

BỘ MÔN CNPM - KHOA CNTT - ĐH KHTN

J2EE PROGRAMMING TRAINING COURSE 2012 - 2.0.1

MVC 2 & APACHE TILES MASTER PAGE

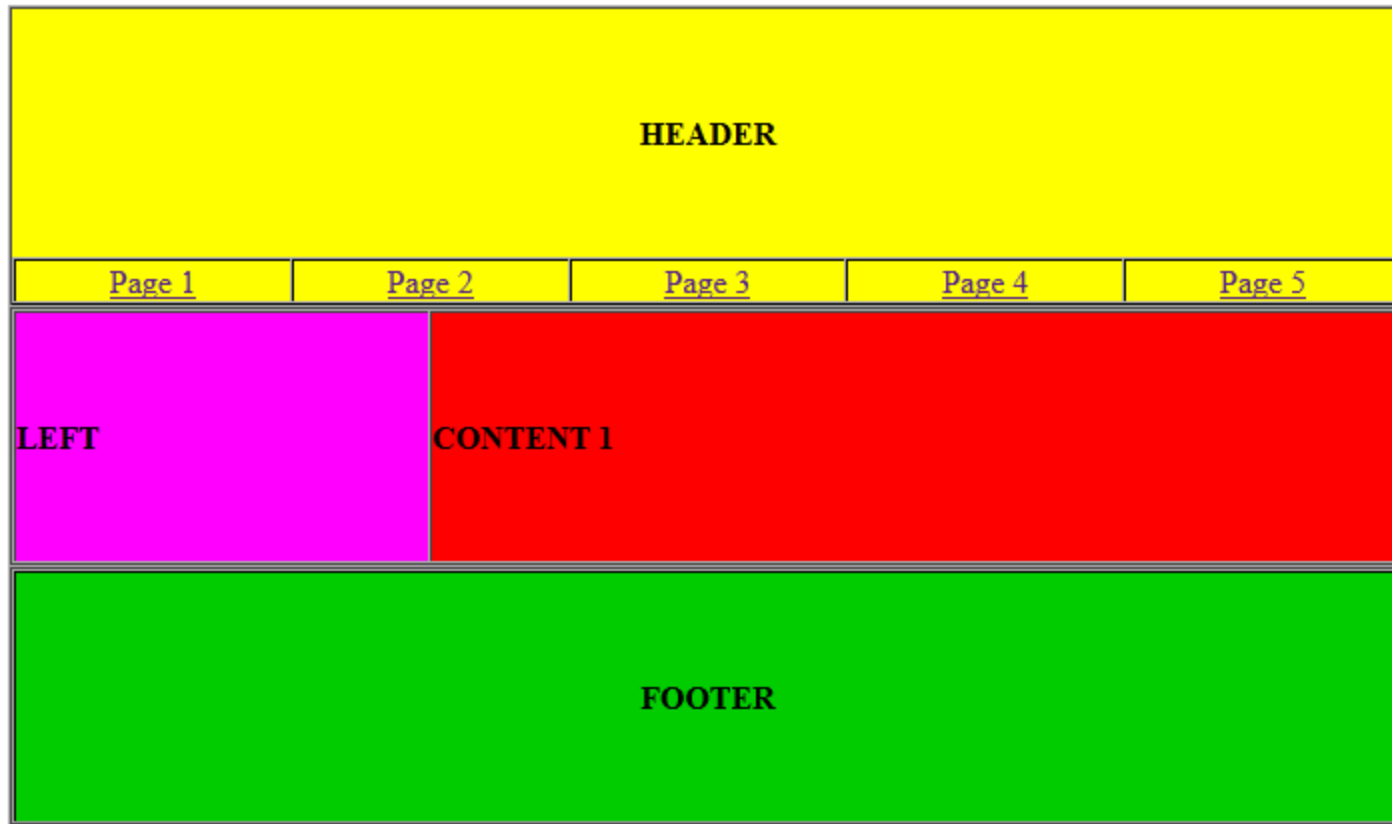
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Tài liệu đọc thêm dành cho sinh viên

