JOINING DATA SETS

with R and SQL

JOINS

SIMPLE DATA MODEL

LEFT TABLE

orders	
orderId	customerId
1	1
2	2
3	3
4	1
5	null

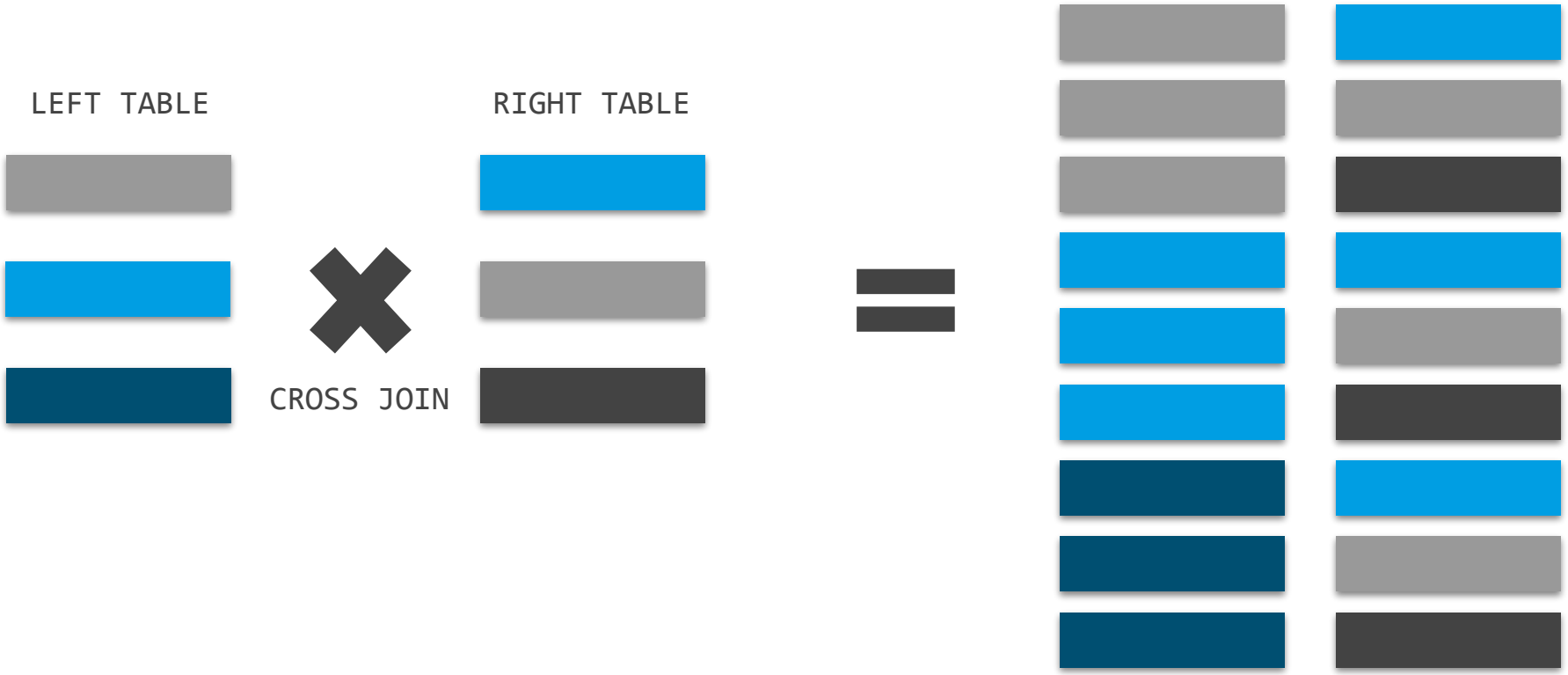
RIGHT TABLE

customers	
customerId	lastName
1	Müller
2	Meyer
3	Schulze
4	Schmidt

CROSS JOIN

JOIN TYPES

CROSS JOIN



```
orders |>
  cross_join(customers)
```

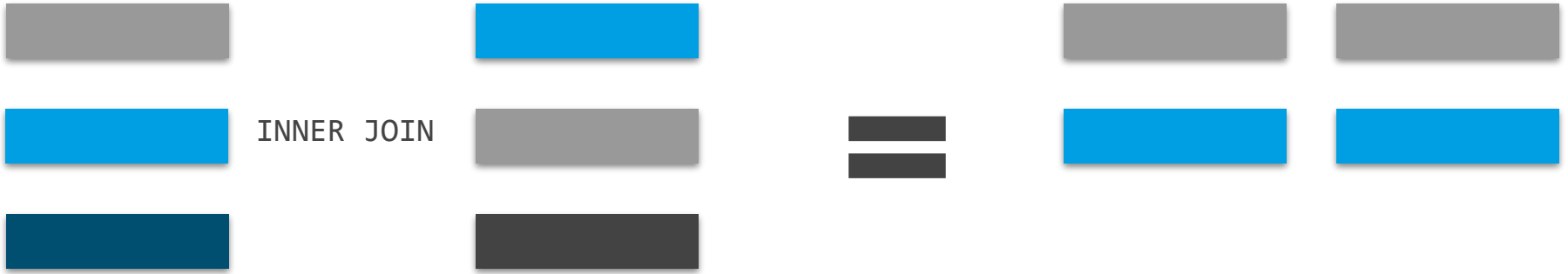
