INTERVIEW QUESTION(JDBC)

Class Student

```
package jdbc.model; public

class Student { private int

RollNo; private String Name;

private String ContactNo;

private String City; private

String EmailId; private int

Standard; public Student() {

}

public Student(int rollNo, String name, String contactNo, String city, StringemailId, int
standard) {

super();

RollNo = rollNo;

Name = name;

ContactNo = contactNo;

City = city;

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 getContactNo() {
return ContactNo;
}
public void setContactNo(String contactNo) {
ContactNo = contactNo;
}
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 int getStandard() {
```

```
return Standard;

}

public void setStandard(int standard) {

Standard = standard;

}

@Override

public String toString() {

return "Student [RollNo=" + RollNo + ", Name=" + Name + ", ContactNo=" + ContactNo
+ ", City=" + City

+ ", EmailId=" + EmailId + ", Standard=" + Standard + "]";

}

}
```

Interface

StudentInformation

```
package jdbc.service;


import java.sql.SQLException;


import jdbc.model.Student;


public interface StudentInformation {

        public void addStudent(Student student) throws

        SQLException;public void displayStudent() throws

        SQLException;

        public void deleteStudent(int RollNo) throws SQLException ;

        public Student findStudentByRollNo(int RollNo) throws SQLException;

        public int updateStudent(Student student, int RollNo, String property) throws
        SQLException;

}
```

Class

StudentInformationimpl

```
package jdbc.service;

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

import
jdbc.CustomConnection;
import jdbc.model.Student;

public class StudentInformationImpl implements
        StudentInformation {Connection connection = null;
        PreparedStatement pStatement = null;
        public StudentInformationImpl() throws SQLException
                { connection =
                CustomConnection.getConnection();
        }

        @Override
        public void addStudent(Student student) throws SQLException {
    pStatement=connection.prepareStatement("insert into Student values
    (?,?,?,?,?,?)");pStatement.setInt(1, student.getRollNo());
    pStatement.setString(2, student.getName());
    pStatement.setString(3,
    student.getContactNo());
    pStatement.setString(4, student.getCity());
    pStatement.setString(5,
    student.getEmailId()); pStatement.setInt(6,
    student.getStandard());
    int res =
    pStatement.executeUpdate();
    if(res==1) {
```

```
System.out.println("Inserted successfully");
                        }
```

```
	}

	@Override
	public void displayStudent() throws SQLException {
	pStatement=connection.prepareStatement("select *from
	student"); ResultSet resultSet= pStatement.executeQuery();
	while(resultSet.next()) {
		int RollNo=resultSet.getInt("RollNo");
		String
		Name=resultSet.getString("Name");
		String
		ContactNo=resultSet.getString("ContactNo");
		String City=resultSet.getString("City");
		String
		EmailId=resultSet.getString("EmailId");int
		Standard=resultSet.getInt("Standard");
		Student student = new
		Student(RollNo,Name,ContactNo,City,EmailId,Standard);
		System.out.println(student);
	}

	}

	@Override
	public void deleteStudent(int RollNo) throws SQLException {
		pStatement=connection.prepareStatement("delete from student where
		RollNo=?");pStatement.setInt(1, RollNo);
	boolean resultSet=pStatement.execute();

	}

	@Override
	public Student findStudentByRollNo(int RollNo) throws SQLException {
pStatement=connection.prepareStatement("select *from student where
RollNo=?");pStatement.setInt(1, RollNo);
```

```
   ResultSet resultSet =
   pStatement.executeQuery();resultSet.next();
   Student student = new
Student(resultSet.getInt(1),resultSet.getString(2),resultSet.getString(3),resultSet.getString(4),r
esultS et.getString(5),resultSet.getInt(6));
   return student;
        }

        @Override
        public int updateStudent(Student student,int RollNo,String property) throws
                SQLException {Student student1=findStudentByRollNo(RollNo);
                if(property.equals("Name"))
                        student1.setName(student.getName());
                if(property.equals("ContactNo"))
                        student1.setContactNo(student.getContactN
                        o());
                if(property.equals("City"))
                        student1.setCity(student.getCity());
                if(property.equals("EmailId"))
                        student1.setEmailId(student.getEmailI
                d());if(property.equals("Standard"))
                        student1.setStandard(student.getStandard());
                pStatement=connection.prepareStatement("update
student setName=?,ContactNo=?,City=?,EmailId=?,Standard=? where
RollNo=?");
                pStatement.setString(1,student1.getName());
                pStatement.setString(2,student1.getContactNo
                ()); pStatement.setString(3,student1.getCity());
                pStatement.setString(4,student1.getEmailId());
                pStatement.setInt(5,student1.getStandard());
                pStatement.setInt(6, RollNo);
                int
                res=pStatement.executeUpdate();
                return res;
        }
}
```

