

JDBC Quick Revision Notes

1. DatabaseMetaData & ResultSetMetaData

- DatabaseMetaData: Provides info about the database structure.
 - > Methods: getTables(), getDriverName(), getUserName(), etc.
- ResultSetMetaData: Provides info about the ResultSet returned by a query.
 - > Methods: getColumnCount(), getColumnName(), getColumnType(), etc.

2. RowSet Interface

- RowSet is an enhanced version of ResultSet with JavaBean properties.
- Types:
 - > JdbcRowSet: Connected RowSet, similar to ResultSet.
 - > CachedRowSet: Disconnected RowSet that can be serialized.
- Supports event listeners and is scrollable and updatable.

3. Savepoints

- Savepoint allows setting a checkpoint within a transaction.
- Useful to rollback part of a transaction.
 - > Savepoint sp = con.setSavepoint("point1");
 - > con.rollback(sp); // Rolls back to savepoint only

4. BLOB and CLOB Handling

- BLOB: Binary Large Object (e.g., images, videos).
- CLOB: Character Large Object (e.g., large text files).
- Methods:
 - > setBlob(), getBlob(), setClob(), getClob() on PreparedStatement/ResultSet

5. Connection Pooling Libraries (Beyond DataSource)

- Used in enterprise Java apps for managing DB connections efficiently.
- Popular libraries:
 - > HikariCP: High-performance JDBC connection pool.

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- > Apache DBCP: Basic connection pool.
- > C3P0: Older, supports automatic recovery from DB failures.