



Advantages  
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1. We need not want to make clients wait to get the connection object, if connection object is available pick from connection pool and give the connection object for service.  
2. After using the connection object, connection object will be returned back to connection pool so it supports reusability.

Note:

The no of objects created in the connection pool depends of the dbvendor and since the count of objects is less(10),it is not suitable for production environment.  
DBVendors also supplied "Connection pooling" mechanism in the jars.  
The best suited vendor who supplies connection pooling mechanism is "hikaricp".  
For MySQL database to implement Connection pooling we need to use the class called "com.mysql.cj.jdbc.MysqlConnectionPoolDataSource"

monday -> javax.sql.RowSet and connection pool of hikaricp  
project of JDBC(desing pattern)

tuesday -> ServletAPI

## ResultSet types

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### Division-1

- a. Read only ResultSet(static resultSet)
- b. updatable ResultSet(dynamic resultSet)

### Division-2

- a. NonScrollable ResultSet(forward only)
- b. Scrollable ResultSet
  - 1 In-Sensitive ResultSet
  - 2. Sensitive ResultSet

## Scroll InSensitive ResultSet

After getting resultSet if we are performing any operations in the database, and if those changes are not reflecting to the resultSet, such type of ResultSet are called as "Scroll Insensitive ResultSet".

```
public static final int TYPE_SCROLL_INSENSITIVE
```

## Scroll Sensitive ResultSet

After getting resultSet if we are performing any operations in the database, and if those changes are getting reflecting to the resultSet, such type of ResultSet are called as "Scroll Sensitive ResultSet".

```
public static final int TYPE_SCROLL_SENSITIVE
```

## Note:

When we make the ResultSet as ScrollSensitive, then we need to use resultSet.refreshRow() to get the updated records from the database.

## Updatable ResultSet

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It is possible to perform delete operation using resultSet without writing delete query

```
resultSet.deleteRow() -> This method would delete the record based on the cursor position of ResultSet.
```

It is possible to perform insert operation using resultSet without writing insert query

- a. resultSet.moveToInsertRow();//creates a empty record.
- b. resultSet.updateXXXX(int pos,Object value);// insert the value based on the column data.
- c. resultSet.insertRow();// record will be inserted to the table with the updated values.

It is possible to perform update operation using resultSet without writing update query

- a. resultSet.getXXXX(int pos) // getting the old value from resultSet
  - b. resultSet.updateXXXX(int pos, Object newValue); // update the newValue
- w.r.t resultSet
- c. resultSet.updateRow();// record will be updated to the table as per the resultSet information.

## Working with Excel sheet

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To work with Excel sheet, we need to use HXTT company supplied driver we need to use.

eg: EXCEL\_JDBC40.jar

Working with CSV files

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To work with CSV files, we need to use HXTT company supplied driver we need to use.

eg: Text\_JDBC42.jar