

# SQL Relationships Cheat Sheet

## One-to-One (1:1)

Each row in Table A relates to one and only one row in Table B, and vice versa.

Example: users <-> user\_profiles

-> One user has one profile.

## One-to-Many (1:N)

A row in Table A can be related to many rows in Table B.

Example: flights -> boarding\_passes

-> One flight has many boarding passes.

## Many-to-One (N:1)

The inverse of One-to-Many: many rows in Table A relate to one in Table B.

Example: sales -> stores

-> Many sales happen in one store.

## Many-to-Many (M:N)

A row in Table A can relate to many in Table B, and vice versa.

Implemented using a join table.

Example: students <-> courses -> student\_courses (join table).

## Implementation Tips

One-to-One: Foreign key with UNIQUE constraint.

One-to-Many: Foreign key on 'many' side.

Many-to-Many: Create a separate join table.

## Summary Table

Relationship	Foreign Key Location	Needs Join Table?
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One-to-One (1:1) | One side (UNIQUE) | No

One-to-Many (1:N) | Many side | No

Many-to-One (N:1) | Many side | No

Many-to-Many (M:N)| In join table | Yes