Library Management System

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Overview

This project aims to illustrate the basic concepts of SQL and their usage in our day to day life. The following project is a Library Management System which uses SQL concepts and has an administrator which can add/view/delete a librarian and a librarian can add/view/issue/return books.

Goals

To build an useful application using the basic concepts of MySQL

Specifications

Users of the System

1. Administrator
2. Librarian

Functional Requirements

- **Administrator**
    1. Can add/view/delete librarian.
    2. Can logout of the server.
- **Librarian**
    1. Can add/view books.
    2. Can issue books.
    3. View issued books.
    4. Return books.
    5. Can logout of the server.

Tools to be used

1. Use any IDE to develop the project. It may be Eclipse /Myeclipse / Netbeans etc.
2. MySQL for the database.

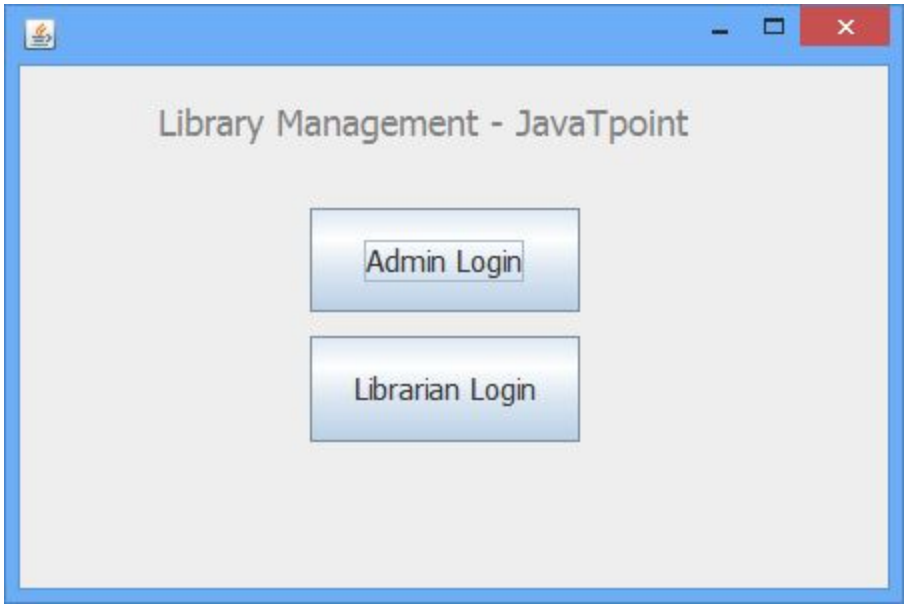
Front End and Back End

1. **Front End** : Java Swing
2. **Back End** : MySQL

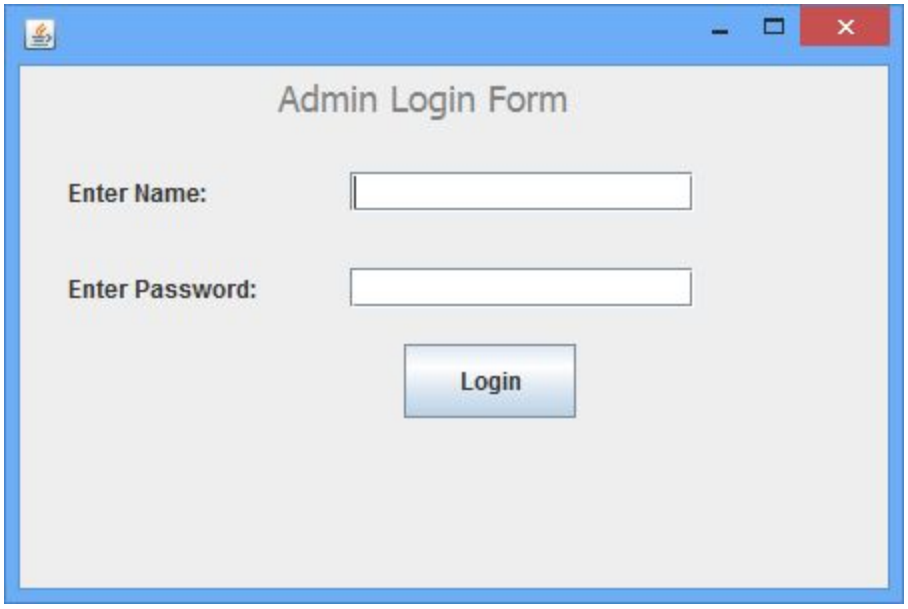
How project works?

The following screenshots will illustrate the working of the project systematically.

