**Library Management System**

# Synopsis submitted to

**Indira Gandhi National Open University, New Delhi In**

**Partial fulfilment of the requirement for the degree of**

**POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING**

**(PGDLAN)**

**(Course Code: MLIP-008) Student’s Name: Shashi Kant Enrolment No.: 2106859984**

**Regional Centre: Delhi Library Association (0775p) Study Centre Name: DLA**

**Under the Supervision of Dr.**

**(Librarian)**

**Performa for Approval of Project proposal/Synopsis (MLIP-008)**

### Enrollment Number:

**Name and Address of Student: Shashi Kant Phone No. : - 8295258648**

**Email: -**

**Programme Code: PGDLAN Course Code: MLIP-008**

**Title of Project/Dissertation Work:**

***Design and Development of Information Gateway on Blackcurrant using WordPress***

***(Note: Enclose the proposal/synopsis)***

**Name and Address of the Supervisor: ------------**

### Phone No.:

**Email:**

**Is the Supervisor an Academic Counsellor of PGDLAN Programme of IGNOU? If Yes, Name and Code of the Study Centre he/she is attached with:**

**Academic Qualifications of the Supervisor:**

**Number of Years of Relevant Experience:**

**Signature of the Student: Date:**

**Signature of Supervisor: Date:**

**For Office Use Only**

|  |  |  |  |
| --- | --- | --- | --- |
| **Synopsis** | **Approved** | **Not Approved** | **To be Revised** |
| **Supervisor** | **Approved** | **Not Approved** |  |

**Comment Sign / Date**

**First Revision**

|  |  |  |  |
| --- | --- | --- | --- |
| **Synopsis** | **Approved** | **Not Approved** | **To be Revised** |
| **Supervisor** | **Approved** | **Not Approved** |  |

**Comment Sign / Date**

**Second Revision**

|  |  |  |  |
| --- | --- | --- | --- |
| **Synopsis** | **Approved** | **Not Approved** | **To be Revised** |
| **Supervisor** | **Approved** | **Not Approved** |  |

**Comment Sign / Date Third Revision**

|  |  |  |  |
| --- | --- | --- | --- |
| **Synopsis** | **Approved** | **Not Approved** | **To be Revised** |
| **Supervisor** | **Approved** | **Not Approved** |  |

**Comment Sign / Date**

**Signature of the Faculty Member and Date**

**A Copy of this form with the comments of the faculty member should be enclosed with revised proposal/Synopsis wherever required and also with final project work/ Dissertation**

**Consent Letter of Supervisor/Guide**

**This is to certify that the Project Report titled: Library Management System**

**For the partial fulfilment of MLIS-**

**Programme of IGNOU will be carried out by Mr. shashikant Enrollment 2106859984 under my guidance.**

**(Signature)**

**Name of the Supervisor: Date:**

**Performa of Supervisor’s Biodata**

**Name of Supervisor:**

**Educational Qualification:**

**Present Position:**

**Present Grade Pay:**

**Total Experience:**

**Name and Address of Present Employer:**

**Are you an Academic Counsellor of IGNOU?**

**If yes, specify the code, Name and Study Center:**

**Code of Study Center:**

**Name of Study Center:**

**Address of Study Center:**

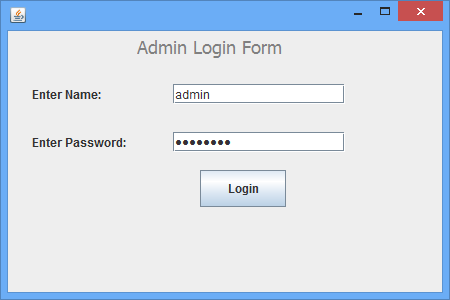
**List of Course being taught:**

**Date Signature**

**Library Management System**



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



import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.GroupLayout;

import javax.swing.GroupLayout.Alignment;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import java.awt.Font;

import java.awt.Color;

import javax.swing.JTextField;

import javax.swing.JPasswordField;

import javax.swing.LayoutStyle.ComponentPlacement;

import javax.swing.JButton;

import java.awt.event.ActionListener;

import java.awt.event.ActionEvent;

public class LibrarianForm extends JFrame {

static LibrarianForm frame;

private JPanel contentPane;

private JTextField textField;

private JTextField textField\_1;

private JTextField textField\_2;

private JTextField textField\_3;

private JTextField textField\_4;

private JPasswordField passwordField;

/\*\*

\* Launch the application.

