

**PL/SQL**

## PL/SQL static code analysis

# Unique rules to find Bugs, Vulnerabilities, Security Hotspots, and Code Smells in your PL/SQL code

All rules 188

 Vulnerability 

 Bug (45)

 Security Hotspot ②

Code Smell 137

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## Analyze your code

## "NATURAL JOIN" queries should not be used

 Code Smell
  Major
 
 design sql

NATURAL JOIN is a type of equi-join which implicitly compares all identically-named columns of the two tables. While this a feature which may seem convenient at first, it becomes hard to maintain over time.

Consider an EMPLOYEE table with the columns FULL\_NAME, and DEPT\_ID, and a DEPARTMENT table with the columns DEPT\_ID, and NAME. A natural join between those tables will join on the DEPT\_ID column, which is the only identically-named column.

But, if a new NAME column is later added to the EMPLOYEE table, then the join will be done on both DEPT\_ID and NAME. Natural joins make simple changes such as adding a column complicated and are therefore better avoided.

### Noncompliant Code Example

```
BEGIN
  SELECT *
  INTO employeeArray
  FROM employee
  NATURAL JOIN departement; -- Non-Compliant, the join predicate is implicit
END;
/
```

## Compliant Solution

```
BEGIN
    SELECT *
    INTO employeeArray
    FROM employee
    JOIN departement
    USING (dept_id); -- Compliant, explicit join predicate
END;
```

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