

MINI PROJECT - OPAC SYSTEM

AIM:

To develop a mini project OPAC system for library using Java concepts.

ALGORITHM:

1. Import the awt,swing packages.
2. Extend the JFrame which implements actionlistener to the class datas.
3. Create the textfield for id, name and button for next, address and the panel.
4. Create object for the getcontentpane().
5. Assign the length and breadth value for the layout using gridlayout.
6. Add the new labels for ISBN and book name.
7. Add the new button for the nextbook
8. Create the bookname under the driver jdbc odbc driver in the try block.
9. Create the object for exception as e and use it for catching the error.
10. Show all the records using showrecord.

PROGRAM:

*//File Name should be **Data.java***

```
import java.sql.*; import
java.awt.*; import
java.awt.event.*;
import javax.swing.*;

public class Data extends JFrame implements ActionListener
{
    JTextField id;
    JTextField name;
    JButton next;
    JButton addnew;
    JPanel p; static ResultSet
res; static Connection
conn; static Statement
stat;
```

```

public Data()
{
    super("My Application"); Container c
    = getContentPane();
    c.setLayout(new GridLayout(5,1));

    id = new JTextField(20); name = new
    JTextField(20); next = new
    JButton("Next BOOK"); p = new
    JPanel();

    c.add(new JLabel("ISBN Number",JLabel.CENTER));
    c.add(id);
    c.add(new JLabel("Book Name",JLabel.CENTER));
    c.add(name);
    c.add(p);

    p.add(next);
    next.addActionListener(this); pack();
    setVisible(true);
    addWindowListener(new WIN());
}

public static void main(String args[])
{
    Data d = new Data();
    try
    {
        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver"); conn =
        DriverManager.getConnection("jdbc:odbc:stu");
        // cust is the DSN Name stat =
        conn.createStatement();
        res = stat.executeQuery("Select * from stu"); // stu is the table name
res.next();
    }
    catch(Exception e)
    {
        System.out.println("Error" +e);
    }
    d.showRecord(res);
}

```

```

    }    public void
actionPerformed(ActionEvent e)
    {
        if(e.getSource() == next)
        {
            try
            {
                res.next();
            }
            catch(Exception e)
            {
            }
            showRecord(res);
        }
    }    public void showRecord(ResultSet
res)
    {
try    {
        id.setText(res.getString(2));
        name.setText(res.getString(3));
    }
    catch(Exception e)
    {
    }
} //end of the main

//Inner class WIN implemented
class WIN extends WindowAdapter
{
    public void windowClosing(WindowEvent w)
    {
        JOptionPane jop = new JOptionPane();
        jop.showMessageDialog(null,"Thank you","My
        Application",JOptionPane.QUESTION_MESSAGE);
    }
} }

```

NOTE:

Create a new Database

1. Create a new Database file in MS ACCESS (our backend) named **“books.mdb”**.
2. Then create a table named **“stu”** in it.
3. The table **stu** contains the following fields and data types
 - i. ISBN - Text
 - ii. BookName - Text
4. Enter various records as you wish.
5. Save the database file.

Next step is to add our **“books.mdb”** to the **System DSN**. To do that follows the procedure given below,

- i. Go to *Start-> Control Panel -> Administrative tools*.
- ii. In that double click **“Data Sources (ODBC)”**. iii. **ODBC Data Source Administrator** dialog appears.
- iv. In that select **“System DSN”** tab and click the Add Button.
- v. Select **“Microsoft Access Driver(*.mdb)”** and click Finish.
- vi. **ODBC Microsoft Access Setup** appears. In the “Data Source name” type **“stu”**. vii. Click on the **“Select”** button and choose your database file. Then click ok.

Now your database file gets added to the System DSN.