- Home Screen

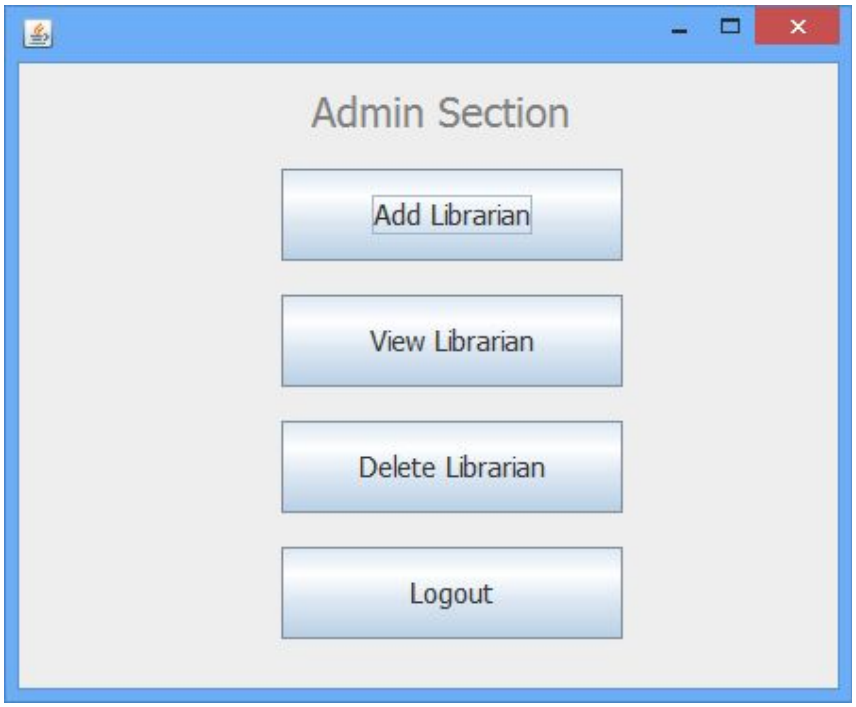


- Admin Login form

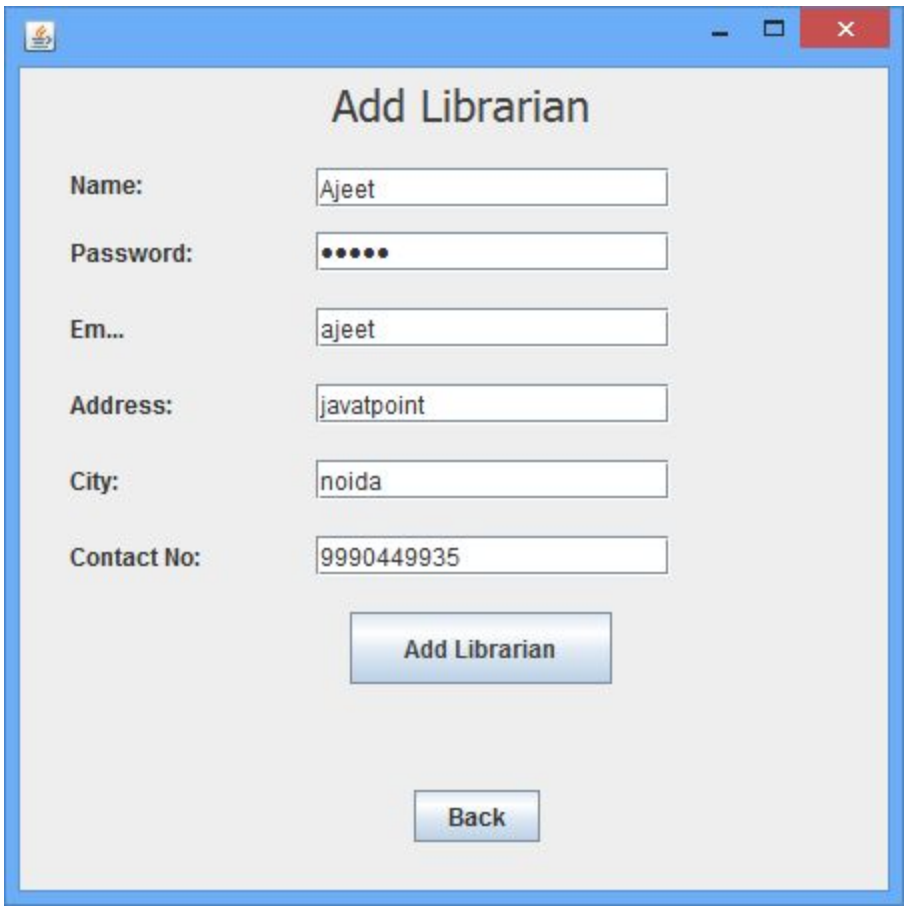


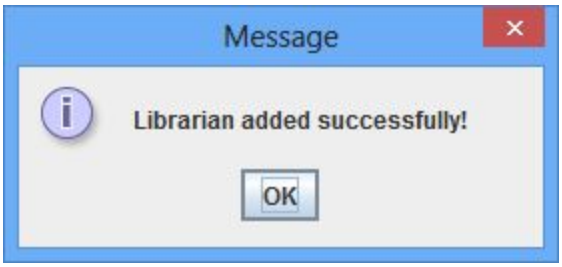
(Write name and password: It must be **admin** for name and **admin123** for password)