\*/

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

frame = new LibrarianForm();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public LibrarianForm() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 450, 450);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

JLabel lblAddLibrarian = new JLabel("Add Librarian");

lblAddLibrarian.setForeground(Color.DARK\_GRAY);

lblAddLibrarian.setFont(new Font("Tahoma", Font.PLAIN, 22));

JLabel lblName = new JLabel("Name:");

JLabel lblPassword = new JLabel("Password:");

JLabel lblEmail = new JLabel("Email:");

JLabel lblAddress = new JLabel("Address:");

JLabel lblCity = new JLabel("City:");

JLabel lblContactNo = new JLabel("Contact No:");

textField = new JTextField();

textField.setColumns(10);

textField\_1 = new JTextField();

textField\_1.setColumns(10);

textField\_2 = new JTextField();

textField\_2.setColumns(10);

textField\_3 = new JTextField();

textField\_3.setColumns(10);

textField\_4 = new JTextField();

textField\_4.setColumns(10);

passwordField = new JPasswordField();

JButton btnNewButton = new JButton("Add Librarian");

btnNewButton.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

String name=textField.getText();

String password=String.valueOf(passwordField.getPassword());

String email=textField\_1.getText();

String address=textField\_2.getText();

String city=textField\_3.getText();

String contact=textField\_4.getText();

int i=LibrarianDao.save(name, password, email, address, city, contact);

if(i>0){

JOptionPane.showMessageDialog(LibrarianForm.this,"Librarian added successfully!");

AdminSuccess.main(new String[]{});

frame.dispose();

}else{

JOptionPane.showMessageDialog(LibrarianForm.this,"Sorry, unable to save!");

}

}

});

btnNewButton.setForeground(Color.DARK\_GRAY);

JButton btnBack = new JButton("Back");

btnBack.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

AdminSuccess.main(new String[]{});

frame.dispose();

}

});

GroupLayout gl\_contentPane = new GroupLayout(contentPane);

gl\_contentPane.setHorizontalGroup(

gl\_contentPane.createParallelGroup(Alignment.TRAILING)

.addGroup(gl\_contentPane.createSequentialGroup()

.addGap(20)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.LEADING, false)

.addComponent(lblPassword, GroupLayout.DEFAULT\_SIZE, 62, Short.MAX\_VALUE)

.addComponent(lblName)

.addComponent(lblEmail, GroupLayout.PREFERRED\_SIZE, 31, GroupLayout.PREFERRED\_SIZE)

.addComponent(lblAddress, GroupLayout.DEFAULT\_SIZE, GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addComponent(lblCity, GroupLayout.PREFERRED\_SIZE, 31, GroupLayout.PREFERRED\_SIZE)

.addComponent(lblContactNo, GroupLayout.DEFAULT\_SIZE, GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

.addGap(58)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.LEADING, false)

.addComponent(textField\_4, GroupLayout.DEFAULT\_SIZE, 177, Short.MAX\_VALUE)

.addComponent(textField\_3, GroupLayout.DEFAULT\_SIZE, 177, Short.MAX\_VALUE)

.addComponent(textField\_2, GroupLayout.DEFAULT\_SIZE, 177, Short.MAX\_VALUE)

.addComponent(textField\_1, GroupLayout.DEFAULT\_SIZE, 177, Short.MAX\_VALUE)

.addComponent(textField, GroupLayout.DEFAULT\_SIZE, 177, Short.MAX\_VALUE)

.addComponent(passwordField))

.addContainerGap(107, Short.MAX\_VALUE))

.addGroup(gl\_contentPane.createSequentialGroup()

.addContainerGap(151, Short.MAX\_VALUE)

.addComponent(lblAddLibrarian)

.addGap(144))

.addGroup(gl\_contentPane.createSequentialGroup()

.addContainerGap(160, Short.MAX\_VALUE)

.addComponent(btnNewButton, GroupLayout.PREFERRED\_SIZE, 131, GroupLayout.PREFERRED\_SIZE)

.addGap(133))

.addGroup(gl\_contentPane.createSequentialGroup()

.addContainerGap(200, Short.MAX\_VALUE)

.addComponent(btnBack)

.addGap(169))