Table: Design View

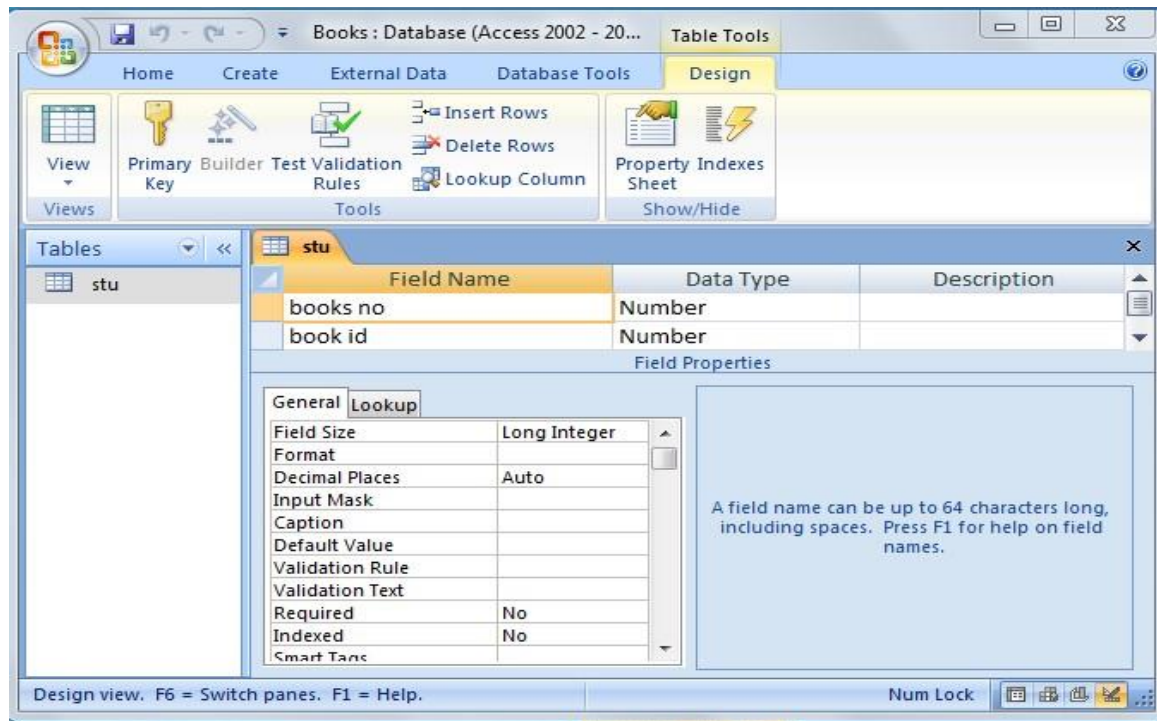
