

# Jenkins

Introducing Jenkins

# Lesson Objectives

➤ In this lesson, you will learn about:

- Introduction to Jenkins
- Features of Jenkins
- Jenkins Installation
- Configuring Jenkins
- Running Jenkins as a standalone/behind server



## 2.1 Introduction to Jenkins

- Jenkins is an open source continuous integration tool written in java developed by Kohsuke Kawaguchi.
- Monitors the change in the source control systems like SVN, CVS, etc.
- Builds the application using various build tools like ANT, MAVEN, etc.
- Provides a fresh build whenever there is a change in the source control system
- Sends messages on the status of the build through Email, SMS, etc.
- Can support software releases, documentation, monitoring, and a number of use case secondary to continuous integration

## 2.2 Features of Jenkins

- Easy installation
- Dashboard support
- Supports a large number of build tools via plug-in
- Install plugins from UI
- Extensibility
- Self upgrade
- Real time console output
- JUnit test reporting
- Distributed builds

## 2.3 Jenkins Installation

- Jenkins is easy to install.
- Download Jenkins.war file from the Jenkins site:
  - <http://jenkins-ci.org>
- Jenkins can be installed in different ways:
  - As a standalone application
  - Windows Service
  - Deploy it on any application server.

## 2.3 Jenkins Installation

- To start Jenkins as a standalone application execute the below command in command prompt:
  - `java -jar jenkins.war`
  - Once Jenkins is started, the Jenkins dash board can be accessed by giving the following link in the browser  
<http://localhost:8080/>
  - To stop Jenkins, press Ctrl+C
  
- To start Jenkins as a windows service, follow the below given steps:
  - First, start Jenkins as a standalone application and access Jenkins dash board.
  - Click “Manage Jenkins” link available in Jenkins dash board.
  - Select “Installation Directory” for Jenkins and click on Install.
  - After installation, Jenkins will always run on portno 8080.

## 2.4 Configuring Jenkins

- In Jenkins, all aspects of system configuration will be managed virtually in the “Manage Jenkins” screen.
- “Configure System” aspect in “Manage Jenkins” screen is mandatory to be configured.
- Before using Jenkins, configure JDK and build system as below:
  - In “Configure system” on manage Jenkins, enter JDK path
  - Also enter build tool path.
  - Click on save.
  - (Jenkins can also install these for your automatically. )

## 2.5 Running Jenkins on a Application Server

➤ To run Jenkins on a Tomcat server

- copy the jenkins.war file into the Tomcat webapps directory.
- Start Tomcat server
- As default, Jenkins dashboard will be accessible with the URL mentioned below:
  - <http://localhost:8080/jenkins>



# Summary

➤ In this lesson, you have learnt about:

- Introduction to Jenkins
- Features of Jenkins
- Jenkins Installation
- Configuring Jenkins
- Running Jenkins as a standalone/behind server



# Review Question

- Question 1: Jenkins will run only on 8080 port number.
  - True/False
- Question 2: Jenkins support with creation of distributed builds.
  - True/False

