“Model 1” programming

A quick and naïve way to code web applications with very simple control flow

Model 1 thinking

Problem:
• Requests with parameters typically have affect the session, the database & the page they transfer to

Solution
1. Think which requests may transfer to called.jsp
2. Start called.jsp with code that collects their request parameters and makes the side effects
Entry

<html>
<head><title>Shopping app entry</title></head>
<body>
Welcome to the tiniest shopping app of the world:<p>

<form method="GET" action="choose.jsp">
Your name: <input type="text" size="20" name="user"/><p />
<input type="submit" value="Proceed to Choose products"/>
</form>
</body>
</html>
Choose: Book-keeping data received from “calling” page

<html>
<head><title>Order Page</title></head>
<body>
<%  
String user = request.getParameter("user");
session.setAttribute("user", user);
%>

Welcome <%= user %> <p>
<form method="GET" action="order.jsp">
Product:
<select name="product">
<option value="Notebook">Notebook</option>
<option value="Pen">Pen</option>
</select>
<p>
Amount: <input type="text" size="4" name="amount"/>
<input type="submit" value="Click to Order"/>
</form>
</body>
</html>

Choose: Production of html

<html>
<head><title>Order Page</title></head>
<body>
<%  
String user = request.getParameter("user");
session.setAttribute("user", user);
%>

Welcome <%= user %> <p>
<form method="GET" action="order.jsp">
Product:
<select name="product">
<option value="Notebook">Notebook</option>
<option value="Pen">Pen</option>
</select>
<p>
Amount: <input type="text" size="4" name="amount"/>
<input type="submit" value="Click to Order"/>
</form>
</body>
</html>
Choose: Production of html

```html
<html>
<head> <title>Provide credit card</title> </head>
<body>
<% 
    String product = request.getParameter("product");
    String amountAsString = request.getParameter("amount");
    Integer amount = Integer.parseInt(amountAsString);
    session.setAttribute("product", product);
    session.setAttribute("amount", amount);
%>

Dear <%= session.getAttribute("user") %>,
you have ordered <%= session.getAttribute("amount") %>
<%=
    session.getAttribute("product") %>

Please provide your credit card:<p>
<form method="GET" action="dummyCredit.jsp">
    <input type="text" size="16" name="credit"/>
</form>
</body>
</html>
```

Two (or more) pages (or generally forms) transferring to the same called.jsp

```java
String action=request.getParameter("action");
if (action!=null & action.equals("type1")) {
    book-keep according to first request
}
if (action!=null & action.equals("type2")) {
    book-keep according to second request
}
if (action==null or none of above) {
    some error display code
}
```
One of the calling pages may be the called.jsp (the original use of Model 1)

**firstcalling.jsp**

**called.jsp**

Distinguish which of the two (or more) requests invoked the called.jsp

JSP expressions & scriptlets producing the html page