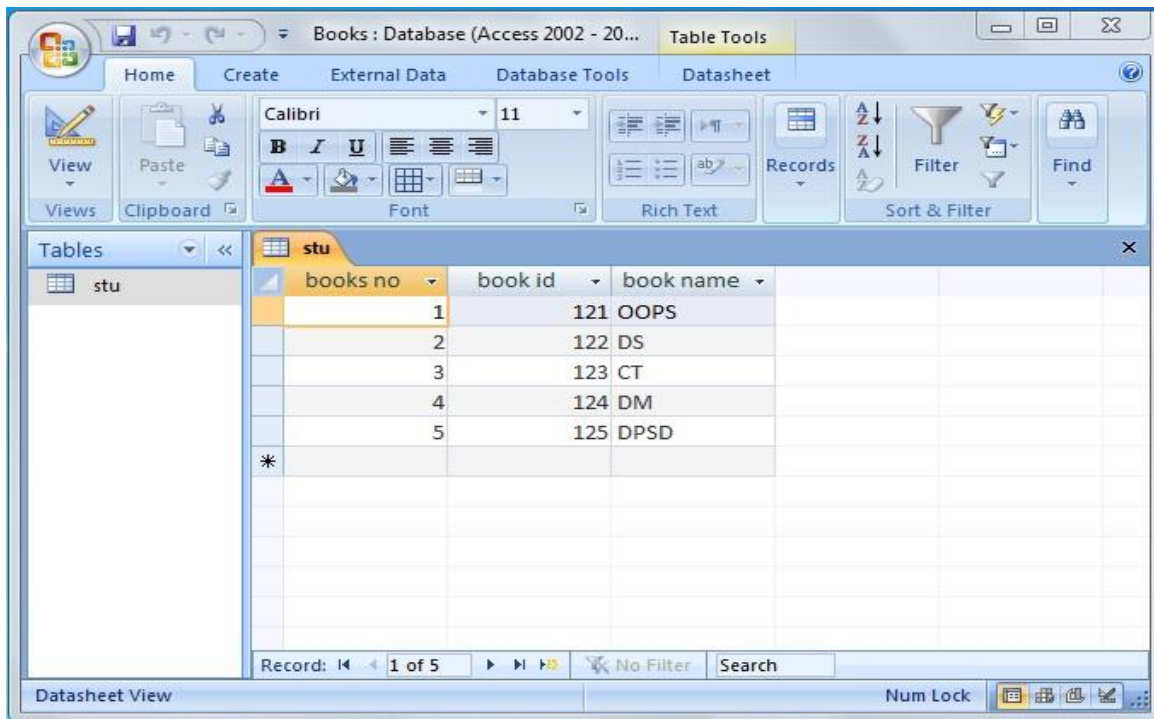
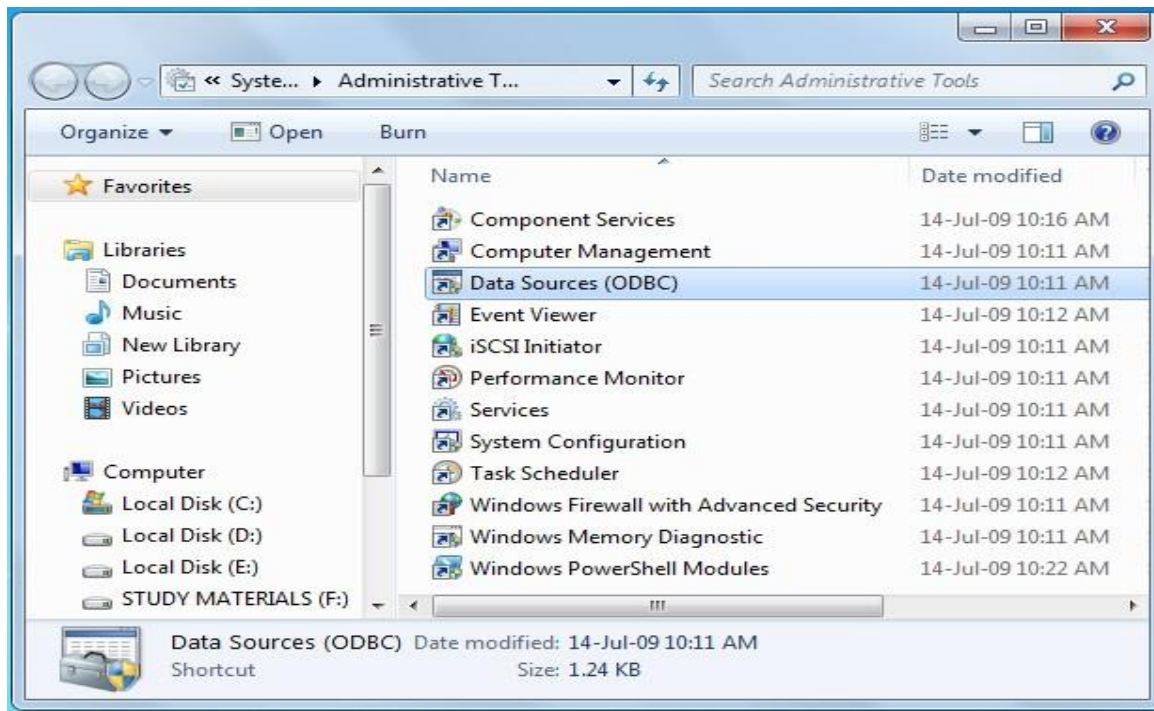


