

**Dt : 4/10/2024(Day-9)**

**\*imp**

**'ResultSet' in JDBC:**

**=>'ResultSet' is an interface from java.sql package and which is instantiated (implementation Object) using executeQuery()-method.**

**=>This 'ResultSet' object will hold the data retrieved from select-queries.**

**=>Based on the cursor movement the 'ResultSet-Objects' are categorized into two types:**

**(a)NonScrollable ResultSet Objects**

**(b)Scrollable ResultSet Objects**

**(a)NonScrollable ResultSet Objects:**

**=>In NonScrollable ResultSet Objects the cursor can be moved only in one direction,which means the cursor can be moved from top-of-table data to bottom-of-table data.**

**=>we use the following syntax to create NonScrollable ResultSet Objects:**

**syntax : Using 'Statement'**

**ResultSet rs = stm.executeQuery("select-query");**

**syntax : Using 'PreparedStatement'**

**ResultSet rs = ps.executeQuery();**

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**(b)Scrollable ResultSet Objects:**

**=>In Scrollable ResultSet Objects the cursor can be moved in both directions,which means we can move the cursor in forward and backward direction.**

**=>we use the following syntax to create Scrollable ResultSet Objects:**

***syntax : Using 'Statement'***

***ResultSet rs = stm.executeQuery("select-query",type,mode);***

***syntax : Using 'PreparedStatement'***

***ResultSet rs = ps.executeQuery(type,mode);***

***Note::***

***(i)"type" specify the direction of cursor on ResultSet-Objects.***

***=>The following fields(Variables) from ResultSet Interface will specify the "type"***

***public static final int TYPE\_FORWARD\_ONLY;***

***public static final int TYPE\_SCROLL\_INSENSITIVE;***

***public static final int TYPE\_SCROLL\_SENSITIVE;***

***(ii)"mode" specify the action to be performed on ResultSet-Objects.***

***=>The following fields(Variables) from ResultSet Interface will specify the 'mode'***

***public static final int CONCUR\_READ\_ONLY;***

***public static final int CONCUR\_UPDATABLE;***

***syntax : Using 'Statement'***

***Statement stm = con.createStatement(ResultSet.TYPE\_SCROLL\_INSENSITIVE,  
ResultSet.CONCUR\_READ\_ONLY);***

***syntax : Using 'PreparedStatement'***

***PreparedStatement ps = con.prepareStatement("select \* from Product67",  
ResultSet.TYPE\_SCROLL\_INSENSITIVE, ResultSet.CONCUR\_READ\_ONLY);***

**=>we use the following some important methods to control cursor on ResultSet Objects:**

**1.afterLast()**

**2.beforeFirst()**

**3.next()**

**4.previous()**

**5.first()**

**6.last()**

**7.absolute(int)**

**8.relative(int)**

**1.afterLast():**

**=>afterLast() method will make the cursor point after the last row.**

**syntax:**

**rs2.afterLast();**

**2.beforeFirst():**

**=>beforeFirst() method will make the cursor point before the first row.**

**syntax:**

**rs2.beforeFirst();**

**3.next():**

**=>next() method will move the cursor in forward direction.**

**syntax:**

**rs2.next();**

#### **4.previous():**

*=>previous() method will move the cursor in backward direction.*

*syntax:*

*rs2.previous();*

#### **5.first():**

*=>first() method will make the cursor point to the first row of ResultSet Object.*

*syntax:*

*rs1.first();*

#### **6.last():**

*=>last() method will make the cursor point to the last row of ResultSet Object.*