);

gl\_contentPane.setVerticalGroup(

gl\_contentPane.createParallelGroup(Alignment.LEADING)

.addGroup(gl\_contentPane.createSequentialGroup()

.addComponent(lblAddLibrarian)

.addGap(18)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.LEADING)

.addGroup(gl\_contentPane.createSequentialGroup()

.addComponent(lblName)

.addGap(18)

.addComponent(lblPassword))

.addGroup(gl\_contentPane.createSequentialGroup()

.addComponent(textField, GroupLayout.PREFERRED\_SIZE, GroupLayout.DEFAULT\_SIZE, GroupLayout.PREFERRED\_SIZE)

.addPreferredGap(ComponentPlacement.UNRELATED)

.addComponent(passwordField, GroupLayout.PREFERRED\_SIZE, GroupLayout.DEFAULT\_SIZE, GroupLayout.PREFERRED\_SIZE)))

.addGap(18)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.BASELINE)

.addComponent(lblEmail)

.addComponent(textField\_1, GroupLayout.PREFERRED\_SIZE, GroupLayout.DEFAULT\_SIZE, GroupLayout.PREFERRED\_SIZE))

.addGap(18)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.BASELINE)

.addComponent(lblAddress)

.addComponent(textField\_2, GroupLayout.PREFERRED\_SIZE, GroupLayout.DEFAULT\_SIZE, GroupLayout.PREFERRED\_SIZE))

.addGap(18)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.BASELINE)

.addComponent(lblCity)

.addComponent(textField\_3, GroupLayout.PREFERRED\_SIZE, GroupLayout.DEFAULT\_SIZE, GroupLayout.PREFERRED\_SIZE))

.addGap(18)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.BASELINE)

.addComponent(lblContactNo)

.addComponent(textField\_4, GroupLayout.PREFERRED\_SIZE, GroupLayout.DEFAULT\_SIZE, GroupLayout.PREFERRED\_SIZE))

.addGap(18)

.addComponent(btnNewButton, GroupLayout.PREFERRED\_SIZE, 36, GroupLayout.PREFERRED\_SIZE)

.addPreferredGap(ComponentPlacement.RELATED, 57, Short.MAX\_VALUE)

.addComponent(btnBack)

.addGap(19))

);

contentPane.setLayout(gl\_contentPane);

}

}



import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.GroupLayout;

import javax.swing.GroupLayout.Alignment;

import javax.swing.JLabel;

import java.awt.Color;

import java.awt.Font;

import javax.swing.JButton;

import java.awt.event.ActionListener;

import java.awt.event.ActionEvent;

import javax.swing.LayoutStyle.ComponentPlacement;

import java.sql.\*;

public class AdminSuccess extends JFrame {

static AdminSuccess frame;

private JPanel contentPane;

/\*\*

\* Launch the application.

\*/

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

frame = new AdminSuccess();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public AdminSuccess() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 450, 371);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

JLabel lblAdminSection = new JLabel("Admin Section");

lblAdminSection.setFont(new Font("Tahoma", Font.PLAIN, 22));

lblAdminSection.setForeground(Color.GRAY);

JButton btnNewButton = new JButton("Add Librarian");

btnNewButton.setFont(new Font("Tahoma", Font.PLAIN, 15));

btnNewButton.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

LibrarianForm.main(new String[]{});

frame.dispose();

}

});

JButton btnViewLibrarian = new JButton("View Librarian");

btnViewLibrarian.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent arg0) {

ViewLibrarian.main(new String[]{});

}

});

btnViewLibrarian.setFont(new Font("Tahoma", Font.PLAIN, 15));

JButton btnDeleteLibrarian = new JButton("Delete Librarian");

btnDeleteLibrarian.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

DeleteLibrarian.main(new String[]{});

frame.dispose();

}

});

btnDeleteLibrarian.setFont(new Font("Tahoma", Font.PLAIN, 15));

JButton btnLogout = new JButton("Logout");

btnLogout.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent arg0) {

Library.main(new String[]{});

frame.dispose();

}

});

btnLogout.setFont(new Font("Tahoma", Font.PLAIN, 15));

GroupLayout gl\_contentPane = new GroupLayout(contentPane);

gl\_contentPane.setHorizontalGroup(

gl\_contentPane.createParallelGroup(Alignment.TRAILING)

