**JDBC Select Operation Program.**

**import** java.sql.\*;

**class** JdbcDemo1

{

**void** displayinfo() **throws** SQLException

{

**try**

{

//Step 1...

Class.*forName*("sun.jdbc.odbc.JdbcOdbcDriver");

//Step 2...

Connection con = DriverManager.*getConnection*("jdbc:mysql://localhost/database2","root", "nmamit");

//Step 3...

Statement st= con.createStatement();

String select = "SELECT \* FROM Accounts";

//Step 4...

ResultSet results = st.executeQuery(select);

//Step 5...

**while** (results.next())

{

System.***out***.println("Account no. "+ results.getInt(1));

System.***out***.println("Account holder: "+ results.getString(3)

+ " "+ results.getString(2));

System.***out***.printf("Balance: %.2f"+ results.getFloat(4));

}

//Step 6..

results.close();

st.close();

con.close();

}

**catch**(Exception e){

e.printStackTrace();

}

}

}

**class** JDBCSelect

{

**public** **static** **void** main(String args[]) **throws** SQLException

{

JdbcDemo1 jdb = **new** JdbcDemo1();

jdb.displayinfo();

}

}

**JDBC CRUD Operation program**

**import** java.sql.\*;

**class** JDBCDemo

{

**void** displayinfo() **throws** SQLException

{

**try**

{

//Step 1...

Class.*forName*("sun.jdbc.odbc.JdbcOdbcDriver");

//Step 2...

Connection con = DriverManager.*getConnection*("jdbc:mysql://localhost/database2","root", "nmamit");

//Step 3...

Statement st= con.createStatement();

String select = "SELECT \* FROM Accounts";

//Step 4..

ResultSet results = st.executeQuery(select);

//Step 5..

**while** (results.next())

{

System.***out***.println("Account no. "+ results.getInt(1));

System.***out***.println("Account holder: "+ results.getString(3)+ " " + results.getString(2));

System.***out***.printf("Balance: %.2f %n%n",results.getFloat(4));

}

//Step 6..

String insert = "INSERT INTO Accounts"+ " VALUES (123456,'Smith',"+ "'John James',752.85)";

**int** result = st.executeUpdate(insert);

**if** (result == 0)

System.***out***.println("\nUnable to insert record!");

String change = "UPDATE Accounts"+ " SET surname = 'Bloggs',"+ "firstNames = 'Fred Joseph'"+ " WHERE acctNum = 123456";

result = st.executeUpdate(change);

**if** (result == 0)

System.***out***.println("\nUnable to update record!");

String remove = "DELETE FROM Accounts"+ " WHERE balance < 100";

result = st.executeUpdate(remove);

**if** (result == 0)

System.***out***.println("\nUnable to delete record!");

//step 7

st.close();

results.close();

con.close();

}

**catch**(Exception e){

e.printStackTrace();

}

}

}

**class** JDBCChange

{

**public** **static** **void** main(String args[]) **throws** SQLException

{

JDBCDemo demo=**new** JDBCDemo();

demo.displayinfo();

}

}

**JDBC Scrollable Program**

**import** java.sql.\*;

**class** ScrollResult {

**void** displayinfo() **throws** SQLException

{

**try**

{

Class.*forName*("sun.jdbc.odbc.JdbcOdbcDriver");

Connection con = DriverManager.*getConnection*(

"jdbc:mysql://localhost:3306/onlinetutorialspoint", "root",

"123456");

Statement st = con.createStatement(ResultSet.***TYPE\_SCROLL\_INSENSITIVE***,

ResultSet.***CONCUR\_READ\_ONLY***);

ResultSet rs = st.executeQuery("select \* from student");

System.***out***.println("RECORDS IN THE TABLE...");

rs.afterLast();

**while** (rs.previous()) {

System.***out***.println(rs.getInt(1) + " -> " + rs.getString(2));

}

rs.first();

System.***out***.println("FIRST RECORD...");

System.***out***.println(rs.getInt(1) + " -> " + rs.getString(2));

rs.absolute(3);

System.***out***.println("THIRD RECORD...");

System.***out***.println(rs.getInt(1) + " -> " + rs.getString(2));

rs.last();

System.***out***.println("LAST RECORD...");

System.***out***.println(rs.getInt(1) + " -> " + rs.getString(2));

rs.previous();

System.***out***.println("Previous of LAST RECORD...");

