

Spring Version: ShowTable1

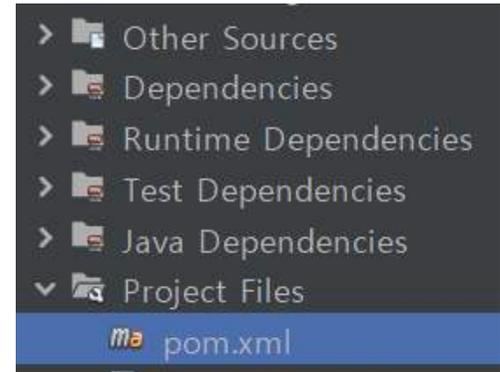
LJM

MySQL 드라이버 추가

- 대상 파일: pom.xml
- 참고: <https://mvnrepository.com/artifact/com.mysql/mysql-connector-j>

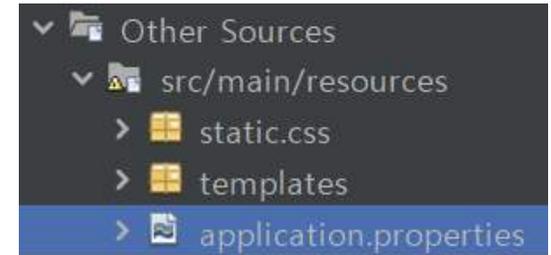
```
<dependency>
  <groupId>org.glassfish.web</groupId>
  <artifactId>jakarta.servlet.jsp.jstl</artifactId>
</dependency>
<dependency>
  <groupId>jakarta.servlet.jsp.jstl</groupId>
  <artifactId>jakarta.servlet.jsp.jstl-api</artifactId>
</dependency>
<!-- 240102 LJM: end -->

<dependency>
  <groupId>mysql</groupId>
  <artifactId>mysql-connector-j</artifactId>
  <version>8.4.0</version>
</dependency>
```



application.properties 수정

- 데이터베이스 관련 정보 추가



```
1 # https://docs.spring.io/spring-boot/docs/current/reference/html/apr
2
3 spring.mvc.view.prefix=/WEB-INF/views/
4 spring.mvc.view.suffix=.jsp
5
6 # https://linkeverything.github.io/springboot/spring-context-path/
7 server.port=8088
8 server.servlet.context-path=/ood
9 # Session timeout. If a duration suffix is not specified, seconds wi
10 server.servlet.session.timeout=3600
11
12 # 원하는 패키지의 로깅 수준 설정 가능
13 logging.level=debug
14 logging.level.deu.se.ood=debug
15
16 # MySQL 관련 정보
17 spring.datasource.username=jdbctester
18 spring.datasource.password=12345*
19 spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
```

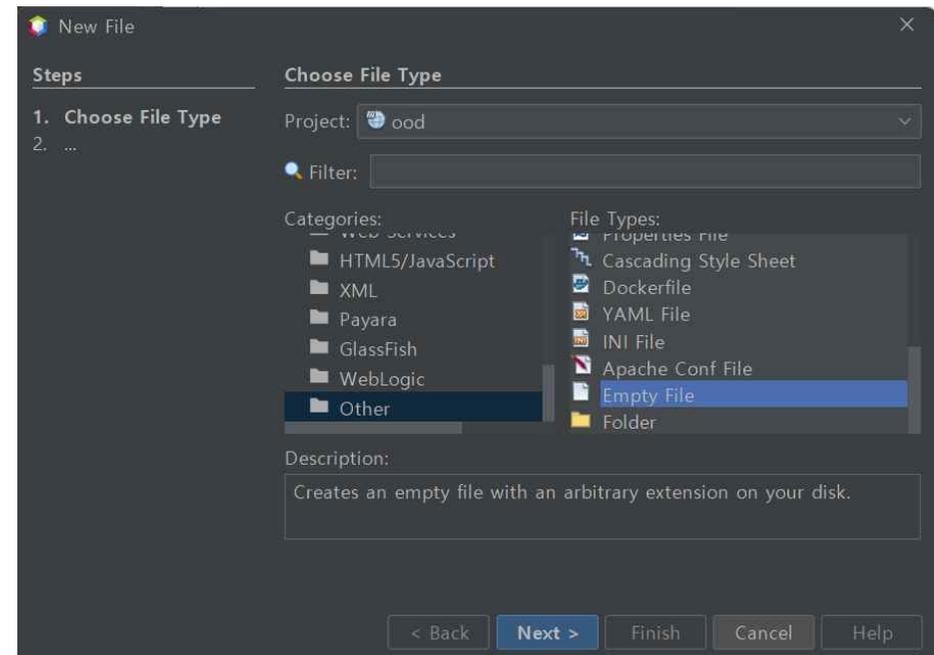
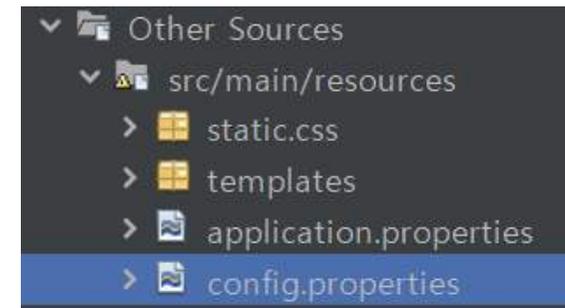
config.properties 파일

