# Skillup Bharat

Training | Placements | Outsourcing

## DevOps Brochure



# About Company

**SkillUp Bharat is a leading platform that offers technical and non-technical courses designed to prepare students for industry challenges.**

**We provide internships, hands-on training, and placement opportunities, ensuring learners gain practical experience through real-time projects. Our programs focus on enhancing both technical and soft skills, making students job-ready.**

## WHY TO CHOOSE US!

- 1. Industry-Relevant Courses**
- 2. Hands-On Internships**
- 3. Real-Time Project Experience**
- 4. Placement Support**

# DevOps Syllabus

Irrespective of their domain

## Description

Skillup Bharat's DevOps training program provides a hands-on learning experience designed to bridge the gap between software development and IT operations. The course covers essential topics such as continuous integration and continuous deployment (CI/CD), containerization with Docker, and orchestration using Kubernetes. Learners are introduced to modern tools like Git, Jenkins, Terraform, and cloud platforms like AWS, Azure, and GCP to automate and streamline processes, ensuring seamless delivery of applications.

Through a combination of theory and real-world projects, students gain the skills to manage infrastructure as code, monitor applications with tools like Prometheus and Grafana, and implement DevSecOps practices for security. By the end of the course, participants are prepared to handle the full DevOps lifecycle, equipped with practical knowledge to enhance collaboration between development and operations teams, and drive efficiency in software delivery.

Additionally, Skillup Bharat provides support for industry-recognized certifications and offers job placement assistance, helping learners transition smoothly into roles such as DevOps engineer, cloud engineer, or site reliability engineer.

## **Expectations and Goals :**

**By the end of this course, students will be able to:**

- **Foundational Knowledge**
- **Tool Proficiency**
- **Practical Application**
- **Master Automation**
- **Enhance CI/CD Skills**
- **Cloud Infrastructure Management**
- **Foster a DevOps Mindset**
- **Prepare for Industry Roles**
- **Comprehensive Understanding of DevOps Principles**
- **Proficiency in DevOps Tools and Platforms**
- **Security Integration (DevSecOps)**

## Complete DevOps Study Plan 2024

### 1. Introduction to DevOps process

- Understanding the DevOps Process
- Continuous Improvement, the Essential Driver behind
- DevOps DevOps and Automation
- DevOps and the Bigger Picture
- Trends that Go Hand in Hand with DevOps

### 2. Basics of Networking and Cloud services

- Basics of Networking
- Introduction to VPN
- Overview of AWS, Azure, and GCP
- Foundation of Cloud Computing
- Networking on Windows
- Get Hands-On with Project 1
- Networking on Linux

### 3. Becoming Proficient in Linux Functions

- Introduction to Linux
- Linux Command Line
- Files and Directories

- Creating and Editing Files
- Processes in Linux
- User, Group and Permissions
- Other Essential Features

## 4. Mastering Bash Scripting

- Files, Folders and
- Strings Management
- Parameters and Command Substitution
- Pipelines
- Relationships
- Metadata
- Search and Replace

## 5. Mastering Version Control using Git

- Introduction to Version Control with Git
- Git from the Command Line
- Everyday Git Commands
- Github/Gitlab Runners
- Git Branches and Approvals

## 6. Building with Maven and Serverless Computing

- Installing and Configuring Maven
- Build Project Using Command Line
- Use Custom Repository Managers
- Develop a Multi-Module Maven Project
- Introduction to Serverless Computing
- Creating Serverless Function
- Deploying and Using Serverless Function

## 7. Continuous Integration and Continuous Development

- Introduction to CI/CD Pipelines
- Installing and Configuring Jenkins
- CI with Jenkins
- CD with Jenkins
- Jenkins Pipeline-As-Code
- Plugin in Jenkins
- Jenkins Administration
- Jenkins Security

## **8. Containers and Dockers**

- Introduction to Dockers
- Docker Orchestration
- Introducing Containers and Images
- Security
- Living with Images and Containers
- Getting it Done Better with Compose
- Get Hands-On with Project 3

## **9. Infrastructure Provisioning with Terraform**

- Introduction to Provisioning and Terraform
- Working with State
- Managing Terraform with Git
- Terraform Workspaces
- Integrating a CI/CD Pipeline with Terraform
- Reusability
- Refactoring and Review

## **10. Configuration Management and Ansible**

- Introduction to Configuration Management

- Installing and Configuring Ansible
- Working with Ansible
- Ansible and Playbook Grammar
- Ansible Modules
- Ansible Tower
- Ansible Roles

## **11. Container Orchestration and Management**

- Introduction to Kubernetes
- Working with Pods, Deployments, and Replicaset
- Kubernetes Networking and Storage
- Kubernetes Architecture
- Ingres, Load Balancer, and Security
- Kubernetes Controllers
- Get Hands-On with Project
- Cluster Management