System.***out***.println(rs.getInt(1) + " -> " + rs.getString(2));

rs.relative(-1);

System.***out***.println("Relative decrement from Previous RECORD...");

System.***out***.println(rs.getInt(1) + " -> " + rs.getString(2));

con.close();

st.close();

rs.close();

con.close();

}

**catch**(Exception e){

e.printStackTrace();

}

}

}

**class** ScrollResultSe

{

**public** **static** **void** main(String args[]) **throws** SQLException

{

ScrollResult demo=**new** ScrollResult();

demo.displayinfo();

}

}

**JDBC Update operation using JAVA Method**

**import** java.sql.\*;

**public** **class** JDBC2Mods

{

**private** **static** Connection *link*=**null**;

**private** **static** Statement *statement*=**null**;

**private** **static** ResultSet *results*=**null**;

**public** **static** **void** main(String[] args)

{

**try**

{

//Step 1...

Class.*forName*("sun.jdbc.odbc.JdbcOdbcDriver");

//Step 2...

*link* = DriverManager.*getConnection*("jdbc:mysql://localhost/database2","root", "nmamit");

}

**catch**(ClassNotFoundException cnfEx)

{

System.***out***.println("\* Unable to load driver! \*");

System.*exit*(1);

}

//For any of a number of reasons, it may not be

//possible to establish a connection...

**catch**(SQLException sqlEx)

{

System.***out***.println("\* Cannot connect to database! \*");

System.*exit*(1);

}

**try**

{

//Step 3...

*statement* = *link*.createStatement(ResultSet.***TYPE\_SCROLL\_SENSITIVE***,

ResultSet.***CONCUR\_UPDATABLE***);

String select = "SELECT \* FROM Accounts";

System.***out***.println("\nInitial contents of table:\n");

//Steps 4 and 5...

*displayTable*();

//Start of step 6...

//First the update...

*results*.absolute(2);

//(Move to row 2 of ResultSet.)

*results*.updateFloat("balance", 42.55f);

*results*.updateRow();

//Now the insertion...

*results*.moveToInsertRow();

*results*.updateInt("acctNum", 999999);

*results*.updateString("surname", "Harrison");

*results*.updateString("firstNames",

"Christine Dawn");

*results*.updateFloat("balance", 2500f);

*results*.insertRow();

//Finally, the deletion...

*results*.absolute(3); //Move to row 3.

*results*.deleteRow();

System.***out***.println(

"\nNew contents of table:\n");

*displayTable*();

//End of step 6.

//Step 7...

*link*.close();

}

**catch**(SQLException sqlEx)

{

System.***out***.println(

"\* SQL or connection error! \*");

sqlEx.printStackTrace();

System.*exit*(1);

}

}

**public** **static** **void** displayTable() **throws** SQLException

{

String select = "SELECT \* FROM Accounts";

*results* = *statement*.executeQuery(select);

System.***out***.println();

**while** (*results*.next())

{

System.***out***.println("Account no. "+ *results*.getInt(1));

System.***out***.println("Account holder: "+ *results*.getString(3)

+ " "+ *results*.getString(2));

System.***out***.printf("Balance: %.2f",

*results*.getFloat(4));

