

SQL CLASS 4

목차

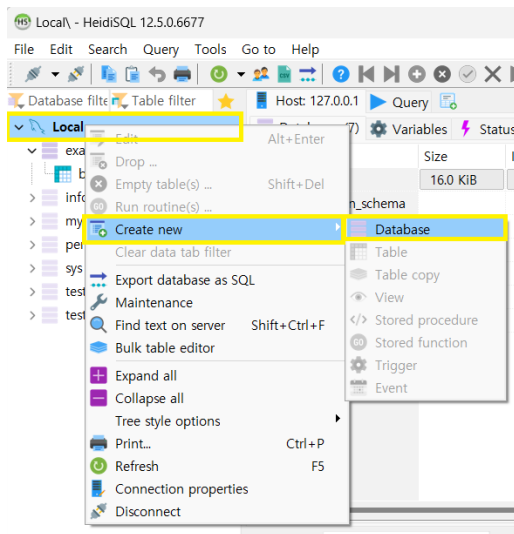
MySQL(CRUD)

JSP DATABASE(CRUD)

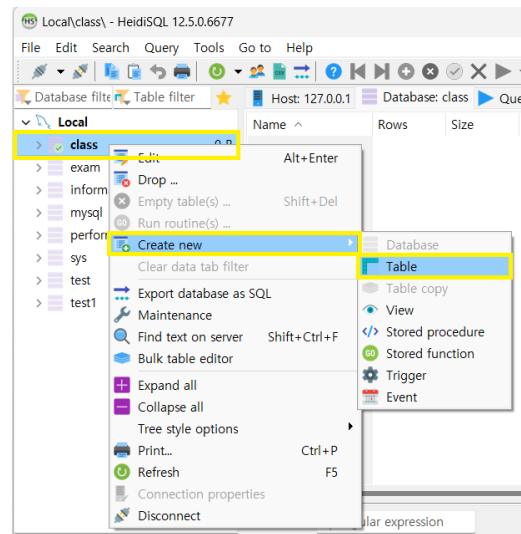
JSP CLASS(CRUD)

JSP HTML 응용

▼ MySQL(CRUD)



데이터베이스 작성



테이블 만들기

Columns: + Add - Remove ▲ Up ▼ Down							
#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default
1	cno	INT		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AUTO_INCREMENT
2	cname	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL
3	cetc	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL
4	cdate	TIMESTAMP		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CURRENT_TIMESTAMP()



INT → AUTO_INCREMENT ⇒ 자동으로 숫자 증가(고유 번호를 위해 **PRIMARY KEY** 설정)

TIMESTAMP → CURRENT_TIMESTAMP() ⇒ 현재 날짜를 자동으로 출력

Host: 127.0.0.1	Database: class	Table: class1	Data
class.class1: 2 rows total (approxim			
cno	cname	cetc	cdate
1	홍길동	test1	2023-05-11 09:44:53
2	김철수	test2	2023-05-11 09:45:02

데이터 대입하고 PRIMARY KEY, Default 값 확인

Host: 127.0.0.1	Database: class	Table:
<pre>1 INSERT INTO class1 (cname, cetc) 2 VALUES('이영희', 'test3');</pre>		

CRUD ⇒ CREATE

Host: 127.0.0.1 Database: class Table: class1

```
1 SELECT * FROM class1;
```

class1 (3r x 4c)

cno	cname	cetc	cdate
1	홍길동	test1	2023-05-11 09:44:53
2	김철수	test2	2023-05-11 09:45:02
3	이영희	test3	2023-05-11 09:48:50

CRUD ⇒ READ

```

1 UPDATE class1
2 SET cname = '고순이', cetc = 'test31'
3 WHERE cno = 3;

```

class1 (3r × 4c)			
cno	cname	cetc	cdate
1	홍길동	test1	2023-05-11 09:44:53
2	김철수	test2	2023-05-11 09:45:02
3	고순이	test31	2023-05-11 09:48:50