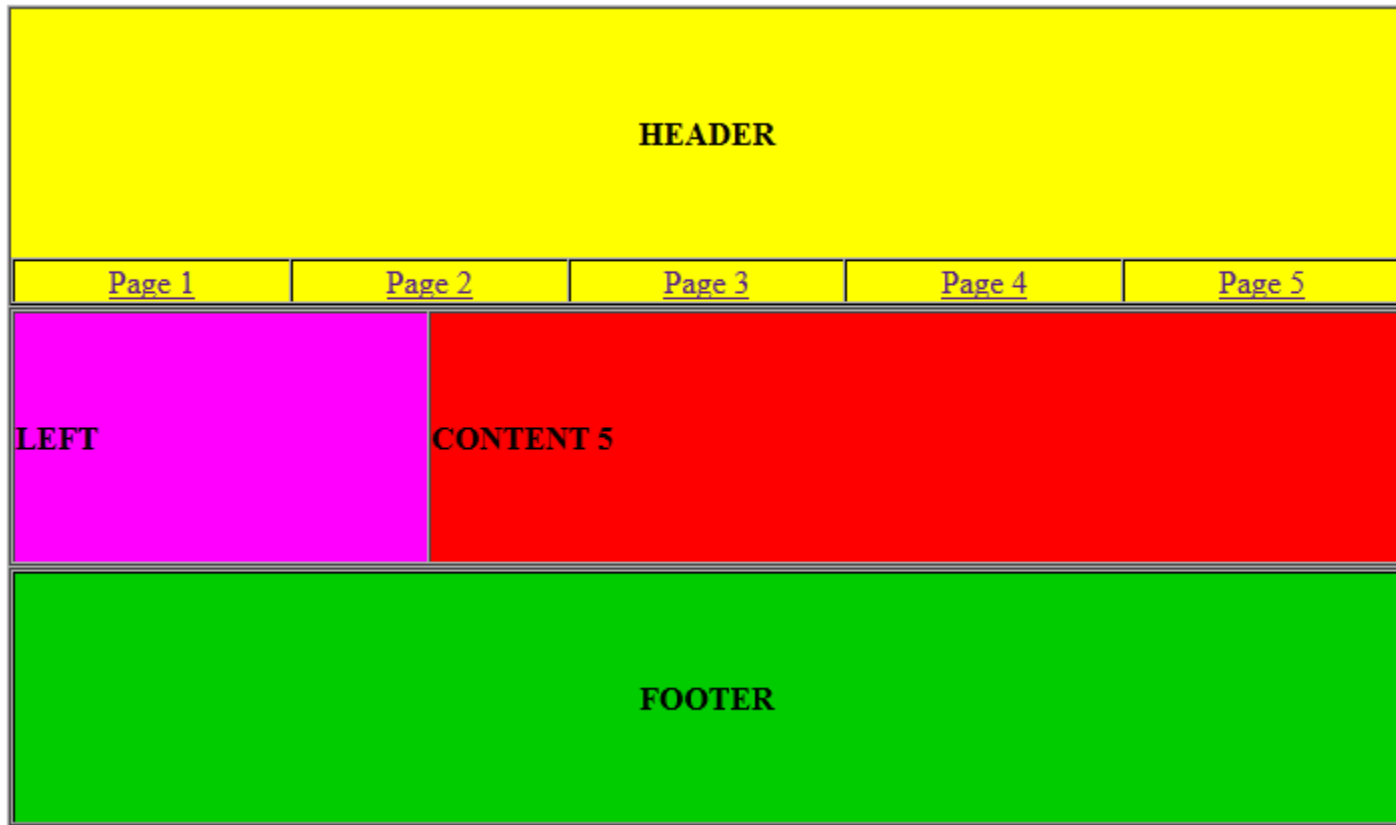
Nội dung trình bày

- Master Page
- Chuẩn bị Apache Tiles
- Tổ chức website – cách 1
- Xây dựng Template
- Cấu hình Tiles trong web.xml
- Định nghĩa tiles.xml
- Xây dựng các controller và các view
- Thử nghiệm
- Tổ chức website – Cách 2 và điều chỉnh

