**STUDENT DATABASE**

A project developed using JAVA and SQL to store the student details in the database and can retrieve the details whenever we needed.

**SOURCE CODE**

Package project;

import java.awt.Color;

import java.awt.event.ActionEvent;

import java.awt.event.ActionListener;

import java.sql.Statement;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.util.logging.Level;

import java.util.logging.Logger;

import javax.swing.JFrame;

import javax.swing.JTextArea;

import javax.swing.JTextField;

import javax.swing.\*;

class abc extends JFrame implements ActionListener

{

JTextField tf1=new JTextField();

JTextField tf2=new JTextField();

JTextField tf3=new JTextField();

JTextField tf4=new JTextField();

JTextField tf5=new JTextField();

JTextField tf6=new JTextField();

JTextField tf7=new JTextField();

JTextField tf8=new JTextField();

JTextField tf9=new JTextField();

JTextArea ta=new JTextArea();

public abc()

{

// **SetBounds Creation //**

getContentPane().setBackground(Color.pink);

JLabel l1=new JLabel("Student Name: ");

l1.setBounds(50,50,100,30);

tf1.setBounds(150,50,250,30);

JLabel l2=new JLabel("Student Regno : ");

l2.setBounds(50,100,100,30);

tf2.setBounds(150,100,250,30);

JLabel l3=new JLabel("Mark 1 : ");

l3.setBounds(50,150,100,30);

tf3.setBounds(150,150,250,30);

JLabel l4=new JLabel("Mark 2 : ");

l4.setBounds(50,200,100,30);

tf4.setBounds(150,200,250,30);

JLabel l5=new JLabel("Mark 3 : ");

l5.setBounds(50,250,100,30);

tf5.setBounds(150,250,250,30);

JLabel l6=new JLabel("Mark 4: ");

l6.setBounds(50,300,100,30);

tf6.setBounds(150,300,250,30);

JLabel l7=new JLabel("Mark 5: ");

l7.setBounds(50,350,100,30);

tf7.setBounds(150,350,250,30);

JLabel l8=new JLabel("Mark 6 : ");

l8.setBounds(50,400,100,30);

tf8.setBounds(150,400,250,30);

JLabel l9=new JLabel("Display records : ");

l9.setBounds(450,40,100,30);

ta.setBounds(450,80,200,200);

JButton b1=new JButton("INSERT");

b1.setBounds(450,300,90,30);

JButton b2=new JButton("TOTAL");

b2.setBounds(550,300,90,30);

JButton b3=new JButton("AVERAGE");

b3.setBounds(650,300,90,30);

JButton b4=new JButton("RANK");

b4.setBounds(450,350,90,30);

JButton b5=new JButton("SEARCH");

b5.setBounds(550,350,90,30);

JButton b6=new JButton("DISPLAY");

b6.setBounds(650,350,90,30);

JButton b7=new JButton("CANCEL");

b7.setBounds(450,400,90,30);

add(l1);

add(l2);

add(l3);

add(l4);

add(l5);

add(l6);

add(l7);

add(l8);

add(l9);

add(b1);

add(b2);

add(b3);

add(b4);

add(b5);

add(b6);

add(b7);

add(tf1);

add(tf2);

add(tf3);

add(tf4);

add(tf5);

add(tf6);

add(tf7);

add(tf8);

add(ta);

b1.addActionListener(this);

b2.addActionListener(this);

b3.addActionListener(this);

b4.addActionListener(this);

b5.addActionListener(this);

b6.addActionListener(this);

b7.addActionListener(this);

setSize(800,900);

setLayout(null);

setVisible(true);

}

public void actionPerformed(ActionEvent e)

{

try

{

**// Try Section //**

Class.forName("org.apache.derby.jdbc.ClientDriver");

Connection con =DriverManager.getConnection("jdbc:derby://localhost:1527/yasmin","jasmin","j");

Statement st= con.createStatement();

**// Insertion process //**

if(e.getActionCommand()=="INSERT")

{

getContentPane().setBackground(Color.green);

String s1,s2;

int m1,m2,m3,m4,m5,m6,t;

double avg;

s1=tf1.getText();

s2=tf2.getText();

m1=Integer.parseInt(tf3.getText());

m2=Integer.parseInt(tf4.getText());

m3=Integer.parseInt(tf5.getText());

m4=Integer.parseInt(tf6.getText());

m5=Integer.parseInt(tf7.getText());

m6=Integer.parseInt(tf8.getText());

t=m1+m2+m3+m4+m5+m6;

avg=(double)t/6;