}

}

}

**JDBC Metadata Program**

**import java.sql.Connection;**

**import java.sql.DriverManager;**

**import java.sql.ResultSet;**

**import java.sql.ResultSetMetaData;**

**import java.sql.SQLException;**

**import java.sql.Statement;**

**class Metadata**

**{**

**void displayinfo() throws SQLException**

**{**

**try**

**{**

**//Step 1...**

**Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");**

**//Step 2...**

**Connection con = DriverManager.getConnection("jdbc:mysql://localhost/database2","root", "nmamit");**

**//Step 3...**

**Statement st= con.createStatement();**

**String select = "SELECT \* FROM Accounts";**

**//Step 4...**

**ResultSet results = st.executeQuery(select);**

**ResultSetMetaData metaData = results.getMetaData();**

**int numFields = metaData.getColumnCount();**

**for (int i=1; i<=numFields; i++)**

**{**

**String colName = metaData.getColumnName(i);**

**String colType = metaData.getColumnTypeName(i);**

**System.out.println(colName+" of type "+colType);**

**}**

**while (results.next())**

**{**

**System.out.println("Account no. "+ results.getInt(1));**

**System.out.println("Account holder: "+ results.getString(3)**

**+ " "+ results.getString(2));**

**System.out.printf("Balance: %.2f"+ results.getFloat(4));**

**}**

**//Step 6..**

**results.close();**

**st.close();**

**con.close();**

**}**

**catch(Exception e){**

**e.printStackTrace();**

**}**

**}**

**}**

**class RMetadata**

**{**

**public static void main(String args[]) throws SQLException**

**{**

**Metadata m = new Metadata();**

**m.displayinfo();**

**}**

**}**

**JDBC LAB Programs on Student Table**

**import** java.io.\*;

**import** java.sql.Connection;

**import** java.sql.DriverManager;

**import** java.sql.ResultSet;

**import** java.sql.SQLException;

**import** java.sql.Statement;

**import** java.util.Scanner;

**class** Dbdemo

{

**static** Connection *link*;

**static** Statement *stm*;

**static** ResultSet *rs*;

Dbdemo() **throws** SQLException

{

**try**{

Class.*forName*("com.mysql.jdbc.Driver");

*link*=DriverManager.*getConnection*("jdbc:mysql://172.16.2.3/student","student","student");

}

**catch**(ClassNotFoundException cnfEx)

{

System.***out***.println("\* Unable to load driver!\*");

System.*exit*(1);

}

**catch**(SQLException sqlEx)

{

System.***out***.println("\* Cannot connect to database!\*");

System.*exit*(1);

}

*stm*= *link*.createStatement ( ResultSet.***TYPE\_SCROLL\_INSENSITIVE***,

ResultSet.***CONCUR\_UPDATABLE***);

}

**void** displayinfo() **throws** SQLException

{

String s = "SELECT \* FROM sv";

*rs*= *stm*.executeQuery(s);

**while**(*rs*.next())

{

System.***out***.println(*rs*.getInt(1) + "\t" + *rs*.getString(2)+"\t" + *rs*.getString(3));

}

*rs*.first();

System.***out***.println("FIRST RECORD...");

System.***out***.println(*rs*.getInt(1) + " -> " + *rs*.getString(2));

*rs*.absolute(3);

System.***out***.println("THIRD RECORD...");

System.***out***.println(*rs*.getInt(1) + " -> " + *rs*.getString(2));

*rs*.last();

System.***out***.println("LAST RECORD...");

System.***out***.println(*rs*.getInt(1) + " -> " + *rs*.getString(2));

*rs*.previous();

System.***out***.println("Previous of LAST RECORD...");

System.***out***.println(*rs*.getInt(1) + " -> " + *rs*.getString(2));

*rs*.relative(-1);

System.***out***.println("Relative decrement from Previous RECORD...");

System.***out***.println(*rs*.getInt(1) + " -> " + *rs*.getString(2));

}

**void** insertinfo() **throws** SQLException

{

Scanner s=**new** Scanner(System.***in***);

System.***out***.println("Enter usn");

**int** usn=s.nextInt();

//System.out.println("Enter surname");

//String sur=s.next();

System.***out***.println("Enter firstname");

String fname=s.next();

System.***out***.println("Enter lnametname");

String lname=s.next();

**try**{

String s1 = "insert into sv values("+usn+",'"+fname+"','"+lname+"');";

*stm*.executeUpdate (s1);

}

**catch**(Exception e)

{

System.***out***.println(e);

}

System.***out***.println("1 rows affected");

}

**void** deleteinfo() **throws** SQLException

{

Scanner s1=**new** Scanner(System.***in***);

System.***out***.println("Enter the usn no.");

**int** usn= s1.nextInt();

String s2 = "DELETE FROM sv WHERE usn="+usn;

*stm*.executeUpdate (s2);

System.***out***.println("Database deleted successfully!!!!");

}

**void** updateinfo() **throws** SQLException

{

Scanner s1=**new** Scanner(System.***in***);

System.***out***.println("Enter the usn no.");

**int** usn= s1.nextInt();

System.***out***.println("enter the new fname");

String fname=s1.next();

System.***out***.println("enter the new lname");

String lname=s1.next();

String s3 = "update sv set fname='" +fname+ "', lname='" +lname+ "' where usn="+usn;

*stm*.executeUpdate (s3);

System.***out***.println("Database updated successfully!!!!");

}

**void** searchinfo() **throws** SQLException

{

Scanner s1=**new** Scanner(System.***in***);