.addGroup(gl\_contentPane.createSequentialGroup()

.addContainerGap(150, Short.MAX\_VALUE)

.addComponent(lblAdminSection, GroupLayout.PREFERRED\_SIZE, 151, GroupLayout.PREFERRED\_SIZE)

.addGap(123))

.addGroup(Alignment.LEADING, gl\_contentPane.createSequentialGroup()

.addGap(134)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.LEADING)

.addComponent(btnLogout, GroupLayout.PREFERRED\_SIZE, 181, GroupLayout.PREFERRED\_SIZE)

.addComponent(btnDeleteLibrarian, GroupLayout.PREFERRED\_SIZE, 181, GroupLayout.PREFERRED\_SIZE)

.addComponent(btnViewLibrarian, GroupLayout.PREFERRED\_SIZE, 181, GroupLayout.PREFERRED\_SIZE)

.addComponent(btnNewButton, GroupLayout.PREFERRED\_SIZE, 181, GroupLayout.PREFERRED\_SIZE))

.addContainerGap(109, Short.MAX\_VALUE))

);

gl\_contentPane.setVerticalGroup(

gl\_contentPane.createParallelGroup(Alignment.LEADING)

.addGroup(gl\_contentPane.createSequentialGroup()

.addComponent(lblAdminSection, GroupLayout.PREFERRED\_SIZE, 40, GroupLayout.PREFERRED\_SIZE)

.addGap(11)

.addComponent(btnNewButton, GroupLayout.PREFERRED\_SIZE, 49, GroupLayout.PREFERRED\_SIZE)

.addGap(18)

.addComponent(btnViewLibrarian, GroupLayout.PREFERRED\_SIZE, 49, GroupLayout.PREFERRED\_SIZE)

.addGap(18)

.addComponent(btnDeleteLibrarian, GroupLayout.PREFERRED\_SIZE, 49, GroupLayout.PREFERRED\_SIZE)

.addGap(18)

.addComponent(btnLogout, GroupLayout.PREFERRED\_SIZE, 49, GroupLayout.PREFERRED\_SIZE)

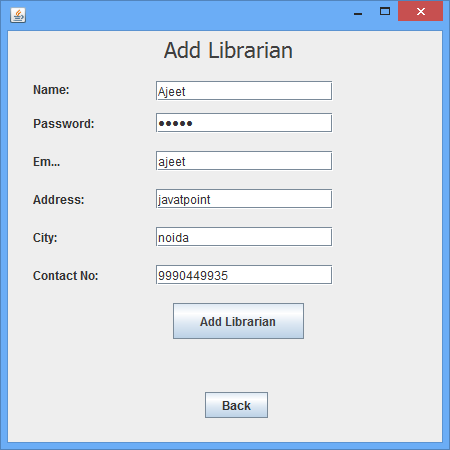
.addContainerGap(21, Short.MAX\_VALUE))

);

contentPane.setLayout(gl\_contentPane);

}

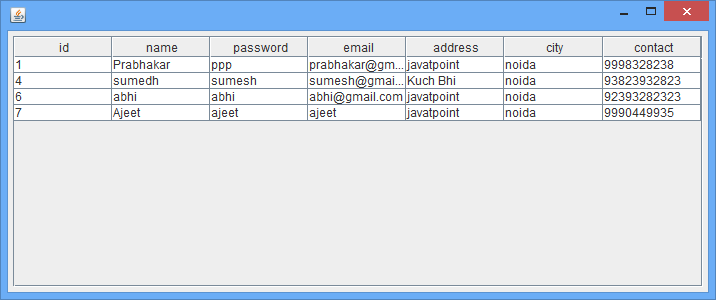
}







Now click on **view librarian** to see records of librarian.



Now close the table.

import java.sql.Connection;

import java.sql.DriverManager;

public class DB {

public static Connection getConnection(){

Connection con=null;

try{

Class.forName("com.mysql.jdbc.Driver");

con=DriverManager.getConnection("jdbc:mysql://localhost:3306/test","","");

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

return con;

}

}



Now click on **Delete Librarian**.





import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.GroupLayout;

import javax.swing.GroupLayout.Alignment;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import javax.swing.JTextField;

import javax.swing.JButton;

import java.awt.Font;

import java.awt.event.ActionListener;

import java.awt.event.ActionEvent;

public class DeleteLibrarian extends JFrame {

static DeleteLibrarian frame;

private JPanel contentPane;

private JTextField textField;

/\*\*

\* Launch the application.

