

SQL Joins

Computing

The four joins, what each keeps, and the one that silently multiplies rows.

Which rows survive when there is no matching row on the other side.

Join	Keeps	Use for
INNER JOIN	Only matching rows	The default; both sides required
LEFT JOIN	All left, matched right	Optional related data
RIGHT JOIN	All right, matched left	Rare — flip the tables instead
FULL OUTER	All rows from both	Reconciling two sources
CROSS JOIN	Every combination	Deliberate cartesian product

A LEFT JOIN with a condition on the right table in WHERE silently becomes an INNER JOIN. Put it in the ON clause instead.