

Chapter 7 JDBC & JSP

JDBC JSP 가 PHP
JSP
가 JSP
가 JDBC JSP
JDBC JDBC JDBC
JSP

JDBC

JDBC java.sql import
JDBC
1. import
2. JDBC
3. Connection
4. Statement
5. SQL
6. ResultSet 가
(.)
7. ResultSet
8. Statement
9. Connection

6,7 select 가
ResultSet delete update

JDBC

JDBC

4가 가 . 4가 가
 2가 . 가 JDBC 가
 가 TYPE 4(4가)
 가

JDBC-ODBC JDBC ODBC
 JDBC 가
 ODBC
 JDBC-ODBC JDBC 2.0

JDBC ODBC
 가

JDBC 가 JDBC 가
 ODBC JDBC-ODBC ODBC

JDBC

JDBC JDBC

```

Class.forName("JDBC");
JDBC JDBC JDBC-ODBC
sun.jdbc.odbc.JdbcOdbcDriver
Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
JDBC
classes12.zip

oracle.jdbc.driver.OracleDriver
JDBC-ODBC java.sql import
classpath 가 classes12.zip
    
```

가 ,JSP lib
 JDBC DB MS-SQL
 JDBC Jturbo
 Sprinta2000가 FreeTDS

Jturbo(<http://www.jturbo.com>)

Sprinta2000(<http://www.inetsoftware.de/English/produkte/JDBC2/Default.htm>)

FreeTDS(<http://www.freetds.org>)

Sprinta2000 JDBC com.inet.tds.TdsDriver
 Class.forName("com.inet.tds.TdsDriver")
 Class.forName JDBC JDBC
 가 ClassNotFoundException 가
 DB java.sql
 SQLException
 try-catch throws

JDBC	URL	URL
JDBC-ODBC	sun.jdbc.odbc.JdbcOdbcDriver	jdbc:odbc:
thin	oracle.jdbc.driver.OracleDriver	jdbc:oracle:thin:@ [ip]:1521:[SID]
Sprinta2000	com.inet.tds.TdsDrive	jdbc:inetdae:127.0.0.1? database=[DB_Name]
mysql	org.gjt.mm.mysql.Driver	jdbc:mysql:// [ip]:3306/[DB_Name]

Connection

Connection Connection
 DriverManager getConnection getConnection
 3가 2가

```
Connection con = DriverManager.getConnection(" ");
```

URL 가 가

```
jdbc:sub_protocol://
```

```
JDBC-ODBC          jdbc:odbc:test          가 . test  ODBC
                    JDBC          JDBC
                    jdbc:oracle:thin:@[ip  ]:1521:[SID]          가
                    jdbc:oracle:thin:@127.0.0.1:1521:orcl
```

List 7.1 ConnectionTest.jsp

```
<%@ page import="java.sql.*" %>
```

```
<%
try{
    Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
    out.print("Driver loaded");
    String url = "jdbc:odbc:test";
    Connection con = DriverManager.getConnection(url);
    out.print("Connection opened");
} catch(classNotFoundException e){
    System.out.println("Driver Error " +e);
} catch(SQLException e){
    System.out.println("SQL Error " +e);
}
}
%>
```

List 7.1 MS-ACCESS UserID password가
 getConnection
 url, user, password 가 가

```
Connection con = DriverManager.getConnection(url, user, password);
```


가

ResultSet

ResultSet 가

ResultSet 가



ResultSet 가

가

ResultSet

BeforeFirst

가

AfterLast

가

가

가 next

ResultSet

next

가

가

while

```
while(rs.next()){
```

```
...
```

```
}
```

```
ResultSet rs = ...;
```

```
Boolean next
```

```
, 가 true false
```

```
AfterLast false ...
```

```
가
```

	ResultSet	가
getString	getXxx	getInt, getDate, getLong...
	가	Xxx(Int, Date Long...)
가	1,	2

table

```
create table bluenote(
  name varchar(10),
  number int
)
```

가

```
insert into bluenote values('blue', 1)
```

JDBC-ODBC

ODBC

List 7.2 Result.jsp

```
<%@ page import="java.sql.*" %>
<%! Connection con;
    Statement stmt;
    ResultSet rs;
%>

<%
try{
    Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
    String url="jdbc:odbc:test"
    con = DriverManager.getConnection(url,"sa","");
    stmt = con.createStatement();
}catch(classNotFoundException e){
    System.out.println("Driver Error " +e);
}catch(SQLException e){
    System.out.println("SQL Error " +e);
}
}

rs = stmt.executeQuery("select * from bluenote");
while(rs.next()){
out.print(rs.getString("name")+"<br>"); // rs.getString(1)+"<br>"
```

```

out.print(rs.getInt("number")+"<br>"); // rs.getInt(2)+"<br>"
}
%>

```

name number가 가 ~
 . Select update, insert
 try~ catch

```

stmt.executeUpdate("insert into bluenote values('red', 2)");

```

가 가
 Connection, Statement,
 ResulteSet . close 가 ...

```

rs.close();
stmt.close();
con.close();

```

rs,
 stmt, con
 가
 JDBC
 JDBC
 API 가
 가
 PreparedStatement statement

PreparedStatement

statement
 SQL
 preparedStatement statement
 Connection 가

```

PreparedStatement pstmt = con.prepareStatement("SQL ");

```

prepareStatement . con Connection

SQL insert

```
String sql = "insert into bluenote values(?,?)";
PreparedStatement pstmt = con.prepareStatement(sql);
```

? ?
 가 setXxx . setString, setInt, setDate
 API setString setInt

```
pstmt.setString(1, "orange");
pstmt.setInt(2, 3);
```

? 1 ? 2가 ?
 orange String ? int 3 SQL

```
pstmt.executeUpdate();
```

preparedStatement insert

List7.3 prepare.jsp

```
<%@ page import="java.sql.*" %>
<%! Connection con;
    PreparedStatement pstmt;
    ResultSet rs;
%>

<%
try{
    Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
    con = DriverManager.getConnection(url,"sa","");
    String sql = "insert into bluenote values(?,?)";
    pstmt = con.prepareStatement(sql);
} catch(classNotFoundException e){
    System.out.println("Driver Error " +e);
} catch(SQLException e){
    System.out.println("SQL Error " +e);
}
}

pstmt.execute();
%>
```

	Statement	PreparedStatement
?	PreparedStatement가	SQL
	.	가 SQL
가	String sql = "	"; sql = sql+"
";	PreparedStatement	"; sql = sql+"
	.	SQL
PreparedStatement	.	JDBC
PreparedStatement	.	.
	JDBC API	ResultSet
	.	.
	.	API
	.	Part2