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Connection

```
package
jdbc;

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

public class CustomConnection {

	public static Connection getConnection() throws SQLException {
		// TODO Auto-generated method stub
		try {
		Class.forName("com.mysql.jdbc.Drive
		r");
		Connection
connection=DriverManager.getConnection("jdbc:mysql://localhost:3306/cruddatabase","root","
Priyanka@123");
		return connection;
		}catch(ClassNotFoundException ce) {
			System.out.println(ce.getMessage());
			return null;
		}catch(SQLException se) {
			System.out.println(se.getMessage());
			return null;
		}catch(Exception e) {
			System.out.println(e.getMessage
			());return null;
		}
	}
```

```
}
```

Class Test

```
import java.sql.SQLException;

import java.util.Scanner; import

jdbc.model.Student;

import jdbc.service.StudentInformationImpl;

public class TestStudent {

public static void main(String[] args) throws SQLException {Scanner sc

= new Scanner(System.in);

StudentInformationImpl s=new StudentInformationImpl();

char ch;

do {

System.out.println("----------Menu ---------- ");

System.out.println("1.Add");

System.out.println("2.Display");

System.out.println("3.Update");

System.out.println("4.Delete");

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 contact number");String
ContactNo=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
Standard");int Standard=sc.nextInt();
Student student = new Student(RollNo,Name,ContactNo,City,EmailId,Standard);
try {
s.addStudent(student);
}catch(SQLException e){
System.out.println("adding student--->"+e.getMessage());
}
break;
case 2:
System.out.println("-----Student Details----------");
try { s.displayStudent();
}catch(SQLException e){
System.out.println("displaying student ---------- >"+e.getMessage());
}
break;
case 3:
```

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```
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();
Student uStudent=new Student();
if(property.equals("Name")) {
System.out.println("Enter the name");
uStudent.setName(sc.next());
}
if(property.equals("ContactNo")) {
System.out.println("Enter the Contact numbe");
uStudent.setContactNo(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 EmaildId");
uStudent.setEmailId(sc.next());
}
if(property.equals("Standard")) {
System.out.println("Enter the Standard");
uStudent.setStandard(sc.nextInt());
}
try {
```

```
int res=s.updateStudent(uStudent, RollNo1, property);
if(res==1) {
System.out.println("Updated Sucessfully");
s.displayStudent();
}
}catch(SQLException e){
System.out.println("updating student--->"+e.getMessage());
}
break;
case 4:
System.out.println("-----Deleting Student ---------- ");
System.out.println("Enter the RollNo you want to delete");
int RollNo2=sc.nextInt(); Student
dStudent=new Student();
System.out.println("Are you sure...you want to delete(y/n)");
char ch1=sc.next().charAt(0);
if(ch1=='y'||ch1=='Y') { try {
s.deleteStudent(RollNo2);
System.out.println("Delete Sucessfully");
}catch(SQLException e){
System.out.println("Deleting student--->"+e.getMessage());
}
}
break;
case 5:
System.out.println("-----Finding Student ----------");
```

```
System.out.println("Enter RollNo");
int RollNo3=sc.nextInt();
Student fstudent;
try { fstudent=s.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');
}
}
```