- Admin Section

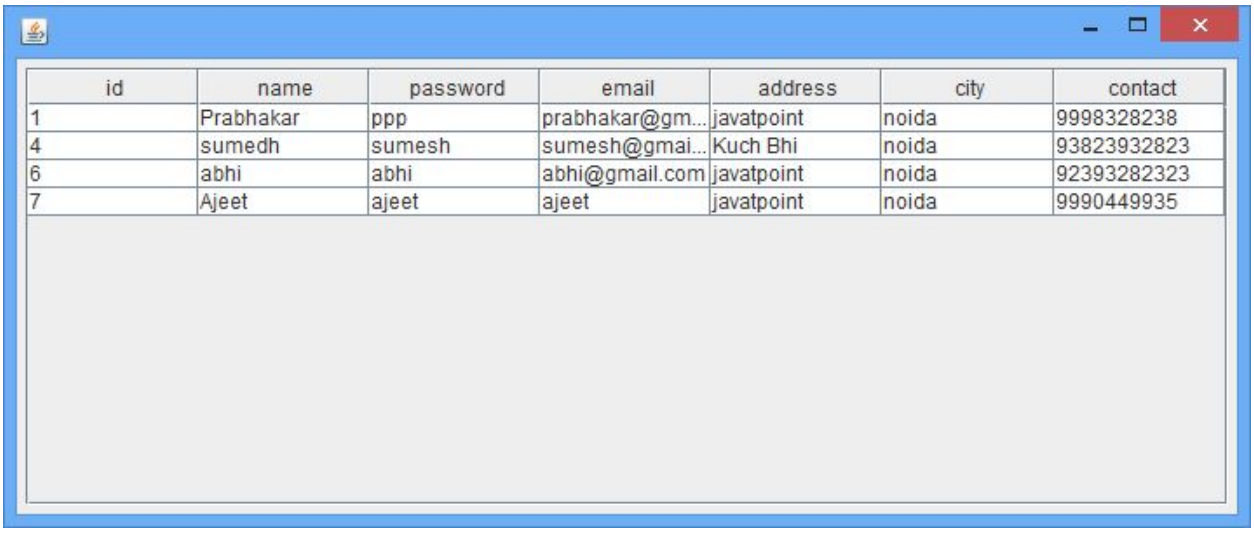


- Adding a Librarian



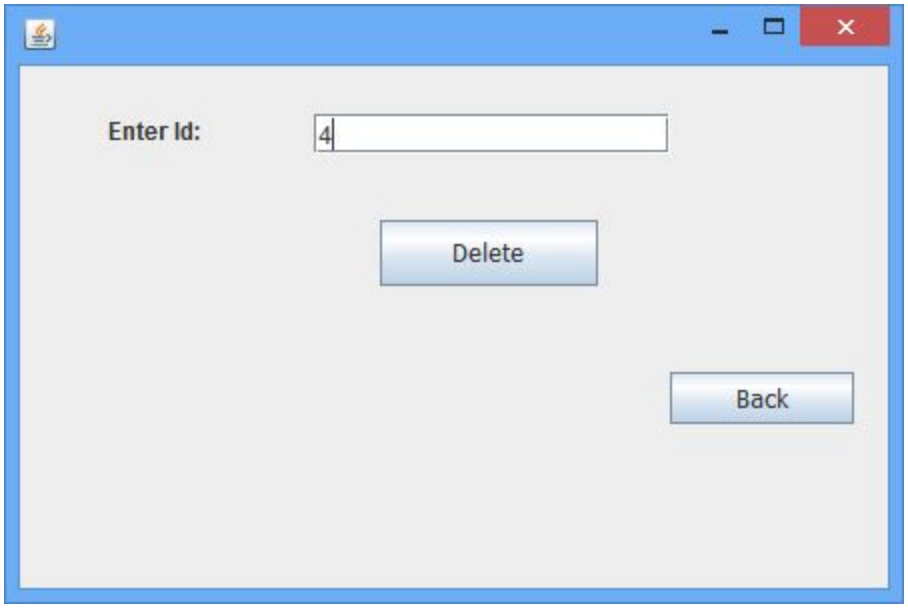


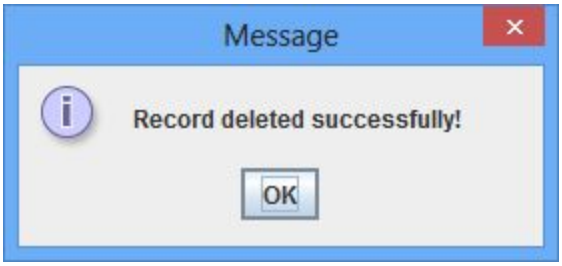
- Viewing the records of librarian

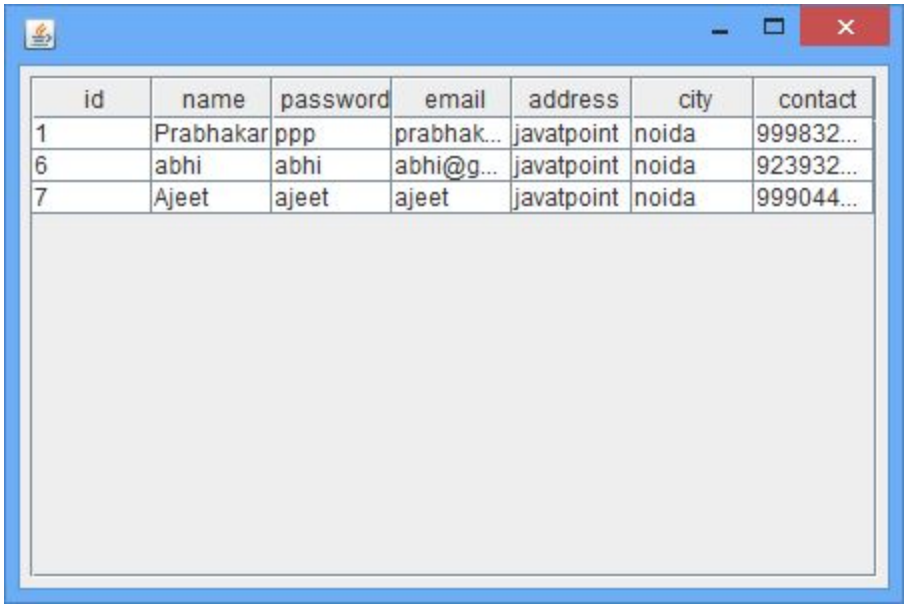


id	name	password	email	address	city	contact
1	Prabhakar	ppp	prabhakar@gm...	javatpoint	noida	9998328238
4	sumedh	sumesh	sumesh@gmai...	Kuch Bhi	noida	93823932823
6	abhi	abhi	abhi@gmail.com	javatpoint	noida	92393282323
7	Ajeet	ajeet	ajeet	javatpoint	noida	9990449935

