



JSP – Review , Directives , Tags and Comments

Presented by

# MVC - Revisited

- A Design Pattern
- Model -- represents state of the world (e.g. shopping cart)
- View -- looks at model and generates an appropriate user interface to present the data and allow for further input
- Controller -- receives user interface input, updates data model

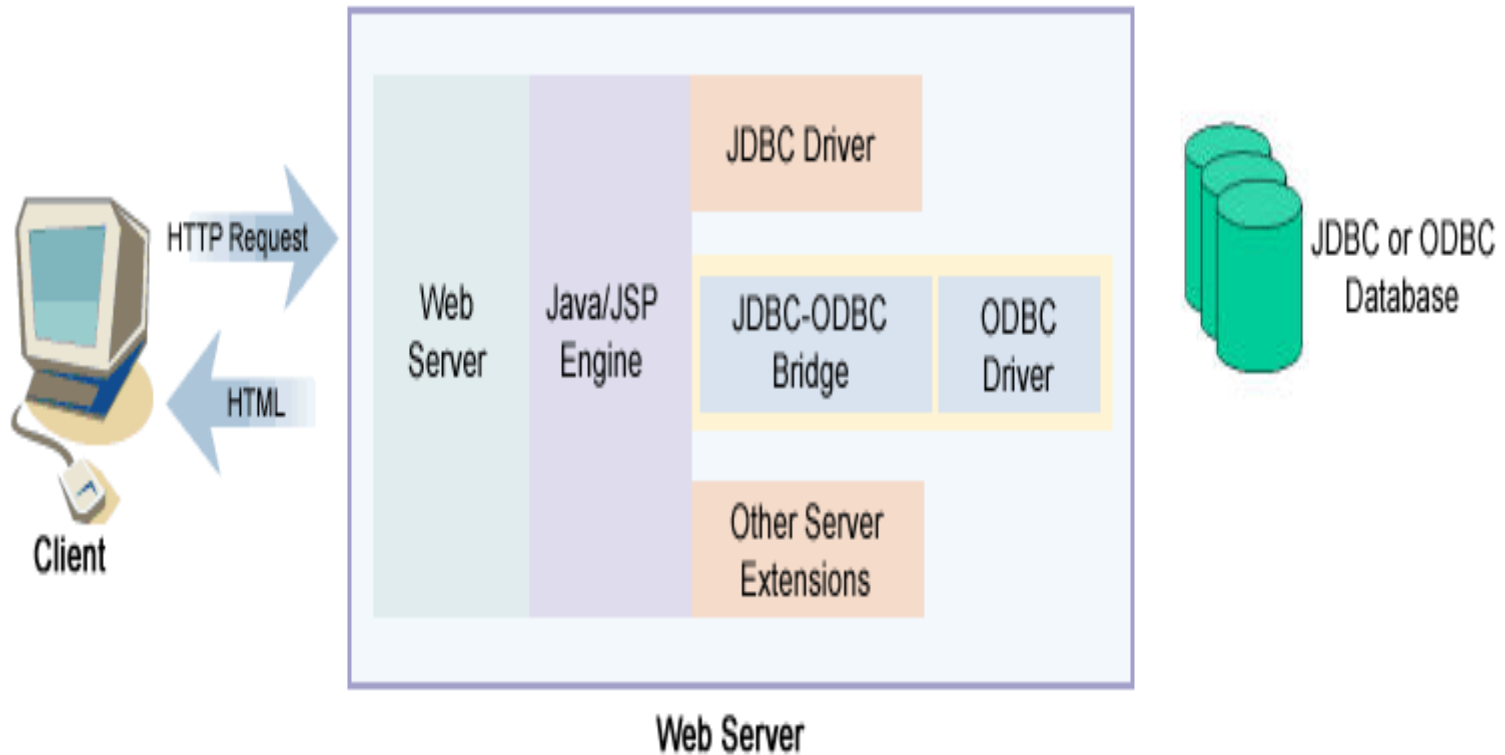


# What is JSP?

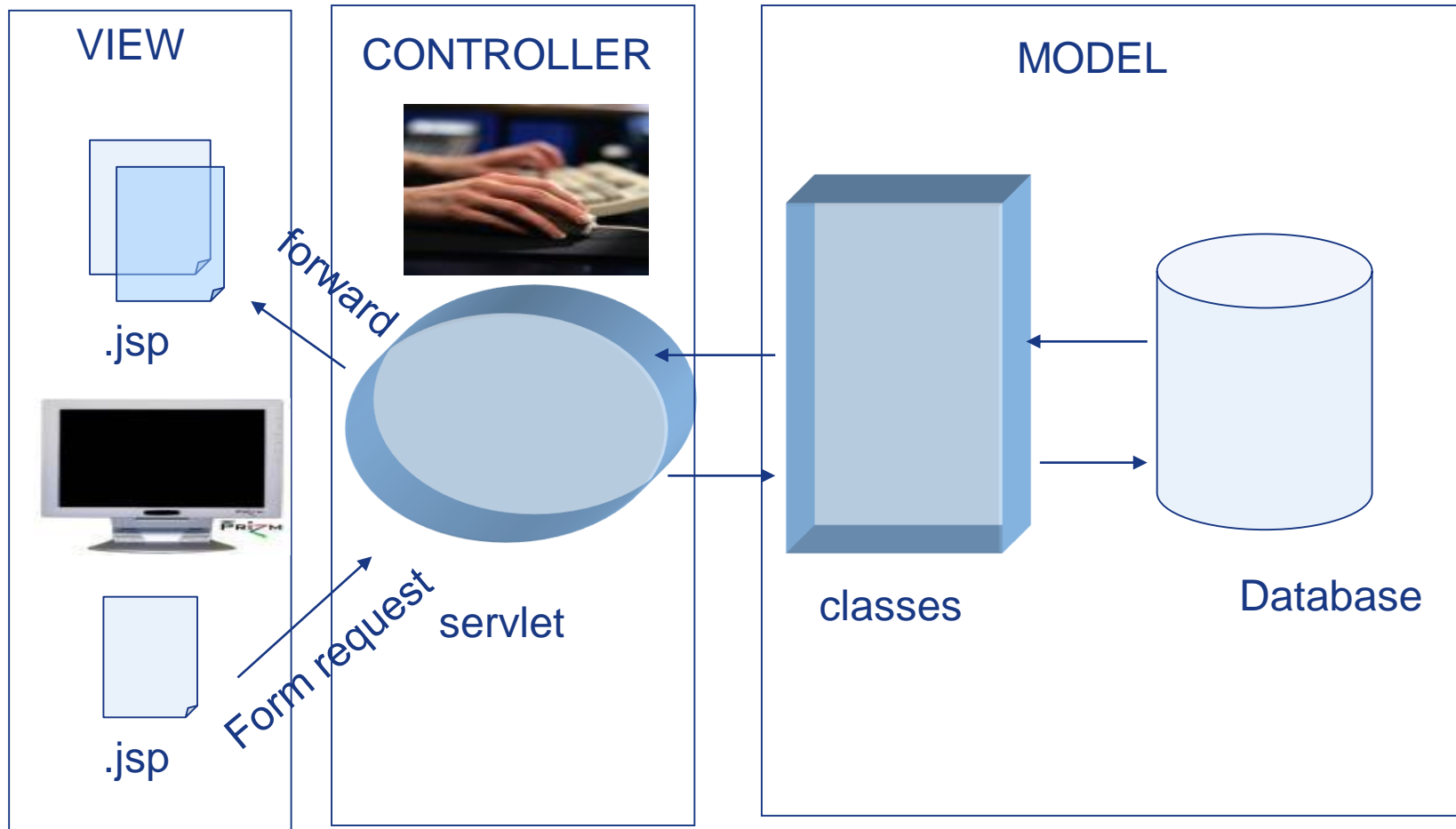
- Mostly HTML page, with extension .jsp
- Include JSP tags to enable dynamic content creation
- Dynamic Content: The information generated and displayed at runtime is called 'dynamic content'. JSP uses Java to display dynamic content
- Translation: JSP → Servlet class
- Compiled at Request time  
(first request, a little slow)
- Execution: Request → JSP Servlet's service method



# JSP Architecture



# MVC - Flow



# Isolation of modules from a Servlet

## Pure Servlet

```
public class OrderServlet ... {  
    public void doGet (...) {  
        if (isOrderValid(req)) {  
            saveOrder(req);  
            ...  
            out.println("<html><body>");  
            ...  
        }  
    }  
    private void isOrderValid(...) {  
        ...  
    }  
    private void saveOrder(...) {  
        ...  
    }  
}
```

**Servlet**

```
public class OrderServlet ... {  
    public void doGet (...) {  
        ...  
        if (bean.isOrderValid(...)) {  
            bean.saveOrder(req);  
            ...  
            rd.forward("conf.jsp");  
        }  
    }  
}
```

