Dt : 19/3/2025

*imp

Batch Processing in JDBC:

  =>The process of collecting multiple queries as batch and executing on Database product

  at-a-time,is known as Batch Processing.

  =>Batch Processing Support only NonSelect queries,and which is also known as Batch

  Update processing.

  =>In realtime,the Batch Processing is performed using 'Statement'

  =>The following are some important methods related to barch processing:

   (a)addBatch()

   (b)executeBatch()

   (c)clearBatch()

(a)addBatch():

  =>addBatch()-method is used to add NonSelect-query to a batch.

  Method Signature:

  public abstract void addBatch(java.lang.String) throws java.sql.SQLException;

  syntax:

  stm.addBatch("NonSelect-Query");

(b)executeBatch():

  =>executeBatch()-method is used to execute all queries from the batch at-a-time.

  Method Signature:

  public abstract int[] executeBatch() throws java.sql.SQLException;

syntax:

int k[] = stm.executeBatch();

(c)clearBatch():

=>clearBatch()-method will delete all queries from the batch and destroys the batch.

Method Signature:

public abstract void clearBatch() throws java.sql.SQLException;

syntax:

stm.clearBatch();

Ex:

Program : DBCon15.java

```java
package test;
import java.util.*;
import java.sql.*;
public class DBCon15 {
     public static void main(String[] args) {
       Scanner s = new Scanner(System.in);
       try(s;){
         Class.forName("oracle.jdbc.driver.OracleDriver");
           Connection con = DriverManager.getConnection

   ("jdbc:oracle:thin:@localhost:1521:xe","system","tiger");
         Statement stm = con.createStatement();
         System.out.println("******Insert on Bank72******");
         System.out.println("Enter the AccNo:");
         long accNo = Long.parseLong(s.nextLine());
         System.out.println("Enter the Name:");
         String name = s.nextLine();
         System.out.println("Enter the Balance:");
         float bal = Float.parseFloat(s.nextLine());
         System.out.println("Enter the AccType:");
         String accType = s.nextLine();
         stm.addBatch
```

```java
            ("insert into Bank72
values("+accNo+",'"+name+"','"+bal+",'"+accType+"')");

            System.out.println("*****delete on Customer72*****");
            System.out.println("Enter the Cust-PhoneNo to delete the
details:");
            long pNo = Long.parseLong(s.nextLine());
            stm.addBatch
            ("delete from Customer72 where phno="+pNo+"");

            int k[] = stm.executeBatch();
            for(int i : k)
            {
                System.out.println("query executed : "+i);
            }//end of loop
            stm.clearBatch();
        }catch(Exception e) {
          e.printStackTrace();
        }
      }
}
```

o/p:

******Insert on Bank72******

Enter the AccNo:

434343123

Enter the Name:

RTE

Enter the Balance:

1200

Enter the AccType:

Savings

*****delete on Customer72*****

Enter the Cust-PhoneNo to delete the details:

9898981234

query executed : 1

query executed : 1

  ---

faq:

wt is the diff b/w

  (i)Batch Processing

  (ii)Procedures

=>Batch Processing will execute only NonSelect-Queries,but using Procedures we can execute

  both 'Select and NonSelect Queries'

=>when we use Batch Processing the execution load is on Server,but when we use Procedures

  then execution load is on Database.

  ---

faq:

define MetaData?

  =>The data which is holding information about other data is known as MetaData.

  =>JDBC will provide the following MetaData components:

     1.DatabaseMetaData

     2.ParameterMetaData

     3.ResultSetMetaData

1.DatabaseMetaData:

  =>DatabaseMetaData is an interface from java.sql package and which is instantiated to

hold information about Connection-Object.

syntax:

DatabaseMetaData dmd = con.getMetaData();

2.ParameterMetaData:

=>ParameterMetaData is an interface from java.sql package and which is instantiated to hold

information about PreparedStatement-Object.

synatx:

ParameterMetaData pmd = ps.getParameterMetaData();
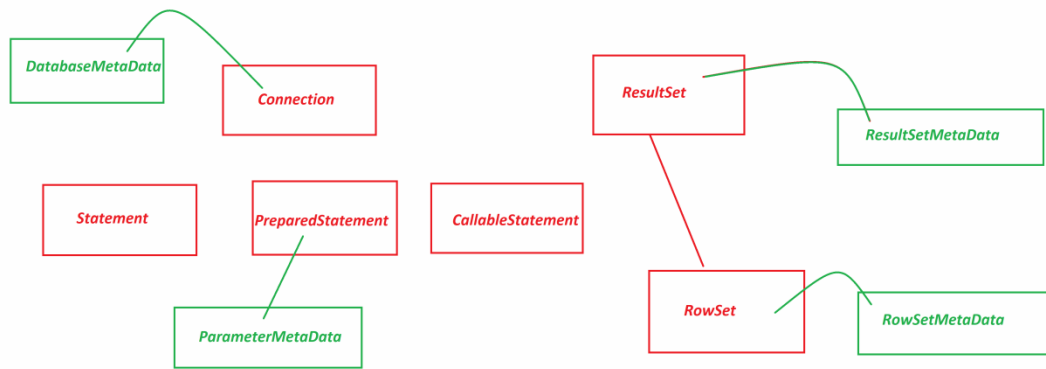
3.ResultSetMetaData:

=>ResultSetMetaData is an interface from java.sql package and which is instantiated to

hold information about ResultSet-Object

syntax:

ResultSetMetaData rsmd = rs.getMetaData();

Diagram: