

〈7주차 실습〉

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Web Programming

<실행 결과>



← → ⏏ ↺ http://localhost:8005/RequestSample/size.html

Select Beer Characteristic

Can Size :

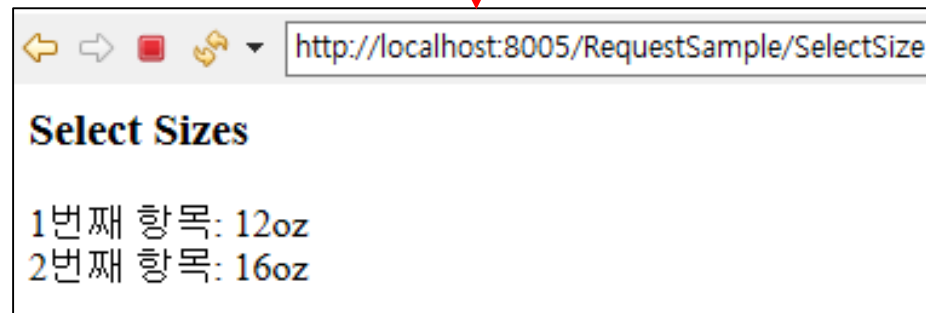
☐ 12 oz.

☐ 16 oz.

☐ 22 oz.

주문

항목 선택 후 주문 버튼 클릭



← → ⏏ ↺ http://localhost:8005/RequestSample/SelectSize

Select Sizes

1번째 항목: 12oz

2번째 항목: 16oz

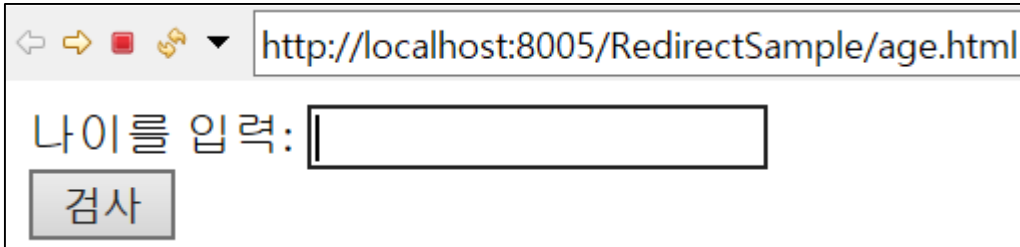
<size.html>

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <meta charset="UTF-8">
5 <title>Insert title here</title>
6 </head>
7 <body>
8     <form method="POST" action="SelectSize">
9         Select Beer Characteristic <p>
10             Can Size : </p>
11             <input type="checkbox" name="sizes" value="12oz">12 oz.<br>
12             <input type="checkbox" name="sizes" value="16oz">16 oz.<br>
13             <input type="checkbox" name="sizes" value="22oz">22 oz.<br><br><br>
14             <input type="submit" value="주문">
15     </form>
16 </body>
17 </html>
```

<SelectSize.java>

