

Task 13

1. Source code

```
import java.sql.*;  
  
/*  
 * Task 13: JDBC – MySQL Connectivity  
 */  
  
public class JdbcDemo {  
  
    // DB credentials  
  
    static final String URL = "jdbc:mysql://localhost:3306/internship_db";  
    static final String USER = "root";  
    static final String PASSWORD = "your_password";  
  
    public static void main(String[] args) {  
  
        Connection con = null;  
  
        try {  
            // 1. Load JDBC Driver  
            Class.forName("com.mysql.cj.jdbc.Driver");  
  
            // 2. Establish connection  
            con = DriverManager.getConnection(URL, USER, PASSWORD);  
            System.out.println("Database connected successfully.");  
        } catch (Exception e) {  
            e.printStackTrace();  
        }  
    }  
}
```

```
// ----- INSERT -----  
  
String insertSQL = "INSERT INTO students(name, email, marks) VALUES (?, ?, ?)";  
  
PreparedStatement psInsert = con.prepareStatement(insertSQL);  
  
psInsert.setString(1, "Akshu");  
  
psInsert.setString(2, "akshu@gmail.com");  
  
psInsert.setInt(3, 90);  
  
psInsert.executeUpdate();  
  
System.out.println("Record inserted.");  
  
  
// ----- READ -----  
  
String selectSQL = "SELECT * FROM students";  
  
PreparedStatement psSelect = con.prepareStatement(selectSQL);  
  
ResultSet rs = psSelect.executeQuery();  
  
  
System.out.println("\n--- Student Records ---");  
  
while (rs.next()) {  
  
    System.out.println(  
        rs.getInt("id") + " | "  
        rs.getString("name") + " | "  
        rs.getString("email") + " | "  
        rs.getInt("marks")  
    );  
}  
  
  
// ----- UPDATE -----
```

```
String updateSQL = "UPDATE students SET marks=? WHERE name=?";  
PreparedStatement psUpdate = con.prepareStatement(updateSQL);  
psUpdate.setInt(1, 95);  
psUpdate.setString(2, "Akshu");  
psUpdate.executeUpdate();  
  
System.out.println("\nRecord updated.");  
  
// ----- DELETE -----  
  
String deleteSQL = "DELETE FROM students WHERE name=?";  
PreparedStatement psDelete = con.prepareStatement(deleteSQL);  
psDelete.setString(1, "Akshu");  
psDelete.executeUpdate();  
  
System.out.println("Record deleted.");  
  
}  
  
catch (ClassNotFoundException e) {  
    System.out.println("JDBC Driver not found.");  
}  
  
catch (SQLException e) {  
    System.out.println("Database error: " + e.getMessage());  
}  
  
finally {  
    try {  
        if (con != null) {  
            con.close();  
        }  
    } catch (SQLException e) {  
        System.out.println("Error closing connection: " + e.getMessage());  
    }  
}
```

```
        System.out.println("Database connection closed.");
    }
} catch (SQLException e) {
    System.out.println("Error closing connection.");
}
}
```

2.Output

```
Database connected successfully.
Record inserted.

--- Student Records ---
1 | Akshu | akshu@gmail.com | 90

Record updated.
Record deleted.
Database connection closed.
```