```sql
SELECT o.*, c.*
FROM orders o
CROSS JOIN customers c
```

INNER JOIN

JOIN TYPES

INNER JOIN

Only rows that have a match in both tables are in the result



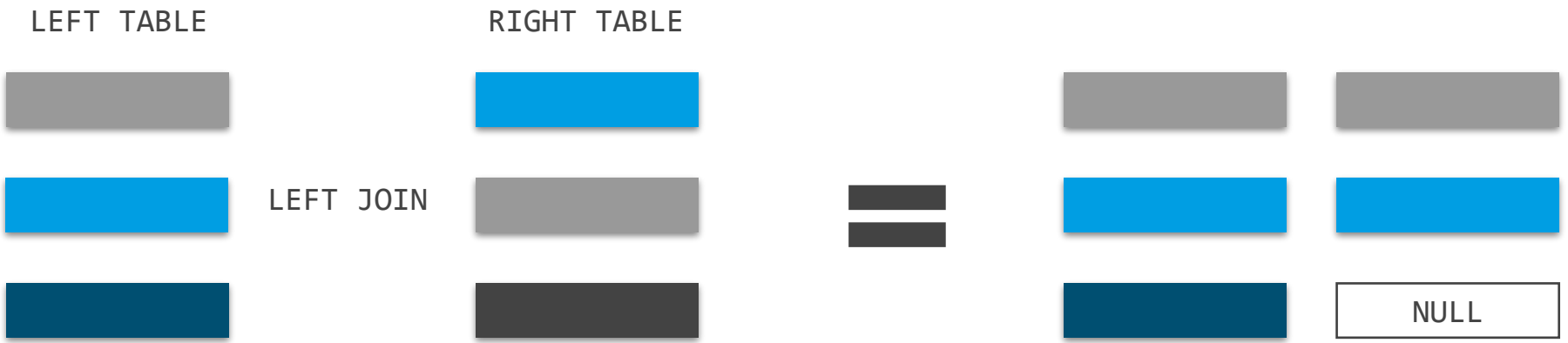
```
orders |>
   inner_join(customers)
```

```sql
SELECT o.*, c.*
FROM orders o
INNER JOIN customers c
ON o.orderId = c.customerId
```