```
1 import java.io.IOException;
2 import javax.servlet.ServletException;
3 import javax.servlet.annotation.WebServlet;
4 import javax.servlet.http.HttpServlet;
5 import javax.servlet.http.HttpServletRequest;
6 import javax.servlet.http.HttpServletResponse;
7 import java.io.PrintWriter;
8
9 /**
10  * Servlet implementation class SelectSize
11  */
12 @WebServlet("/SelectSize")
13 public class SelectSize extends HttpServlet {
14     private static final long serialVersionUID = 1L;
15     /**
16      * @see HttpServlet#HttpServlet()
17      */
18     public SelectSize() {
19         super();
20         // TODO Auto-generated constructor stub
21     }
22     /**
23      * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
24      */
25     protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
26         // TODO Auto-generated method stub
27         response.getWriter().append("Served at: ").append(request.getContextPath());
28     }
29     /**
30      * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
31      */
32     protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
33         // TODO Auto-generated method stub
34
35         response.setContentType("text/html;charset=UTF-8");
36
37         String[] sizes = request.getParameterValues("sizes");
38
39         PrintWriter out = response.getWriter();
40
41         out.println("<h3>Select Sizes</h3>");
42
43         for(int idx=0; idx<sizes.length; idx++){
44             out.println((idx+1) + "번째 항목: " + sizes[idx] + "<br/>");
45         }
46     }
47 }
```

<실행 결과>

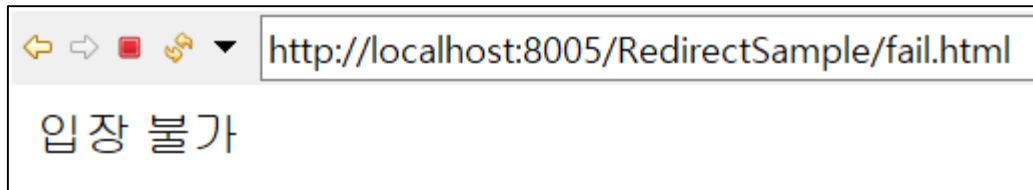


← → 🛑 ↺ ▼ http://localhost:8005/RedirectSample/age.html

나이를 입력:

검사

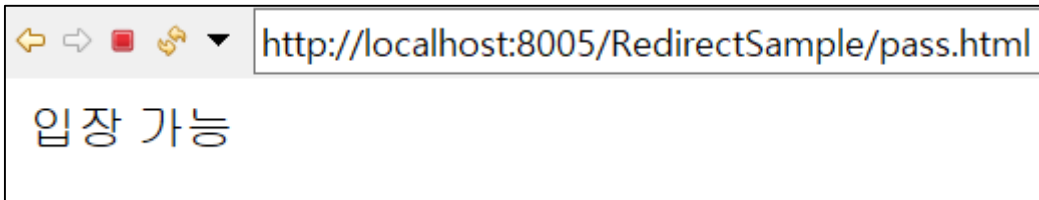
<19 이하 입력>



← → 🛑 ↺ ▼ http://localhost:8005/RedirectSample/fail.html

입장 불가

<20 이상 입력>



← → 🛑 ↺ ▼ http://localhost:8005/RedirectSample/pass.html

입장 가능

<age.html>

```
1 <!DOCTYPE html>
2<html>
3<head>
4 <meta charset="UTF-8">
5 <title>Insert title here</title>
6 </head>
7<body>
8    <form method="GET" action="classification">
9        나이를 입력: <input type="text" name="age"><br/>
10        <input type="submit" value="검사">
11    </form>
12 </body>
13 </html>
```

<pass.html>

```
1 <!DOCTYPE html>
2<html>
3<head>
4 <meta charset="UTF-8">
5 <title>Insert title here</title>
6 </head>
7<body>
8    입장 가능
9 </body>
10 </html>
```

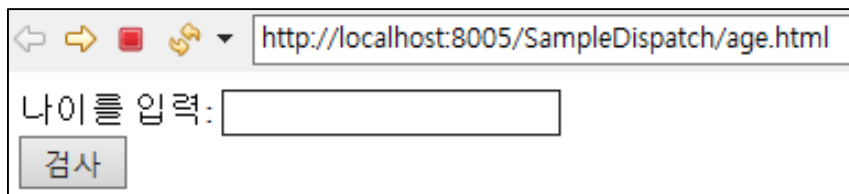
<fail.html>

```
1 <!DOCTYPE html>
2<html>
3<head>
4 <meta charset="UTF-8">
5 <title>Insert title here</title>
6 </head>
7<body>
8    입장 불가
9 </body>
10 </html>
```

<classification.java>

