

Continuous Delivery

An Orasi Training Course

Course Overview

In order to create the highest quality services and solutions, the modern software development team must create a process that considers all the steps between ideation to installation. The key tenet is to automate everything and build in quality.

This course is a hands-on series of workshops that helps a quality team transition to the latest engineering practice for continuous delivery. The goal of the course is to provide technical proficiency in the overall deployment pipeline to help guide the next steps in an actual implementation. This course will introduce individual contributors to the latest technology and enable them to develop a fully connected pipeline at the end of the course.

Key Areas of Enrichment

The agenda for this course will be customized from the topics listed below, with a focus only on the areas needed for your organization. If all areas are needed, then the course will run seven days in total.

Duration: 5-7 days

Class Limit: 10 students

Labs: Approximately 75% of class time

Prerequisite: None

Materials Provided

- Student training manual containing the course slides
- Student class exercises
- Take-home virtual machines

Target Audience

Quality assurance professionals who need a jumpstart on the latest tools and practices that are used in the most advanced high-tech and IT departments of today.

Requirements

Each student must have a PC that can run Oracle Virtual Box, which is an open source tool for executing VMs.

They also must have admin privileges on their PC to install Vagrant, which is an open source tool for managing the VMs that will be created within the class.

Agenda

Intro to CD Principles - 1 hour

- History of agile to CI to CD
- Value proposition

Git - 1/2 day

- How to clone repositories, establish repositories, create branches, do commits, perform rollbacks, add source code, and check out files

Virtual Box - 1/2 day

- Virtual machine (VM) use cases
- Installing Virtual Box
- Create several VMs

Introduction to Jenkins - 1 day

- Jenkins history
- Jenkins value
- Jenkins feature overview
- Install Jenkins
- Manage a Jenkins job
- Install plug-in into Jenkins pipeline

Introduction to Maven - 6 hours

- Maven history
- Maven features
- POM and GAV
- Packaging, inheritance and conventions



- Build life cycle
- Set up JDK and install Maven on VM
- Generate a project from scratch
- Make multi-module project
- Create and manage dependencies
- Define and proxy repositories

Introduction to Gradle - 2 hours

- What is Gradle
- Install Gradle
- Pom.xml vs. build.gradle
- Convert from Maven to Gradle
- Build a project in Gradle

Java Static Analysis Overview - 1 hour

- What is Static Analysis
- PMD and Findbugs
- Fortify

.Net Static Analysis Overview - 2 hours

- FxCop
- Install and use FxCop

Introduction to Vagrant - 4 hours

- Vagrant overview
- Use cases
- Installation
- Practical application
- Chef development with Vagrant
- Creating base boxes

Introduction to Chef Scripting - 1 day

- Creating cookbooks
- Cookbook directory structure
- Writing recipes
- Running recipes
- Logging
- Chef shell
- Custom libraries
- Create and execute a Chef program

Introduction to .Net Development and Unit Testing in .Net - 1 day

- Overview of framework
- History of .Net
- C# vs. Java
- Create a Hello World application
- Installation of Visual Studio
- Navigating the IDE
- Creating a project
- Debugging code
- Creating Unit test

Introduction to Java Development and Unit Testing in Junit - 1 day

- Create a Hello World application
- Installation of Eclipse
- Navigating the IDE
- Creating a project
- Debugging code
- Creating Unit test

For more information or to schedule this course, email training@orasi.com or call 678-819-5300.