LEFT JOIN

JOIN TYPES

LEFT JOIN



All rows from the left table are in the result set

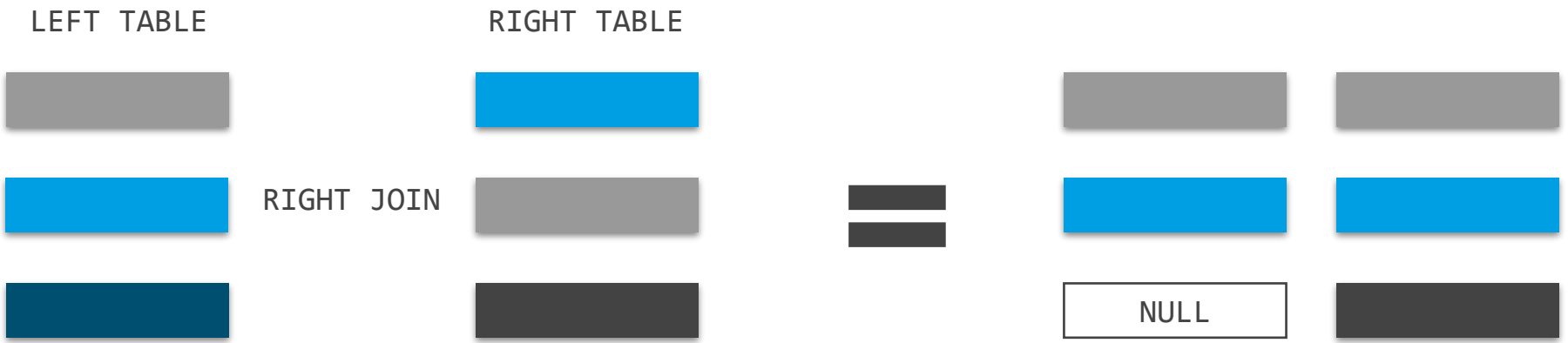
```
orders |>
   left_join(customers)
```

```sql
SELECT o.*, c.*
FROM orders o
LEFT JOIN customers c
ON o.orderId = c.customerId
```

RIGHT JOIN

JOIN TYPES

RIGHT JOIN



All rows from the right table are in the result set

```
orders |>
   right_join(customers)
```

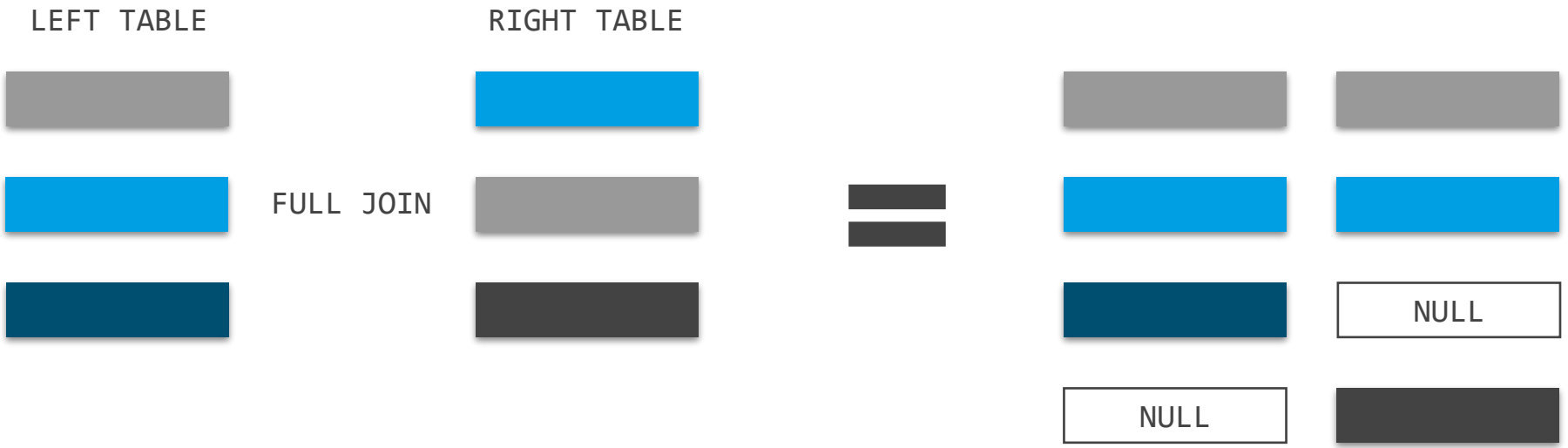
```sql
SELECT o.*, c.*
FROM orders o
RIGHT JOIN customers c
ON o.orderId = c.customerId
```

FULL JOIN

JOIN TYPES

FULL JOIN

The rows from both tables are in the result set



```
orders |>
   full_join(customers)
```

```sql
SELECT o.*, c.*
FROM orders o
FULL JOIN customers c
ON o.orderId = c.customerId
```