

## **AJAX**

### **Objective:**

At the end of this course, the participant will

- Understand the efficiencies brought in by Ajax as compared to traditional web applications
- Be able to develop a simple Ajax application using XMLHttpRequest and JavaScript
- Appreciate design level issues in an Ajax application
- Be able to use DWR framework to build Ajax applications.
- Understand the techniques in designing an Ajax application
- Understand basics of SOAP and REST architectures

### **For Whom:**

Ideally developers with minimum 2+ years of experience

Pre Requisite:

- Should have basic knowledge of XML
- Should be familiar with j2ee web application concepts
- Should have Knowledge on java, jsp, servlets
- Should be conformable with HTML and javascript coding
- Should be familiar with XML parsers, JAXB

### **Hardware and Software Requirements**

- JDK(1.5+)
- Tomcat Server
- Eclipse

### **Course Outline:**

#### **Part 1 - Introducing CSS Style Sheets**

- CSS
- Why CSS
- Example of CSS
- Advantages of CSS
- CSS Versions
- Scope of CSS
- Browser Support for CSS
- The CSS Specification
- Creating and Using Style-Sheets
- Syntax for Setting Properties
- Other Basic CSS Syntax
- Setting Colors

#### **Part 2 – Simple Ajax applications**

- Introduction to Ajax application
  - Comparison with traditional web applications
  - Synchronous versus asynchronous interactions
- Develop your first simple Ajax page

- Components of a Ajax application
- Understand XMLHttpRequest object
- Callback handlers
- Parsing XML data on the client
- Develop a Ajax driven page with XMLHttpRequest and servlets
  - Retrieving data as text and XML
  - Sending data via POST and GET
- Work with browser history in an Ajax application
- Cross browser compatibility issues
- Challenges in developing Ajax applications with raw XMLHttpRequest object

### **Part 3 - DWR**

- DWR and Ajax applications
- Developing your first DWR Ajax page
- Components of a DWR application
- DWR configurations
  - Dwr.xml
  - Web.xml
  
- Working with custom objects and collections
- Integrating DWR with a spring application

### **Part 4 – Ajax best practices**

- Approach to designing an Ajax application
- Comparison of open source java frameworks for Ajax
- Relevance of Ajax in Web 2.0

### **Part 5 – AJAX Design Patterns**

- Communication Pattern
- Fallback Pattern

### **Part 6 – Introduction Web 2.0**

- Web 2.0
  - Comparison of Web 2.0 and Web 1.0
  - Web 2.0 concepts
  - Need for Web 2.0
- What does Web 2.0 comprise of?
  - General overview
  - Technology overview
- Web 2.0 implementation challenges