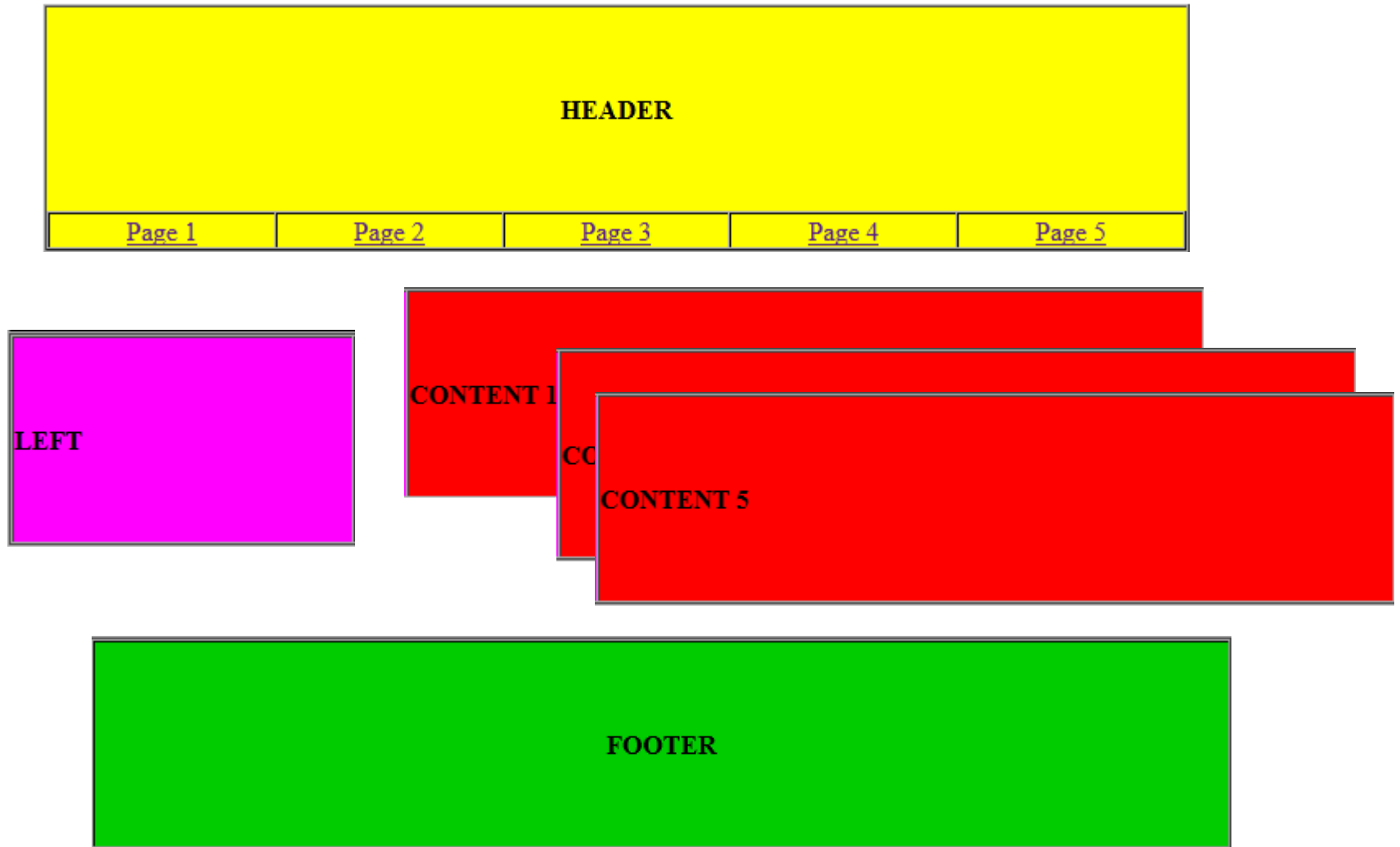
Master Page



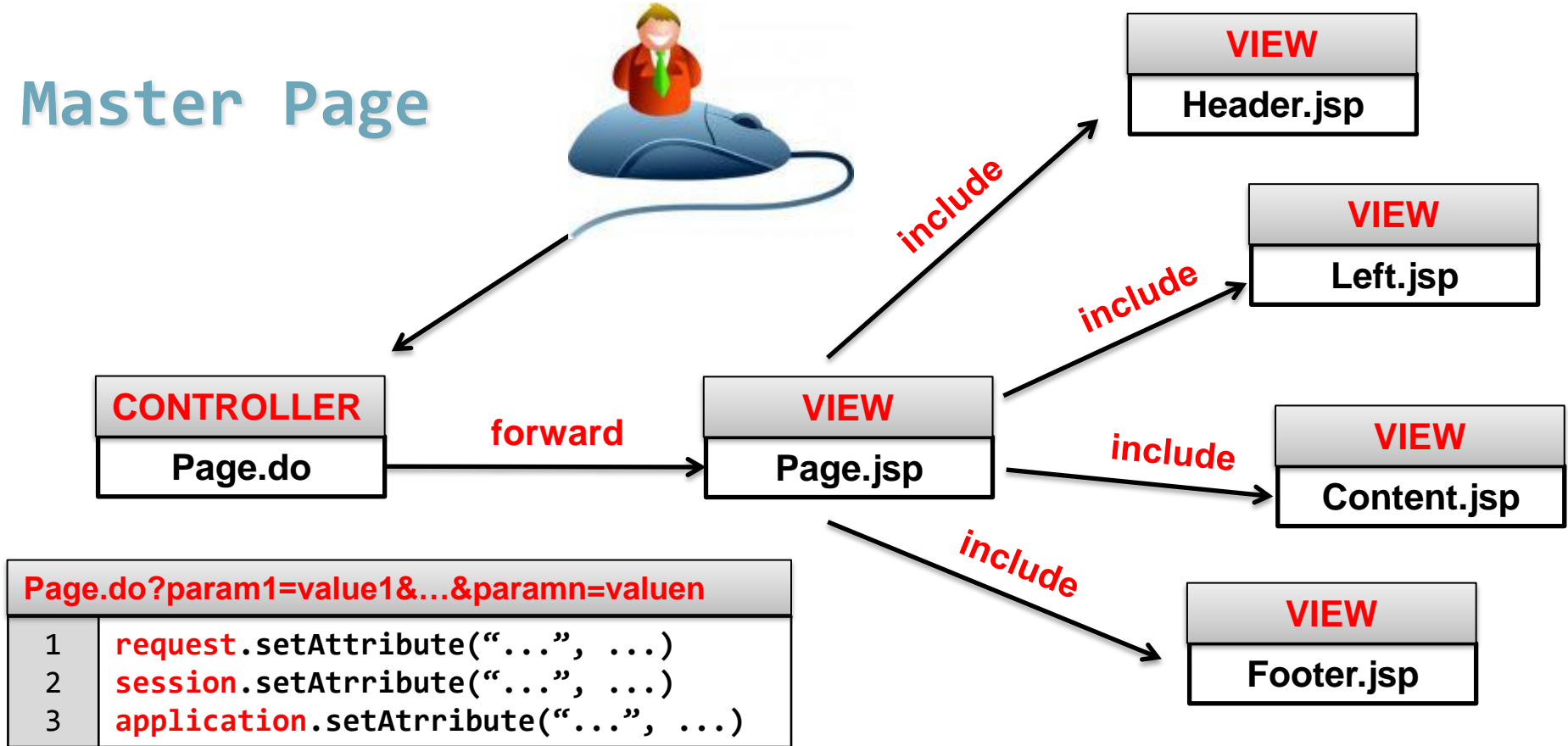
Master Page



Master Page



Master Page



| Page.jsp, Header.jsp, Left.jsp, Content.jsp, Footer.jsp | |
|---|--|
| 1 | <code>\${param.param1}, . . ., \${param.paramn}</code> |
| 2 | <code>\${requestScope. . .}</code> |
| 3 | <code>\${sessionScope. . .}</code> |
| 4 | <code>\${applicationScope. . .}</code> |

