Name :- Shubham Pawar

Course Name :- Java Full Stack Development

Ref. No. SCS/CG/2021/025

Program name:-JDBC

1.CRUD_app.java file code:-

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

public class CRUD_app {
	final static String URL = "jdbc:mysql://localhost:3306/student";
	final static String USER_NAME = "root";
	final static String PASSWORD = "";

	public static void main(String[] args) throws ClassNotFoundException, SQLException {
		//load class
		Class.forName("com.mysql.jdbc.Driver"); // loaded succesfully
		//create connection
		Connection con = DriverManager.getConnection(URL, USER_NAME, PASSWORD);
		//CREATE STATEMENT OBJECT
		Statement stmt = con.createStatement();
```

```
//Write Query
//String sql = "create table my_info(id int, name varchar(20),address varchar(20))";
//while running this line comment line no
//27,28,30 and while running line no 27,28 and 30 comment 24 and 29

//String sql = "update my_info set name= 'Sp' where id = 104";
//String sql = "delete from my_info where id = 101";
String sql = "insert into my_info(id,name,address)values(101,'Shubham','Pune')";
int row = stmt.executeUpdate(sql); // this is important for updating after insert or delete or update query
//ResultSet rs = stmt.executeQuery("select * from my_info");
ResultSet rs = stmt.executeQuery("select *,COUNT(*) from my_info Having COUNT(*)>1"); // for finding duplicate values
while(rs.next()) {
System.out.println(rs.getInt(1)+ "\t"+rs.getString(2)+"\t"+ rs.getString(3));
}
//System.out.println("Success");
//System.out.println(row + " Rows Affected");
}
}
```

2. BatchApp.java code :-

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;
public class BatchApp {
public static void main(String[] args) {
```

```
		try {
			Connection con=
DriverManager.getConnection("jdbc.mysql://localhost:3306/student","root","");
			Statement stmt = con.createStatement();
			stmt.addBatch("insert into data values(1,'kirti','kolhapur',20)");
			stmt.addBatch("update subject set price = 1000 where name='PHP'");
			stmt.addBatch("delete from registeruser where name= 'Sam'");
			int i[]= stmt.executeBatch();
		}
		catch(Exception e) {
			e.printStackTrace();
		}
	}
}
```

3. CreateTableDemoJdbc.java file code :-

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;

public class CreateTableDemoJdbc {
	public static void main(String[] args) {
//		Step 1: Load Driver Or register
		try {
			Class.forName("com.mysql.jdbc.Driver");
			System.out.println("Driver loaded Successfully");
```

```
//                  Step 2: Create Connection
                    Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student","root","");
                    System.out.println("Connection created Successfully");


//                  Step 3: Create Statement Object
                    Statement stm = con.createStatement();
                    System.out.println("Statement Object Created Successfully");


//                  Write Query
//                  String sql = "create table student_data(id int, name varchar(20), address varchar(20)";
//                  execute Query
                    String sql1 = "insert into my_info(id,name,address)values(101,'Shubham','Pune')";
                    int row = stm.executeUpdate(sql1);
                    System.out.println(row + " Rows Affected");
                    }
                    catch(Exception e){
                            e.printStackTrace();
                    }
          }
}
```

4.JdbcDao.java file code :-

```
import java.sql.Connection;
import java.sql.DriverManager;
```

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


public class JdbcDao {
	PreparedStatement pstmt = null;
	Connection con = null;
	ResultSet rs = null;
	public JdbcDao() {
		try {
			con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student","root","");
		}
		catch(Exception e) {
			e.printStackTrace();
		}
	}
public String insertData(int id, String name, String address) {
	String status = "";
	try {
		String sql = "insert into my_info values(?,?,?)";
		pstmt = con.prepareStatement(sql);
		pstmt.setInt(1, id);
		pstmt.setString(2, name);
		pstmt.setString(3, address);
		int i = pstmt.executeUpdate();
```

```
                if(i>0) {
                        status = i+"Record inserted Sucessfully";
                }
        }catch(SQLException e) {
                status = "Something Went Wrong";
                e.printStackTrace();
        }
        return status;
}
public String updateData(int id, String address) {
        String status = "";
        try {
                String sql = "update my_info set address=? where id=?";
                pstmt = con.prepareStatement(sql);
                pstmt.setInt(2, id);
                pstmt.setString(1, address);
                int i = pstmt.executeUpdate();
                if(i>0) {
                        status = i+"Address Updated Sucessfully";
                }
        }catch(SQLException e) {
                status = "Something Went Wrong";
                e.printStackTrace();
        }
        return status;
```

```
}
public String deleteData(int id) {
	String status = "";
	try {
		String sql = "delete from my_info where id=?";
		pstmt = con.prepareStatement(sql);
		pstmt.setInt(1, id);
		int i = pstmt.executeUpdate();
		if(i>0) {
			status = i+"Record deleted Sucessfully";
		}
	}catch(SQLException e) {
		status = "Something Went Wrong";
		e.printStackTrace();
	}
	return status;
}
public ResultSet selectOnID(int id) {
	String status = "";
	try {
		String sql = "select * from my_info where id=?";
		pstmt = con.prepareStatement(sql);
		pstmt.setInt(1, id);
		rs=pstmt.executeQuery();
		}
```

```
		catch(SQLException e) {
			e.printStackTrace();
		}
		return rs;
}
public ResultSet selectAll() {
		try {
			String sql = "select * from my_info";
			rs=pstmt.executeQuery();
			}
		catch(SQLException e) {

			e.printStackTrace();
		}
		return rs;
}
}
```