## **12. Quality Testing**

- Introduction to Quality
- Testing Phases and Types

- Code Quality Testing using Sonarqube
- Test Automation
- Overview of Selenium and WebDriver
- Get Hands-On with Project 5

## 13. Reporting and Analysis

- Introduction to Grafana
- Developing Reports and Dashboards

## 14. DevSecOps

- Introduction to DevSecOps
- Understanding Shift Left Security Approach

## 15. Logging and Monitoring

- Introduction to Prometheus
- PromQL
- Prometheus Exporters and Deploy Node Exporter

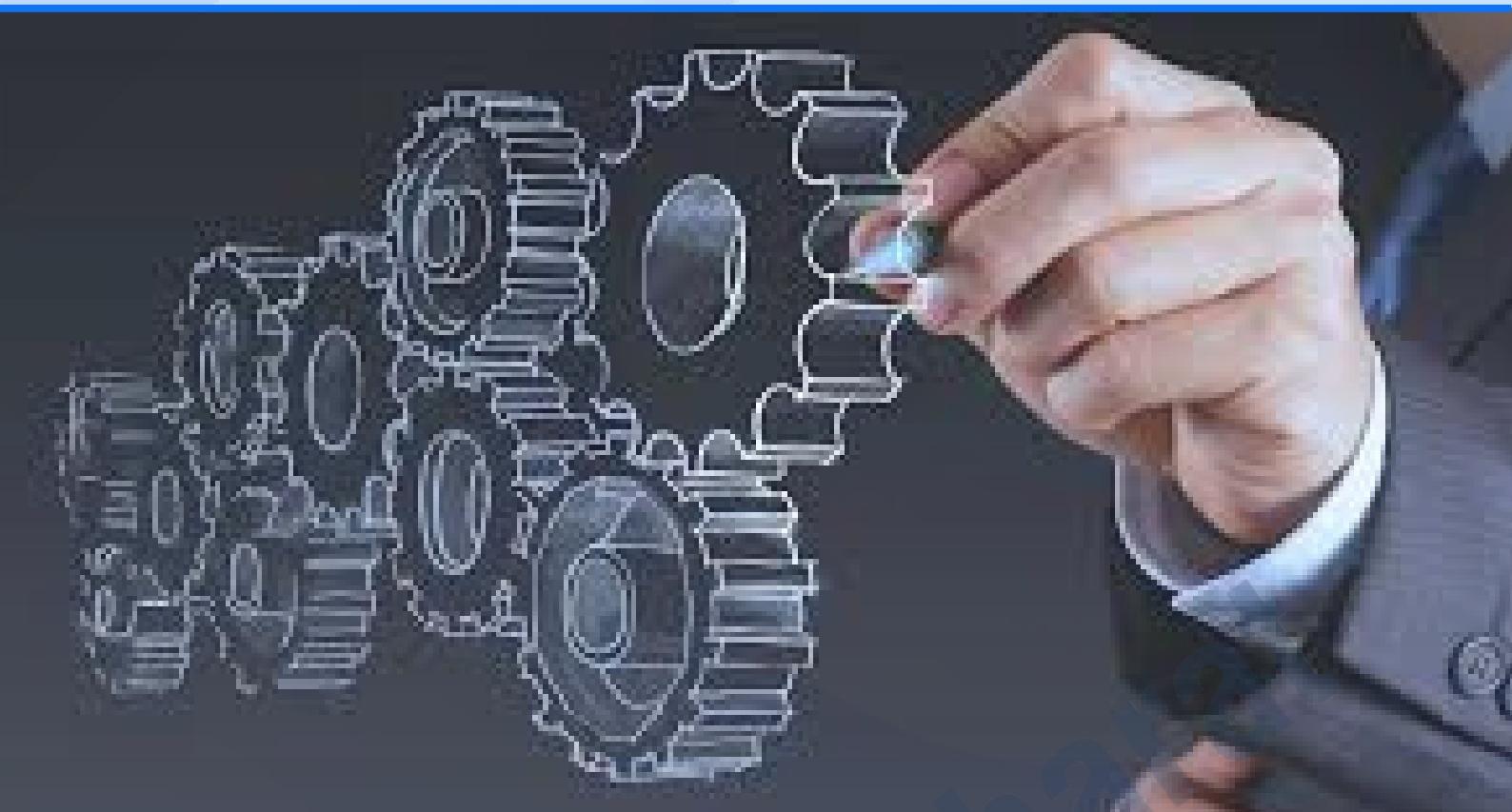
## 16. Introduction to IAM, User roles and policies

- Introduction to Cloud Providers

- Overview of IAM User, Role, and Policies

## **17. Managed Services on AWS/ Azure/ GCP**

- Introduction to Managed Services
- Overview of Database Services
- Overview of Data Storage Services
- Overview of Load Balancer
- Overview of Cloud Front
- Overview of API Hosting Services
- Overview of API Gateway



## CONTACT US!



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**THANK YOU**

**Master New Skills, Unlock  
New Opportunities!**