

Objectiv

1. JDBC
2. Java – HSQLDB Connection
3. Adding HSQLDB.jar into Classpath

Part 1:

JDBC : Java Database Connectivity: is a standard Java API for database independent connectivity between the Java programming language and a wide range of DBMSs. The JDBC library includes APIs for :

1. Making a connection to a database
2. Executing SQL queries

It comes as a standard Java library.

Part 2:

1. Open Eclipse.
2. Create a new project named : **HelloDB1**
File → Project → Java Project → Next
Project Name : HelloDB1 → Finish
3. Create a new class: **Hello**
Right Click on HelloDB1 Project → New → Class
4. Type in the following code for the **Hello** class

```
import java.io.*;
import java.sql.*;
import java.util.*;
public class Hello {
    public static void main(String[] args) throws Exception{
        Connection con=null;
        try {
            Class.forName("org.hsqldb.jdbc.JDBC.Driver");
            con=DriverManager.getConnection("jdbc:hsqldb:mydb1","SA","");

            String sql1="SET DATABASE SQL SYNTAX MYS TRUE ";
            con.createStatement().executeUpdate(sql1);

            String sql2="CREATE TABLE IF NOT EXISTS students (" +
                "id int auto_increment primary key," +
                "name varchar(45), lname varchar(45), age int) ";
            con.createStatement().executeUpdate(sql2);

            String sql3=" insert into students (name,lname,age) values"+
                " ('John','McHill','45') ";
            con.createStatement().executeUpdate(sql3);

            String sql4="select * from students";
            PreparedStatement pst=con.prepareStatement(sql4);
            pst.clearParameters();
            ResultSet rs=pst.executeQuery();
            while(rs.next()){
                String id = rs.getString(1);
                String alpha= rs.getString(2);
                String beta= rs.getString(3);
                System.out.println(id+"\t"+alpha+"\t"+beta);
            }

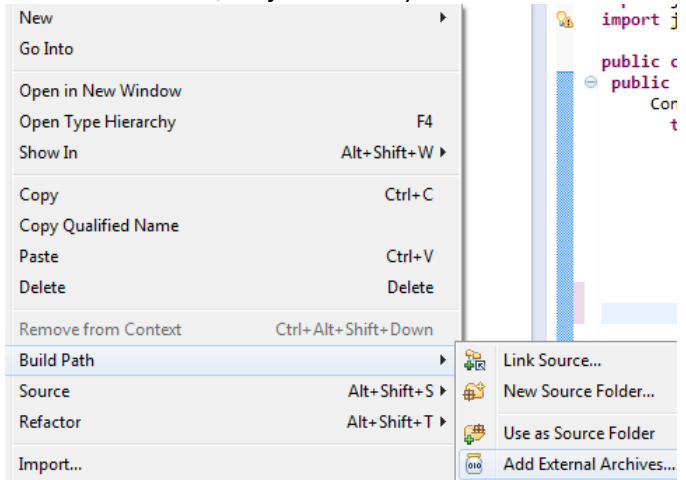
            Statement st = con.createStatement();
            st.execute("SHUTDOWN");
            con.close();
        }catch(Exception e){
            e.printStackTrace();
            con.close();
        }
    }
}
```

Part 3:

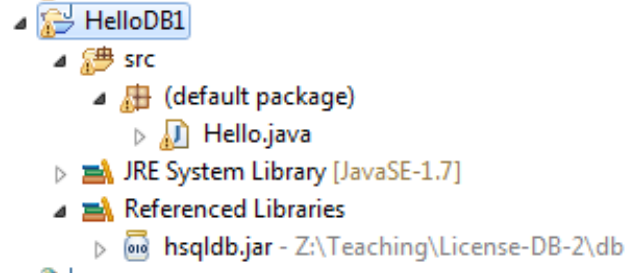
1. Try to run the application, you would get the error:

java.lang.ClassNotFoundException:
org.hsqldb.jdbc.JDBC.Driver

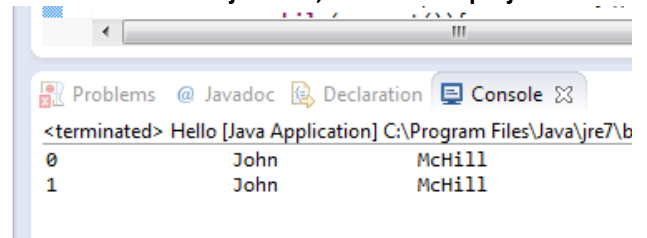
2. **Right Click** on the project : **HelloDB1**
3. Select **Build Path → Add External Archives**
4. Select the **HSQLDB.jar** file from your PC



5. Project should look like :



6. Select The **Hello.java** file, and Run the project



You can download HSQLDB from :
www.learnadb.com/down/hsqldb.jar

Practical Work

Homework

Ques