

```

package jdbcpack;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

public class StudConnection {
    public static Connection getConnection()
    {
        Connection connection=null;
        //load driver--connect mysql
        try
        {
            Class.forName("com.mysql.jdbc.Driver");    //getting error of class not found so go with try catch

            connection = DriverManager.getConnection("jdbc:mysql://localhost:3306/students","root","Kavya@9834618085");
            return connection;

        }
        catch(ClassNotFoundException e)
        {
            System.out.println(e.getMessage()+" "+e.getClass());
            return null;    //in case if there is any exception it will return null
        }
        catch(SQLException ex)
        {
            System.out.println(ex.getMessage());
            return null;
        }
    }
}

```

```

package jdbcpack.model;

```

```

public class Students {
    private int RollNo;
    private String Name;
    private String City;
    private String Emailid;
    private String ContactNo;
    private int Standard;

```

```

    public Students() {

    }

```

```

    public Students(int rollNo, String name, String city, String emailid,String contactNo,int standard) {
        super();
        RollNo = rollNo;
        Name = name;
        City = city;
        ContactNo = contactNo;
    }

```

```
Emailid = emailid;  
Standard = standard;  
}
```

```
public int getRollNo() {  
    return RollNo;  
}  
public void setRollNo(int rollNo) {  
    RollNo = rollNo;  
}  
public String getName() {  
    return Name;  
}  
public void setName(String name) {  
    Name = name;  
}  
public String getCity() {  
    return City;  
}  
public void setCity(String city) {  
    City = city;  
}
```

```
public String getEmailid() {  
    return Emailid;  
}
```

```
public void setEmailid(String emailid) {  
    Emailid = emailid;  
}  
public String getContactNo() {  
    return ContactNo;  
}  
public void setContactNo(String contactNo) {  
    ContactNo = contactNo;  
}  
public int getStandard() {  
    return Standard;  
}  
public void setStandard(int standard) {  
    Standard = standard;  
}
```

@Override

```
public String toString() {  
    return "Students [RollNo=" + RollNo + ", Name=" + Name + ", City=" + City + ", Emailid=" + Emailid + ", C  
ontactNo=" + ContactNo + ", Standard=" + Standard + "];"  
}  
}
```

```

package jdbcpack.service;
import jdbcpack.model.Students;
import java.sql.SQLException;

public interface StudInterface {
    public void addStudent(Students s) throws SQLException;
    public void deleteStudent(int RollNo) throws SQLException;
    public int updateStudent(Students s,int RollNo,String property) throws SQLException;
    public void displayStudent() throws SQLException;
    public Students findStudentByRollNo(int RollNo) throws SQLException;

}

```

```

import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;

```

```

import jdbcpack.StudConnection;
import jdbcpack.model.Students;

```

```

public class StudInterfaceImpl implements StudInterface {

```

```

    Connection connection =null;
    PreparedStatement pst=null;

```

```

    public StudInterfaceImpl() {
        connection=StudConnection.getConnection();
    }

```

```

    @Override

```

```

    public void addStudent(Students s) throws SQLException {
        // TODO Auto-generated method stub
        pst=connection.prepareStatement("insert into students values(?,?,?,?,?,?)");
        pst.setInt(1, s.getRollNo());
        pst.setString(2, s.getName());
        pst.setString(3, s.getCity());
        pst.setString(4, s.getEmailid());
        pst.setString(5, s.getContactNo());
        pst.setInt(6, s.getStandard());
        int res=pst.executeUpdate();
        if(res==1) {
            System.out.println("Inserted successfully");
        }
    }

```

```

}

```

```

    @Override

```

```

    public void deleteStudent(int RollNo) throws SQLException {
        // TODO Auto-generated method stub
        pst=connection.prepareStatement("delete from students where RollNo=?");
        pst.setInt(1, RollNo);
    }

```

```
boolean resultSet=pst.execute();  
}
```

@Override

```
public int updateStudent(Students s, int RollNo, String property) throws SQLException {  
    // TODO Auto-generated method stub  
    Students student1=findStudentByRollNo(RollNo);  
    if(property.equals("Name"));  
        student1.setName(s.getName());  
    if(property.equals("City"));  
        student1.setCity(s.getCity());  
    if(property.equals("Emailid"));  
        student1.setEmailid(s.getEmailid());  
    if(property.equals("Standard"));  
        student1.setStandard(s.getStandard());  
    if(property.equals("ContactNo"));  
        student1.setContactNo(s.getContactNo());  
    pst=connection.prepareStatement("update students set Name=?,City=?,Emailid=?,Standard=?,Contact  
No=? where RollNo=?");  
    pst.setString(1, student1.getName());  
    pst.setString(2, student1.getCity());  
    pst.setString(3, student1.getEmailid());  
    pst.setString(4, student1.getContactNo());  
    pst.setInt(5, student1.getStandard());  
    int res=pst.executeUpdate();  
    return res;  
  
}
```

