PL/SQL static code analysis: Nullable subqueries should not be used in "NOT IN" conditions

1-2 minutes

A WHERE clause condition that uses NOT IN with a subquery will have unexpected results if that subquery returns NULL. On the other hand NOT EXISTS subqueries work reliably under the same conditions.

This rule raises an issue when NOT IN is used with a subquery where the selected column is nullable.

Noteworthy

This rule raises issues only when a **Data Dictionary** is provided during the analysis. See https://docs.sonarqube.org/display /PLUG/Data+Dictionary

Noncompliant Code Example

```
SELECT *
FROM my_table
WHERE my_column NOT IN (SELECT nullable_column FROM another_table)  -- Noncompliant; "nullable_column" may contain 'NULL' value and the whole SELECT query will return nothing
```

Compliant Solution

```sql
SELECT *
FROM my_table
WHERE NOT EXISTS (SELECT 1 FROM another_table
WHERE nullable_column = my_table.my_column)

SELECT *
FROM my_table
WHERE my_column NOT IN (SELECT nullable_column FROM
another_table WHERE nullable_column IS NOT NULL)
```