\*/

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

frame = new DeleteLibrarian();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public DeleteLibrarian() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 450, 300);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

JLabel lblEnterId = new JLabel("Enter Id:");

textField = new JTextField();

textField.setColumns(10);

JButton btnDelete = new JButton("Delete");

btnDelete.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

String sid=textField.getText();

if(sid==null||sid.trim().equals("")){

JOptionPane.showMessageDialog(DeleteLibrarian.this,"Id can't be blank");

}else{

int id=Integer.parseInt(sid);

int i=LibrarianDao.delete(id);

if(i>0){

JOptionPane.showMessageDialog(DeleteLibrarian.this,"Record deleted successfully!");

}else{

JOptionPane.showMessageDialog(DeleteLibrarian.this,"Unable to delete given id!");

}

}

}

});

btnDelete.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnNewButton = new JButton("Back");

btnNewButton.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

AdminSuccess.main(new String[]{});

frame.dispose();

}

});

btnNewButton.setFont(new Font("Tahoma", Font.PLAIN, 13));

GroupLayout gl\_contentPane = new GroupLayout(contentPane);

gl\_contentPane.setHorizontalGroup(

gl\_contentPane.createParallelGroup(Alignment.LEADING)

.addGroup(gl\_contentPane.createSequentialGroup()

.addGap(39)

.addComponent(lblEnterId)

.addGap(57)

.addComponent(textField, GroupLayout.PREFERRED\_SIZE, 178, GroupLayout.PREFERRED\_SIZE)

.addContainerGap(107, Short.MAX\_VALUE))

.addGroup(Alignment.TRAILING, gl\_contentPane.createSequentialGroup()

.addContainerGap(175, Short.MAX\_VALUE)

.addComponent(btnDelete, GroupLayout.PREFERRED\_SIZE, 109, GroupLayout.PREFERRED\_SIZE)

.addGap(140))

.addGroup(Alignment.TRAILING, gl\_contentPane.createSequentialGroup()

.addContainerGap(322, Short.MAX\_VALUE)

.addComponent(btnNewButton, GroupLayout.PREFERRED\_SIZE, 92, GroupLayout.PREFERRED\_SIZE)

.addContainerGap())

);

gl\_contentPane.setVerticalGroup(

gl\_contentPane.createParallelGroup(Alignment.LEADING)

.addGroup(gl\_contentPane.createSequentialGroup()

.addGap(19)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.LEADING)

.addComponent(textField, GroupLayout.PREFERRED\_SIZE, GroupLayout.DEFAULT\_SIZE, GroupLayout.PREFERRED\_SIZE)

.addComponent(lblEnterId))

.addGap(33)

.addComponent(btnDelete, GroupLayout.PREFERRED\_SIZE, 33, GroupLayout.PREFERRED\_SIZE)

.addGap(43)

.addComponent(btnNewButton)

.addContainerGap(78, Short.MAX\_VALUE))

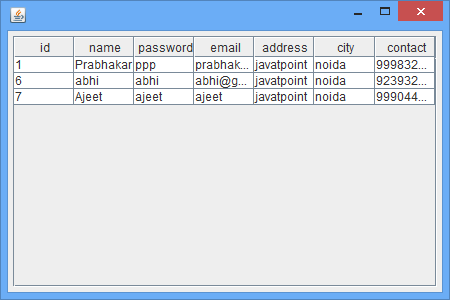
);

contentPane.setLayout(gl\_contentPane);

}

}

Again click on the **View Librarian** button. You can see librarian is deleted successfully.



Now close the table.



Now click on the **Logout** button.