- Deleting a Librarian



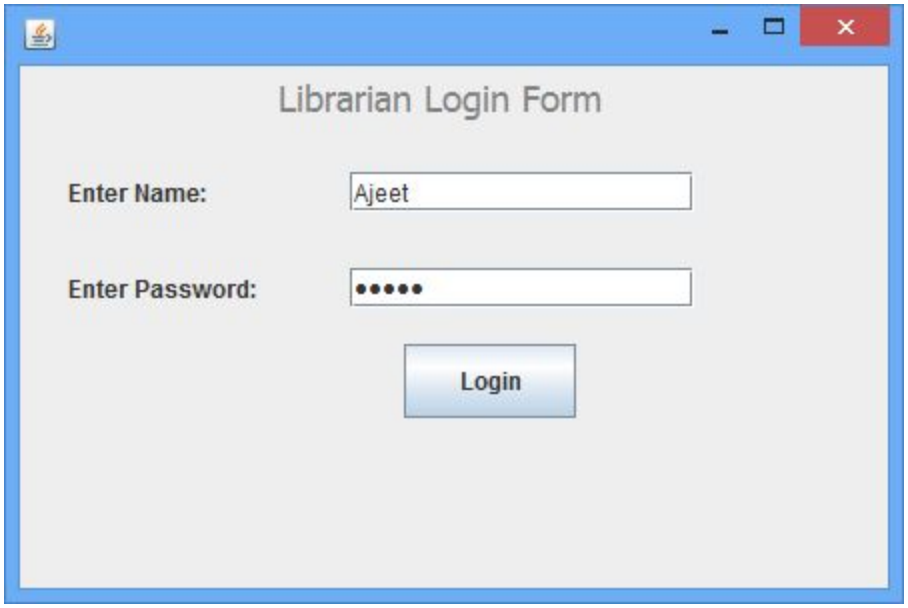




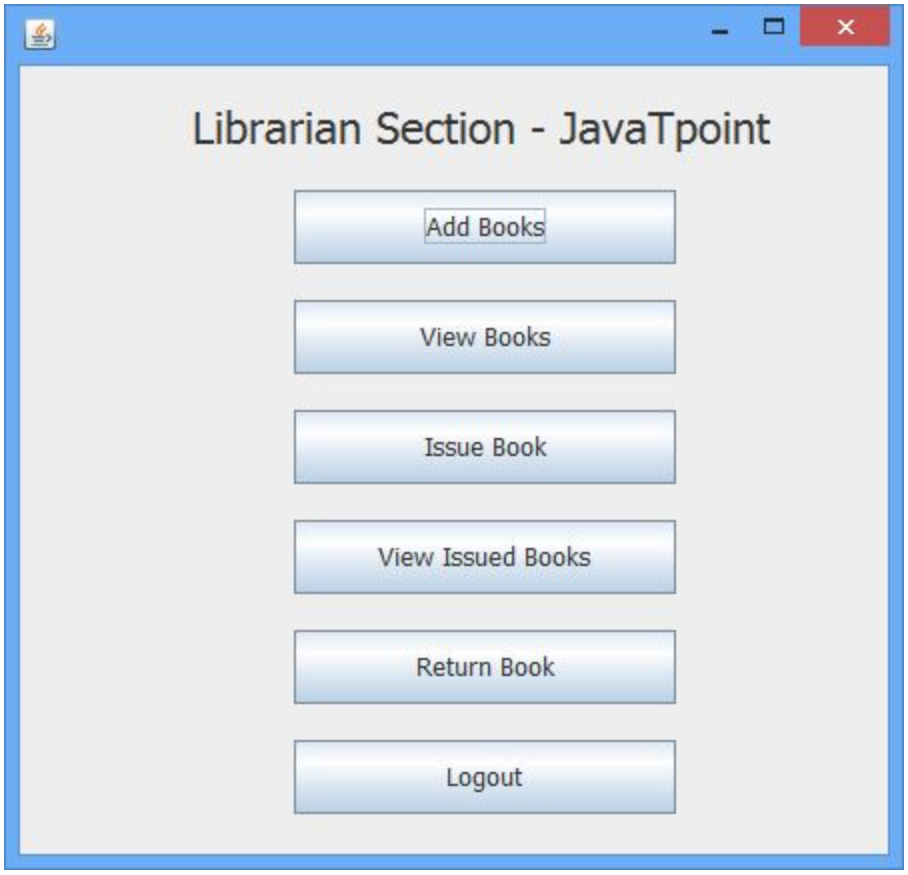
id	name	password	email	address	city	contact
1	Prabhakar	ppp	prabhak...	javatpoint	noida	999832...
6	abhi	abhi	abhi@g...	javatpoint	noida	923932...
7	Ajeet	ajeet	ajeet	javatpoint	noida	999044...