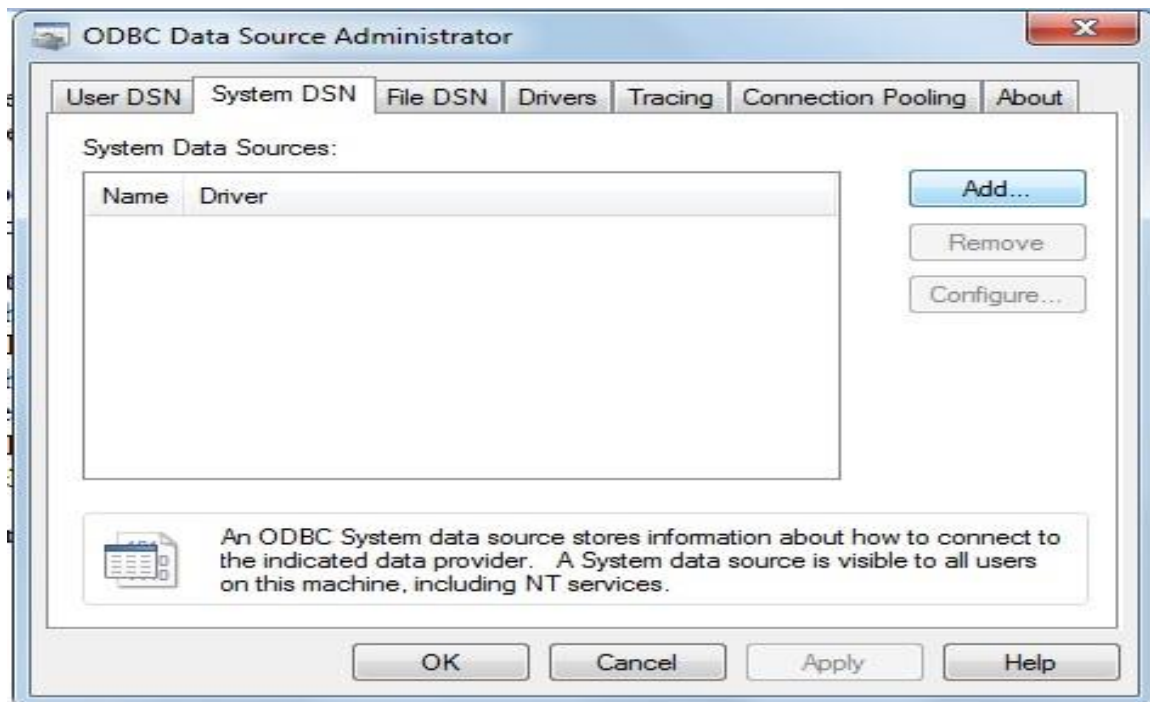
Table Name: stu



Administrative Tools.