Now click on the **View Books** button. You can see record is added successfully.

import java.awt.BorderLayout;

import java.awt.EventQueue;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.ResultSetMetaData;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.JScrollPane;

import javax.swing.border.EmptyBorder;

import javax.swing.JTable;

public class ViewBooks extends JFrame {

private JPanel contentPane;

private JTable table;

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

ViewBooks frame = new ViewBooks();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public ViewBooks() {

setDefaultCloseOperation(JFrame.HIDE\_ON\_CLOSE);

setBounds(100, 100, 450, 300);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

contentPane.setLayout(new BorderLayout(0, 0));

setContentPane(contentPane);

String data[][]=null;

String column[]=null;

try{

Connection con=DB.getConnection();

PreparedStatement ps=con.prepareStatement("select \* from books",ResultSet.TYPE\_SCROLL\_SENSITIVE,ResultSet.CONCUR\_UPDATABLE);

ResultSet rs=ps.executeQuery();

ResultSetMetaData rsmd=rs.getMetaData();

int cols=rsmd.getColumnCount();

column=new String[cols];

for(int i=1;i<=cols;i++){

column[i-1]=rsmd.getColumnName(i);

}

rs.last();

int rows=rs.getRow();

rs.beforeFirst();

data=new String[rows][cols];

int count=0;

while(rs.next()){

for(int i=1;i<=cols;i++){

data[count][i-1]=rs.getString(i);

}

count++;

}

con.close();

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

table = new JTable(data,column);

JScrollPane sp=new JScrollPane(table);

contentPane.add(sp, BorderLayout.CENTER);

}

}



Now close the table.



import java.sql.\*;

public class IssueBookDao {

public static boolean checkBook(String bookcallno){

boolean status=false;

try{

Connection con=DB.getConnection();

PreparedStatement ps=con.prepareStatement("select \* from books where callno=?");

ps.setString(1,bookcallno);

ResultSet rs=ps.executeQuery();

status=rs.next();

con.close();

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

return status;

}

public static int save(String bookcallno,int studentid,String studentname,String studentcontact){

int status=0;

try{

Connection con=DB.getConnection();

status=updatebook(bookcallno);//updating quantity and issue

if(status>0){

PreparedStatement ps=con.prepareStatement("insert into issuebooks(bookcallno,studentid,studentname,studentcontact) values(?,?,?,?)");

ps.setString(1,bookcallno);

ps.setInt(2,studentid);

ps.setString(3,studentname);

ps.setString(4,studentcontact);

status=ps.executeUpdate();

}

con.close();

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

return status;

}

public static int updatebook(String bookcallno){

int status=0;

int quantity=0,issued=0;

try{

Connection con=DB.getConnection();

PreparedStatement ps=con.prepareStatement("select quantity,issued from books where callno=?");

ps.setString(1,bookcallno);

ResultSet rs=ps.executeQuery();

if(rs.next()){

quantity=rs.getInt("quantity");

issued=rs.getInt("issued");

}

if(quantity>0){

PreparedStatement ps2=con.prepareStatement("update books set quantity=?,issued=? where callno=?");

ps2.setInt(1,quantity-1);

ps2.setInt(2,issued+1);

ps2.setString(3,bookcallno);

status=ps2.executeUpdate();

}

con.close();

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

return status;

}

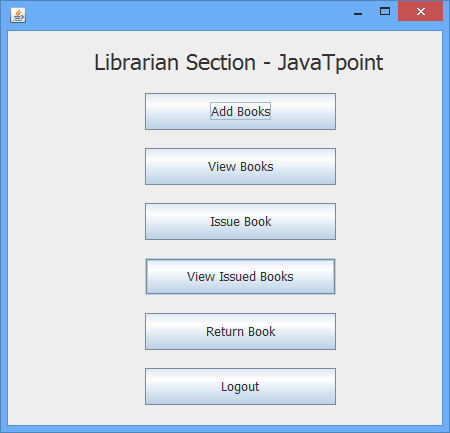
}

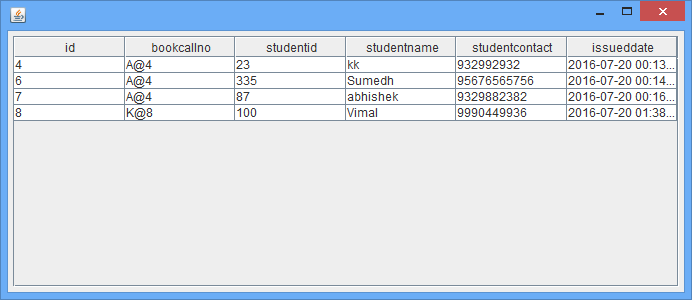
Now click on **Issue Book** button.