```
1 import java.io.PrintWriter;
2 import java.io.IOException;
3 import javax.servlet.ServletException;
4 import javax.servlet.annotation.WebServlet;
5 import javax.servlet.http.HttpServlet;
6 import javax.servlet.http.HttpServletRequest;
7 import javax.servlet.http.HttpServletResponse;
8
9 @WebServlet("/classification")
10 public class classification extends HttpServlet {
11     private static final long serialVersionUID = 1L;
12
13     public classification() {
14         super();
15         // TODO Auto-generated constructor stub
16     }
17
18     protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
19         // TODO Auto-generated method stub
20         response.setContentType("text/html;charset=UTF-8");
21         PrintWriter out = response.getWriter();
22         int age = Integer.parseInt(request.getParameter("age"));
23
24         if(age>19) {
25             response.sendRedirect("pass.html");
26         }
27         else {
28             response.sendRedirect("fail.html");
29         }
30
31     }
32 }
```

<실행 결과>

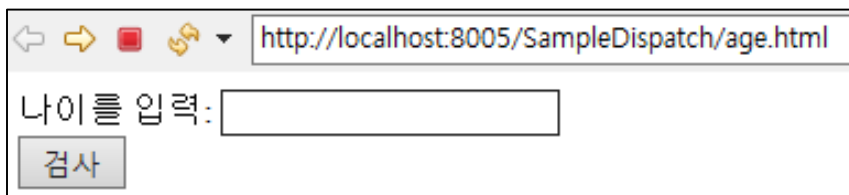


← → ⏏ ↺ ▾ http://localhost:8005/SampleDispatch/age.html

나이를 입력:

검사

<19 이하 입력>

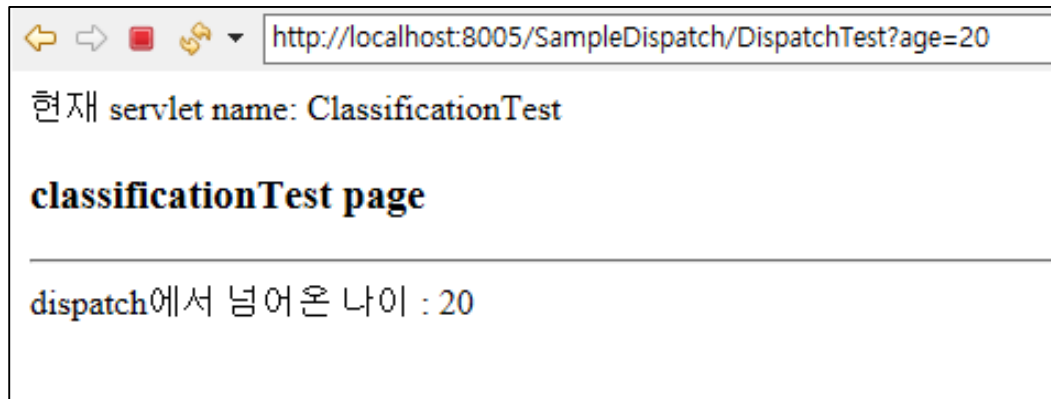


← → ⏏ ↺ ▾ http://localhost:8005/SampleDispatch/age.html

나이를 입력:

검사

<20 이상 입력>



← → ⏏ ↺ ▾ http://localhost:8005/SampleDispatch/DispatchTest?age=20

현재 servlet name: ClassificationTest

classificationTest page

dispatch에서 넘어온 나이 : 20

<age.html>

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <meta charset="UTF-8">
5   <title>Insert title here</title>
6 </head>
7 <body>
8   <form method="GET" action="DispatchTest">
9     나이를 입력: <input type="text" name="age"><br/>
10    <input type="submit" value="검사">
11  </form>
12 </body>
13 </html>
```

<pass.html>

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <meta charset="UTF-8">
5   <title>Insert title here</title>
6 </head>
7 <body>
8   입장 가능
9 </body>
10 </html>
```

<DispatchTest.java>

```
1 import java.io.IOException;
2 import javax.servlet.ServletException;
3 import javax.servlet.annotation.WebServlet;
4 import javax.servlet.http.HttpServlet;
5 import javax.servlet.http.HttpServletRequest;
6 import javax.servlet.http.HttpServletResponse;
7 import java.io.PrintWriter;
8 import javax.servlet.RequestDispatcher;
9
10 /**
11  * Servlet implementation class dispatch
12  */
13 @WebServlet("/DispatchTest")
14 public class DispatchTest extends HttpServlet {
15     private static final long serialVersionUID = 1L;
16
17     /**
18      * @see HttpServlet#HttpServlet()
19      */
20     public DispatchTest() {
21         super();
22         // TODO Auto-generated constructor stub
23     }
24
25     /**
26      * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
27      */
28     protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
29         // TODO Auto-generated method stub
30         //response.getWriter().append("Served at: ").append(request.getContextPath());
31
32         request.setCharacterEncoding("UTF-8");
33         response.setContentType("text/html;charset=UTF-8");
34
35         PrintWriter out = response.getWriter();
36
37         int age = Integer.parseInt(request.getParameter("age"));
38
39         if(age > 19){
40             RequestDispatcher dispatcher =
41                 request.getRequestDispatcher("ClassificationTest");
42
43             dispatcher.forward(request, response);
44
45         }else{
46             response.sendRedirect("age.html");
47         }
48
49         out.close();
50     }
51 }
52 }
```

<ClassificationTest.java>

