Java Database Connectivity(JDBC)

To connect java application with the oracle database, we need to follow 5 following steps. In this example, we are using Oracle 10g as the database. So we need to know following information for the oracle database:

1. **Driver class:** The driver class for the oracle database is **oracle.jdbc.driver.OracleDriver**.
2. **Connection URL:** The connection URL for the oracle10G database is **jdbc:oracle:thin:@localhost:1521:xe** where jdbc is the API, oracle is the database, thin is the driver, localhost is the server name on which oracle is running, we may also use IP address, 1521 is the port number and XE is the Oracle service name. You may get all these information from the tnsnames.ora file.
3. **Username:** The default username for the oracle database is **system**.
4. **Password:** It is the password given by the user at the time of installing the oracle database.

Example:-

```
try{

//step1 load the driver class
Class.forName("oracle.jdbc.driver.OracleDriver");

//step2 create  the connection object
Connection con=DriverManager.getConnection(
"jdbc:oracle:thin:@localhost:1521:xe","system","oracle");
  System.out.println("Connected Sucessfully.");
con.close();

 }
catch(Exception e)
{
System.out.println(e);
}
```

To connect Java application with the MySQL database, we need to follow 5 following steps.

In this example we are using MySql as the database. So we need to know following informations for the mysql database:

1. **Driver class:** The driver class for the mysql database is **com.mysql.jdbc.Driver**.
2. **Connection URL:** The connection URL for the mysql database is **jdbc:mysql://localhost:3306/sonoo** where jdbc is the API, mysql is the database,

localhost is the server name on which mysql is running, we may also use IP address, 3306 is the port number and sonoo is the database name. We may use any database, in such case, we need to replace the sonoo with our database name.

3. **Username:** The default username for the mysql database is **root**.
4. **Password:** It is the password given by the user at the time of installing the mysql database. In this example, we are going to use root as the password.

```
Connection conn = null;
    Statement stmt = null;
    try{
        Class.forName("com.mysql.jdbc.Driver");
      System.out.println("Connecting to database...");
        conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/sonoo","root","");

        System.out.println("Connected Sucessfully...");
```

Connect to an SQLite database via JDBC

Step 1

Create a new directory called java under `c:\sqlite`

Connect to an SQLite database via JDBC

Step 2

Inside the `java` folder create a new folder called `connect`.

Step 3

Copy the jar file `sqlite-jdbc-3.27.2.1.jar` to the `c:\sqlite\connect` folder.

Example:-

```
Connection c = null;

    try {
       Class.forName("org.sqlite.JDBC");
       c = DriverManager.getConnection("jdbc:sqlite:test.db");
    } catch ( Exception e ) {
       System.err.println( e.getClass().getName() + ": " + e.getMessage()
);
       System.exit(0);
    }
    System.out.println("Opened database successfully");
```