Introduction to SOQL: Navigating Salesforce Data Queries with Ease

👤 Pranav Nagrecha   7 min read   ·   Mar 26, 2024

👏 8   💬 1   🔖   ▶   ⬆   •••

Salesforce Object Query Language (SOQL) is a critical tool for anyone delving into Salesforce's vast data landscape. It precisely fetches data from Salesforce, supporting data analysis, reporting, and application development. SOQL's role is pivotal in extracting data efficiently, yet its wide range of functionalities can appear complex at first glance.

Enter the SOQL Cheat Sheet. This handy guide simplifies SOQL by breaking down its key components from basic queries to advanced functions. It's designed to quickly get developers, administrators, and analysts up to speed with practical examples, especially focusing on the `Case` object. Whether you're handling simple data retrievals or exploring intricate data relationships, the cheat sheet is your go-to resource for quick, effective query building.

With this cheat sheet, we aim to equip you with the knowledge to use SOQL effectively, enhancing your Salesforce applications and data insights. Embrace the power of SOQL and start querying with

confidence.

Basic Syntax

```
+-----------+-----------------------------+--------
| Operation | Syntax Example              | SOQL E
+-----------+-----------------------------+--------
| SELECT    | SELECT fieldList FROM Case  | SELECT
+-----------+-----------------------------+--------
```

WHERE Clause Operators

```
+--------------+------------------------------------
| Operator     | Description
+--------------+------------------------------------
| =            | Equals
+--------------+------------------------------------
| != or <>     | Not equals
+--------------+------------------------------------
| <            | Less than
+--------------+------------------------------------
| <=           | Less than or equal to
+--------------+------------------------------------
| >            | Greater than
+--------------+------------------------------------
| >=           | Greater than or equal to
+--------------+------------------------------------
| LIKE         | Similar to
+--------------+------------------------------------
| IN           | Included in a list or subquery
+--------------+------------------------------------
| NOT IN       | Not included in a list or subquery
+--------------+------------------------------------
| AND          | Logical AND conjunction
+--------------+------------------------------------
| OR           | Logical OR conjunction
+--------------+------------------------------------
| NOT          | Logical NOT negation
```

```
+----------------+-------------------------------------
| INCLUDES       | For multi-select picklist, includes
+----------------+-------------------------------------
| EXCLUDES       | For multi-select picklist, excludes
+----------------+-------------------------------------
```

Aggregate Functions

```
+------------------+-----------------------------------
| Function         | Description
+------------------+-----------------------------------
| COUNT()          | Total number of records
| COUNT(fieldName) | Number of records with non-null
| COUNT_DISTINCT   | Number of unique non-null values
| SUM(fieldName)   | Sum of values of a numeric field
| AVG(fieldName)   | Average value of a numeric field
| MAX(fieldName)   | Maximum value of a field
| MIN(fieldName)   | Minimum value of a field
| GROUP_BY         | Group results by one or more fie
| GROUP_BY ROLLUP  | Subtotals aggregated across hier
| GROUP_BY CUBE    | Subtotals for all combinations o
+------------------+-----------------------------------
```

Date and Time

```
+------------------+-----------------------------------
| Date Literal     | Description
+------------------+-----------------------------------
| TODAY            | Records for the current day
| YESTERDAY        | Records for the previous day
| LAST_WEEK        | Records from the last week
| THIS_WEEK        | Records from the current week
| NEXT_WEEK        | Records for the next week
| LAST_MONTH       | Records from the last month
| THIS_MONTH       | Records from the current month
| NEXT_MONTH       | Records for the next month
| LAST_N_DAYS:n    | Records from the past N days
```

```
| NEXT_N_DAYS:n       | Records for the next N days
| LAST_N_MONTHS:n     | Records from the past N months
| NEXT_N_MONTHS:n     | Records for the next N months
| LAST_N_WEEKS:n      | Records from the past N weeks
| NEXT_N_WEEKS:n      | Records for the next N weeks
| SAME_DAY_LAST_MONTH | Records from the same day last
| SAME_DAY_LAST_YEAR  | Records from the same day last
| SAME_DAY_LAST_WEEK  | Records from the same day last
+---------------------+----------------------------------
```

Relationship Queries

```
+----------------+----------------------------------
| Type           | Description
+----------------+----------------------------------
| Parent-to-Child | List related child records
|                 | (Subquery on related list)
+----------------+----------------------------------
| Child-to-Parent | Get fields from a parent record
|                 | (Dot notation for single step)
+----------------+----------------------------------
| Grandparent    | Query fields from a grandparent re
|                 | (Dot notation through multiple lev
+----------------+----------------------------------
| Polymorphic    | Query polymorphic relationships
|                 | (Use TYPEOF in SOQL)
+----------------+----------------------------------
```

Special Functions

```
+--------------+----------------------------------
| Function     | Description
+--------------+----------------------------------
| FORMAT()     | Formats date, datetime, currency fie
|              | according to user locale
+--------------+----------------------------------
| toLabel()    | Converts picklist values to user's l
```

```
|                 |
+-----------------+----------------------------------
| GROUP BY        | Groups records that have the same va
|                 | in specified fields
+-----------------+----------------------------------
| GROUP BY ROLLUP | Creates subtotals and grand totals
|                 |
+-----------------+----------------------------------
| GROUP BY CUBE   | Subtotals for all combinations of gr
|                 | specified fields
+-----------------+----------------------------------
| DISTANCE()      | Calculates distance between two geo
|                 |
+-----------------+----------------------------------
| CALENDAR_MONTH() | Extracts the month from a date/da
|                 | field
+-----------------+----------------------------------
| CONVERTCURRENCY() | Converts currency fields to org'
|                 | currency based on conversion rates
+-----------------+----------------------------------
```

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Written by Pranav Nagrecha   Edit profile

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Pranav Nagrecha he

What are your thoughts?

Sam Brown

Jul 30, 2024

Thanks for sharing. Additionally, I suggest reading an article that offers comprehensive insights into Salesforce query tools.

https://blog.skyvia.com/salesforce-query-tools/

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