

Spring JDBC

- 1. JDBCTemplate (placeholders)
- 2. NameParameterJdbcTemplate (can use parameters instead of placeholders)
- 3. SimpleJdbcTemplate (Deprecated)
- 4. SimpleJdbcInsert (best for Insert Operations and makes simple, auto-generate table and colum names)
- 5. SimpleJdbcCall (stored procedures)

1. **JdbcTemplate**:

- 'JdbcTemplate' is a core class in the Spring JDBC framework.
- It provides a high-level, simplified API for executing SQL queries and updates against a database using JDBC.
- It encapsulptes many common JDBC operations like query execution, result set processing, and error handling.
- It is parameterized with a data source, making it easy to work with different databases.

2. **NamedParameterJdbcTemplate**:

- 'NamedParameterJdbcTemplate' is an extension of 'JdbcTemplate'.
- It allows you to use named parameters in SQL queries instead of traditional "?" placeholders.
- This can make SQL queries more readable and easier to maintain, especially for complex queries with multiple parameters.

3. **SimpleJdbcTemplate** (Deprecated):

- 'SimpleJdbcTemplate' was a simplified version of 'JdbcTemplate'.
- It was deprecated in Spring 3.1 in favor of using the more flexible `JdbcTemplate` or `NamedParameterJdbcTemplate`.
- It provided a concise API for common database operations but had some limitations.

4. **SimpleJdbcInsert**:

- 'SimpleJdbcInsert' is a utility class for inserting data into a database.
- It simplifies the process of creating and executing SQL INSERT statements.
- It can auto-generate the SQL based on the table and column names.

5. **SimpleJdbcCall**:

- 'SimpleJdbcCall' is a utility class for calling stored procedures and functions in a database.
- It simplifies the process of preparing and executing stored procedure calls.
- It provides an API to set input parameters, specify output parameters, and execute the procedure.

In summary:

- 'JdbcTemplate' is the core class for general-purpose JDBC operations.
- 'NamedParameterJdbcTemplate' adds named parameter support to 'JdbcTemplate'.
- 'SimpleJdbcTemplate' is deprecated and should be avoided in favor of 'JdbcTemplate' or 'NamedParameterJdbcTemplate'.
- 'SimpleDdbcInsert' simplifies INSERT operations.
- 'SimpleJdbcCall' simplifies calling stored procedures and functions.

When choosing which one to use, consider your specific use case. For simple queries and updates, 'JdbcTemplate' or 'NamedParameterJdbcTemplate'