**JSP**

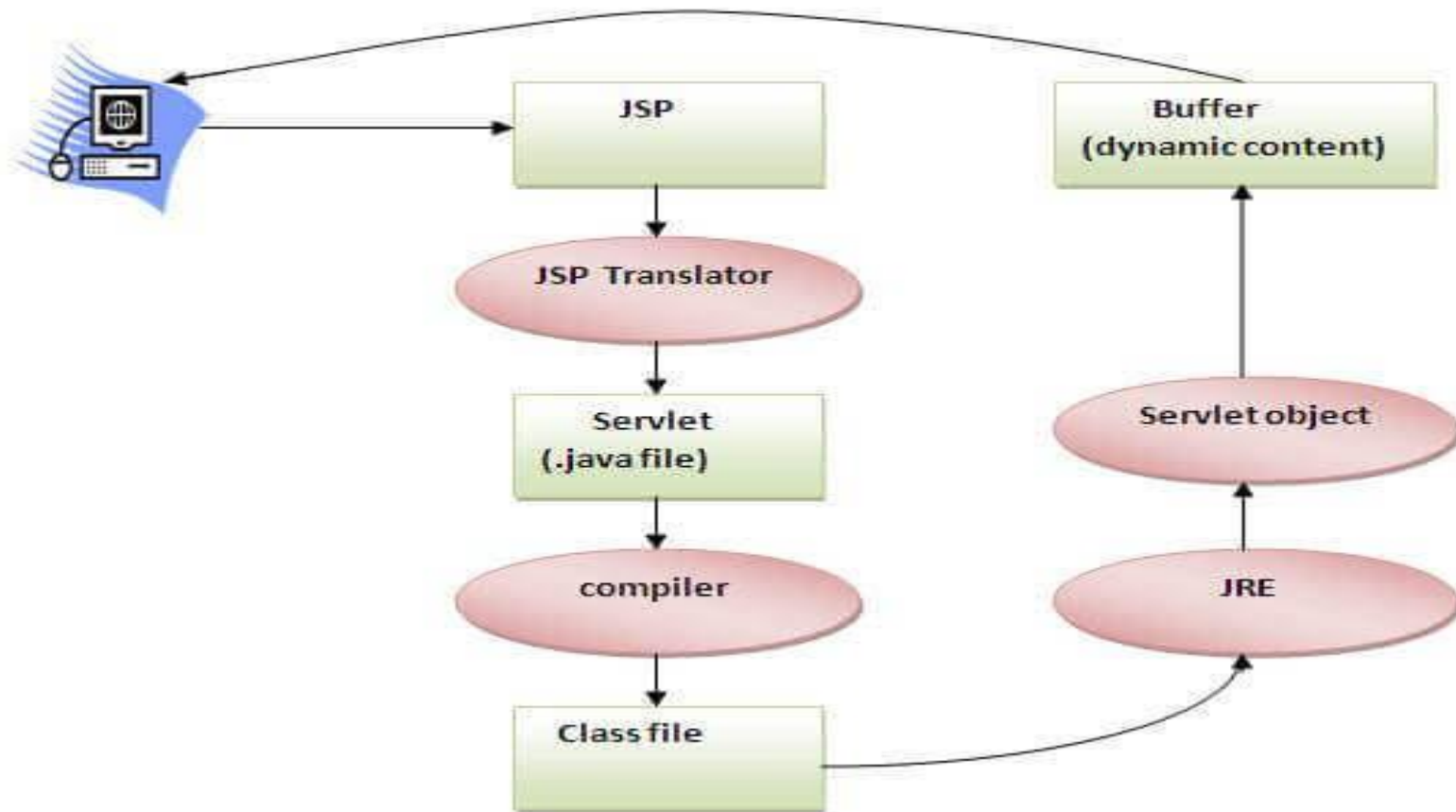
```
<html>  
    <body>  
        <c:forEach items="${order}">  
            ...  
        </c:forEach>  
    </body>  
</html>
```

**Java Bean**

```
isOrderValid()  
saveOrder()  
  
-----  
private state
```



# JSP Lifecycle



# JSP Elements – Directives - @page

**Directives: <%@ %>**

- Provide global information to the page
- Import statements

## 1. @page :

Provides information about the page  
Imports the required API

```
<%@page contentType= "text/html" pageEncoding= "UTF-8"%>  
<%@ page language = "java"%>  
<%@ page language= "java"import= "java.sql. *" %>
```





# JSP - @include

## 2. @include :

- Includes another resource (jsp / html / servlet ) into the current page

```
<%@include file = "sample.html"%>
```



# JSP Elements – Tags

## 1. Declarations: <%! ...%>

- For page-wide variable and method declarations

Example:

```
<%! int num;%>
```

## 2. Scriptlet : <% ...%>

- To embed Java code in the web page

Example:

```
<%  
  for (int num=5; num<5; num++) {  
    out.println(num);  
  }  
%>
```