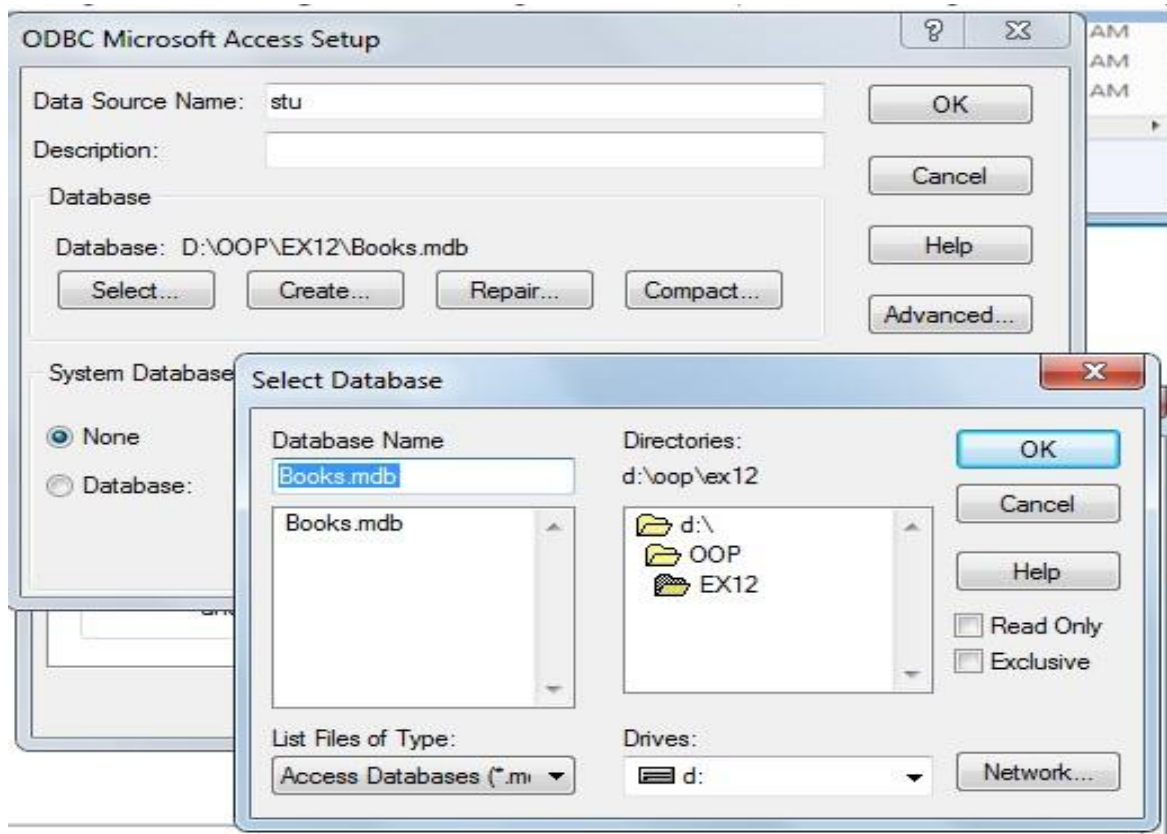
ODBC Data Source Administrator



Creating Microsoft Access Driver(*.mdb)



ODBC Microsoft Access Setup



OUTPUT:

To Compile:

javac Data.java

To Run:

java

Data

My Application

ISBN Number

121

Book Name

OOPS

Next BOOK

My Application

ISBN Number

122

Book Name

DS

Next BOOK

My Application

ISBN Number

123

Book Name

CT

Next BOOK

My Application

ISBN Number

124

Book Name

DM

Next BOOK

My Application

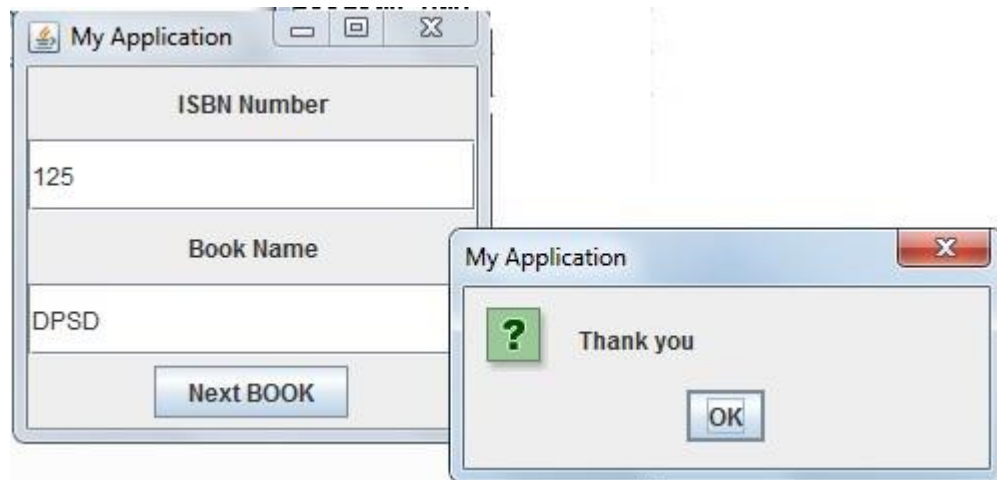
ISBN Number

125

Book Name

DPSD

Next BOOK



RESULT:

Thus the program to develop the simple OPAC for the libraries is executed successfully.