- application.properties 파일과 같은 폴더에 추가
- 폴더: /src/main/resources

```

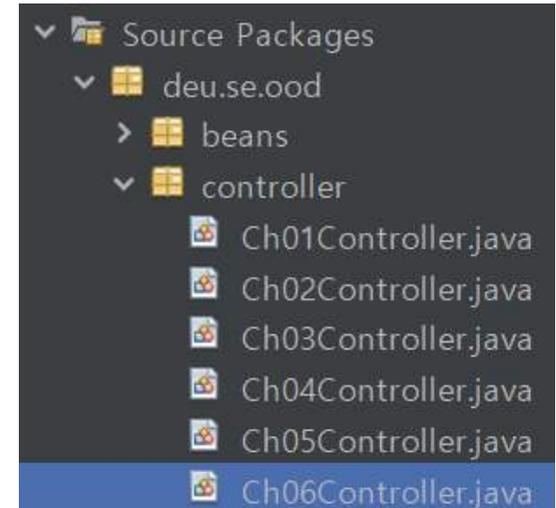
1 #
2 # spring_jsp 환경 설정 파일
3
4 # mysql.server.ip=172.17.0.2
5 mysql.server.ip=127.0.0.1
6 mysql.server.port=3306
7

```



Ch06Controller.java

```
5 package deu.se.ood.controller;
6
7 import lombok.extern.slf4j.Slf4j;
8 import org.springframework.beans.factory.annotation.Value; // 중요
9 import org.springframework.context.annotation.PropertySource;
10 import org.springframework.stereotype.Controller;
11 import org.springframework.ui.Model;
12 import org.springframework.web.bind.annotation.GetMapping;
13
14 @PropertySource("classpath:/application.properties")
15 @PropertySource("classpath:/config.properties")
16 @Controller
17 @Slf4j
18 public class Ch06Controller {
19
20     @Value("${mysql.server.ip}")
21     private String mysqlServerIp;
22     @Value("${mysql.server.port}")
23     private String mysqlServerPort;
24     @Value("${spring.datasource.username}")
25     private String dbUserName;
26     @Value("${spring.datasource.password}")
27     private String dbPassword;
28     @Value("${spring.datasource.driver-class-name}")
29     private String dbDriver;
```



```
31 @GetMapping("/ch06/showtable1")
32 public String showTable1(Model model) {
33     model.addAttribute("mysql_server_ip", this.mysqlServerIp);
34     model.addAttribute("mysql_server_port", this.mysqlServerPort);
35     model.addAttribute("db_username", this.dbUserName);
36     model.addAttribute("db_password", this.dbPassword);
37     model.addAttribute("db_driver", this.dbDriver);
38     log.debug("mysql.server.ip = {}, mysql.server.port = {}",
39             this.mysqlServerIp, this.mysqlServerPort);
40     return "ch06/showtable1/index";
41 }
42
43 }
```