Chuẩn bị Apache Tiles

- Download Tiles 2.2.2

`http://www.apache.org/dyn/closer.cgi/tiles/v2.2.2/tiles-2.2.2-bin.zip`

Chuẩn bị Apache Tiles

- Chép các thư viện sau vào thư mục WEB-INF/lib
 - commons-beanutils-1.8.0.jar
 - commons-digester-2.0.jar
 - jcl-over-slf4j-1.5.8.jar
 - slf4j-api-1.5.8.jar, slf4j-jdk14-1.5.8.jar
 - tiles-api-2.2.2.jar, tiles-compatible-2.2.2.jar
 - tiles-core-2.2.2.jar, tiles-jsp-2.2.2.jar
 - tiles-servlet-2.2.2.jar, tiles-template-2.2.2.jar
 - tiles-servlet-wildcard-2.2.2.jar
- Project > Libraries > Add JAR/Folder > WEB-INF/lib

Tổ chức website - Cách 1

■ Web Pages

— page

- Header.jsp, Left.jsp, Footer.jsp
- Content1.jsp, ..., Content5.jsp

— template

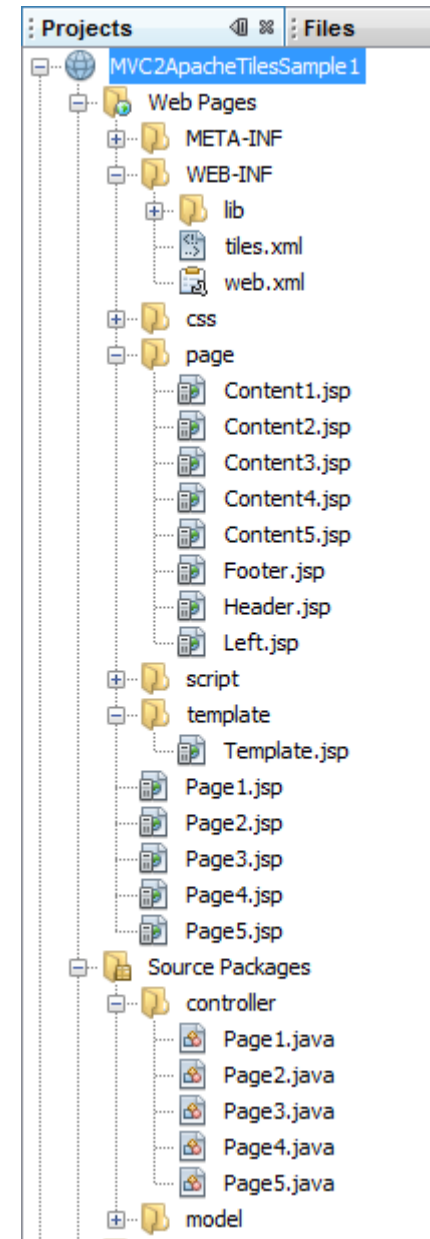
- Template.jsp

— Page1.jsp, ..., Page5.jsp

■ Source Packages

— Controller

- Page1.do, . . . , Page5.do



Template.jsp

```
1  <%@taglib prefix="tiles" uri="http://tiles.apache.org/tags-tiles"%>
2  <html>
3      <head>
4          <title>
5              <tiles:insertAttribute name="title"/>
6          </title>
7      </head>
8      <body>
9          . . .
10         <tiles:insertAttribute name="header"/>
11         . . .
12         <tiles:insertAttribute name="left"/>
13         . . .
14         <tiles:insertAttribute name="content"/>
15         . . .
16         <tiles:insertAttribute name="footer"/>
17         . . .
18     </body>
19 </html>
```

Cấu hình Tiles trong web.xml

```
1 <web-app>
2   . . .
3   <context-param>
4     <param-name>
5       org.apache.tiles.definition.
6         DefinitionsFactory.DEFINITIONS_CONFIG
7     </param-name>
8     <param-value>/WEB-INF/tiles.xml</param-value>
9   </context-param>
10  <listener>
11    <listener-class>
12      org.apache.tiles.web.startup.TilesListener
13    </listener-class>
14  </listener>
15 </web-app>
```

Định nghĩa tiles.xml trong WEB-INF

```
1 <tiles-definitions>
2   <definition name="Page" template="/template/Template.jsp">
3     <put-attribute name="title" value="Page" />
4     <put-attribute name="header" value="/page/Header.jsp" />
5     <put-attribute name="left" value="/page/Left.jsp" />
6     <put-attribute name="footer" value="/page/Footer.jsp" />
7   </definition>
8   <definition name="Page1" extends="Page">
9     <put-attribute name="title" value="Page 1" />
10    <put-attribute name="content" value="/page/Content1.jsp"/>
11  </definition>
12  . . .
13  <definition name="Page5" extends="Page">
14    <put-attribute name="title" value="Page 5" />
15    <put-attribute name="content" value="/page/Content5.jsp"/>
16  </definition>
17 </tiles-definitions>
```

Page1.jsp, . . ., Page5.jsp

Page1.jsp

```
1 <%@taglib prefix="tiles"  
2         uri="http://tiles.apache.org/tags-tiles" %>  
3 <tiles:insertDefinition name="Page1"/>
```

Page2.jsp

```
1 <%@taglib prefix="tiles"  
2         uri="http://tiles.apache.org/tags-tiles" %>  
3 <tiles:insertDefinition name="Page2"/>
```

...

