

J2EE Course Contents: 35-40 Hours

Introduction

- Introduction to Java Declarations and access control
- Declaring classes, methods, instance variables, static variables
- Constructors
- Flow control and exception handling
 - Loops/If-then-else/Switch
 - Try-catch
 - Assertions
- Abstract classes/ Interfaces/Packages/Inheritance
- Overloading, Overriding and runtime behavior
- Object casting (assignments)
- Garbage Collection
- Threads
- Collections

Design Patterns

- Singleton
- Facade
- Factory
- DAO
- Observer
- Proxy
- Adapter
- Value objects

XML

- Overview of XML
- Xerces Parser
- SAX and DOM API
- XML document parsing, generation

Struts

- Overview of Struts framework components
- Using Struts HTML Tag libraries
- Using Forms - Submission, Navigation and Pre-population
- Actions Overview - Using Built-in Struts Actions
- Using Html, Bean Tags
- Validation with Commons Validator
- Using Tiles with Struts

Web Services

- Web services overview
- SOAP

- Creating Web Service
- Describing Web Services with WSDL
- Building synchronous Web Services (JAX-RPC Service architecture)
- Accessing services with JAX-RPC
- Asynchronous Web Services operations
- Querying service registries

Hibernate

- Hibernate Architecture
- Overview of Hibernate Configuration files and mapping files
- Hibernate Key Interfaces
- HQL
- Mapping relationships
- Mapping inheritance and polymorphism
- Hibernate (vs) JDBC

Spring MVC

Spring MVC Overview

- Dispatcher Servlet overview
- Controllers overview
- View Resolvers
- Spring Hibernate/JDBC Templates
- Spring DAO Exception Hierarchy
- Building a sample Spring MVC application

Ajax

- Ajax Basics
- Hidden Frames
- Ajax Patterns
- Handling XMLHttpRequest events
- Synchronous and Asynchronous requests
- XML DOM via Javascript