*syntax:*

*rs1.last();*

#### **7.absolute(int):**

*=>absolute(int) method is used to move the cursor to specified row-no.*

*syntax:*

*rs1.absolute(4);*

#### **8.relative(int):**

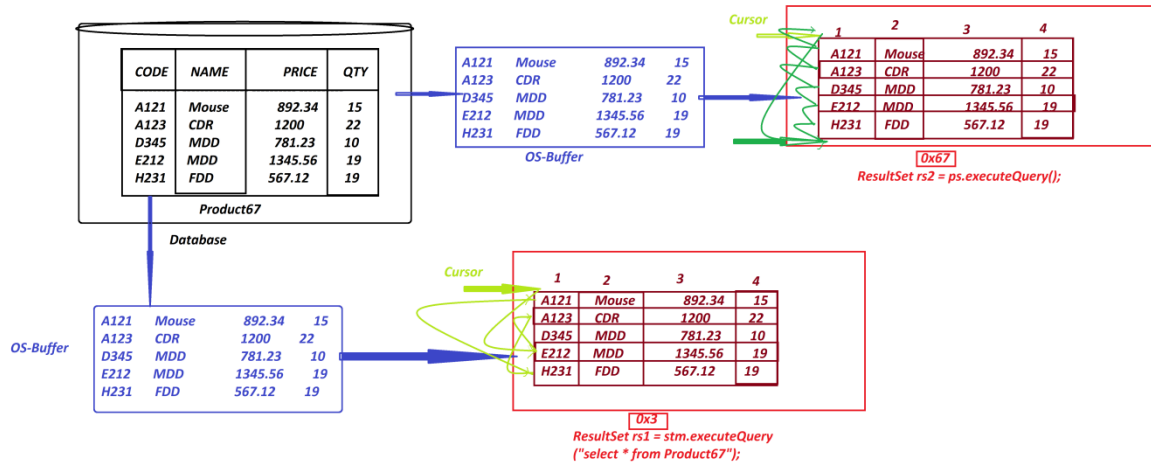
*=>relative(int) method is used to move the cursor forward or backward from the current position of Cursor.*

*syntax:*

*rs1.relative(-2);*

Ex:

Layout:



Program : DBCon5.java

```
package test;
import java.sql.*;
public class DBCon5 {
    public static void main(String[] args) {
        try {
            Class.forName("oracle.jdbc.driver.OracleDriver");
            Connection con = DriverManager.getConnection
                ("jdbc:oracle:thin:@localhost:1521:xe", "system", "tiger");
            System.out.println("*****Statement*****");
            Statement stm =
                con.createStatement(ResultSet.TYPE_SCROLL_INSENSITIVE,
                    ResultSet.CONCUR_READ_ONLY);
            ResultSet rs1 = stm.executeQuery("select * from Product67");
            System.out.println("====Row-4(absolute(4))====");
            rs1.absolute(4);
            System.out.println(rs1.getString(1)+"\t"+rs1.getString(2)+
                "\t"+rs1.getFloat(3)+"\t"+rs1.getInt(4));
            System.out.println("====Row-2(relative(-2))-----");
            rs1.relative(-2);
            System.out.println(rs1.getString(1)+"\t"+rs1.getString(2)+
                "\t"+rs1.getFloat(3)+"\t"+rs1.getInt(4));
            System.out.println("====Last Row====");
            rs1.last();
        }
    }
}
```

```

System.out.println(rs1.getString(1)+"\t"+rs1.getString(2)+
"\t"+rs1.getFloat(3)+"\t"+rs1.getInt(4));
System.out.println("====First Row====");
rs1.first();
System.out.println(rs1.getString(1)+"\t"+rs1.getString(2)+
"\t"+rs1.getFloat(3)+"\t"+rs1.getInt(4));
System.out.println("*****PreparedStatement*****");
PreparedStatement ps = con.prepareStatement("select * from
Product67",
        ResultSet.TYPE_SCROLL_INSENSITIVE,
ResultSet.CONCUR_READ_ONLY);
ResultSet rs2 = ps.executeQuery();
rs2.afterLast();
while(rs2.previous()) {
    System.out.println(rs2.getString(1)+"\t"+rs2.getString(2)+
"\t"+rs2.getFloat(3)+"\t"+rs2.getInt(4));
}
} catch (Exception e) {
    System.out.println(e.toString());
}
}
}

```

o/p:

\*\*\*\*\*Statement\*\*\*\*\*

====Row-4(absolute(4))====

E212 MDD 1345.56 19

====Row-2(relative(-2))-----

A123 CDR 1200.0 22

====Last Row=====

H231 FDD 567.12 19

====First Row=====

A121 Mouse 892.34 15

\*\*\*\*\*PreparedStatement\*\*\*\*\*

H231 FDD 567.12 19

E212 MDD 1345.56 19

**D345 MDD 781.23 10**

**A123 CDR 1200.0 22**

**A121 Mouse 892.34 15**

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