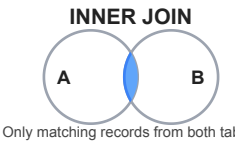
SQL JOIN Cheat Sheet

Beekeeper Studio

INNER JOIN MOST COMMON

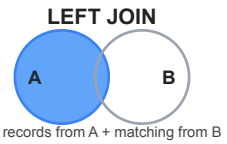


Returns only rows with matching values in both tables. Most efficient JOIN for performance.

```sql
SELECT orders.id, customers.name
FROM orders
INNER JOIN customers
  ON orders.customer_id = customers.id
```

- Only matching records from both tables
- Can be written as just JOIN
- Filters non-matching rows

LEFT JOIN

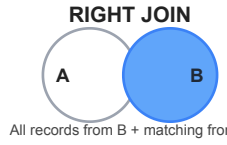


Returns all rows from left table and matching rows from right table. NULL for non-matches.

```sql
SELECT customers.name, orders.amount
FROM customers
LEFT JOIN orders
  ON customers.id = orders.customer_id
```

- Preserves all left table records
- Also called LEFT OUTER JOIN
- Find records without related data

RIGHT JOIN

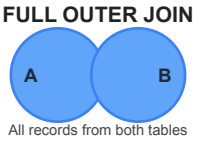


Returns all rows from right table and matching rows from left table. Opposite of LEFT JOIN.

```sql
SELECT orders.amount, customers.name
FROM orders
RIGHT JOIN customers
  ON orders.customer_id = customers.id
```

- Preserves all right table records
- Can be rewritten as LEFT JOIN
- Also called RIGHT OUTER JOIN

FULL OUTER JOIN



Returns all rows from both tables with NULL where no matches exist in either direction.

```sql
SELECT customers.name, orders.amount
FROM customers
FULL OUTER JOIN orders
  ON customers.id = orders.customer_id
```

- Combines LEFT and RIGHT JOINs
- Not supported in MySQL
- Shows all relationships and gaps

SQL JOIN Cheat Sheet

CROSS JOIN CAUTION

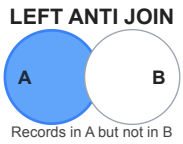
Returns Cartesian product - every row from first table combined with every row from second table.

```sql
SELECT sizes.name, colors.name
FROM sizes
CROSS JOIN colors

-- Alternative syntax
SELECT * FROM sizes, colors
```

- No ON clause needed
- Can produce huge result sets
- Useful for generating combinations

LEFT ANTI JOIN

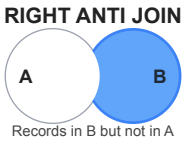


Returns rows from left table with no matching rows in right table. Find missing relationships.

```sql
SELECT customers.name
FROM customers
LEFT JOIN orders
  ON customers.id = orders.customer_id
WHERE orders.id IS NULL
```

- Uses LEFT JOIN + WHERE IS NULL
- Example: customers with no orders
- Also called LEFT EXCLUDING JOIN

RIGHT ANTI JOIN



Returns rows from right table with no matching rows in left table. Find orphaned records.

```sql
SELECT orders.id
FROM orders
LEFT JOIN customers
  ON orders.customer_id = customers.id
WHERE customers.id IS NULL
```

- Uses RIGHT JOIN + WHERE IS NULL
- Example: orders without customers
- Rewrite as LEFT ANTI JOIN