Progress DataDirect *for* JDBC for Salesforce 6.0 SQL Query Compatibility

The SQL engine for Progress DataDirect *for* JDBC for Salesforce driver has been upgraded with the 6.0 release. Consequently, there are some differences in how the 6.0 version of the driver handles SQL queries compared with previous versions. The following describes the new behavior found in the 6.0 version of the driver.

NOTE: The 6.0 driver pushes queries to Salesforce whenever possible. Queries that cannot be pushed to Salesforce with the 6.0 driver may be slower than comparable queries made with previous versions of the driver because data may be paged to disk while completing an operation. If you experience slow performance, please contact Technical Support. Our team will quickly address any performance issues you encounter.

Correlated Join Queries

You might notice that the 6.0 driver uses more API calls for some correlated join queries compared to the 5.1 driver. The 6.0 driver returns the entire first table and then sends multiple requests to fetch corresponding rows for the second table, whereas the 5.1 driver returns both tables and then processes the query locally.

COUNT Aggregate

`COUNT(DISTINCT *)` is not accepted by the driver. For example, `SELECT COUNT(DISTINCT *) FROM mytable` results in the following error.

```
[DataDirect][Salesforce JDBC Driver][Salesforce]syntax error or access rule violation: unexpected token: )
```

LIKE Arguments

The LIKE operator requires the right-hand side of an expression to evaluate to a string or binary. In this example, the expression on the right-hand side evaluates to the type of `datecol` which is a timestamp.

```
SELECT charcol, integercol FROM mytable WHERE datecol LIKE (SELECT datecol FROM mytable WHERE integercol = 21) ORDER BY charcol
```

This type of query results in the following error.

```
[DataDirect][Salesforce JDBC Driver][Salesforce]syntax error or access rule violation: incompatible data type in operation
```

The query can be corrected by replacing LIKE with the equals operator.

Nested Aggregates

Doubly nested aggregates, such as `SUM(COUNT(col1))`, are currently not permitted by the driver.

Numeric Operators

Numeric Operators are restricted to numeric types. Non-numeric data types are not supported. The following examples show sample queries with their expected error messages.

Example 1

```
SELECT lvcol FROM mytable WHERE lvcol LIKE 'ab' + 'c'

[DataDirect][Salesforce JDBC Driver][Salesforce]syntax error or access rule
violation: unexpected token: +
```

Example 2

```
SELECT COUNT FROM mytable WHERE tscol BETWEEN {d '1983-07-04'} + 10 AND {d
'1986-01-29'} +3

[DataDirect][Salesforce JDBC Driver][Salesforce]syntax error or access rule
violation: incompatible data types in combination
```

ON Clause

The ON clause in a join expression must evaluate to a true or false value. A sample query is shown here with the expected error message.

```
SELECT charcol, itable.integercol from {OJ ctable4 LEFT OUTER JOIN itable ON
ctable4.intergercol}

[DataDirect][Salesforce JDBC Driver][Salesforce]syntax error or access rule
violation: data type of expression is not Boolean
```

Views with Duplicate Column Names

The driver does not support creating views with duplicate column names anymore. In earlier versions, it replaced the duplicate column names with pseudo column names like DUPCOL_[NUMBER] to support this behavior.