

## Java EE Development using Ant

### Course Summary

#### Description

The most widely used build tool for Java projects, Ant is cross-platform, extensible, simple, and fast. It scales from small personal projects to large, multi-team J2EE projects. In this class, the student will explore the Ant software and learn how to apply it to their project. This course will show the student powerful and creative uses for Ant. Basic concepts are covered for effective use of the product starting with Ant's XML-driven build process. The course will go step-by-step through all the processes including compiling, testing, packaging and deploying an application. The class also guides you through the maze of more complex situations common in larger projects such as enterprise Java applications and Web Services.

#### Topics

- Ant's datatypes and property handling
- JUnit testing and reporting
- Continuous integration techniques
- XDoclet for attribute-oriented programming
- EJB generation, building, and packaging
- Writing and testing native code
- Building Web Services with Apache Axis
- Deploying your system to multiple remote servers
- Using and writing
  - Loggers
  - Listeners
  - Selectors
  - Custom tasks

#### Audience

This course is designed for web designers, support personnel and network administrators.

#### Prerequisites

There are no prerequisites for this course.

#### Duration

Two days

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### Course Outline

- I. Learning Ant**
  - A. Introducing Ant
  - B. Getting started with Ant
  - C. Understanding Ant datatypes and properties
  - D. Testing with Junit
  - E. Executing programs
  - F. Packaging projects
  - G. Deployment
  - H. Putting it all together
  
- II. Applying Ant**
  - A. Using Ant in your development projects
  - B. Beyond Ant's core tasks
  - C. Xdoclet
  - D. Developing for the web
  - E. Working with XML
  - F. Enterprise JavaBeans
  - G. Working with web services
  - H. Continuous integration
  - I. Developing native code
  - J. Production deployment
  
- III. Extending Ant**
  - A. Writing Ant tasks
  - B. Extending Ant further
  
- IV. Appendix:**
  - A. Installation
  - B. XML primer as it applies to Ant
  - C. IDE integration
  - D. The elements of Ant style
  - E. Ant task reference