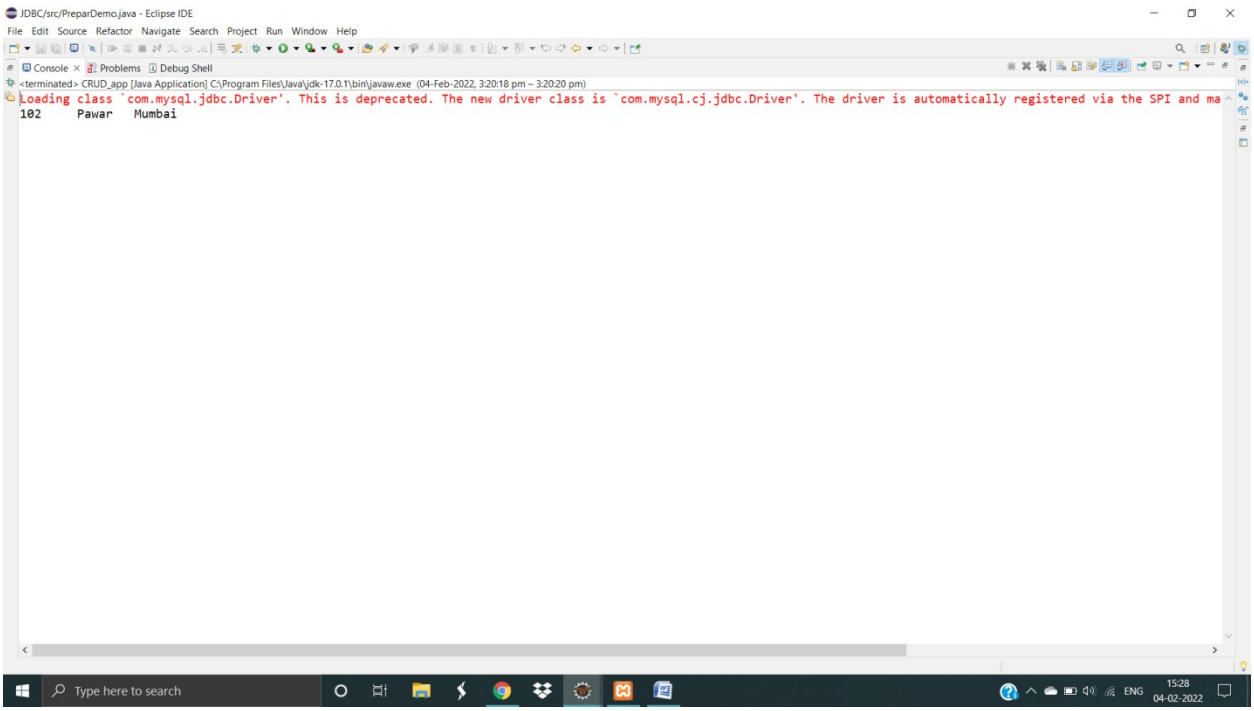
5.PreparDemo.java file code :-

```
import java.sql.ResultSet;
import java.util.Scanner;

public class PreparDemo {
		public static void main(String[] args) throws Exception {
			JdbcDao dao = new JdbcDao();
```

```
Scanner sn = new Scanner(System.in);
System.out.println("Enter your Operation: ");
String choice = sn.next();
switch(choice) {
case "insert":
        System.out.println("Enter Your id: ");
        int id = sn.nextInt();
        System.out.println("Enter Your Name: ");
        String name= sn.next();
        System.out.println("Enter Your Address: ");
        String address = sn.next();
        String msg = dao.insertData(id, name, address);
        System.out.println(msg);
        break;

case "update":
        System.out.println("Enter your Id: ");
        id = sn.nextInt();
        System.out.println("Enter Your Address: ");
        address = sn.next();
        msg = dao.updateData(id,address);
        System.out.println(msg);
        break;

case "delete":
```

```
                System.out.println("Enter Your id: ");
                id = sn.nextInt();
                msg = dao.deleteData(id);
                System.out.println(msg);
                break;

            case "selectOnId":
                System.out.println("Enter Your id: ");
                id = sn.nextInt();
                ResultSet rs = dao.selectOnID(id);
                while(rs.next()) {
                    System.out.println(rs.getInt(1)+"\t"+ rs.getString(2)+"\t"+
rs.getString(3));
                }
                break;

            case "selectAll":
                rs= dao.selectAll();
                while(rs.next()) {
                    System.out.println(rs.getInt(1)+"\t"+ rs.getString(2)+"\t"+
rs.getString(3));
                }
                break;
            default:
                System.out.println("Invalid Operation");
        }}}
```

OUTPUT :-


JDBC/src/PreparDemo.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Console Problems Debug Shell
<terminated> CRUD_app [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\javaw.exe (04-Feb-2022, 3:20:18 pm – 3:20:20 pm)
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class is `com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the SPI and ma
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ENG
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04-02-2022