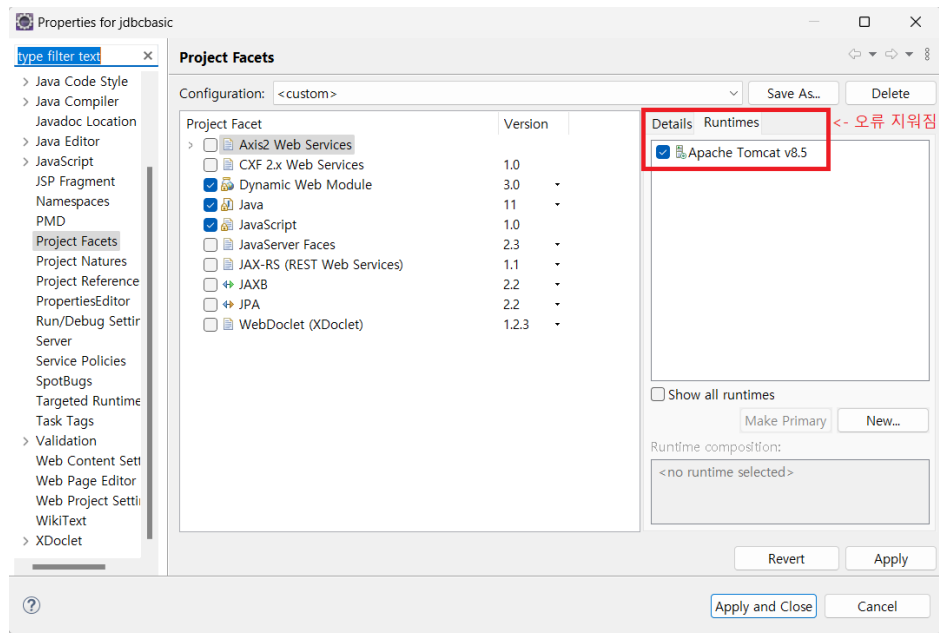
CRUD ⇒ UPDATE

1 DELETE
2 FROM class1
3 WHERE cno = 3;
4

class1 (2r × 4c)			
cno	cname	cetc	cdate
1	홍길동	test1	2023-05-11 09:44:53
2	김철수	test2	2023-05-11 09:45:02

CRUD ⇒ DELETE

▼ JSP DATABASE(CRUD)



오류 지울 수 있는 설정

▼ CREATE

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ page import="java.sql.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>CREATE</title>
</head>
<body>
<%
    Class.forName("com.mysql.jdbc.Driver");

    Connection conn = null;

    String hostname = "jdbc:mysql://localhost:3306/class";
    String username = "root";
    String password = "0000";

    conn = DriverManager.getConnection(hostname, username, password);

    String sql = "INSERT INTO class1 VALUES(?,?,?,now())";

    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.setInt(1, 5);
    pstmt.setString(2, "홍길동");
    pstmt.setString(3, "tset4");

    pstmt.executeUpdate();

    pstmt.close();
    conn.close();

%>
```

```
</body>
</html>
```

cno	cname	cetc	cdate
1	홍길동	test1	2023-05-11 09:44:53
2	김철수	test2	2023-05-11 09:45:02
4	temp	tempcon	2023-05-11 11:15:39
5	홍길동	tset4	2023-05-11 11:17:51

CRUD ⇒ CREATE

▼ READ

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ page import="java.sql.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>READ</title>
</head>
<body>
<%
    Class.forName("com.mysql.jdbc.Driver");

    Connection conn = null;

    String hostname = "jdbc:mysql://localhost:3306/class";
    String username = "root";
    String password = "0000";

    conn = DriverManager.getConnection(hostname, username, password);

    String sql = "SELECT * FROM class1";

    PreparedStatement pstmt = conn.prepareStatement(sql);

    ResultSet rset = pstmt.executeQuery();

    while(rset.next()) {                // 다음 항목이 있으면 반복(while) 실행
        String cno = rset.getString("cno");
        String cname = rset.getString("cname");
        String cetc = rset.getString("cetc");
        String cdate = rset.getString("cdate");

        %>

        <%=cno %> <%=cname %> <%=cetc %> <%=cdate %><br>
        <!-- JAVA문 사이에 HTML문을 끼워넣어 줄바꿈(또 다른 HTML기능도 추가 가능) -->

    }
    %>
</body>
</html>
```