@Override

```
public void displayStudent() throws SQLException {  
    // TODO Auto-generated method stub  
    pst=connection.prepareStatement("select*from students");  
    ResultSet resultSet=pst.executeQuery();  
    while(resultSet.next()) {  
        int RollNo=resultSet.getInt("RollNo");  
        String Name=resultSet.getString("Name");  
        String City=resultSet.getString("City");  
        String Emailid=resultSet.getString("Emailid");  
        String ContactNo=resultSet.getString("ContactNo");  
        int Standard=resultSet.getInt("Standard");  
        Students student=new Students(RollNo,Name,City,Emailid,ContactNo,Standard);  
        System.out.println(student);  
    }  
}
```

@Override

```
public Students findStudentByRollNo(int RollNo) throws SQLException {  
    // TODO Auto-generated method stub  
    pst=connection.prepareStatement("select*from students where RollNo=?");  
    pst.setInt(1, RollNo);  
    ResultSet resultSet=pst.executeQuery();  
    resultSet.next();  
}
```

```

        Students student=new Students(resultSet.getInt(1),resultSet.getString(2),resultSet.getString(3),resultSet
.getString(4),resultSet.getString(5),resultSet.getInt(6));
        return student;
    }
}

```

```

package jdbcpack;

```

```

import java.sql.SQLException;
import java.util.Scanner;

```

```

import jdbcpack.model.Students;
import jdbcpack.service.StudInterfaceImpl;

```

```

public class TestStudent {

```

```

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        StudInterfaceImpl sinterface=new StudInterfaceImpl();
        char ch;
        do {
            System.out.println("Student Management Application");
            System.out.println("1.Add");
            System.out.println("2.Delete");
            System.out.println("3.Update");
            System.out.println("4.Display");
            System.out.println("5.Finding");
            System.out.println("6.Exit");
            System.out.println("Enter an option: ");
            int option=sc.nextInt();

```

```

        switch(option) {

```

```

            case 1:
                System.out.println("Enter student details: ");
                System.out.println("Enter roll number: ");
                int RollNo=sc.nextInt();
                System.out.println("Enter name: ");
                String Name=sc.next();
                System.out.println("Enter city: ");
                String City=sc.next();
                System.out.println("Enter email Id: ");
                String Emailid=sc.next();
                System.out.println("Enter contact number: ");
                String ContactNo=sc.next();
                System.out.println("Enter Standard: ");
                int Standard=sc.nextInt();
                Students student = new Students(RollNo,Name,City,Emailid,ContactNo,Standard);

```

```

            try {
                sinterface.addStudent(student);
            }catch(SQLException e){
                System.out.println("adding student--->" +e.getMessage());
            }

```

```
break;
```

```
case 2:
```

```
System.out.println("Deleting Student: ");
System.out.println("Enter the RollNo you want to delete");
int rollNo=sc.nextInt();
Students dStudent=new Students();
System.out.println("Are you sure...you want to delete(y/n)");
char ch1=sc.next().charAt(0);
```

```
if(ch1=='y' || ch1=='Y') {
try {
sinterface.deleteStudent(rollNo);
System.out.println("Delete Sucessfully");
}catch(SQLException e){
System.out.println("Deleting student--->" +e.getMessage());
}
}
```

```
break;
```

```
case 3:
```

```
System.out.println("-----Updating Student-----");
System.out.println("Enter the student RollNo you want to modify");
int RollNo1=sc.nextInt();
System.out.println("Enter the property you want to change");
String property=sc.next();
Students uStudent=new Students();
if(property.equals("Name")) {
System.out.println("Enter the name: ");
uStudent.setName(sc.next());
}
```

```
if(property.equals("City")) {
System.out.println("Enter the City: ");
uStudent.setCity(sc.next());
}
if(property.equals("Emailid")) {
System.out.println("Enter the EmailId: ");
uStudent.setEmailid(sc.next());
}
if(property.equals("ContactNo")) {
System.out.println("Enter the Contact number: ");
uStudent.setContactNo(sc.next());
}
```

```
if(property.equals("Standard")) {
System.out.println("Enter the Standard: ");
uStudent.setStandard(sc.nextInt());
}
```

```
try {
int res=sinterface.updateStudent(uStudent, RollNo1, property);
if(res==1) {
System.out.println("Updated Sucessfully");
sinterface.displayStudent();
}
}catch(SQLException e){
System.out.println("updating student--->" +e.getMessage());
}
```

```

    }
    break;

case 4:
    System.out.println("Student Details: ");
    try {
        sinterface.displayStudent();
    } catch (SQLException e) {
        System.out.println("displaying student--->" + e.getMessage());
    }
    break;

case 5:

    System.out.println("Finding Student: ");
    System.out.println("Enter RollNo");
    int RollNo3=sc.nextInt();
    Students fstudent;
    try {
        fstudent=sinterface.findStudentByRollNo(RollNo3);
        System.out.println(fstudent);
    } catch (SQLException e) {
        System.out.println("Finding student--->" + e.getMessage());
    }
    break;
case 6:
    if(option==6) {
        System.exit(0);
    }
    break;
default: System.out.println("Please Enter a Valid Option");
    }
    System.out.println("Press (y/Y) to continue ");
    ch=sc.next().charAt(0);
    }while(ch=='y' || ch=='Y');
    }
}

```