



CHAITANYA

WOMEN'S COLLEGE

DEGREE & PG

AFFILIATED TO ANDHRA UNIVERSITY

Java Server Pages

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- Servlets are pure Java programs. They introduce dynamism into web pages by using programmatic content.
- JSP technology is an extension/wrapper over the Java servlet technology.

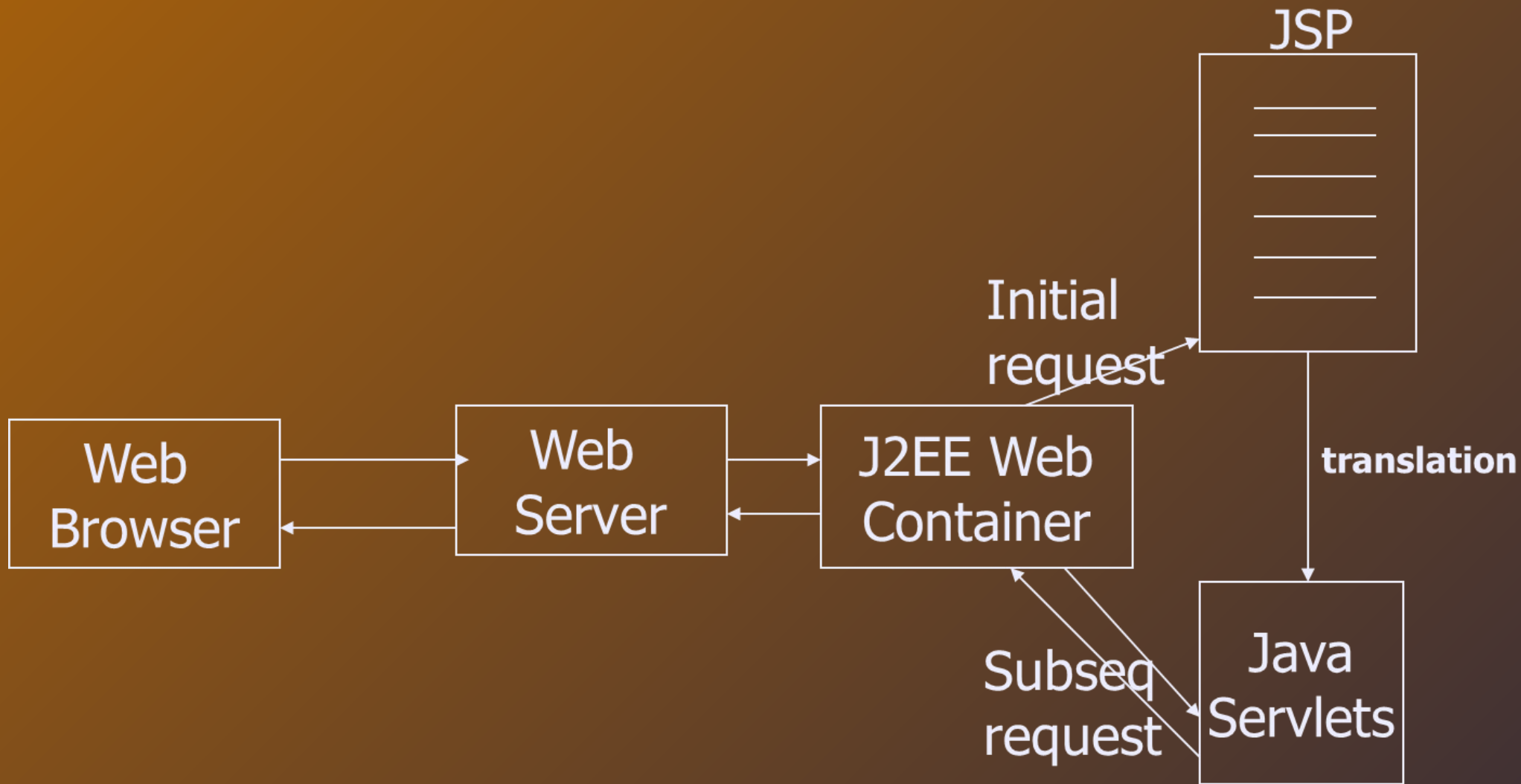
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- JSP are text based documents.

- Two major components of JSP:

 - Static content: provided by HTML or XML

 - Dynamic content: generated by JSP tags and scriptlets written in Java language to encapsulate the application logic.



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- HTML code for user interface lay out
- JSP tags: declarations, actions, directives, expressions, scriptlets
- JSP implicit objects: a request object, response object, session object, configuration object

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JSP Tags

- ◆ **Declaration: variable declaration**

```
<%! int age = 56 %>
```

- ◆ **Directive: ex: import classes**

```
<%@ page import = "java.util.*" %>
```

- ◆ **Scriptlet: Java code**

```
<% if password("xyz") {  
%>
```

```
<H1> Welcome <\H1>
```

- ◆ **Expression: regular expression using variables and constants**

- ```
<%= param[3]+4 %>
```

- ◆ **Action: 

```
<jsp:usebean name = "cart" class="com.sun.java.Scart"
```**

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## Java Server Pages by Examples

- JSPs combine static markup (HTML, XML) with special dynamic scripting tags.
- Each JSP is translated into a servlet the first time it is invoked. Then on, the requests are serviced by the servlets.



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## How to prepare and run the examples?

- Simple JSPs can be typed into .jsp type files using your favorite editor.
- Create a directory called JSPExamples in the public\_html directory of J2EE. Store the example JSPs here.
- Start the J2EE server.





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## How to prepare and run the examples?

- Run the JSP from your browser using the command:
- <http://localhost:8000/JSPExamples/xyz.jsp>
- For complex examples with actions and beans you will have to create web component (WAR).


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## Directives

 `<%@            %>`

 A directive configures the code generation that container will perform in creating a servlet.

 Simple JSP showing access to a Java API class Date: simple.jsp

 Using Page directives to define various page attributes:  
pageDirective.jsp

 Directive to include other JSPs: includeDirective1.jsp,  
includeDirective2.jsp

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## Scripting Elements

- Declaration: `<%!        %>`
- A declaration is a block of code in a JSP that is used to define class-wide variables and methods in the generated servlet.
- Declaring a piece of code: `declaration.jsp`

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## JSP Action and Using beans (not EJB)

- Create beans.html files that displays to the user a choice of programming languages to choose from. Store it `public_html/JSPExamples/beans.html`
- Create the file beans.jsp that deals with the request that has two parameters name of the user and the language. Store it in `public_html/JSPExamples/beans.jsp`

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## JSP Action and Using beans (not EJB)

- Create the beans file that is a java bean with just set and get properties: call it LanguageBean.java. Store it in `public_html/JSPExamples/src/com/wrox/beans/LanguageBeans.java`
- Compile this using javac command.
- `javac LanguageBeans.java`
- Create the web application and run it as a web application.

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