

Continuous Integration with Jenkins Certification Training

An Overview of Jenkins

Learning Objectives - In this module, you will get an introduction to Jenkins. You will learn why Jenkins is a better option when compared to Hudson.

Topics - Introduction, Continuous Integration Fundamentals, Introducing Jenkins, From Hudson to Jenkins, Whether to Use Jenkins or Hudson and an introduction to Continuous Integration into Your Organization.

Getting Started with Jenkins

Learning Objectives - In this module, you will learn to setup your Jenkins environment and Build Jobs.

Topics - Introduction, Preparing Your Environment, Starting Up Jenkins, Configuring the Tools, Your First Jenkins Build Job, Your First Build Job in Action, More Reporting and Displaying Javadocs.

Plugins and its uses

Learning Objectives - In this module you will get an introduction to Plugins, learn to use existing Plugins and selecting the right Plugin.

Topics - Introduction to Plugins, Adding Plugins to Jenkins, Managing Plugins, Upgrading Plugins, Plugins in Action and commonly used plugins (Git Plugin, Parameter Plugin, HTML Publisher, Copy Artifact and Extended choice parameters)

Setting Up Your Build Jobs

Learning Objectives - In this module you will learn to Build Jobs and manage the source code.

Topics - Introduction to Jenkins Build Jobs, Creating a Freestyle Build Job, Configuring Source Code management, introduction to Build Triggers, introduction to Build Steps, Pre and Post-Build Actions: Adding properties and properties files, Running Your New Build Job, Working with Maven Build Jobs, Using Jenkins with Other Languages.

Setting up Build Jobs and Security

Learning Objectives - In this module you will learn to add the advanced features to Jobs and Security.

Topics - Parametrized Builds, Distributed builds, Setting Email notification, Enabling Security in Jenkins, Different Levels of Authentication, Types of Access and Administration of the Access.

Implementing Automated Testing

Learning Objectives - In this module you will learn to setup Jenkins to Implement Automated Testing and publish reports.

Topics - Introduction, Automating Your Unit and Integration Tests, Configuring Test Reports in Jenkins, Displaying Test Results, Ignoring Tests, Code Coverage, Automated Acceptance Tests and Automated Performance Tests with JMeter.

Using Metrics to Improve Quality

Learning Objectives - in this module, you will learn to use the different tools to improve the quality of the code.

Topics - Introduction, Looking for foul Code through Code Coverage, Activating more PMD Rulesets, Creating Custom PMD Rules, Finding Bugs with FindBugs, Enabling Extra FindBugs Rules, Finding Security Defects with FindBugs, Verifying HTML Validity, Reporting with JavaNCSS and Checking Style Using an External pom.xml.

Nodes and Master-Slave Configuration

Learning Objectives - In this module you will learn to setup multiple Nodes and manage them for optimal performance. You will learn the Master and Slave setup in Nodes.

Topics - Introduction to Nodes, Configuring nodes, Managing nodes, Distributing jobs over nodes, Binding Jobs to the Nodes and Setting up master and slave setup.

Maintain and Use Jenkins

Learning Objectives - In this module you will learn the Best Practices in Jenkins culture. You will also learn the Do's and Don'ts in Jenkins setup.

Topics - How to maintain Jenkins, Do's and Don'ts of Jenkins, Backup of Jenkins and Migrating Jenkins from one server to another.

Performing Automated Deployment and Continuous Delivery

Learning Objectives - Learn to deploy an Application to web server and conduct an automated Release.

Topics - Introduction, Implementing Automated and Continuous Deployment, Deploying an application to an application server and Deployment of Simple Java web application using Tomcat.