/ch06/showtable1/index.jsp

```
7 <%@page contentType="text/html" pageEncoding="UTF-8"%>
8 <%@page import="java.sql.*" %>
9
10 <!DOCTYPE html>
11 <html>
12   <head>
13     <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
14     <meta name="viewport" content="width=device-width, initial-scale=1.0">
15     <title>dbDriver</title>
16   </head>
17   <body>
18     <h1>주소록</h1>
19     <hr />
20
21   <%
22     final String JDBC_DRIVER = (String) request.getAttribute("db_driver");
23
24     // Ch06Controller.java에서 추가한 Model의 애트리뷰트 사용할 때
25     final String mysqlServerIp = (String) request.getAttribute("mysql_server_ip");
26     final String mysqlServerPort = (String) request.getAttribute("mysql_server_port");
27     // @configProperties 사용할 때
28     // final String mysqlServerIp = (String)pageContext.getAttribute("mysqlServerIp");
29     // final String mysqlServerPort = (String)pageContext.getAttribute("mysqlServerPort");
```

```
31     final String JDBC_URL = String.format("jdbc:mysql://%s:%s/webmail?serverTimezone=Asia/Seoul",
32         mysqlServerIp, mysqlServerPort);
33     final String USER = (String) request.getAttribute("db_username");
34     final String PASSWORD = (String) request.getAttribute("db_password"); // 계정 정보 확인 필
    요!!!
35
36     try {
37         // 1. JDBC 드라이버 적재
38         System.out.println("driver = " + JDBC_DRIVER);
39         Class.forName(JDBC_DRIVER);
40
41         // 2. DB 연결
42         Connection conn = DriverManager.getConnection(JDBC_URL, USER, PASSWORD);
43
44         // 3. Statement 생성
45         Statement stmt = conn.createStatement();
46
47         // 4. SQL 질의(query) 실행
48         String sql = "SELECT email, name, phone FROM addrbook";
49         ResultSet rs = stmt.executeQuery(sql);
50
51         // 5. SQL 질의 결과 활용
52         // 테이블 헤더
53     } %>
```

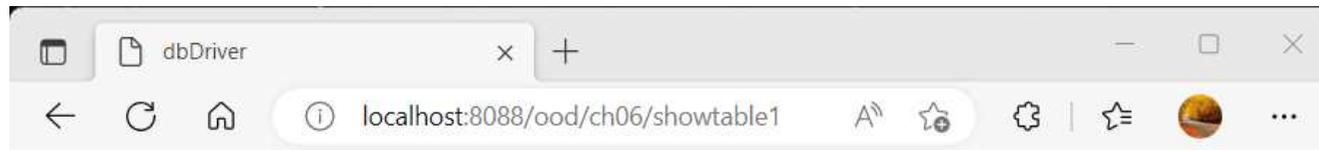
```
55 <table border="1">
56   <thead>
57     <tr>
58       <th>이름</th>
59       <th>이메일</th>
60       <th>전화번호</th>
61     </tr>
62   </thead>
63   <tbody>
64     <%
65       while (rs.next()) {
66         // 테이블 몸체
67         out.println("<tr>");
68         out.println("<td>" + rs.getString("name") + "</td>");
69         out.println("<td>" + rs.getString("email") + "</td>");
70         out.println("<td>" + rs.getString("phone") + "</td>");
71         out.println("</tr>");
72       }
73       rs.close();
74       stmt.close();
75       conn.close();
76     %>
77   </tbody>
78 </table>
79
```

```
80
81 <%
82     } catch (Exception ex) {
83         out.println("mysql_server = " + request.getAttribute("mysql_server_ip"));
84         out.println("오류가 발생했습니다. (발생 오류: " + ex.getMessage() + ")");
85     }
86 <%>
87
88 <br><br>
89
90 <div>
91     참고. &dollar;{db_driver} = ${db_driver}
92 </div>
93 </body>
94 </html>
```

(참고) \${mysql_server_ip}, \${db_username} 등도 사용 가능

실행 결과

- URL: <http://localhost:8088/ood/ch06/showtable1>



주소록

이름	이메일	전화번호
홍길동	tester1@test.com	051-890-1111
테스터2	tester2@test.com	051-890-2222
테스터3	tester3@test.com	051-890-3333

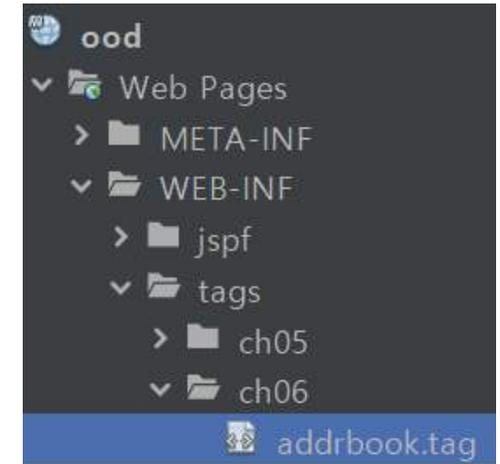
참고. `${db_driver} = com.mysql.cj.jdbc.Driver`