Page5.jsp

```
1 <%@taglib prefix="tiles"  
2         uri="http://tiles.apache.org/tags-tiles" %>  
3 <tiles:insertDefinition name="Page5"/>
```

Page1.do, . . . , Page5.do

Page1.do

```
1 String view = "Page1.jsp";
2 RequestDispatcher rd = request.getRequestDispatcher(view);
3 rd.forward(request, response);
```

Page2.do

```
1 String view = "Page2.jsp";
2 RequestDispatcher rd = request.getRequestDispatcher(view);
3 rd.forward(request, response);
```

...

Page5.do

```
1 String view = "Page5.jsp";
2 RequestDispatcher rd = request.getRequestDispatcher(view);
3 rd.forward(request, response);
```

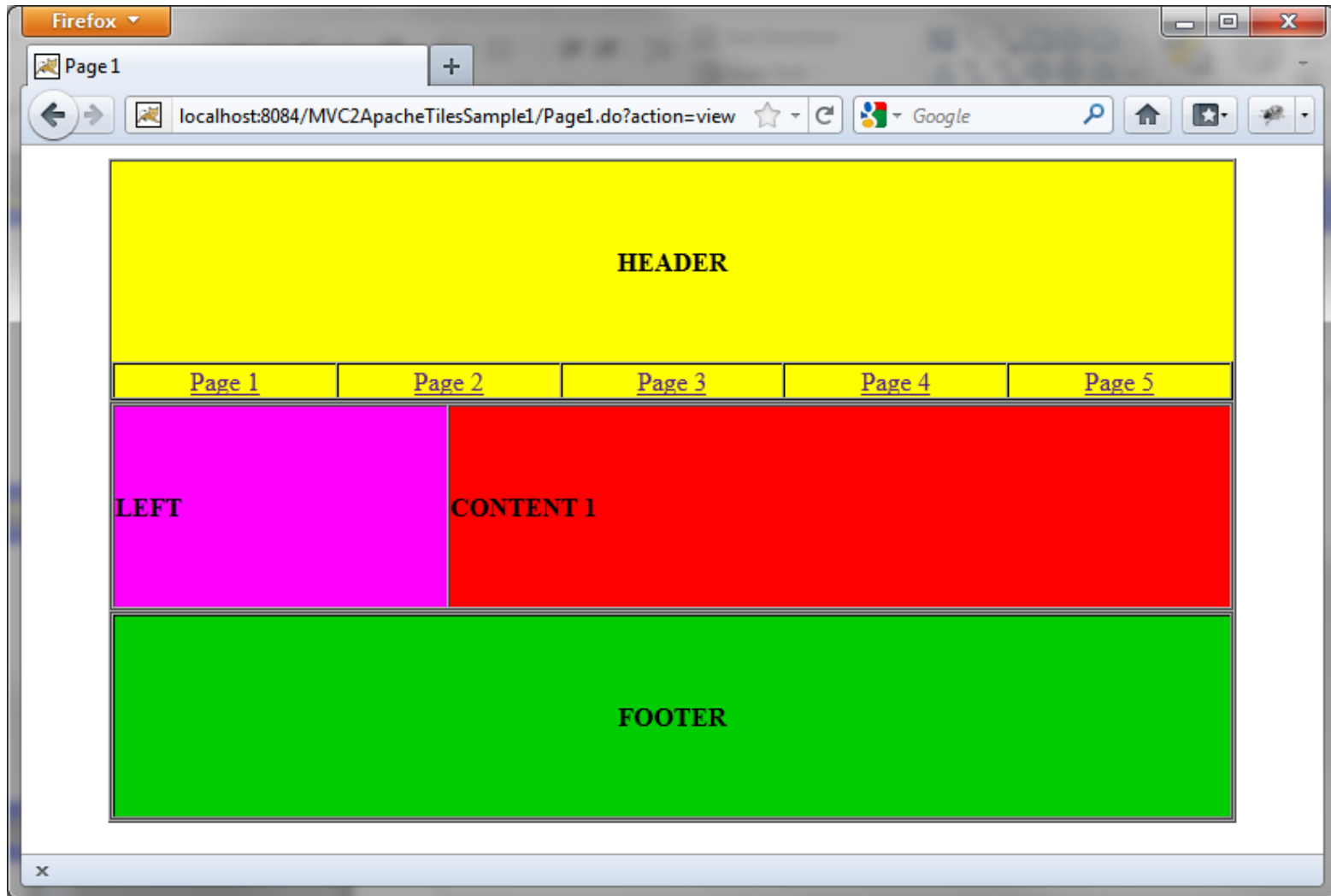
Cấu hình web.xml

| | |
|---|---------------------------------------|
| 1 | <web-app> |
| 2 | . . . |
| 3 | <welcome-file-list> |
| 4 | <welcome-file>Page1.do</welcome-file> |
| 5 | </welcome-file-list> |
| 6 | . . . |
| 7 | </web-app> |

