



# **Jenkins Automation Course Syllabus**

## **1. Introduction to Jenkins**

- What is Jenkins?
- Importance of Jenkins in DevOps and automation
- Understanding Continuous Integration/Continuous Delivery (CI/CD)
- Installing Jenkins:
  - Setting up Jenkins on various platforms (Windows/Linux)
  - Basic configurations and plugin installations

## **2. Jenkins Dashboard**

- Overview of Jenkins dashboard
- Configuring Jenkins projects/jobs
- Managing Jenkins plugins

## **3. Working with Jenkins Jobs**

- Creating and configuring jobs in Jenkins
- Types of jobs (Freestyle projects, Maven, and Pipeline)
- Scheduling jobs using Cron expressions
- Parameterized builds

## **4. Integrating Source Code Management**

- Integrating Jenkins with Git/GitHub
- Pulling source code from repositories
- Webhooks and triggering builds on commit

## **5. Build Automation**

- Automating builds using Jenkins
- Setting up build tools:
  - Maven and Gradle integration
- Managing dependencies and artifacts

## 6. Test Automation

- Running automated tests using Jenkins
- Integrating Selenium/WebDriver tests with Jenkins
- Generating test reports using plugins (e.g., JUnit, TestNG)