Using Netbeans and the Derby Database for Projects

Contents

1. Prerequisite

To begin with, you should have installed the following software.

1) Java: JDK 7.0
2) NetBeans 8.2 with Derby (Java DB)

If not, you should download the JDK (with Java DB included) through JDK official website:

http://www.oracle.com/technetwork/java/javase/downloads/jdk7-downloads-1880260.html

Netbeans can be found on the NetBeans official website (please download the **Java EE** version):

https://netbeans.org/downloads/index.html

2. Creating a Derby Database in Netbeans

a. Accessing Services:

Open NetBeans and you should have the interface shown in Figure 1. The Java DB is located under the tab "Services". If this tab is not visible, on the main menu: select "Window" and then "Services "as shown in Figure 2.
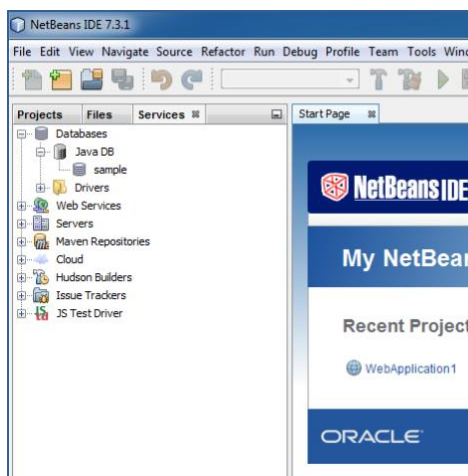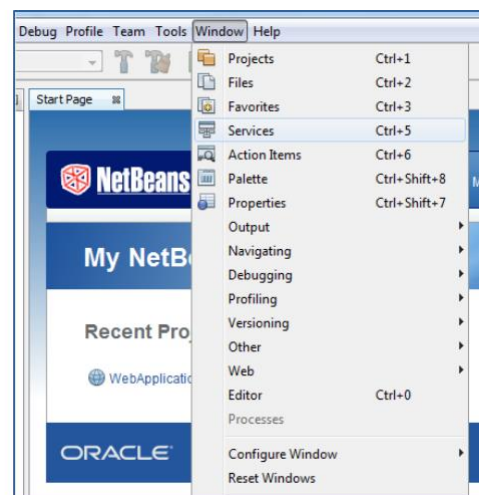

Figure 1: The main Interface of NetBeans

Figure 2: Open Services using Windows→Services

b. To create a new database, in the "services" tab:

1) Expand "Database"
2) Right click "Java DB", and select "Create Database".
3) In the Create JavaDB Database window (shown as Figure 3), provide the database name, user name, and password. For class projects, use your name for the database name and use *IS2560* as both username and password.
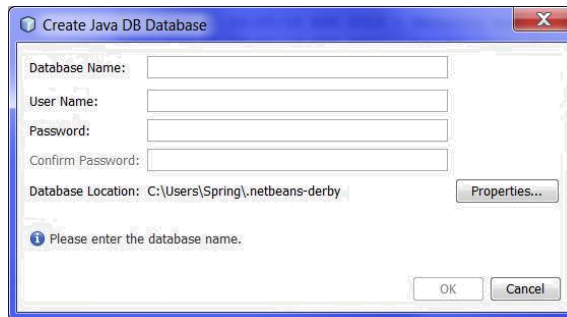4) When you have created a DBMS, a series of files will be created in your user space as will be described below.

Figure 3: Creating a new database

c. Making a connection through Netbeans

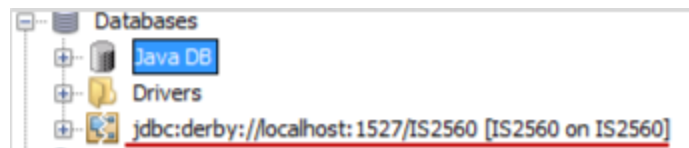5) After creating a new database, Netbeans will automatically build a connection, shown in the figure 4.

Figure 4: Derby database connections

6) If not, expand "Java DB", you will see a list of existing databases (in our case one called "IS2560"

7) Right click "IS2560" and select "Connect…" (Figure 5)

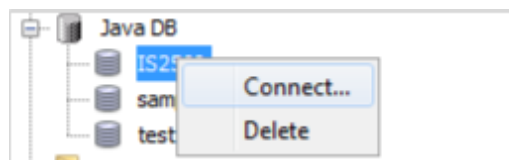8) A new connection will be built as shown in Figure 4.