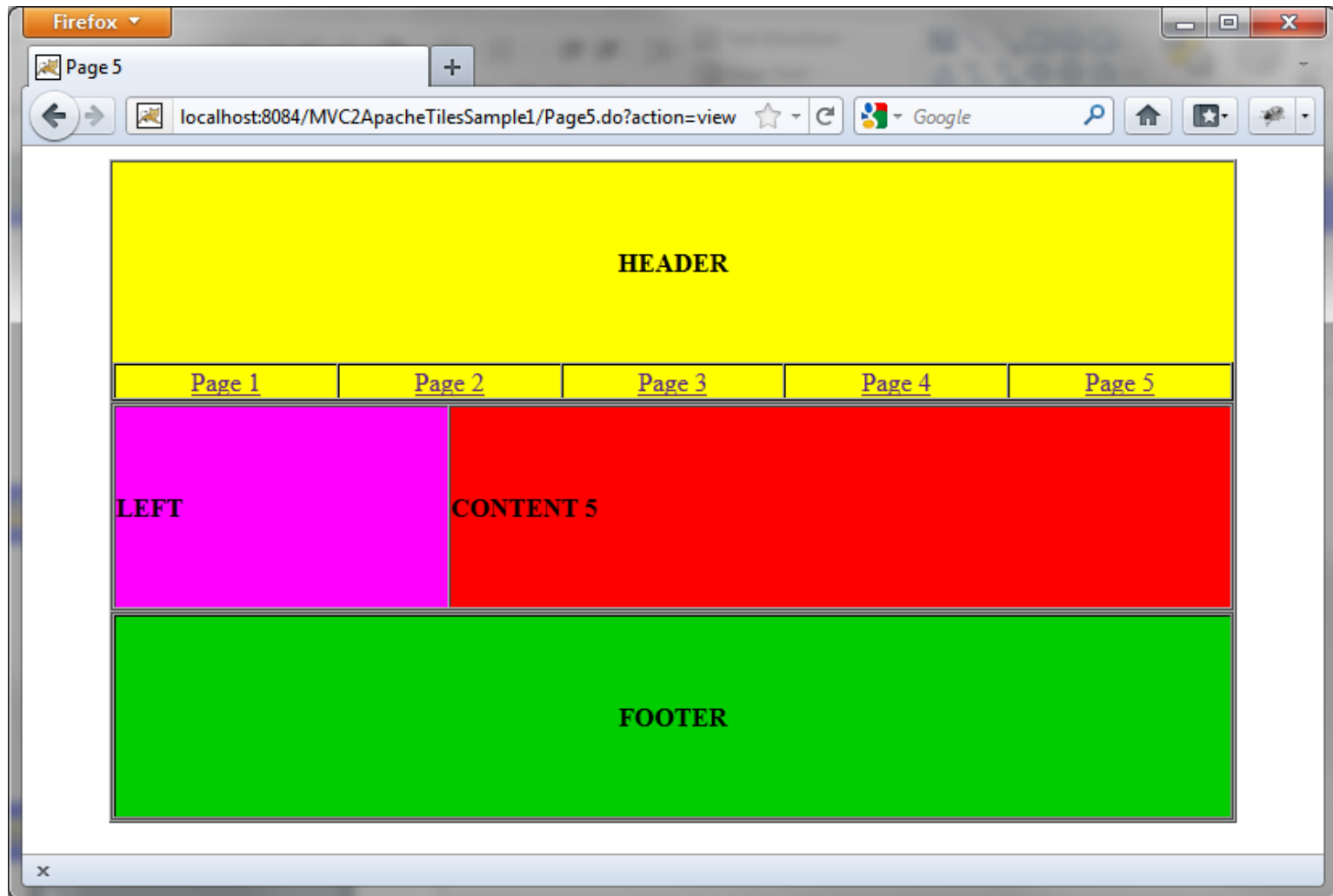
Điều chỉnh các liên kết của các trang

| | |
|----|--|
| 1 | <code>Page 1</code> |
| 2 | <code>. . .</code> |
| 3 | <code>Page 2</code> |
| 4 | <code>. . .</code> |
| 5 | <code>Page 3</code> |
| 6 | <code>. . .</code> |
| 7 | |
| 8 | <code>Page 4</code> |
| 9 | |
| 10 | <code>. . .</code> |
| 11 | <code>Pag 5</code> |
| 12 | <code>. . .</code> |

Thử nghiệm



Thử nghiệm



Demo

- MVC2ApacheTilesSample-1

Page1.jsp, . . ., Page5.jsp

Page1.jsp

```
1 <%@taglib prefix="tiles"  
2         uri="http://tiles.apache.org/tags-tiles" %>  
3 <tiles:insertDefinition name="Page1"/>
```

Page2.jsp

```
1 <%@taglib prefix="tiles"  
2         uri="http://tiles.apache.org/tags-tiles" %>  
3 <tiles:insertDefinition name="Page2"/>
```

...

Page5.jsp

```
1 <%@taglib prefix="tiles"  
2         uri="http://tiles.apache.org/tags-tiles" %>  
3 <tiles:insertDefinition name="Page5"/>
```

Page1.jsp, . . ., Page5.jsp

- Khó khăn

- `<tiles:insertDefinition name="Page1"/>`

- . . .