1 홍길동 test1 2023-05-11 09:44:53
 2 김철수 test2 2023-05-11 09:45:02
 4 temp tempcon 2023-05-11 11:15:39

CRUD ⇒ READ

▼ UPDATE

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ page import="java.sql.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>UPDATE</title>
</head>
<body>
<%
    Class.forName("com.mysql.jdbc.Driver");

    Connection conn = null;

    String hostname = "jdbc:mysql://localhost:3306/class";
    String username = "root";
    String password = "0000";

    conn = DriverManager.getConnection(hostname, username, password);


    String sql = "UPDATE class1 SET cname = ?, cetc = ? WHERE cno = ?";

    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.setString(1, "김민수");
    pstmt.setString(2, "tset5");
    pstmt.setInt(3, 5);

    pstmt.executeUpdate();

    pstmt.close();
    conn.close();

%>
</body>
</html>
```

cno		cname	cetc	cdate
	1	홍길동	test1	2023-05-11 09:44:53
	2	김철수	test2	2023-05-11 09:45:02
	4	temp	tempcon	2023-05-11 11:15:39
	5	김민수	tset5	2023-05-11 11:54:29

CRUD ⇒ UPDATE

▼ DELETE

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ page import="java.sql.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>DELETE</title>
</head>
<body>
<%
    Class.forName("com.mysql.jdbc.Driver");

    Connection conn = null;

    String hostname = "jdbc:mysql://localhost:3306/class";
    String username = "root";
    String password = "0000";

    conn = DriverManager.getConnection(hostname, username, password);

    String sql = "DELETE FROM class1 WHERE cno = ?";

    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.setInt(1, 5);

    pstmt.executeUpdate();

    pstmt.close();
    conn.close();

%>
</body>
</html>
```

cno	🔑	cname	cetc	cdate
1		홍길동	test1	2023-05-11 09:44:53
2		김철수	test2	2023-05-11 09:45:02
4		temp	tempcon	2023-05-11 11:15:39

CRUD ⇒ DELETE

▼ JSP CLASS(CRUD)

▼ CLASS 생성

```
package jdbcclass;

import java.sql.*;

public class DBconnect {
```

```

public static Connection getConnection() throws ClassNotFoundException, SQLException{

    Class.forName("com.mysql.jdbc.Driver");

    Connection conn = null;

    String hostname = "jdbc:mysql://localhost:3306/class";

    String username = "root";

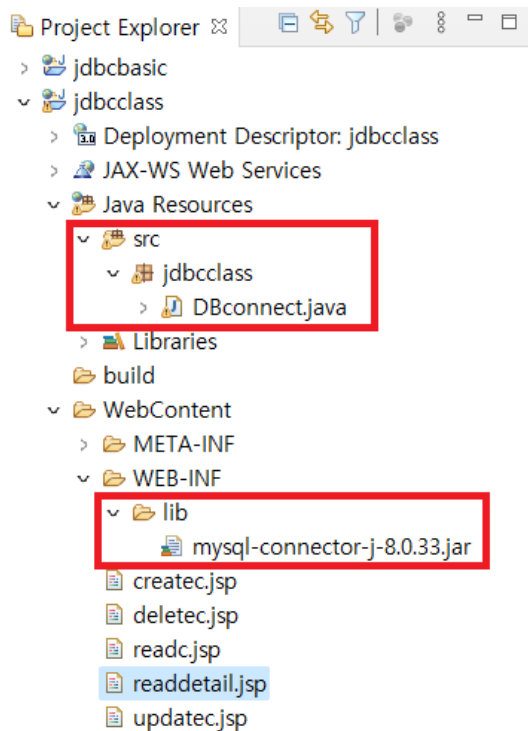
    String password = "0000";

    conn = DriverManager.getConnection(hostname, username, password);

    PreparedStatement pstmt = null;

    return conn;
}
}

```



CRUD 모든 파일에 반복되는 내용을 **CLASS**에 담아서 따로 **import** 하는 방법

⇒ src에서 dbconnect 클래스를 만들어 CRUD파일에 import시킴

※ lib에 mysql-connector 있는지 확인

훨씬 간결해진 코드를 볼 수 있음!