(Table without the deleted record)

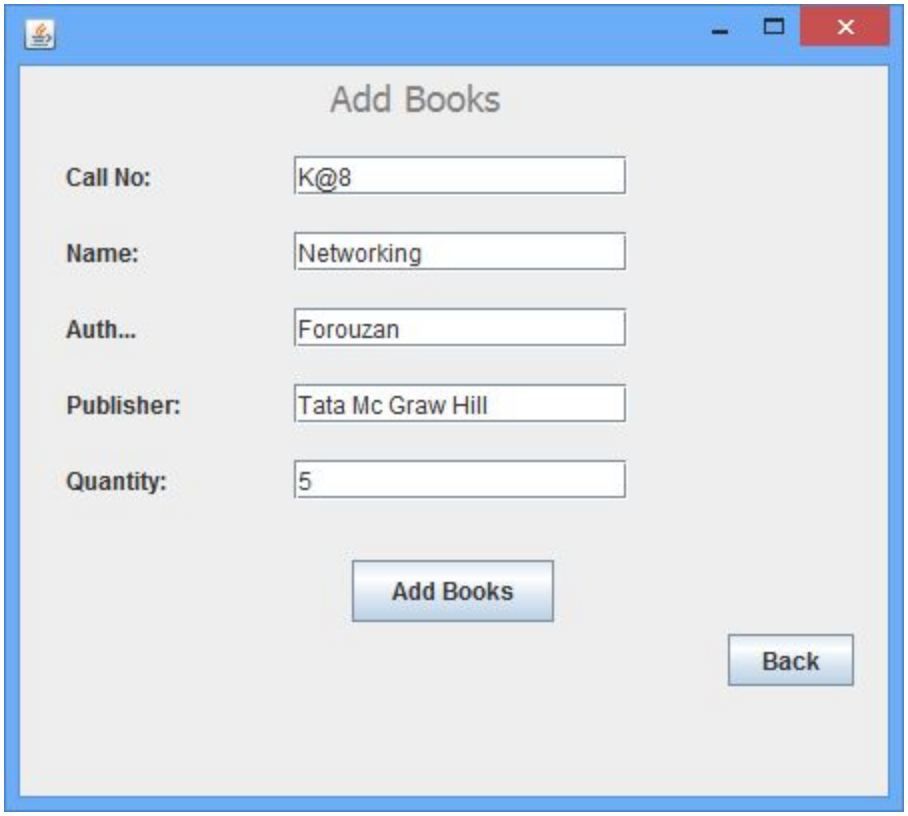
- Librarian Login



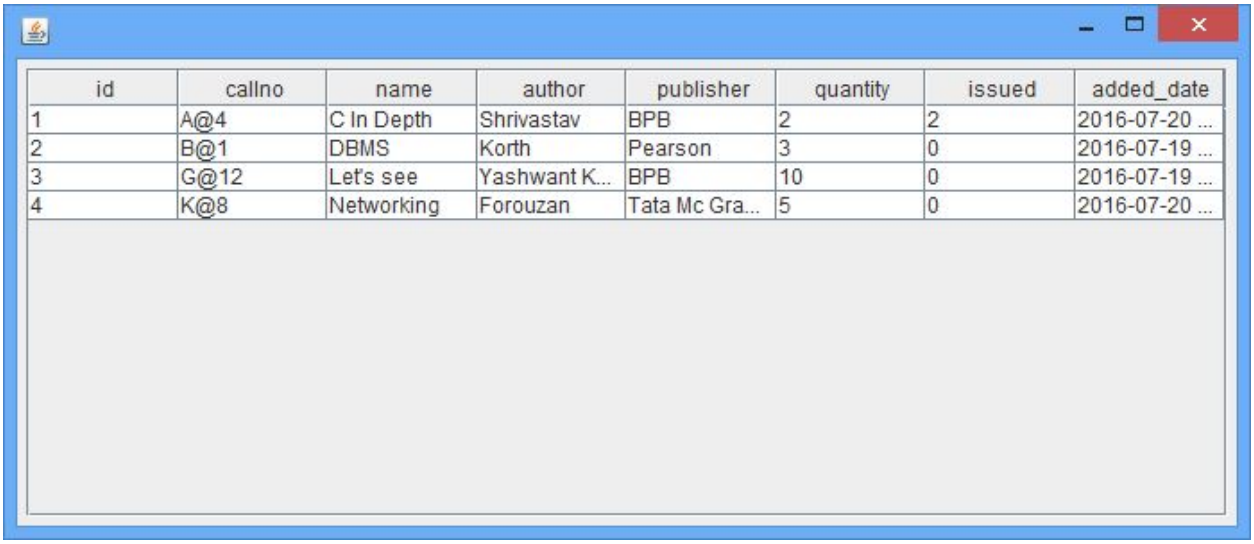
- Librarian Section



- Adding books

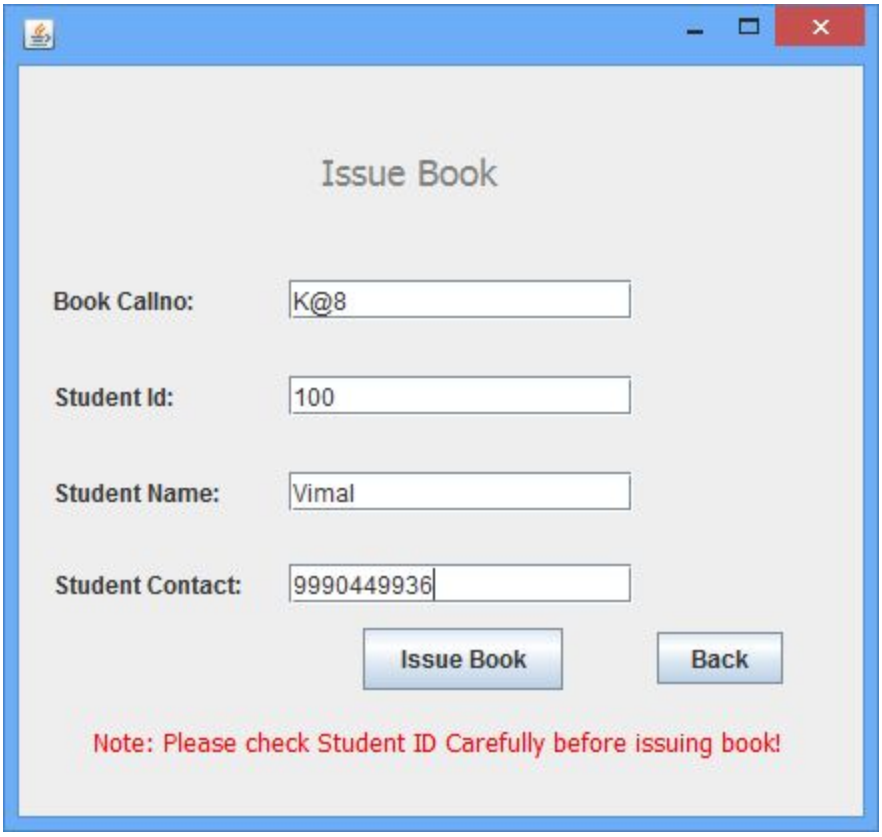


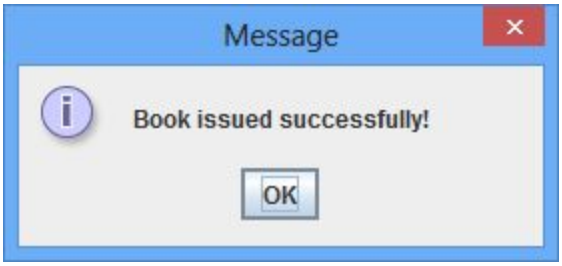
- Viewing Books