System.***out***.println("Enter the usn no.to be searched");

**int** usn=s1.nextInt();

String s3 = "select \* from sv " + "where usn="+usn;

*rs*= *stm*.executeQuery(s3);

**if(rs.next())**

**{**

System.***out***.println("rs.getString(1));

}

else{

System.***out***.println("enter valid input”);

}

}

**void** closecon() **throws** SQLException

{

*rs*.close();

*stm*.close();

*link*.close();

}

}

**public** **class** DB

{

**public** **static** **void** main(String args[]) **throws** SQLException

{

**boolean** f=**true**;

Dbdemo d1 = **new** Dbdemo();

d1.displayinfo();

**while**(f)

{

System.***out***.println("1:insert 2:delete 3:display 4:update 5:search 6:exit");

System.***out***.println("enter your option");

Scanner s=**new** Scanner(System.***in***);

**int** op=s.nextInt();

**switch**(op)

{

**case** 1: d1.insertinfo();

**break**;

**case** 2: d1.deleteinfo();

**break**;

**case** 3: d1.displayinfo();

**break**;

**case** 4: d1.updateinfo();

**break**;

**case** 5: d1. searchinfo();

**break**;

**case** 6: f=**false**;

}

}

d1.closecon();

}

}

**JDBC program on Account Table**

**import** java.io.\*;

**import** java.sql.Connection;

**import** java.sql.DriverManager;

**import** java.sql.ResultSet;

**import** java.sql.SQLException;

**import** java.sql.Statement;

**import** java.util.Scanner;

**class** Dbdemo1

{

**static** Connection *link*;

**static** Statement *stm*;

**static** ResultSet *rs*;

Dbdemo1() **throws** SQLException

{

**try**{

Class.*forName*("com.mysql.jdbc.Driver");

*link*=DriverManager.*getConnection*("jdbc:mysql://localhost:3306/student","root","");

}

**catch**(ClassNotFoundException E)

{

System.***out***.println("\* Unable to load driver!\*");

System.*exit*(1);

}

**catch**(SQLException E)

{

System.***out***.println("\* Cannot connect to database!\*");

System.*exit*(1);

}

*stm*= *link*.createStatement ( );

}

**void** displayinfo() **throws** SQLException

{

String s = "SELECT \* FROM av";

*rs*= *stm*.executeQuery(s);

**while**(*rs*.next())

{

System.***out***.println(*rs*.getInt(1) + "\t" + *rs*.getString(2)+"\t" + *rs*.getString(3)+ *rs*.getFloat(4));

} }

**void** insertinfo() **throws** SQLException

{

Scanner s=**new** Scanner(System.***in***);

System.***out***.println("Enter Account Number");

**int** acno=s.nextInt();

System.***out***.println("Enter surname");

String sur=s.next();

System.***out***.println("Enter firstname");

String fname=s.next();

System.***out***.println("Enter Balance");

Float balance=s.nextFloat();

**try**{

String s1 = "insert into av values("+acno+",'"+sur+"','"+fname+"',"+balance+");";

**int** rs= *stm*.executeUpdate (s1);

}

**catch**(Exception e)

{

System.***out***.println(e);

}

System.***out***.println(*rs*+"rows affected");

}

**void** deleteinfo() **throws** SQLException

{

Scanner s1=**new** Scanner(System.***in***);

System.***out***.println("Enter the account no .");

**int** acno= s1.nextInt();

String s2 = "DELETE FROM av WHERE accNum="+acno;

*stm*.executeUpdate (s2);

System.***out***.println("Database deleted successfully!!!!");

}

**void** closecon() **throws** SQLException

{

*rs*.close();

*stm*.close();

*link*.close();

}}

**public** **class** SqlMethod

{

**public** **static** **void** main(String args[]) **throws** SQLException

{

**boolean** f=**true**;

Dbdemo1 d1= **new** Dbdemo1();

d1.displayinfo();

**while**(f)

{

System.***out***.println("1:insert 2:delete 3:display 4:exit");

System.***out***.println("enter your option");

Scanner s=**new** Scanner(System.***in***);

**int** op=s.nextInt();

**switch**(op)

{

**case** 1:d1.insertinfo();

**break**;

**case** 2:d1.deleteinfo();

**break**;

**case** 3:d1.displayinfo();

**break**;

**case** 4:f=**false**;

} }

d1.closecon();

} }