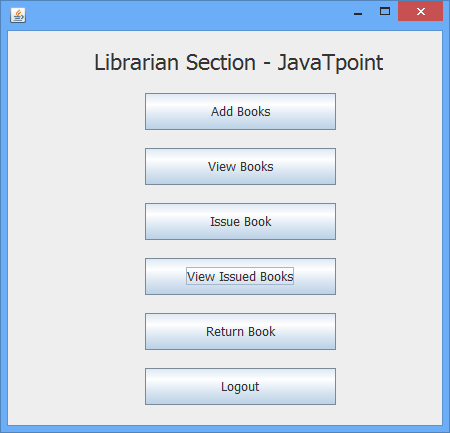




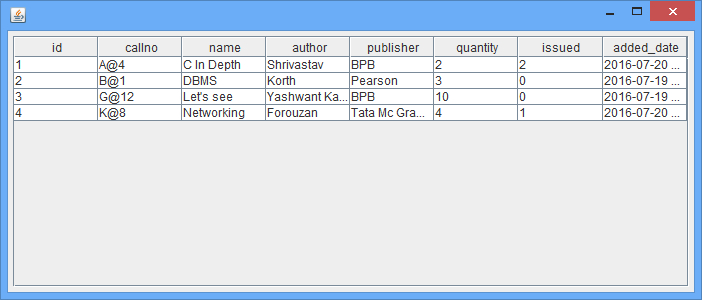
Now click on the **view issued books** button.







Click on the **View Books** and see **quantity is decremented** and **issued is incremented.**





Now click on the **Return Book** button.





Write the correct Call no and Student Id:

import java.awt.BorderLayout;

import java.awt.EventQueue;

import javax.swing.JFrame;

import javax.swing.JPanel;

import javax.swing.border.EmptyBorder;

import javax.swing.GroupLayout;

import javax.swing.GroupLayout.Alignment;

import javax.swing.JLabel;

import javax.swing.JOptionPane;

import java.awt.Font;

import java.awt.Color;

import javax.swing.JTextField;

import javax.swing.JButton;

import javax.swing.LayoutStyle.ComponentPlacement;

import java.awt.event.ActionListener;

import java.awt.event.ActionEvent;

public class ReturnBook extends JFrame {

static ReturnBook frame;

private JPanel contentPane;

private JTextField textField;

private JTextField textField\_1;

/\*\*

\* Launch the application.

\*/

public static void main(String[] args) {

EventQueue.invokeLater(new Runnable() {

public void run() {

try {

frame = new ReturnBook();

frame.setVisible(true);

} catch (Exception e) {

e.printStackTrace();

}

}

});

}

/\*\*

\* Create the frame.

\*/

public ReturnBook() {

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setBounds(100, 100, 516, 413);

contentPane = new JPanel();

contentPane.setBorder(new EmptyBorder(5, 5, 5, 5));

setContentPane(contentPane);

JLabel lblReturnBook = new JLabel("Return Book");

lblReturnBook.setForeground(Color.GRAY);

lblReturnBook.setFont(new Font("Tahoma", Font.PLAIN, 18));

JLabel lblBookCallno = new JLabel("Book Callno:");

JLabel lblStudentId = new JLabel("Student Id:");

textField = new JTextField();

textField.setColumns(10);

textField\_1 = new JTextField();

textField\_1.setColumns(10);

JButton btnReturnBook = new JButton("Return Book");

btnReturnBook.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

String bookcallno=textField.getText();

int studentid=Integer.parseInt(textField\_1.getText());

int i=ReturnBookDao.delete(bookcallno, studentid);

if(i>0){

JOptionPane.showMessageDialog(ReturnBook.this,"Book returned successfully!");

LibrarianSuccess.main(new String[]{});

frame.dispose();

}else{

JOptionPane.showMessageDialog(ReturnBook.this,"Sorry, unable to return book!");

}

}

});

JLabel lblNewLabel = new JLabel("Note: Check the book properly!");

lblNewLabel.setForeground(Color.RED);

lblNewLabel.setFont(new Font("Tahoma", Font.PLAIN, 13));

JButton btnBack = new JButton("Back");

btnBack.addActionListener(new ActionListener() {

public void actionPerformed(ActionEvent e) {

LibrarianSuccess.main(new String[]{});

frame.dispose();

}

});

GroupLayout gl\_contentPane = new GroupLayout(contentPane);

gl\_contentPane.setHorizontalGroup(

gl\_contentPane.createParallelGroup(Alignment.TRAILING)

