

# Internet Application

MySQL & JDBC Lab

# Java Database Connectivity

- Allows you to send SQL queries to a RDB
- Allows you to receive results of queries from RDB

**Seven Steps**

# Using JDBC Steps

1. Install DBMS (e.g. MySQL CE)
2. Configure the project
3. Load JDBC driver [ODBC- Jconnector]
4. Establish connection
5. Execute SQL statement
6. Process the results
7. Close the connection

# Install MySQL CE

- Go to [dev.mysql.com/downloads/windows/](http://dev.mysql.com/downloads/windows/)
- Download Windows (x86, 32-bit, MSI Installer)
- Run Setup



**MySQL Installer 5.6.21**

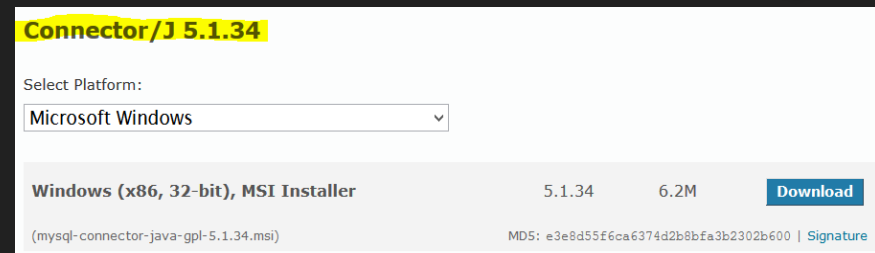
Select Platform:  
Microsoft Windows

<b>Windows (x86, 32-bit), MSI Installer</b> <small>(mysql-installer-web-community-5.6.21.1.msi)</small>	5.6.21	1.4M	<a href="#">Download</a>
<b>Windows (x86, 32-bit), MSI Installer</b> <small>(mysql-installer-community-5.6.21.1.msi)</small>	5.6.21	287.0M	<a href="#">Download</a>

MD5: afcc307021e4f2cc3011427c6f4a27dd | [Signature](#)

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- Go to <http://dev.mysql.com/downloads/connector/j/>
- Download Connector/J
- Run Setup



