

Object Oriented Programming in Java Lab Sheet IV Year /I Part Faculty: CSIT

Lab sheet 3

Objectives:

1. CRUD operation
 2. Row Sets
 - JdbcRowSet
 - CachedRowSet
 3. Scrollable and Updatable Result sets
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1. Write a program to insert three records into a table Item which is in the database Shop and contains the columns ItemId, Name, UnitPrice, Units and ExpiryDate.
 2. Develop a Java application to manage data in an Employees table, including retrieving a list of all employees, updating an employee's salary, and inserting new employee records. Please provide code examples for both connected and disconnected rowsets to perform these tasks.
 3. Write a java program to connect database College and display all student information (Roll, Name, Address and Program) from Student table.
 4. Scrollable and Updatable Result sets:

```
package com.mysql.DBconnection;
```

```
import java.sql.*;
```

```
public class ScrollableResultSet {
```

```
    public static void main(String[] args) {
```

```
        try {
```

```
            Class.forName("com.mysql.cj.jdbc.Driver");
```

```
Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/empmgmt ", "UserName", "Password");
```

```
Statement stm = con.createStatement(ResultSet.TYPE_SCROLL_INSENSITIVE, ResultSet.CONCUR_READ_ONLY);
```

```
String sql = "select * from city";
```

```
ResultSet rs = stm.executeQuery(sql);
```

```
rs.last();
```

```
System.out.println("Row No : "+rs.getRow()+ " Name : "+rs.getString("Name"));
```

```
rs.first();
```

```
System.out.println("Row No : "+rs.getRow()+ " Name : "+rs.getString("Name"));
```

```
rs.absolute(10);
System.out.println("Row No : "+rs.getRow()+ " Name : "+rs.getString("Name"));

rs.previous();
System.out.println("Row No : "+rs.getRow()+ " Name : "+rs.getString("Name"));

rs.relative(-1);
System.out.println("Row No : "+rs.getRow()+ " Name : "+rs.getString("Name"));

    } catch (Exception e) {
        e.printStackTrace();
    }
}
}
```

Assignment:

4.1 Modify the above program and create a scrollable ResultSet using prepared Statement.

4.2 Modify the above program and create an updatable ResultSet using prepared Statement and perform below operations:

1. Insert
2. Update
3. Delete

4.3 Modify the above program and create an updatable ResultSet using create Statement and perform below operations:

1. Insert
2. Update
3. Delete