

Struts Development Using RAD

Length:

3 Days

Description:

This class introduces students to Model-View-Controller architectures using the Apache Struts framework. The course also covers the features of the Struts framework along with the tools provided by RAD for Struts application development.

Course Objectives:

Upon completion of this course, you will be able to:

- Understand the configuration and installation of the Struts framework
- Architect and design web applications that use Apache Struts
- Create the view component of a struts application and validate user input
- Create the controller component of a Struts application and connect it to the business logic in the model tier

Audience:

Java programmers and Web content developers who need to build Web applications that use Apache Struts

Prerequisites:

Strong HTML skills, a solid Java programming background and prior experience with JavaServer Pages (JSPs) and Java Servlets

Course Content:**Chapter 1 - About the Course**

- Topics
- Description
- Audience
- Prerequisites
- Course Objectives
- Course Contents
- Setup
- Hardware requirements
- Software requirements
- Download the Electronic Image
- Creating the Installation Image
- Testing the Installation

Chapter 2 - The Model, View, Controller Architecture

- Topics
- Model, View, Controller (MVC) Design
- Model 1 Design
- Model 2 Design
- Advantages and Disadvantages

- Model 1 vs. Model 2
- Building an MVC System

Chapter 3 - Introduction to Struts

- Topics
- What is Struts?
- Advantages of Struts
- Disadvantages of Struts
- How Struts Works
- Struts MVC Semantics
- Downloading and Configuring Struts
- Testing Struts
- Setting Up Struts Applications
- Accessing Struts Documentation
- Adding Struts to an Existing Web Application
- Using Struts with RAD Quick Start

Chapter 4 - Creating the Model

- Topics
- Are the Action Classes Controller or Model?
- Separating the Model from Struts
- Using J2EE Design Patterns

Chapter 5 - Creating the Controller

- Topics
- Overview
- ActionServlet
- ActionMapping
- ActionForm
- DynaActionForm
- Action

Chapter 6 - Creating the View

- Topics
- Overview
- Struts Custom Tags
- Utilities
- JSTL

Chapter 7 - Struts Validation

- Topics
- What is Validation?
- Struts Validation Techniques
- Programmatic ActionForm Validation
- Programmatic Action Validation
- Struts Validator Framework

Chapter 8 - Error and Exception Handling

- Topics
- Error Handling
- Identifying Errors with ActionError
- Compiling Errors with ActionErrors
- Displaying Errors with ErrorsTag

- Exception Handling
- Role of the Dispatcher
- Exception Handling with ApplicationException
- Converting an Exception into ActionErrors

Chapter 9 - Internationalization and Localization

- Topics
- Overview
- The Locale Object
- Internationalized Messaging and Labeling

Chapter 10 - Introduction to Tiles

- Topics
- Overview of Tiles
- Using a Layout Tile
- Passing Parameters to the Layout
- The Tiles Tag Library
- Using Definitions
- Internationalization Support with Tiles

Chapter 11 - Introduction to Faces

- Topics
- Overview
- JSF Lifecycle
- JSF Components and the View Tree
- Using JSF with RAD
- Creating a JSF Project
- Designing a Page with JSF Components
- Building Navigation
- Use Managed Beans to Share Data
- Complete the Application Pages
- Test, Package and Install Your Application
- Summary

Chapter 12 - Struts Best Practices

- Topics
- Screens with Dynamic Fields
- Safeguard your JSP pages
- Error categorization
- Validation of service requester: Login-check
- Application security
- Pre-population
- Stack maintenance
- Context-related issues
- Form-bean scope
- Data transfer object implementation
- Exceptions
- Action chaining

Chapter 13 - References

- Web Sites
- Usenet Newsgroups