**Connector/J 5.1.34**

Select Platform:  
Microsoft Windows

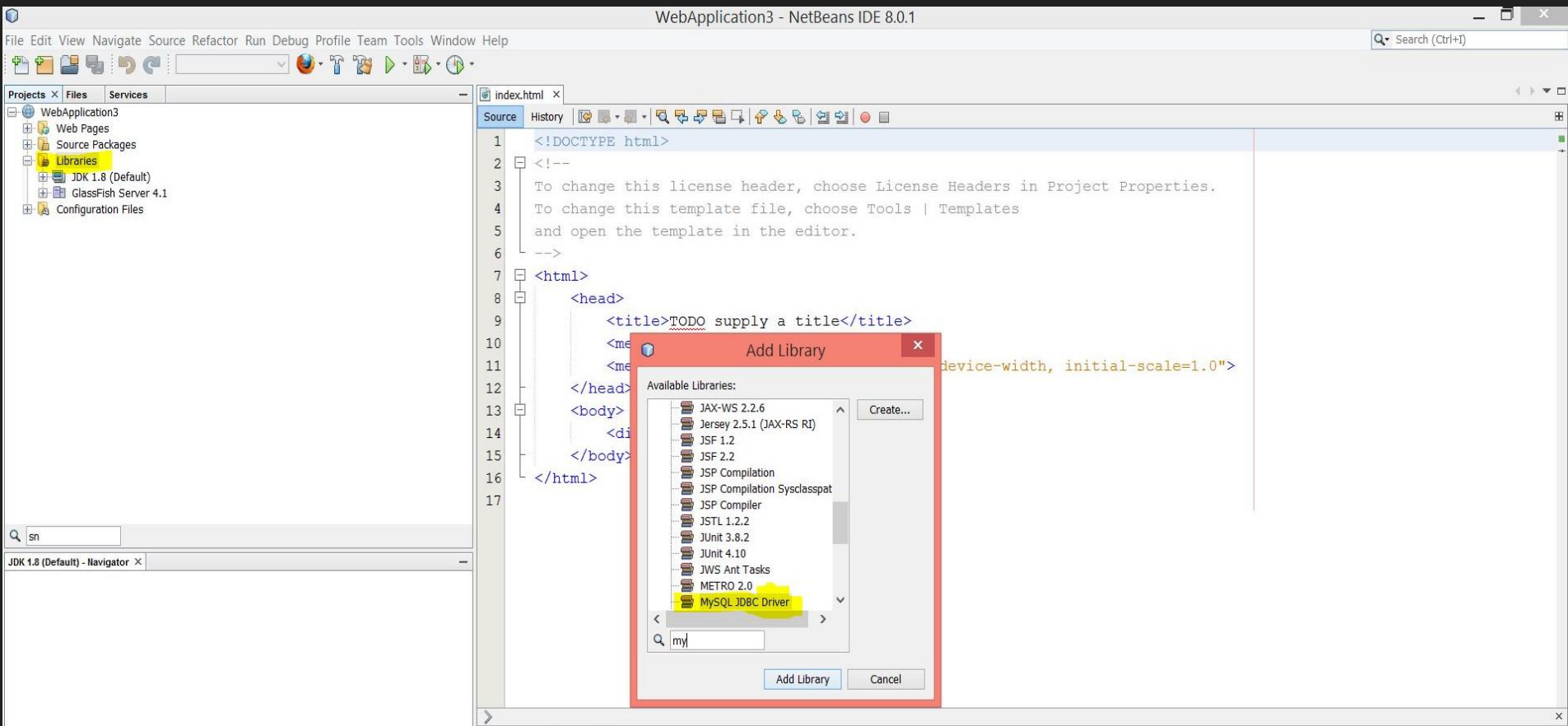
<b>Windows (x86, 32-bit), MSI Installer</b> <small>(mysql-connector-java-gpl-5.1.34.msi)</small>	5.1.34	6.2M	<a href="#">Download</a>
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# Add J Connector JAR

- In the project explorer, right click *Libraries* and click *Add Library*. Select *MySQL JDBC Driver* and click *Add Library*.

# Add J Connector JAR



# Establish connection (J Connector)

- `Class.forName("com.mysql.jdbc.Driver");`
- `Connection Con = DriverManager.getConnection("jdbc:mysql://localhost:3306/dbname", "UserName", "Password");`
- `DatabaseMetaData DBMetaData = Con.getMetaData();`
- `String EngineName = DBMetaData.getDatabaseProductName();`
- `String EngineVer = DBMetaData.getDatabaseProductVersion();`

# Execute SQL Statement - Writing

```
Statement Stmt = Con.createStatement();  
Stmt.executeUpdate("INSERT INTO department  
VALUES('DD','222','111111100','2013-10-10')");  
  
int Rows = Stmt.executeUpdate("INSERT INTO  
department VALUES('DD','222','111111100','2013-  
10-10')");  
  
System.out.println("Rows Affected: "+Rows);
```



# Execute SQL Statement - Reading

```
Statement Stmt = Con.createStatement();
ResultSet RS =Stmt.executeQuery("SELECT *
FROM Department");
while (RS.next())
{
    System.out.println(RS.getString(1));
    System.out.println(RS.getString("dnumber"));
}
```

# Close the connection

```
RS.close();
```

```
Stmt.close();
```

```
Con.close();
```

The image features a teal background with a fine, repeating pattern of diagonal lines. A black shape, resembling a speech bubble tail, points downwards from the teal area towards the center of the frame. Centered within this black shape is the text "Apply what we just explain" in a white, sans-serif font.

Apply what we just explain