Spring JdbcTemplate

Spring **JdbcTemplate** is a powerful mechanism to connect to the database and execute SQL queries. It internally uses JDBC api, but eliminates a lot of problems of JDBC API.

## Problems of JDBC API

The problems of JDBC API are as follows:

* We need to write a lot of code before and after executing the query, such as creating connection, statement, closing resultset, connection etc.
* We need to perform exception handling code on the database logic.
* We need to handle transaction.
* Repetition of all these codes from one to another database logic is a time consuming task.

## Advantage of Spring JdbcTemplate

Spring JdbcTemplate eliminates all the above mentioned problems of JDBC API. It provides you methods to write the queries directly, so it saves a lot of work and time.

## JdbcTemplate class

It is the central class in the Spring JDBC support classes. It takes care of creation and release of resources such as creating and closing of connection object etc. So it will not lead to any problem if you forget to close the connection.

It handles the exception and provides the informative exception messages by the help of excepion classes defined in the **org.springframework.dao** package.

We can perform all the database operations by the help of JdbcTemplate class such as insertion, updation, deletion and retrieval of the data from the database.

# ResultSet interface

The object of ResultSet maintains a cursor pointing to a row of a table. Initially, cursor points to before the first row.

#### By default, ResultSet object can be moved forward only and it is not updatable.

But we can make this object to move forward and backward direction by passing either TYPE\_SCROLL\_INSENSITIVE or TYPE\_SCROLL\_SENSITIVE in createStatement(int,int) method as well as we can make this object as updatable by:

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

                   ResultSet.CONCUR\_UPDATABLE);

### Commonly used methods of ResultSet interface

|  |  |
| --- | --- |
| **1) public boolean next():** | is used to move the cursor to the one row next from the current position. |
| **2) public boolean previous():** | is used to move the cursor to the one row previous from the current position. |
| **3) public boolean first():** | is used to move the cursor to the first row in result set object. |
| **4) public boolean last():** | is used to move the cursor to the last row in result set object. |
| **5) public boolean absolute(int row):** | is used to move the cursor to the specified row number in the ResultSet object. |
| **6) public boolean relative(int row):** | is used to move the cursor to the relative row number in the ResultSet object, it may be positive or negative. |
| **7) public int getInt(int columnIndex):** | is used to return the data of specified column index of the current row as int. |
| **8) public int getInt(String columnName):** | is used to return the data of specified column name of the current row as int. |
| **9) public String getString(int columnIndex):** | is used to return the data of specified column index of the current row as String. |
| **10) public String getString(String columnName):** |  |