- `<tiles:insertDefinition name="Page5"/>`

- Chỉ khác nhau `name` ở mỗi trang

- Phải tạo rất nhiều trang

- Cách khắc phục

- `<tiles:insertDefinition name="${page}"/>`

Tổ chức website - Cách 2

■ Web Pages

— page

- Header.jsp, Left.jsp, Footer.jsp
- Content1.jsp, ..., Content5.jsp

— template

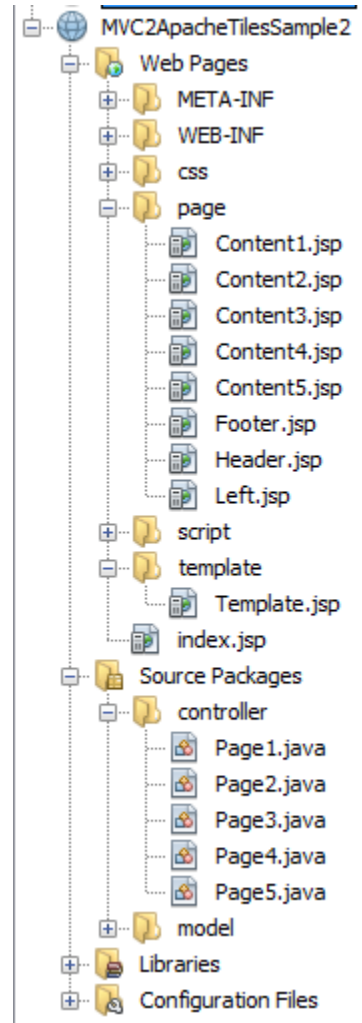
- Template.jsp

— index.jsp

■ Source Packages

— Controller

- Page1.do, . . . , Page5.do



index.jsp

index.jsp

| | |
|---|--|
| 1 | <code><%@taglib prefix="tiles"</code> |
| 2 | <code>uri="http://tiles.apache.org/tags-tiles" %></code> |
| 3 | <code><tiles:insertDefinition name="\${page}"/></code> |

Page1.do, . . . , Page5.do

Page1.do

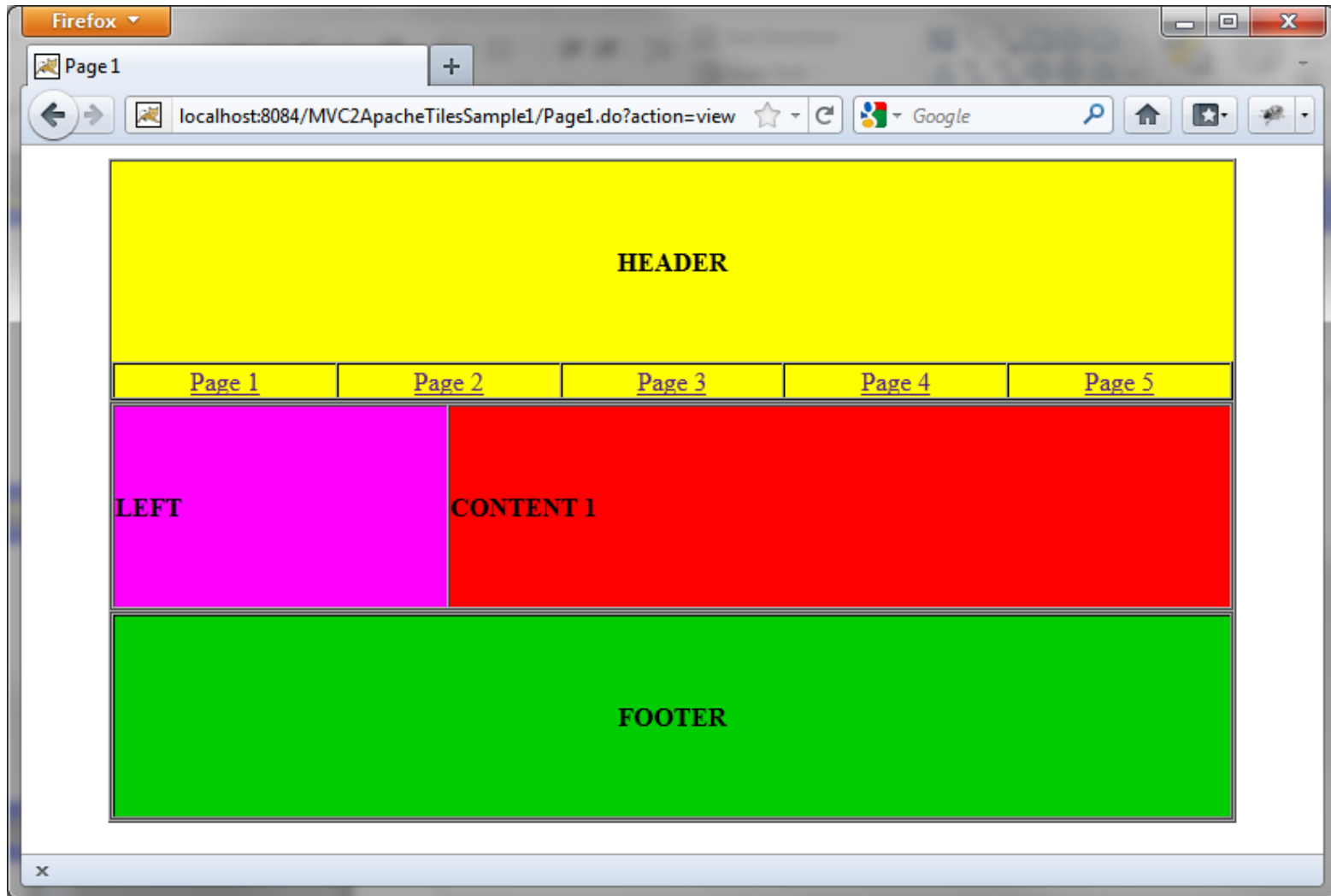
```
1 String view = "index.jsp";
2 request.setAttribute("page", "Page1");
3 RequestDispatcher rd = request.getRequestDispatcher(view);
4 rd.forward(request, response);
```