```
1 import java.io.IOException;
2 import javax.servlet.ServletException;
3 import javax.servlet.annotation.WebServlet;
4 import javax.servlet.http.HttpServlet;
5 import javax.servlet.http.HttpServletRequest;
6 import javax.servlet.http.HttpServletResponse;
7 import java.io.PrintWriter;
8
9 /**
10  * Servlet implementation class child
11  */
12 @WebServlet("/ClassificationTest")
13 public class ClassificationTest extends HttpServlet {
14     private static final long serialVersionUID = 1L;
15
16     /**
17      * @see HttpServlet#HttpServlet()
18      */
19     public ClassificationTest() {
20         super();
21         // TODO Auto-generated constructor stub
22     }
23
24     /**
25      * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
26      */
27     protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
28         // TODO Auto-generated method stub
29         //response.getWriter().append("Served at: ").append(request.getContextPath());
30
31         request.setCharacterEncoding("UTF-8");
32         response.setContentType("text/html;charset=UTF-8");
33
34         PrintWriter out = response.getWriter();
35
36         out.println("현재 servlet name: " + this.getServletName());
37         out.println("<h3>classificationTest page</h3>");
38
39         out.println("<hr/>dispatch에서 넘어온 나이 : "+request.getParameter("age"));
40         out.close();
41     }
42
43     /**
44      * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
45      */
46
47 }
```

<web.xml>

```
1 <?xml version="1.0" encoding="UTF-8"?>
2Ⓜ <web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://xmlns.jcp.org/xml/ns/javaee"
3   xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd" id="WebApp_ID" version="3.1">
4
5Ⓜ <servlet>
6   <servlet-name>mvc1</servlet-name>
7   <servlet-class>com.example.web.BeerSelect</servlet-class>
8 </servlet>
9
10Ⓜ <servlet-mapping>
11   <servlet-name>mvc1</servlet-name>
12   <url-pattern>/SelectBeer.do</url-pattern>
13 </servlet-mapping>
14
15 </web-app>
```

<BeerSelect.java>

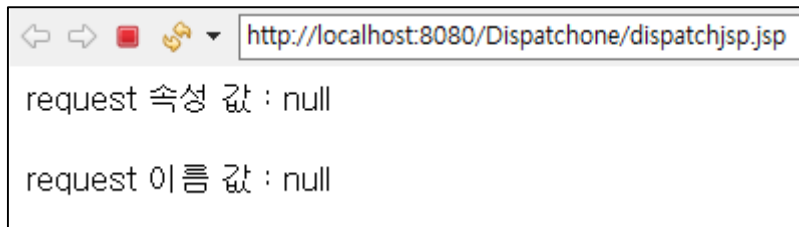
```
1 package com.example.web;
2
3 import java.io.*;
4 import java.util.*;
5 import javax.servlet.*;
6 import javax.servlet.http.*;
7 import javax.servlet.annotation.WebServlet;
8 import java.io.PrintWriter;
9 import java.io.IOException;
10 import javax.servlet.ServletException;
11 import javax.servlet.http.HttpServlet;
12 import javax.servlet.http.HttpServletRequest;
13 import javax.servlet.http.HttpServletResponse;
14
15
16 @WebServlet("/BeerSelect")
17 public class BeerSelect extends HttpServlet {
18     private static final long serialVersionUID = 1L;
19
20     public BeerSelect() {
21         super();
22         // TODO Auto-generated constructor stub
23     }
24
25     protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
26
27     }
28     protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
29         // TODO Auto-generated method stub
30         //doGet(request, response);
31
32         response.setContentType("text/html;charset=UTF-8");
33         PrintWriter out = response.getWriter();
34         out.println("Beer Selection Advice<br>");
35         String c = request.getParameter("color");
36         out.println("<br>Got Beer Color<br>");
37     }
38 }
```

<form.html>

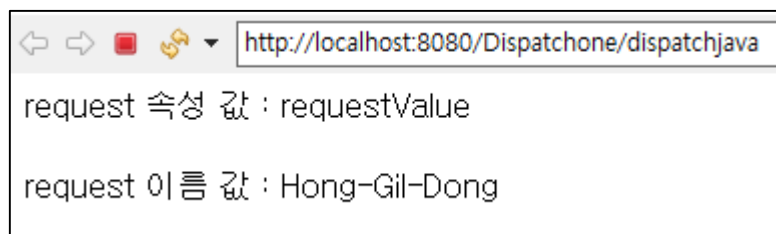
```
1  <!DOCTYPE html>
2  <html>
3  <head>
4    <meta charset="UTF-8">
5    <title>Insert title here</title>
6  </head>
7  <body>
8    <h1 align="center">Beer Selection Page</h1>
9    <form method="POST" action="SelectBeer.do">
10     Select beer characteristics - mvc1<p>
11     Color :
12     <Select name="color" size="1">
13       <option value = "light" >light </option>
14       <option value = "amber" >amber</option>
15       <option value = "brown" >brown</option>
16       <option value = "dark" >dark</option>
17     </Select>
18     <br><br>
19     <center>
20       <input type="submit"/>
21     </center>
22 </form>
23 </body>
24 </html>
```

Q1. 다음과 같은 jsp 코드를 이용하여, 아래와 같이 실행되도록 Dispatch 방식을 이용한 java코드를 작성하시오.

jsp 실행 결과 화면



java 실행 결과 화면



Q1. 다음과 같은 jsp 코드를 이용하여, 아래와 같이 실행되도록 Dispatch 방식을 이용한 java코드를 작성하시오.

jsp 파일 코드