String query= "insert into student (name,regno,s1,s2,s3,s4,s5,s6,tot,avg1)"+"values(?,?,?,?,?,?,?,?,?,?)";

PreparedStatement pst=con.prepareStatement(query);

pst.setString(1,s1);

pst.setString(2, s2);

pst.setInt(3,m1);

pst.setInt(4,m2);

pst.setInt(5,m3);

pst.setInt(6,m4);

pst.setInt(7,m5);

pst.setInt(8,m6);

pst.setInt(9, t);

pst.setDouble(10,avg);

pst.execute();

}

**// Total process //**

if(e.getActionCommand()=="TOTAL")

{

getContentPane().setBackground(Color.yellow);

int m1,m2,m3,m4,m5,m6,t;

m1=Integer.parseInt(tf3.getText());

m2=Integer.parseInt(tf4.getText());

m3=Integer.parseInt(tf5.getText());

m4=Integer.parseInt(tf6.getText());

m5=Integer.parseInt(tf7.getText());

m6=Integer.parseInt(tf8.getText());

t=m1+m2+m3+m4+m5+m6;

String t1=String.valueOf(t);

ta.setText("Your Total is: "+ t1);

}

**// Average process //**

if(e.getActionCommand()=="AVERAGE")

{

int t=Integer.parseInt(tf3.getText())+Integer.parseInt(tf4.getText())+ Integer.parseInt(tf5.getText())+Integer.parseInt(tf6.getText())+Integer.parseInt(tf7.getText())+Integer.parseInt(tf8.getText());

double avg=(double)t/6;

String t1=String.valueOf(avg);

ta.setText("Your Average is: "+t1);

}

**// Display process //**

if(e.getActionCommand()=="DISPLAY")

{

getContentPane().setBackground(Color.orange);

ResultSet r=null;

r=st.executeQuery("select \* from student");

String b,c="";

int i=0,l=0;

while(r.next())

{

{

b="Your Name is: "+r.getString("name")+"\n"+"Your Regno is: "+r.getString("regno")+"\n"+"Your Total: is "+r.getString("tot")+"\n";

c=c+b;

}

c=c+b;

ta.setText(c);

}

}

**// Search process //**

if(e.getActionCommand()=="SEARCH")

{

getContentPane().setBackground(Color.yellow);

ResultSet r1=null;

r1=st.executeQuery("select \* from student");

String key=tf2.getText();

while(r1.next())

{

if(r1.getString(2).compareTo(key)==0)

{

ta.setText("Your Name is: "+r1.getString("name")+"\n"+"Your Regno is: "+r1.getString("regno")+"\n"+"Your Total is: "+r1.getString("tot")+"\n"+"Your Average is: "+r1.getString("avg1")+"\n");

}

}

}

**// Rank process //**

if(e.getActionCommand()=="RANK")

{

ResultSet r2=null;

r2=st.executeQuery("select \* from student");

int a[]=new int[100];

int i=0,j;

while(r2.next())

{

a[i]=Integer.parseInt(r2.getString("tot"));

System.out.println(a[i]);

i++;

}

for(i=0;i<a.length-1;i++)

{

for(j=0;j<a.length-1;j++)

{

if(a[j]>a[j+1])

{

int temp=a[j];

a[j]=a[j+1];

a[j+1]=temp;

}

}

}

String s=String.valueOf(a[a.length-1]);

ResultSet r3=null;

r3=st.executeQuery("select \* from student");

ta.setText("The First Rank is");

while(r3.next())

{

if(r3.getString(9).compareTo(s)==0)

{

ta.setText("Your Name is: "+r3.getString("name")+"\n"+"Your Regno is: "+r3.getString("regno")+"\n"+"Your Rank is:"+r3.getString("tot")+"\n");

}

}

}

**// Cancel process //**

if(e.getActionCommand()=="CANCEL")

{

ta.setText(null);

tf1.setText(null);

tf2.setText(null);

tf3.setText(null);

tf4.setText(null);

tf5.setText(null);

tf6.setText(null);

tf7.setText(null);

tf8.setText(null);

}

}

**// Catch Section //**

catch (ClassNotFoundException ex)

{

Logger.getLogger(abc.class.getName()).log(Level.SEVERE, null, ex);

}

catch(SQLException ex)

{

Logger.getLogger(abc.class.getName()).log(Level.SEVERE, null, ex);

}

}

}

public class Project {

public static void main(String[] args)

{

**// Object Creation //**

abc pb=new abc();

}

}