.addGroup(gl\_contentPane.createSequentialGroup()

.addGap(36)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.TRAILING, false)

.addComponent(lblStudentId, Alignment.LEADING, GroupLayout.DEFAULT\_SIZE, GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addComponent(lblBookCallno, Alignment.LEADING, GroupLayout.DEFAULT\_SIZE, 78, Short.MAX\_VALUE))

.addGap(56)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.LEADING)

.addComponent(textField\_1, GroupLayout.PREFERRED\_SIZE, 181, GroupLayout.PREFERRED\_SIZE)

.addComponent(textField, GroupLayout.PREFERRED\_SIZE, 181, GroupLayout.PREFERRED\_SIZE))

.addContainerGap(139, Short.MAX\_VALUE))

.addGroup(gl\_contentPane.createSequentialGroup()

.addContainerGap(210, Short.MAX\_VALUE)

.addComponent(btnReturnBook, GroupLayout.PREFERRED\_SIZE, 104, GroupLayout.PREFERRED\_SIZE)

.addGap(176))

.addGroup(gl\_contentPane.createSequentialGroup()

.addContainerGap(205, Short.MAX\_VALUE)

.addComponent(lblReturnBook)

.addGap(187))

.addGroup(gl\_contentPane.createSequentialGroup()

.addGap(19)

.addComponent(lblNewLabel)

.addContainerGap(294, Short.MAX\_VALUE))

.addGroup(gl\_contentPane.createSequentialGroup()

.addContainerGap(355, Short.MAX\_VALUE)

.addComponent(btnBack)

.addGap(46))

);

gl\_contentPane.setVerticalGroup(

gl\_contentPane.createParallelGroup(Alignment.LEADING)

.addGroup(gl\_contentPane.createSequentialGroup()

.addContainerGap()

.addComponent(lblReturnBook)

.addGap(32)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.BASELINE)

.addComponent(lblBookCallno)

.addComponent(textField, GroupLayout.PREFERRED\_SIZE, GroupLayout.DEFAULT\_SIZE, GroupLayout.PREFERRED\_SIZE))

.addGap(34)

.addGroup(gl\_contentPane.createParallelGroup(Alignment.BASELINE)

.addComponent(lblStudentId)

.addComponent(textField\_1, GroupLayout.PREFERRED\_SIZE, GroupLayout.DEFAULT\_SIZE, GroupLayout.PREFERRED\_SIZE))

.addGap(29)

.addComponent(btnReturnBook, GroupLayout.PREFERRED\_SIZE, 34, GroupLayout.PREFERRED\_SIZE)

.addGap(23)

.addComponent(btnBack)

.addPreferredGap(ComponentPlacement.RELATED, 28, Short.MAX\_VALUE)

.addComponent(lblNewLabel)

.addGap(72))

);

contentPane.setLayout(gl\_contentPane);

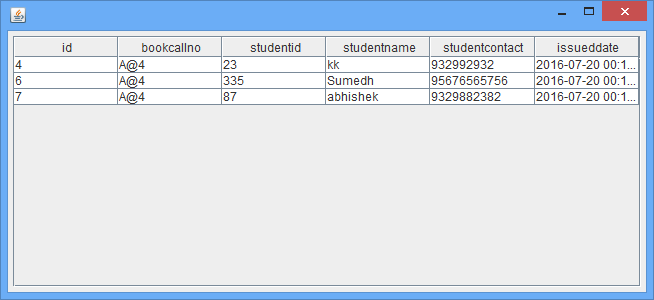
}

}

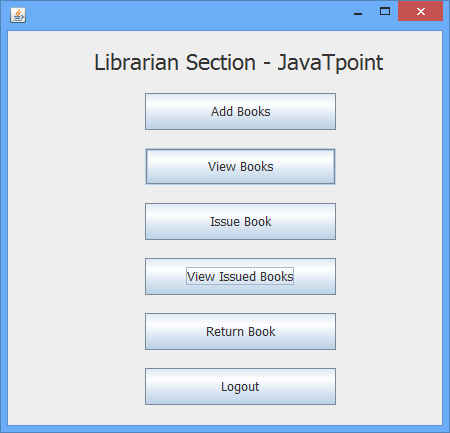




Again click on the **view issued book** button, record is deleted.



Now close the table.



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

