

912- Fundamentals of Jakarta Struts

Struts Intro, Overview, and Setup

- Understanding Struts
 - Different views of Struts
 - Advantages of Struts
 - Disadvantages of Struts

Processing Requests with Action Objects

- Struts flow of control
- The six basic steps in using Struts
- Example: one result mapping
- Example: multiple result mappings

Handling Request Parameters with Form Beans

- Two new ideas
 - Automatically creating bean to represent request data
 - Using bean:write to output bean properties
- Defining form beans
- Declaring form beans
- Outputting properties of form beans
 - bean:write
 - JSP 2.0 expression language
- Defining and outputting regular beans

Prepopulating and Redisplaying Input Forms

- Using the Struts html: tags to build HTML forms that have three important characteristics:
 - The textfield names and the bean properties are guaranteed to stay in synch
 - The textfield values can be prepopulated based on the values in a bean.
 - The forms can be redisplayed when they are submitted with incomplete or incorrect values.

Using Properties Files (Resource Bundles)

- Loading properties files
- Using bean:message
- Applying properties files
 - To reuse fixed strings
 - To support internationalization

DispatchAction and Other Advanced Action Classes

- Performing different logic based on a radio button, hidden field, or push button value
 - But not repeatedly checking parameter names in the execute method

- Using DispatchAction
- Using Struts form-bean capabilities in non-Struts applications
 - Without redoing code in Struts
 - Using ForwardAction
- Other advanced Action subclasses

Declarative Exception Handling

- Transferring to custom error pages when various exception types are thrown
- Global exceptions
- Per-Action exceptions
- Standard web.xml approach
- Using custom exception handlers
- Declaring
- Defining

Manually Validating Input

- Distinguishing manual validation from automatic validation
- Performing validation in the Action
 - Error messages in beans
- Performing validation in the ActionForm
 - Fixed error messages
 - Error messages with substitution
- Separate error messages

Automatically Validating Input

- Distinguishing manual validation from automatic validation
- Distinguishing client-side validation from server-side validation
- Using automatic validation
 - Declare application-wide properties file
 - Add messages to properties file
 - Turn on the automatic validator
 - Put validation rules in validation.xml
 - Put <html:errors/> in input page
 - Enable JavaScript validation

Laying Out Pages with Tiles

- Tiles motivations
- Tiles basics
 - Sketch out desired layout
 - Make template file that represents layout
 - Create JSP pages that define layout pieces
 - Create JSP pages that populate layout
- Handling relative URLs in Tiles
- Using Tiles definitions file