





What is JSP

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- **JSP** technology is used to create web application just like Servlet technology. It can be thought of as an extension to Servlet because it provides more functionality than servlet such as expression language, JSTL, etc.
 - A JSP page consists of HTML tags and JSP tags. The JSP pages are easier to maintain than Servlet because we can separate designing and development. It provides some additional features such as Expression Language, Custom Tags, etc.



Advantages of JSP over Servlet

1) Extension to Servlet

- JSP technology is the extension to Servlet technology. We can use all the features of the Servlet in JSP. In addition to, we can use implicit objects, predefined tags, expression language and Custom tags in JSP, that makes JSP development easy.



Advantages of JSP over Servlet

2) Easy to maintain

- JSP can be easily managed because we can easily separate our business logic with presentation logic. In Servlet technology, we mix our business logic with the presentation logic.



Advantages of JSP over Servlet

3) Fast Development: No need to recompile and redeploy

- ➔ If JSP page is modified, we don't need to recompile and redeploy the project. The Servlet code needs to be updated and recompiled if we have to change the look and feel of the application.



Advantages of JSP over Servlet

4) Less code than Servlet

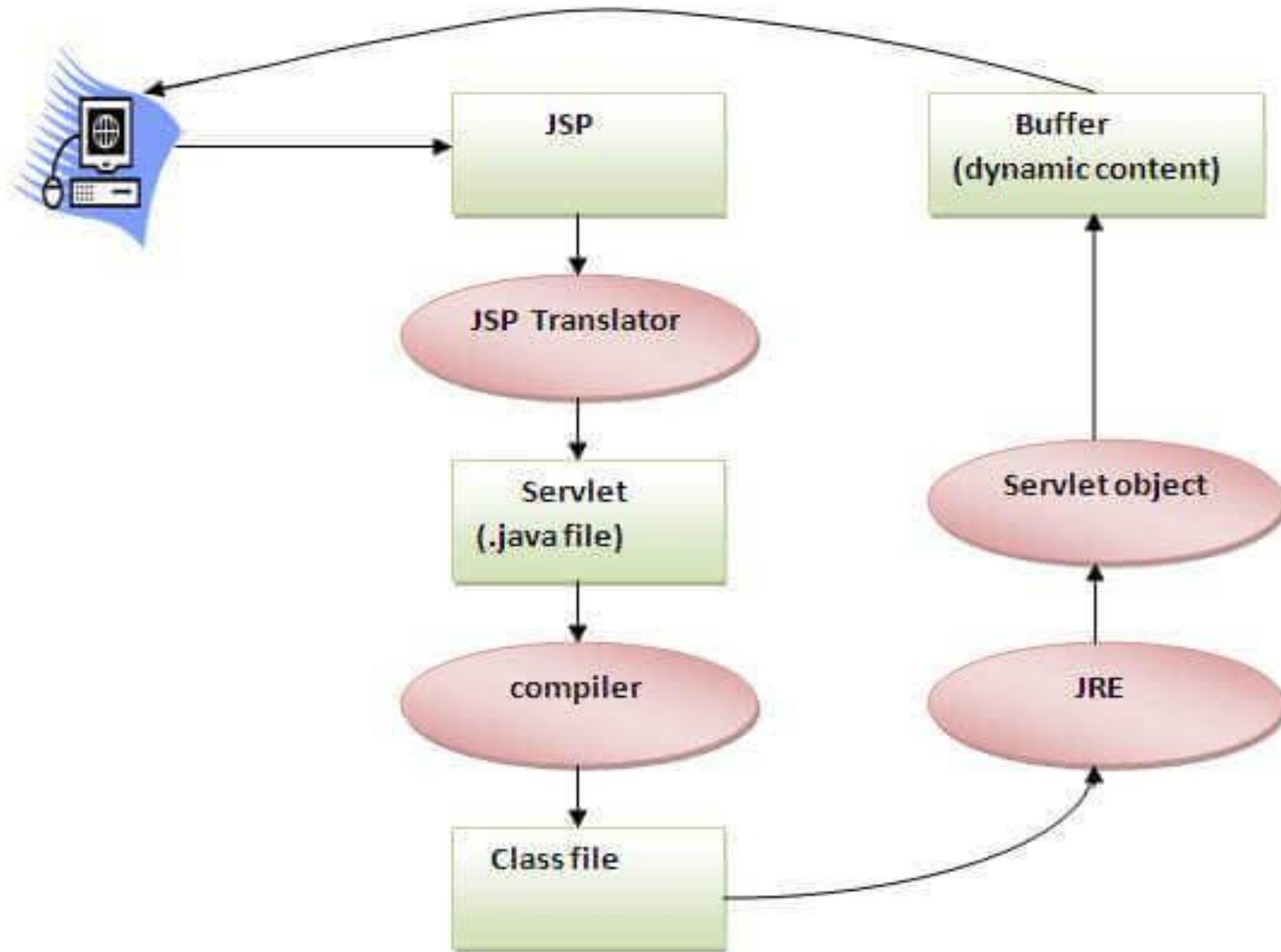
- In JSP, we can use many tags such as action tags, JSTL, custom tags, etc. that reduces the code. Moreover, we can use EL, implicit objects, etc.



The Lifecycle of a JSP Page

- Translation of JSP Page
- Compilation of JSP Page
- Classloading (the classloader loads class file)
- Instantiation (Object of the Generated Servlet is created).
- Initialization (the container invokes `jspInit()` method).
- Request processing (the container invokes `_jspService()` method).
- Destroy (the container invokes `jspDestroy()` method).

The Lifecycle of a JSP Page



Creating a simple JSP Page

index.jsp

```
<html>  
<body>  
<% out.print(2*5); %>  
</body>  
</html>
```

How to run a simple JSP Page?

- Start the server
- Put the JSP file in a folder and deploy on the server
- Visit the browser by the URL

`http://localhost:portno/contextRoot/jspfile`, for example,
`http://localhost:8888/myapplication/index.jsp`

The Directory structure of JSP