...

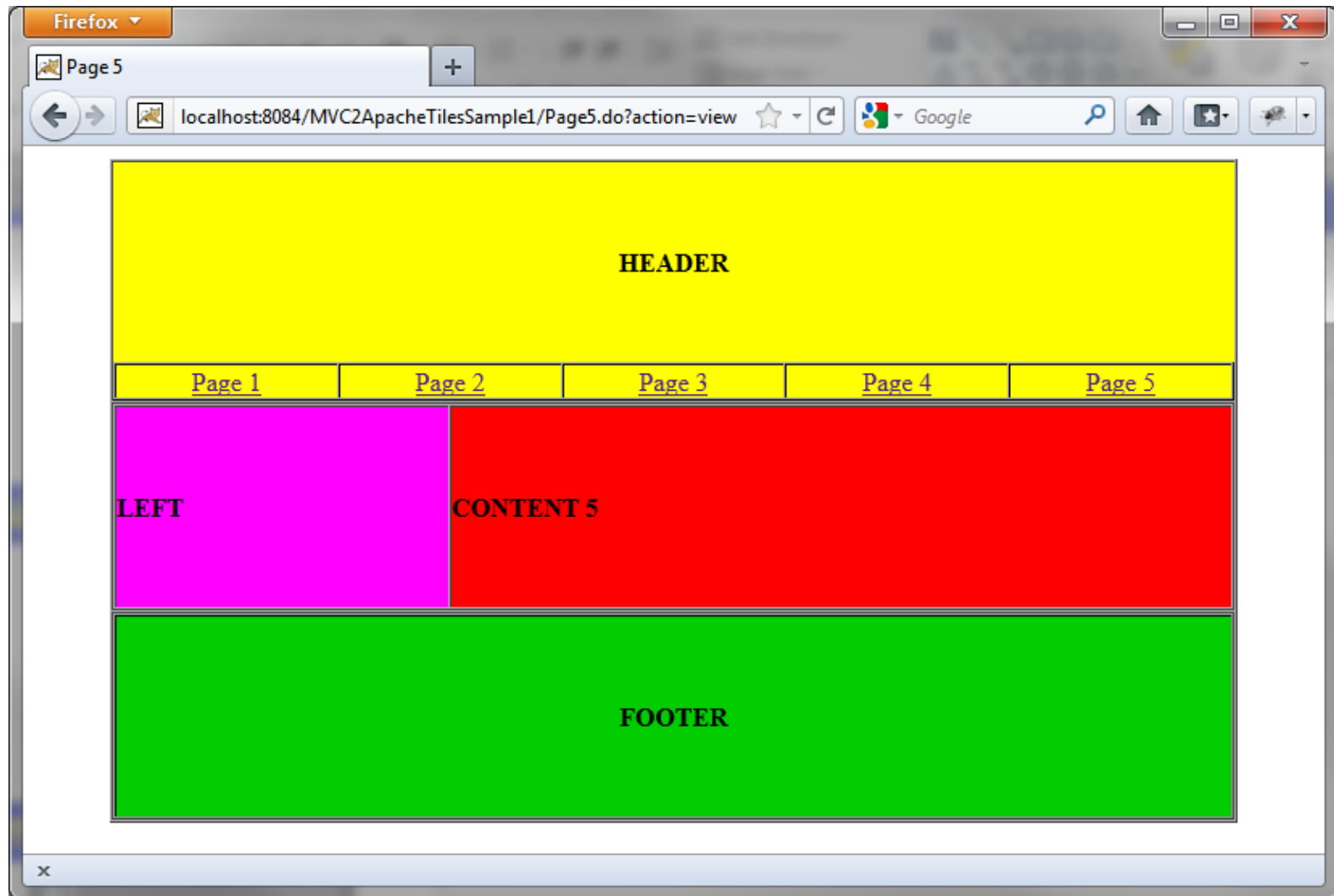
Page5.do

```
1 String view = "index.jsp";
2 request.setAttribute("page", "Page5");
3 RequestDispatcher rd = request.getRequestDispatcher(view);
4 rd.forward(request, response);
```


Thử nghiệm



Thử nghiệm



Demo

- MVC2ApacheTilesSample-2

Tài liệu tham khảo

- Nguyễn Hoàng Anh, Tập bài giảng môn chuyên đề Java, 2011
- <http://tiles.apache.org/quickstart/index.html>



HỎI VÀ ĐÁP