

Web Development with Jakarta Server Pages and Servlets

Session: 6

Integrating Jakarta Server Pages and Servlets



Objectives

- ❖ Explain the procedure for integrating Jakarta Servlets with JSP
- ❖ Describe dispatching request from a Servlet to JSP

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Introduction

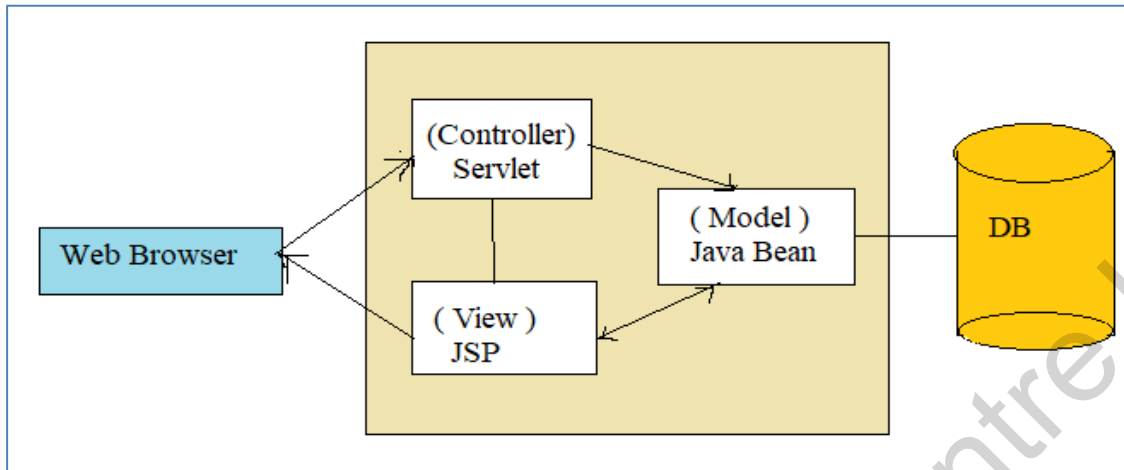
Static data

Represented using any text-based format, such as HTML or XML.

JSP Elements

Control the generation of dynamic content.

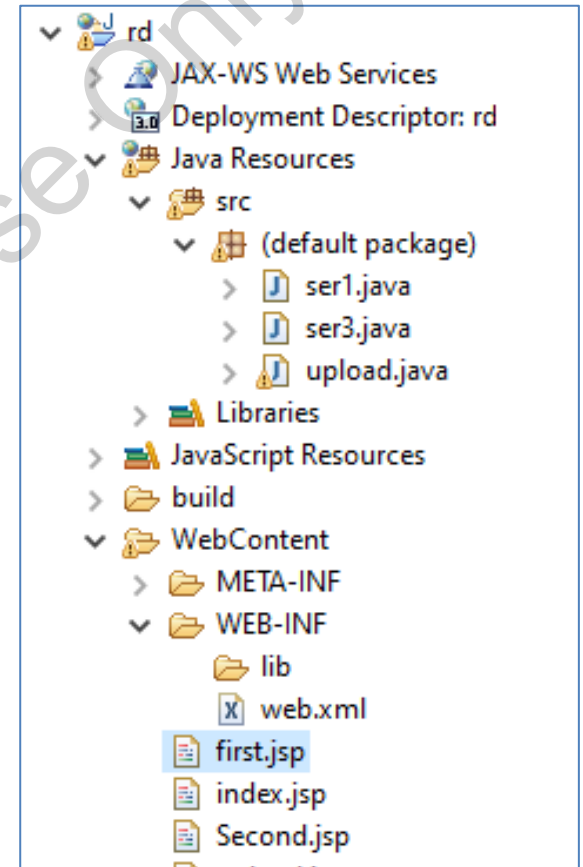
JSP Integration with Servlets



JSP Model 2 Architecture

Tips for
Integration

- Simplification of Code
- Separation of Business and Presentation Logic



Project Structure

Request Dispatching

getRequestDispatcher

getNamedDispatcher

Methods to dispatch a request

Open Eclipse

Click Create
New
Dynamic
Project.

Package →
Add new
Servlet

Name it as
ser1.java.

Project →
Add new JSP

Name it as
first.jsp

In the
web.config,
map the
Servlet.

Project →
Run as
Server.

RequestDispatcher Interface Methods

`include()`

- Incorporate one Servlet's response into the other.

`forward()`

- Forwards the client request to a different resource.

Summary

- ❖ JSP is built on Jakarta Servlets API, giving users multiple benefits of APIs such as enterprise computing.
- ❖ JSP easily integrates with APIs such as JDBC, JNDI, EJB, and so on.
- ❖ Jakarta Dependency Injection refers to a powerful set of annotations for use on injectable classes.
- ❖ Contexts and Dependency Injection (CDI) provides support for Dependency Injection in the Jakarta EE platform.
- ❖ Different methods are invoked by the container to process a JSP page. `jspInit()` method is called by the container during initialization, `jspService()` method serves all the requests raised by the JSP page, `jspDestroy()` is called for cleanup.
- ❖ Request dispatching process dispatches a request to another resource.
- ❖ `getRequestDispatcher` or `getNamedDispatcher` methods are used to call the object of the `RequestDispatcher` interface from the Servlet.
- ❖ `include()` method of the `RequestDispatcher` is used to incorporate one Servlet's response into other Servlet.
- ❖ `forward()` method of the `RequestDispatcher` is used to forward the client request to a different resource.