▼ CREATE

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ page import = "java.sql.*" %>
<%@ page import = "jdbcclass.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>CREATE_CLASS</title>

```

```

</head>
<body>

<%
    Connection conn = null;
    conn = DBconnect.getConnection();
%>

<%
    String sql = "INSERT INTO class1(cname, cetc) VALUES ('김동휘', 'test1')";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.executeUpdate();
%>

</body>
</html>

```

▼ READ

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
    <%@ page import = "java.sql.*" %>
    <%@ page import = "jdbc.class.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>READ1_CLASS</title>
</head>
<body>
<%
    Connection conn = null;
    conn = DBconnect.getConnection();
%>

<%
    String sql = "SELECT * FROM class1";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    ResultSet rset = pstmt.executeQuery();

    while(rset.next()) {
        String cno = rset.getString("cno");
        String cname = rset.getString("cname");
        String cetc = rset.getString("cetc");
        String cdate = rset.getString("cdate");
%>
        <%=cno %> <%=cname %> <%=cetc %> <%=cdate %> <br>
<%
    }
%>
</body>
</html>

```

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
    <%@ page import = "java.sql.*" %>
    <%@ page import = "jdbc.class.*" %>

```



```

<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>READ2_CLASS</title>
</head>
<body>

<%
    Connection conn = null;
    conn = DBconnect.getConnection();

    int no = 7;

    String sql = "SELECT * FROM class1 WHERE cno = ?";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.setInt(1, no);

    ResultSet rset = pstmt.executeQuery();
    rset.next();

    String cno = rset.getString("cno");
    String cname = rset.getString("cname");
    String cetc = rset.getString("cetc");
    String cdate = rset.getString("cdate");
%>
    <%=cno %> <%=cname %> <%=cetc %> <%=cdate %> <br>

</body>
</html>

```

▼ UPDATE

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
    <%@ page import = "java.sql.*" %>
    <%@ page import = "jdbc.class.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>UPDATE_CLASS</title>
</head>
<body>

<%
    Connection conn = null;
    conn = DBconnect.getConnection();
%>

<%
    String sql = "UPDATE class1 SET cname = '김동휘', cetc = 'test10' WHERE cno = 10";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.executeUpdate();
%>

</body>
</html>

```

▼ DELETE

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ page import = "java.sql.*" %>
<%@ page import = "jdbc.class.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>DELETE_CLASS</title>
</head>
<body>
<%
    Connection conn = null;
    conn = DBconnect.getConnection();
%>

<%
    String sql = "DELETE FROM class1 WHERE cno = 8";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.executeUpdate();
%>
</body>
</html>
```

▼ JSP HTML 응용

▼ 추가된 사항

```
<%
    Connection conn = null;
    conn = DBconnect.getConnection();

    String name = request.getParameter("name");
    String etc = request.getParameter("etc");

    String sql = "INSERT INTO class1(cname, cetc) VALUES (?,?)";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.setString(1, name);
    pstmt.setString(2, etc);

    pstmt.executeUpdate();

    response.sendRedirect("readc.jsp");
%>
```

// 입력한 값을 name과 etc에 넘겨줌

name과 etc에 입력받은 값 대입

```

<%
    Connection conn = null;
    conn = DBconnect.getConnection();

    String sql = "SELECT * FROM class1";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    ResultSet rset = pstmt.executeQuery();

    while(rset.next()) {
        String cno = rset.getString("cno");
        String cname = rset.getString("cname");
        String cetc = rset.getString("cetc");
        String cdate = rset.getString("cdate");

        <%=cno %> <a href="readdetail.jsp?no=<%=cno %>"><%=cname %></a> <%=cetc %> <%=cdate %> <br>
    }
%>

```

출력되는 이름에 하이퍼링크 걸기

```

<%
    Connection conn = null;
    conn = DBconnect.getConnection();

    int no = Integer.parseInt(request.getParameter("no"));

    String sql = "SELECT * FROM class1 WHERE cno = ?";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.setInt(1, no);

    ResultSet rset = pstmt.executeQuery();
    rset.next();

