

JDBC - NAVIGATING A RESULT SET EXAMPLE

<http://www.tutorialspoint.com/jdbc/navigate-result-sets.htm>

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Following is the example which makes use of few navigation methods described in the Result Set tutorial.

This sample code has been written based on the environment and database setup done in the previous chapters.

Copy and past the following example in JDBCExample.java, compile and run as follows –

```
//STEP 1. Import required packages
import java.sql.*;

public class JDBCExample {
    // JDBC driver name and database URL
    static final String JDBC_DRIVER = "com.mysql.jdbc.Driver";
    static final String DB_URL = "jdbc:mysql://localhost/EMP";

    // Database credentials
    static final String USER = "username";
    static final String PASS = "password";

    public static void main(String[] args) {
        Connection conn = null;
        Statement stmt = null;
        try{
            //STEP 2: Register JDBC driver
            Class.forName("com.mysql.jdbc.Driver");

            //STEP 3: Open a connection
            System.out.println("Connecting to database...");
            conn = DriverManager.getConnection(DB_URL, USER, PASS);

            //STEP 4: Execute a query to create statment with
            // required arguments for RS example.
            System.out.println("Creating statement...");
            stmt = conn.createStatement(
                ResultSet.TYPE_SCROLL_INSENSITIVE,
                ResultSet.CONCUR_READ_ONLY);

            String sql;
            sql = "SELECT id, first, last, age FROM Employees";
            ResultSet rs = stmt.executeQuery(sql);

            // Move cursor to the last row.
            System.out.println("Moving cursor to the last...");
            rs.last();

            //STEP 5: Extract data from result set
            System.out.println("Displaying record...");
            //Retrieve by column name
            int id = rs.getInt("id");
            int age = rs.getInt("age");
            String first = rs.getString("first");
            String last = rs.getString("last");

            //Display values
            System.out.print("ID: " + id);
            System.out.print(", Age: " + age);
            System.out.print(", First: " + first);
            System.out.println(", Last: " + last);

            // Move cursor to the first row.
            System.out.println("Moving cursor to the first row...");
            rs.first();
```

```

//STEP 6: Extract data from result set
System.out.println("Displaying record...");
//Retrieve by column name
id = rs.getInt("id");
age = rs.getInt("age");
first = rs.getString("first");
last = rs.getString("last");

//Display values
System.out.print("ID: " + id);
System.out.print(", Age: " + age);
System.out.print(", First: " + first);
System.out.println(", Last: " + last);
// Move cursor to the first row.

System.out.println("Moving cursor to the next row...");
rs.next();

//STEP 7: Extract data from result set
System.out.println("Displaying record...");
id = rs.getInt("id");
age = rs.getInt("age");
first = rs.getString("first");
last = rs.getString("last");

//Display values
System.out.print("ID: " + id);
System.out.print(", Age: " + age);
System.out.print(", First: " + first);
System.out.println(", Last: " + last);

//STEP 8: Clean-up environment
rs.close();
stmt.close();
conn.close();
}catch(SQLException se){
    //Handle errors for JDBC
    se.printStackTrace();
}catch(Exception e){
    //Handle errors for Class.forName
    e.printStackTrace();
}finally{
    //finally block used to close resources
    try{
        if(stmt!=null)
            stmt.close();
    }catch(SQLException se2){
    }// nothing we can do
    try{
        if(conn!=null)
            conn.close();
    }catch(SQLException se){
        se.printStackTrace();
    }//end finally try
} //end try
System.out.println("Goodbye!");
} //end main
} //end JDBCExample

```

Now let us compile the above example as follows –

```

C:\>javac JDBCExample.java
C:\>

```

When you run **JDBCExample**, it produces the following result –

```

C:\>java JDBCExample
Connecting to database...

```

```
Creating statement...
Moving cursor to the last...
Displaying record...
ID: 103, Age: 30, First: Sumit, Last: Mittal
Moving cursor to the first row...
Displaying record...
ID: 100, Age: 18, First: Zara, Last: Ali
Moving cursor to the next row...
Displaying record...
ID: 101, Age: 25, First: Mahnaz, Last: Fatma
Goodbye!
C:\>
```