```
1 <%@ page language="java" contentType="text/html; charset=EUC-KR"
2   pageEncoding="EUC-KR"%>
3 <!DOCTYPE html>
4 <html>
5 <head>
6   <meta charset="EUC-KR">
7   <title>Insert title here</title>
8 </head>
9 <body>
10  request 속성 값 : <%=request.getAttribute("request")%> <br><br> request 이름 값 : <%=request.getAttribute("requestName")%>
11 </body>
12 </html>
```


Q1. 다음과 같은 jsp 코드를 이용하여, 아래와 같이 실행되도록 Dispatch 방식을 이용한 java코드를 작성하시오.

java 파일 코드

```
1 import java.io.IOException;
2 import javax.servlet.RequestDispatcher;
3 import javax.servlet.ServletException;
4 import javax.servlet.annotation.WebServlet;
5 import javax.servlet.http.HttpServlet;
6 import javax.servlet.http.HttpServletRequest;
7 import javax.servlet.http.HttpServletResponse;
8 import java.io.PrintWriter;
9
10 /**
11  * Servlet implementation class dispatchjava
12  */
13 @WebServlet("/dispatchjava")
14 public class dispatchjava extends HttpServlet {
15     private static final long serialVersionUID = 1L;
16
17     /**
18      * @see HttpServlet#HttpServlet()
19      */
20     public dispatchjava() {
21         super();
22         // TODO Auto-generated constructor stub
23     }
24
25     /**
26      * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
27      */
28     protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
29         // TODO Auto-generated method stub
30
31         response.setContentType("text/html;charset=UTF-8");
32         RequestDispatcher dispatcher = request.getRequestDispatcher(" ");
33
34
35     }
36 }
37
38 }
```

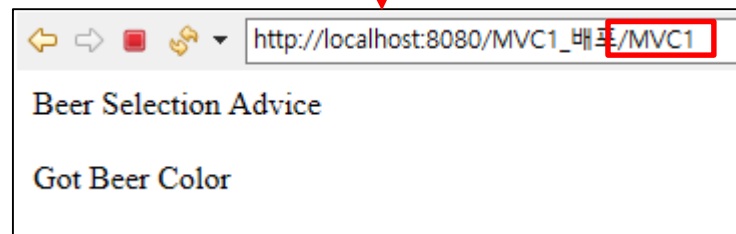
Q2. 이론 및 실습 자료를 참고하여 아래와 같이 동작되는 MVC1을 작성하시오.

- 빨간 박스 부분을 자신의 영어 이니셜로 변경



