Project 2: A Simple Database Application System Using JDBC

General

In this assignment, you will design and implement a simple database application. The aim of the assignment is to familiarize students with the basics of JDBC. Your task is to create a simple address book. Users should be able to add/delete items in the address book. The data is stored in a relational database.

To make this assignment simple, the table schema you need is presented below. Create a table in your database that has the same schema as below. Your application will access the table and users should be able to add/delete items in the table via system console. Details specified in the section 1. You can change the user interface of this application, if you want.

ID	Int (Primary Key)
First_name	Varchar(20)
Last_name	Varchar(20)
SSN (주민등록번호)	Varchar(20)
Address	Varchar(50)
Email	Varchar(20)

Table *Address_book*

1. Details

```
C:> run.bat

*****************************************
* 1. list contacts sorted by id         *
* 2. list contacts sorted by first name  *
* 3. list contacts sorted by last name   *
* 4. Add items                          *
* 5. Update Items                       *
* 6. exit                               *
*****************************************
What do you want ? 4

Okay, You want to add an item.
Enter first name: SangKeun
Enter last name: Lee
Enter SSN: 831234-1012345
Enter Address: Seoul, Korea
Enter e-mail: leesk@teramail.xxx
Okay, Item Inserted.
```

```
****************************************
* 1. list contacts sorted by id         *
* 2. list contacts sorted by first name  *
* 3. list contacts sorted by last name   *
* 4. Add items                           *
* 5. Update Items                        *
* 6. exit                                *
****************************************
What do you want ? 4

Okay, You want to add an item.
Enter first name: Jong-heum
Enter last name: Yoen
Enter SSN: 831234-1012345
Error! Already Exists
Enter SSN: 841234-1012346
Enter Address: Chung-Joo, Korea
Enter e-mail: jhyeon@europa.xxx
Okay, Item Inserted.
What do you want ? 1

****************************************
* 1. list contacts sorted by id         *
* 2. list contacts sorted by first name  *
* 3. list contacts sorted by last name   *
* 4. Add items                           *
* 5. Update Items                        *
* 6. exit                                *
****************************************
********************************************************************************
Id   * First Name * Last Name * SSN           * Address         * E-mail
********************************************************************************

1    * SangKeun   * Lee       * 831234-1012345 * Seoul, Korea    * leesk@teramail.xxx
2    * Jong-heum  * Yeon      * 841234-1012346 * Chung-Joo, Korea* jhyeon@europa.xxx

********************************************************************************

****************************************
* 1. list contacts sorted by id         *
* 2. list contacts sorted by first name  *
* 3. list contacts sorted by last name   *
* 4. Add items                           *
* 5. Update Items                        *
* 6. exit                                *
****************************************
What do you want ? 2

********************************************************************************
Id   * First Name * Last Name * SSN           * Address         * E-mail
********************************************************************************

2    * Jong-heum  * Yeon      * 841234-1012346 * Chung-Joo, Korea* jhyeon@europa.xxx
1    * SangKeun   * Lee       * 831234-1012345 * Seoul, Korea    * leesk@teramail.xxx

********************************************************************************

****************************************
* 1. list contacts sorted by id         *
* 2. list contacts sorted by first name  *
* 3. list contacts sorted by last name   *
* 4. Add items                           *
* 5. Update Items                        *
* 6. exit                                *
```

```
****************************************
What do you want ? 5

*********************************************************************************
Id   * First Name * Last Name * SSN            * Address         * E-mail
*********************************************************************************

1    * SangKeun   * Lee       * 831234-1012345 * Seoul, Korea    * leesk@teramail.xxx
2    * Jong-heum  * Yeon      * 841234-1012346 * Chung-Joo, Korea* jhyeon@europa.xxx

*********************************************************************************
Which ID do you want to update? 3
Error! No such item.
Which ID do you want to update? 1

 1. First Name
 2. Last Name
 3. SSN
 4. Address
 5. E-mail

Which Attribute? 3
Enter New Value: 841234-1012346
Error! Already Exists.
Enter New Value: 831234-1011111
Okay now updated. (831234-1012345 => 831234-1011111)

****************************************
* 1. list contacts sorted by id         *
* 2. list contacts sorted by first name *
* 3. list contacts sorted by last name  *
* 4. Add items                          *
* 5. Update Items                       *
* 6. exit                               *
****************************************
What do you want ? 6
Thank you. Bye.

C:>
```

2. Development Environment

- TA will announce Vega server & MySQL' s Id/Password for each student (ssh://vega.snu.ac.kr, port:20202)
- LINUX or Windows
- DBMS: MySql
- You can also use your own local DBMS. In this case, TA has to be able to access your local DBMS when evaluating

3. Submit

- Files to submit
  - Source files (must have comments), Binary files, Makefile (or bat),
  - A Report (this file contains the following)

a) Development environment
b) Explanation on the major modules and algorithms
c) What you have implemented and what you have not (Specify in detail)
d) Brief explanation of your implementation (less than half a page)
e) Any assumptions you have made
f) How to compile and run
g) Talk about your experience of implementing Project 2

- Please submit the files in .zip format with the filename corresponding to your student id.(e.g**PRJ2_StudentID.zip**) via email to the teaching assistant (liza183@europa.snu.ac.kr)
  - Email Title : [ADB Project2] Your Student ID, Your Name
- Please submit the hard copy of your report to Building# 302 Room# 314-1
- Due Date: June 16th,2008 23:59(Mon)

4. Late Assignment Policy

Programming assignments are due at 11:59pm on the date specified. A grading penalty will be applied to late assignments. (10% penalty up to the first 24 hours, 20% for 24 to 48 hours, with no credit received after that)

5. Reference

- JDBC
  - http://java.sun.com/javase/technologies/database/