JAVA - J2EE Batch 2

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Assignment-11

1 PROBLEM STATEMENT

Create a Java Program to perform basic CRUD operations on a database.

- Develop a Java application to manage student records using JDBC

Duration: 1 hour

→

```java
package com.main;

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

import util.DBUtil;

public class StudentManager {

    public static void main(String[] args) {
        try {
            Connection con = DBUtil.getOracelDBConnection();

            // Creating new record
            String sqlInsert = "insert into student (id, name, age, email) values(?,?,?,?)";
            PreparedStatement psInsert = con.prepareStatement(sqlInsert);

            psInsert.setInt(1, 2);
            psInsert.setString(2, "Shivam");
            psInsert.setInt(3, 22);
            psInsert.setString(4, "Shivam@gmail.com");
            psInsert.executeUpdate();
            psInsert.close();

            // Read records
            String sqlSelect = "select * from student";
            Statement st = con.createStatement();
            ResultSet rs = st.executeQuery(sqlSelect);

            while (rs.next()) {
                int id = rs.getInt("id");
                String name = rs.getString("name");
                int age = rs.getInt("age");
                String email = rs.getString("email");
```

```java
38
39              System.out.print("ID: " + id);
40              System.out.print(" Name: " + name);
41              System.out.print(" Age: " + age);
42              System.out.println(" Email: " + email);
43          }
44          rs.close();
45          st.close();
46
47          // Updating
48          String sqlUpdate = "update student set age = ? where id = ?";
49          PreparedStatement psUpdate = con.prepareStatement(sqlUpdate);
50
51          psUpdate.setInt(1, 30);
52          psUpdate.setInt(2, 2); // Updating record where id=2
53          psUpdate.executeUpdate();
54          psUpdate.close();
55
56          // Deleting
57          String sqlDelete = "delete from student where id = ?";
58          PreparedStatement psDelete = con.prepareStatement(sqlDelete);
59
60          psDelete.setInt(1, 1); // Deleting record with id = 1
61          psDelete.executeUpdate();
62          psDelete.close();
63
64          con.close();
65
66      } catch (SQLException e) {
67          e.printStackTrace();
68      }
69  }
70 }
71
```

```
SQL> select * from student;

      ID NAME                                      AGE EMAIL
---------- --------------------------------------- ---------- -------------------------------------------------
       1 Aman                                       22 Aman@gmail.com
       2 Shivam                                     22 Shivam@gmail.com
```

```
SQL> select * from student;

      ID NAME                                      AGE EMAIL
---------- --------------------------------------- ---------- -------------------------------------------------
       2 Shivam                                     30 Shivam@gmail.com

SQL>
```