The screenshot shows a web browser window with the address bar displaying `http://localhost:8080/MVC1_배포/form.html`. The page title is "Beer Selection Page". Below the title, the text "Select beer characteristics - mvc1" is displayed. There is a label "Color :" followed by a dropdown menu currently showing "light". At the bottom center of the form, there is a button labeled "쿼리 전송".

쿼리 전송 클릭



The screenshot shows a web browser window with the address bar displaying `http://localhost:8080/MVC1_배포/MVC1`. The page title is "Beer Selection Advice". The main content of the page is "Got Beer Color". A red box highlights the `/MVC1` portion of the URL in the address bar.

Q3. 이론 및 실습 자료를 참고하여 아래와 같이 동작되는 MVC2을 작성하시오.

- 빨간 박스 부분을 자신의 영어 이니셜로 변경



Beer Selection Page

Select beer characteristics - mvc2

Color : light

쿼리 전송

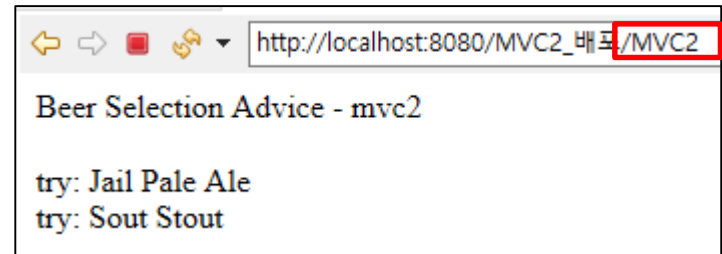
<amber 선택 후 쿼리 전송 클릭>



Beer Selection Advice - mvc2

try: Jack Amber
try: Red Moose

<light/brown/dark 선택 후 쿼리 전송 클릭>



Beer Selection Advice - mvc2

try: Jail Pale Ale
try: Sout Stout

Q4. 이론 및 실습 자료를 참고하여 아래와 같이 동작되는 MVC3을 작성하시오.

- 빨간 박스 부분을 자신의 영어 이니셜로 변경



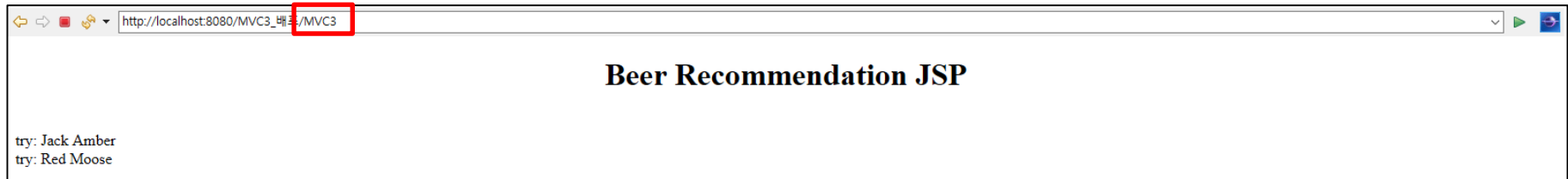
Beer Selection Page

Select beer characteristics - mvc3

Color : light

쿼리 전송

<amber 선택 후 쿼리 전송 클릭>



Beer Recommendation JSP

try: Jack Amber
try: Red Moose

<light/brown/dark 선택 후 쿼리 전송 클릭>



Beer Recommendation JSP

try: Jail Pale Ale
try: Sout Stout

- 제출 방식 : E-Class를 통하여 제출
- 제출 내용 : 프로젝트 파일을 압축한 war 파일, Image File
 - 각 문제 별로 프로젝트 파일을 생성할 것
 - 각 프로젝트 명은 Q + 문제 번호로 할 것 (ex. 1번 문제의 경우 Q1)
- 제출 형식 : ZIP File(만들어지는 war 파일들을 압축)
 - (만들어지는 war 파일과 결과 화면 캡처 이미지를 압축)
- 제목 형식 : 학번_이름_주차
 - ex) 학번_홍길동_7주차.zip
- 제출 기한 : 10월 19일(목) 23시 59분까지
 - 연장 제출 불허