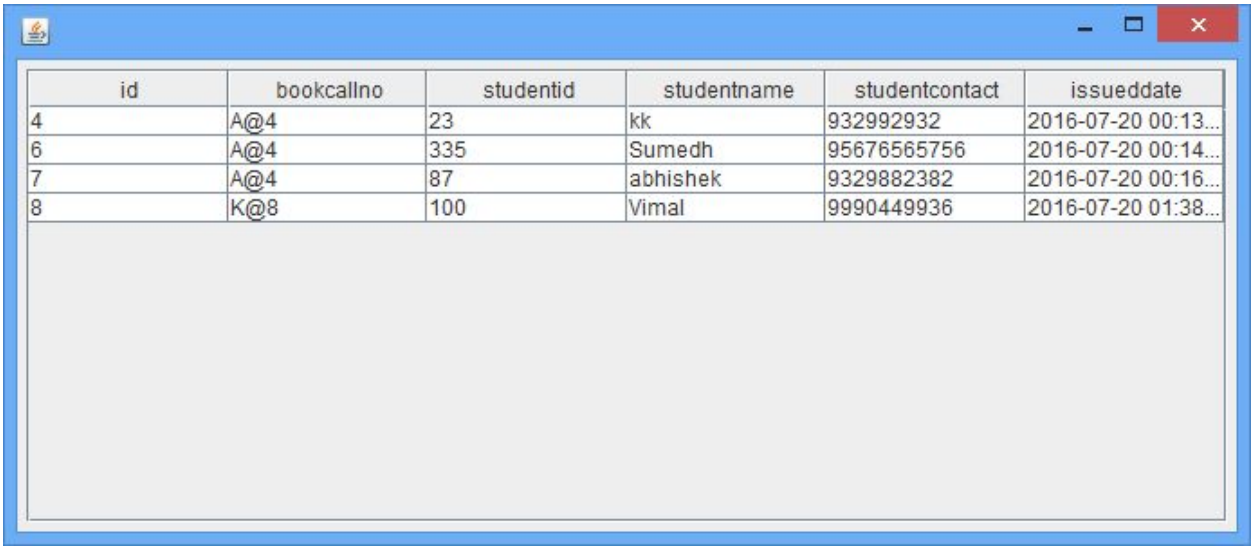
id	callno	name	author	publisher	quantity	issued	added_date
1	A@4	C In Depth	Shrivastav	BPB	2	2	2016-07-20 ...
2	B@1	DBMS	Korth	Pearson	3	0	2016-07-19 ...
3	G@12	Let's see	Yashwant K...	BPB	10	0	2016-07-19 ...
4	K@8	Networking	Forouzan	Tata Mc Gra...	5	0	2016-07-20 ...