Figure 5: Making a new connection

d. Creating tables

9) Keep in mind, before you can create tables you must make a connection to your DBMS

10) Expand existing connection "jdbc:derby://localhost:1527/IS2560 [IS2560 on IS2560]". If you are not able to expand this connection, make sure the server is started.

   How to Start Derby Server : Right click "Java DB", select "Start Server"

11) Expand "IS2560" (IS2560 is displayed in bold)

12) Right click on "Tables" and select "Create Tables…"

13) In the "Create Table" window (Figure 6), provide Table names and fields. In this example, we named the table as "demo" and added two fields: id (numeric, size=10), name (varchar, size=255)
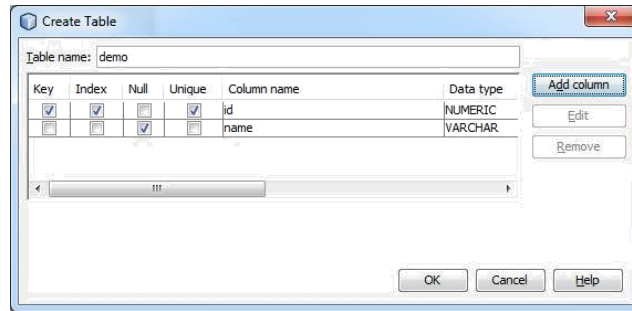
Figure 6: Creating a table schema

14) The created table "demo" will be displayed under your DBMS in the "Services" tab, as shown in Figure 7.

Figure 7: The created table

e. **Adding records**

15) Expand your DBMS connection "jdbc:derby://localhost:1527/IS2560 [IS2560 on IS2560]"

16) Right click on the table – in our case "DEMO", select "View Data…"

17) A "select * from IS2560 …" panel (Figure 8) will display on the main workspace
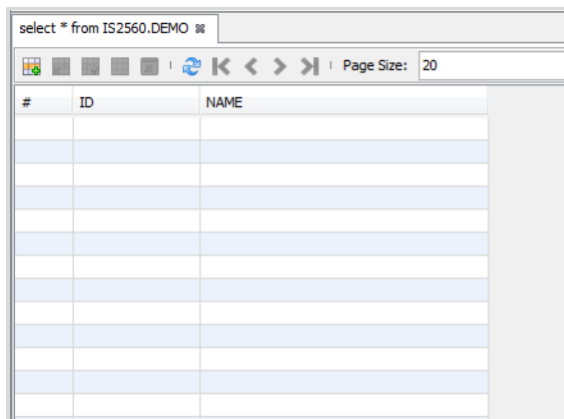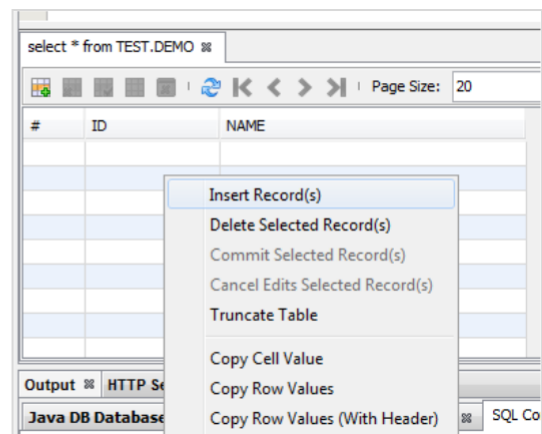

Figure 8: The SQL results panel   Figure 9: Java DB file location

18) Right click on the result panel (Figure 9) and select "Insert records"

19) In the "Insert Records" window (Figure 10), prepare the data you need for IS2560 projects. In this example, we prepared two records: 1, demo1 and 2 demo2.
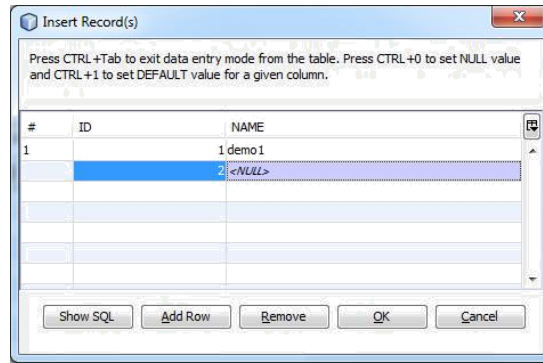
Figure 10: The "Insert Records" window