

# **Continuous Integration with TeamCity**

# Audience Course Continuous Integration with TeamCity

The course Continuous Integration with TeamCity is intended for developers, testers and administrators who want to use TeamCity to set up continuous integration projects.

## Prerequisites Course Continuous Integration with TeamCity

Experience with IT projects in a DevOps environment with the Agile Development methodology and Scrum is beneficial for the understanding but not strictly necessary.

# **Realization Training Continuous Integration with TeamCity**

The theory is discussed on the basis of presentations and demos and is interchanged with exercises. Demo projects should clarify the concepts discussed. The course uses the latest version of TeamCity. Course times are from 9.30 up and to 16.30.

# **Certification Continuous Integration with TeamCity**

After successful completion of the course the participants receive an official certificate Continuous Integration with TeamCity.

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# **Content Course Continuous Integration with TeamCity**

In the course Continuous Integration with TeamCity participants learn how the latest version of TeamCity can be used to set up a continuous integration and continuous delivery (CI/CD) pipeline. CI/CD is a best practice in agile development where changes in the code of a software project are automatically tested and integrated.

# **DevOps Process**

CI/CD is part of the DevOps process whereby developers check in code regularly into a central repository and relevant tests and builds are automatically executed. Tools ensure that the new code is correct before it is integrated into the software project.

# **Team City Configuration**

The course starts with a discussion of the configuration of TeamCity and the connection of TeamCity to version management systems such as Git, CVS and BitBucket. The various build agents, build steps, gated commits, user configuration and IDE integration are also treated.

## **Project Configuration**

Next attention is paid to project configuration with project IDs, meta runners and issue trackers. Project actions, parameters and the use of shared resources are also on the course schedule.

## **Build Configuration**

Furthermore the build configurations in TeamCity are discussed in more detail and the various build steps, failure conditions, dependencies and parameters are explained. The various agent requirements and VCS settings are also addressed.

## **Build Execution**

The execution of build actions with Maven, Gradle or .NET are also on the program of the course. This includes the discussion of code inspections and code coverage and the implementation of Selenium Tests.

## Administration

Subsequently there is ample attention for TeamCity Administration, where global settings, authentication settings, making backups and sending notifications are discussed.

## Reporting

Finally the reporting options from TeamCity are reviewed with which insight can be gained into build history, usage statistics and agent logs.

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# Modules Course Continuous Integration with TeamCity

Module 1 : TeamCity Intro	Module 2 : Project Configuration	Module 3 : Build Configuration
What is TeamCity?	Creating Projects	General Settings
Continuous Integration	Project ID's	Build Triggers
CI by JetBrains	VCS Roots	Failure Conditions
Amazon Cloud	Builds Schedule	Build Features
Version Control	Clean up Rules	Build Steps
Git, CVS and BitBucket	Projects from Scratch	Dependencies
Multiple Build Agents	Projects by URL	Passing Parameters
Multiple Users	Project Configurations	Configuration Actions
Build Configuration	Issue Trackers	Copy Configuration
Build Steps	Meta Runners	VCS Settings
Gated Commits	Project Actions	Pause Triggers
IDE Integration	Parameters	Agent Requirements
Installing TeamCity	Shared Resources	Extract Meta-Runner
TeamCity Port	SSH Keys	Extract Template
Module 4 : Build Actions	Module 5 : TeamCity Administration	Module 6 : Reports
Running Builds	Global Settings	Report Tabs
Maven and Gradle	Personal Settings	Test Reports
.NET Steps	Viewing Build Time	Usage Statistics
Powershell Runner	Viewing Disk Usage	Tracking Changes
Code Inspections	Favorite Builds	Build History
Code Coverage	Audit and Actions	Sorted Builds
Ant Runner	Authentication Settings	Agent Logs
Duplicate Code Finder	Backup Builds	Agent Summaries
XCode Projects	Importing Backup	Viewing Artifacts
Selenium Tests	Managing Build Queue	Build Investigations

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