    String cno = rset.getString("cno");
    String cname = rset.getString("cname");
    String cetc = rset.getString("cetc");
    String cdate = rset.getString("cdate");

    <%=cno %> <%=cname %> <%=cetc %> <%=cdate %> <br>
%>

```

no에 요청받은 값을 대입

▼ 코드

- CREATE

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ page import = "java.sql.*" %>
<%@ page import = "jdbc.class.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>CREATE_CLASS</title>
</head>

```

```

<body>

<%
    Connection conn = null;
    conn = DBconnect.getConnection();

    String name = request.getParameter("name");    // 입력한 값을 name과 etc에 넘겨줌
    String etc = request.getParameter("etc");

    String sql = "INSERT INTO class1(cname, cetc) VALUES (?,?)";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.setString(1, name);
    pstmt.setString(2, etc);

    pstmt.executeUpdate();

    response.sendRedirect("readc.jsp");
%>

</body>
</html>

```

- READ

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
    <%@ page import = "java.sql.*" %>
    <%@ page import = "jdbc.class.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>READ1_CLASS</title>
</head>
<body>
<%
    Connection conn = null;
    conn = DBconnect.getConnection();
%>

<%
    String sql = "SELECT * FROM class1";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    ResultSet rset = pstmt.executeQuery();

    while(rset.next()) {
        String cno = rset.getString("cno");
        String cname = rset.getString("cname");
        String cetc = rset.getString("cetc");
        String cdate = rset.getString("cdate");
%>
        <%=cno %> <a href="readdetail.jsp?no=<%=cno %>"><%=cname %></a> <%=cetc %> <%=cdate %> <br>
    }
%>
</body>
</html>

```

- READ_DETAIL

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
    <%@ page import = "java.sql.*" %>
    <%@ page import = "jdbc.class.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>READ2_CLASS</title>
</head>
<body>

<%
    Connection conn = null;
    conn = DBconnect.getConnection();

    int no = Integer.parseInt(request.getParameter("no"));

    String sql = "SELECT * FROM class1 WHERE cno = ?";
    PreparedStatement pstmt = conn.prepareStatement(sql);
    pstmt.setInt(1, no);

    ResultSet rset = pstmt.executeQuery();
    rset.next();

    String cno = rset.getString("cno");
    String cname = rset.getString("cname");
    String cetc = rset.getString("cetc");
    String cdate = rset.getString("cdate");
%>
    <%=cno %> <%=cname %> <%=cetc %> <%=cdate %> <br>

</body>
</html>

```

• INPUT

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>INPUT</title>
</head>
<body>

<form action = "createc.jsp">
    이름을 입력하세요 : <input type = "text" name = "name"> <br>
    내용을 입력하세요 : <input type = "text" name = "etc">
    <input type = "submit" value = "등록">
</form>

</body>
</html>

```

▼ 결과

이름을 입력하세요 :

내용을 입력하세요 :

input의 cname, cetc에 값을 입력

```

1 홍길동 test1 2023-05-11 09:44:53
2 김철수 test2 2023-05-11 09:45:02
4 박명수 test4 2023-05-11 11:15:39
5 고길동 tset5 2023-05-11 14:05:13
7 박승희 test61 2023-05-11 14:12:16
9 김동휘 test9 2023-05-11 14:55:22
10 김동휘 test10 2023-05-11 15:38:00
11 김동휘 test1 2023-05-11 16:08:45
12 김동휘 test1 2023-05-11 16:08:57
13 최예준 바보똥구멍멍이 2023-05-11 16:13:02
14 정여진 여짤 2023-05-11 16:15:57
15 김건우 포도년 2023-05-11 16:16:15
16 안유정 찹땡 2023-05-11 16:16:29
17 김경오 대실농 2023-05-11 16:20:15
18 김민찬 시꾸릿쭈쭈 2023-05-11 16:23:22
19 전상우 하누천따지 2023-05-11 16:24:37
20 손석구 멜로가체질 2023-05-11 16:43:40

```

등록 누르면 입력한 값을 table에 대입(이름에 하이퍼링크)

20 [손석구](#) 멜로가체질 2023-05-11 16:43:40

이름 하이퍼링크 클릭 시 그 번호(cno) detail로 들어감