- Issuing Books

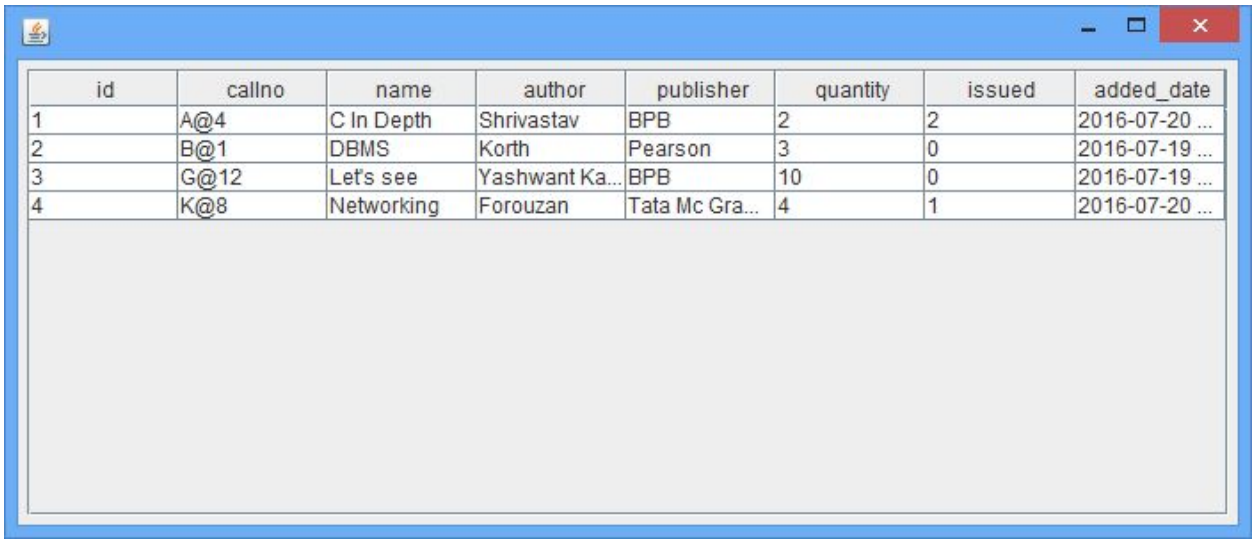




- View Issued Books



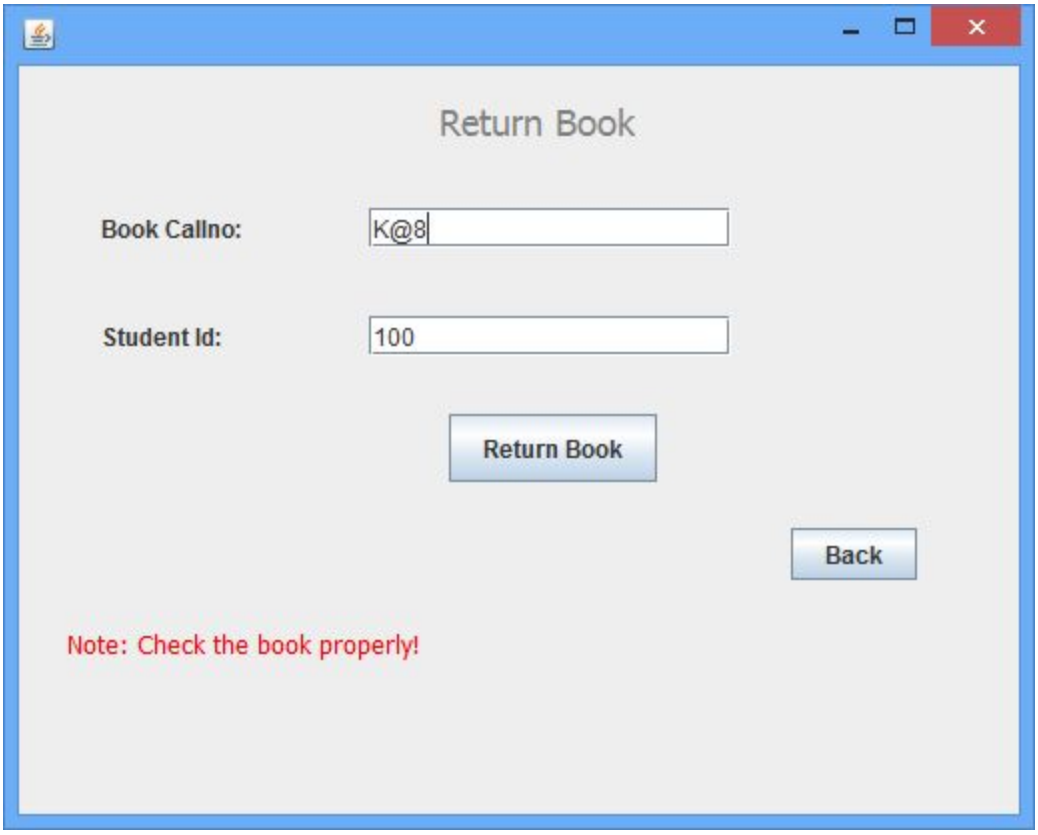
id	bookcallno	studentid	studentname	studentcontact	issueddate
4	A@4	23	kk	932992932	2016-07-20 00:13...
6	A@4	335	Sumedh	95676565756	2016-07-20 00:14...
7	A@4	87	abhishek	9329882382	2016-07-20 00:16...
8	K@8	100	Vimal	9990449936	2016-07-20 01:38...