Spring Version: ShowTable2

LJM

/WEB-INF/ch06/addrbook.tag

```
7 <%@tag description="ShowTable2 tag file" pageEncoding="UTF-8"%>
8
9 <%@taglib prefix="c" uri="jakarta.tags.core" %>
10 <%@taglib prefix="sql" uri="jakarta.tags.sql" %>
11
12 ☐ <!-- The list of normal or fragment attributes can be specified here: -->
13 <%@attribute name="user" required="true" %>
14 <%@attribute name="password" required="true" %>
15 <%@attribute name="schema" required="true" %>
16 <%@attribute name="table" required="true" %>
17
18
19 <sql:setDataSource var="dataSrc"
20 |         url="jdbc:mysql://${mysql_server_ip}:${mysql_server_port}/${schema}"
21 |         driver="com.mysql.cj.jdbc.Driver"
22 |         user="${user}" password="${password}"/>
23
24 <!-- localhost 대신 MySQL 서버 IP 주소(도커 사용시 172.17.0.3) 대체 -->
25 ☐ <sql:query var="rs" dataSource="${dataSrc}">
26 |     SELECT email, name, phone FROM ${table}
27 | </sql:query>
```



```
29 | <table border="1">
30 |   <thead>
31 |     <tr>
32 |       <th>이름</th>
33 |       <th>이메일</th>
34 |       <th>전화번호</th>
35 |     </tr>
36 |   </thead>
37 |   <tbody>
38 |     <c:forEach var="row" items="${rs.rows}">
39 |       <tr>
40 |         <td>${row.name}</td>
41 |         <td>${row.email}</td>
42 |         <td>${row.phone}</td>
43 |       </tr>
44 |     </c:forEach>
45 |   </tbody>
46 | </table>
```

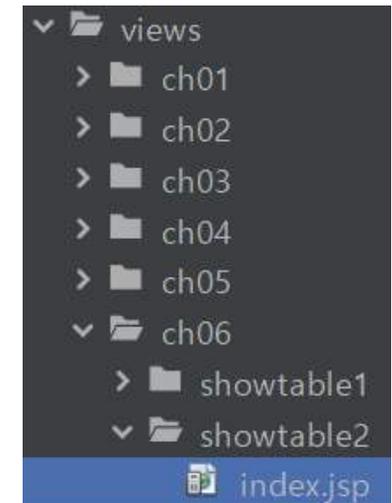
참고. Ch06Controller.java 중 관련 코드

- Model 객체에서 addAttribute()하면 request 객체에서 getAttribute() 메서드 또는 EL 표현식으로 사용 가능

```
43 @GetMapping("/ch06/showtable2")
44 public String showTable2(Model model) {
45     model.addAttribute("mysql_server_ip", this.mysqlServerIp);
46     model.addAttribute("mysql_server_port", this.mysqlServerPort);
47     model.addAttribute("db_username", this.dbUserName);
48     model.addAttribute("db_password", this.dbPassword);
49     model.addAttribute("db_driver", this.dbDriver);
50     return "ch06/showtable2/index";
51 }
```

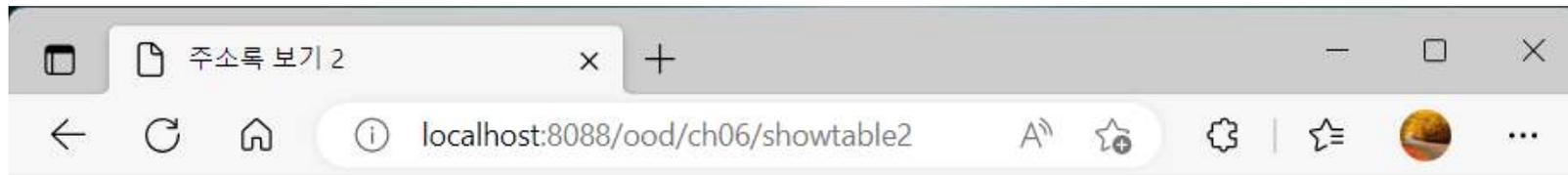
/ch06/showtable2/index.jsp

```
7 <%@page contentType="text/html" pageEncoding="UTF-8"%>
8 <%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
9 <%@taglib tagdir="/WEB-INF/tags/ch06" prefix="mytags"%>
10
11 <!DOCTYPE html>
12 <html>
13 <head>
14 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
15 <meta name="viewport" content="width=device-width, initial-scale=1.0">
16 <title>주소록 보기 2</title>
17 </head>
18 <body>
19 <h1>주소록</h1>
20 <hr/>
21
22 <c:catch var="errorReason">
23 <mytags:addrbook user="${db_username}" password="${db_password}"
24 schema="webmail" table="addrbook"/>
25 </c:catch>
26 ${empty errorReason ? "<noerror/>" : errorReason} <!-- 오류 원인 출력 -->
27 </body>
28 </html>
```



실행 결과

- URL: <http://localhost:8088/ood/ch06/showtable2>



주소록

이름	이메일	전화번호
홍길동	tester1@test.com	051-890-1111
테스터2	tester2@test.com	051-890-2222
테스터3	tester3@test.com	051-890-3333