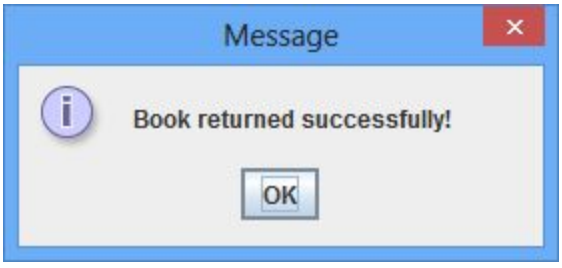


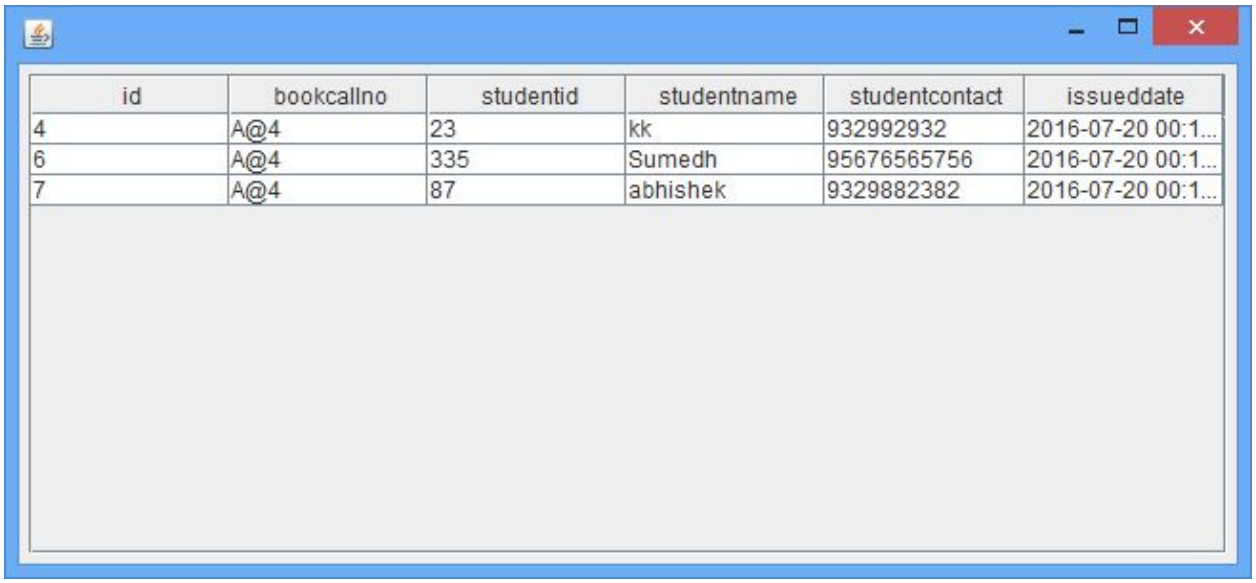
id	callno	name	author	publisher	quantity	issued	added_date
1	A@4	C In Depth	Shrivastav	BPB	2	2	2016-07-20 ...
2	B@1	DBMS	Korth	Pearson	3	0	2016-07-19 ...
3	G@12	Let's see	Yashwant Ka...	BPB	10	0	2016-07-19 ...
4	K@8	Networking	Forouzan	Tata Mc Gra...	4	1	2016-07-20 ...

(Click on the View Books and see quantity is decremented and issued is incremented)

- Returning a book

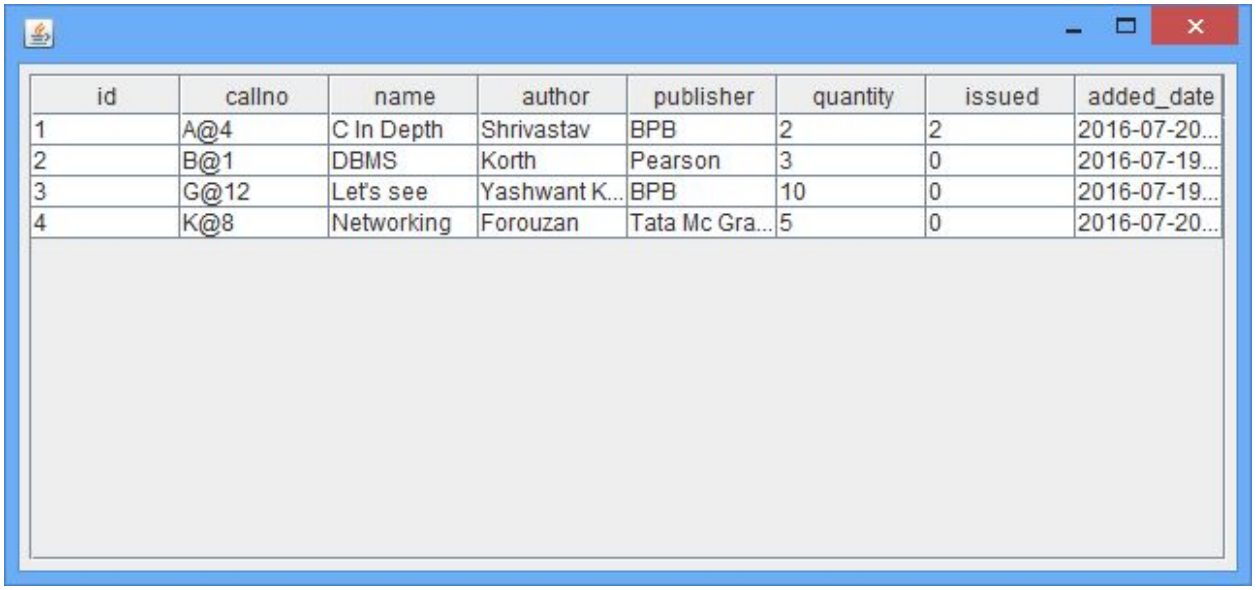






id	bookcallno	studentid	studentname	studentcontact	issueddate
4	A@4	23	kk	932992932	2016-07-20 00:1...
6	A@4	335	Sumedh	95676565756	2016-07-20 00:1...
7	A@4	87	abhishek	9329882382	2016-07-20 00:1...

(Again click on the view issued book button, record is deleted)



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2	B@1	DBMS	Korth	Pearson	3	0	2016-07-19...
3	G@12	Let's see	Yashwant K...	BPB	10	0	2016-07-19...
4	K@8	Networking	Forouzan	Tata Mc Gra...	5	0	2016-07-20...

(Click on the View Books button. You can see that quantity is incremented and issued is decremented)

How to run this project?

1. Import SQL files to create tables in MySQL.
2. Import the project on the Java IDE and run it.