



JOINING DATA SETS with R and SQL

JOINS

SIMPLE DATA MODEL

LEFT TABLE

orders	
<u>orderId</u>	customerId
1	1
2	2
3	3
4	1
5	null

RIGHT TABLE

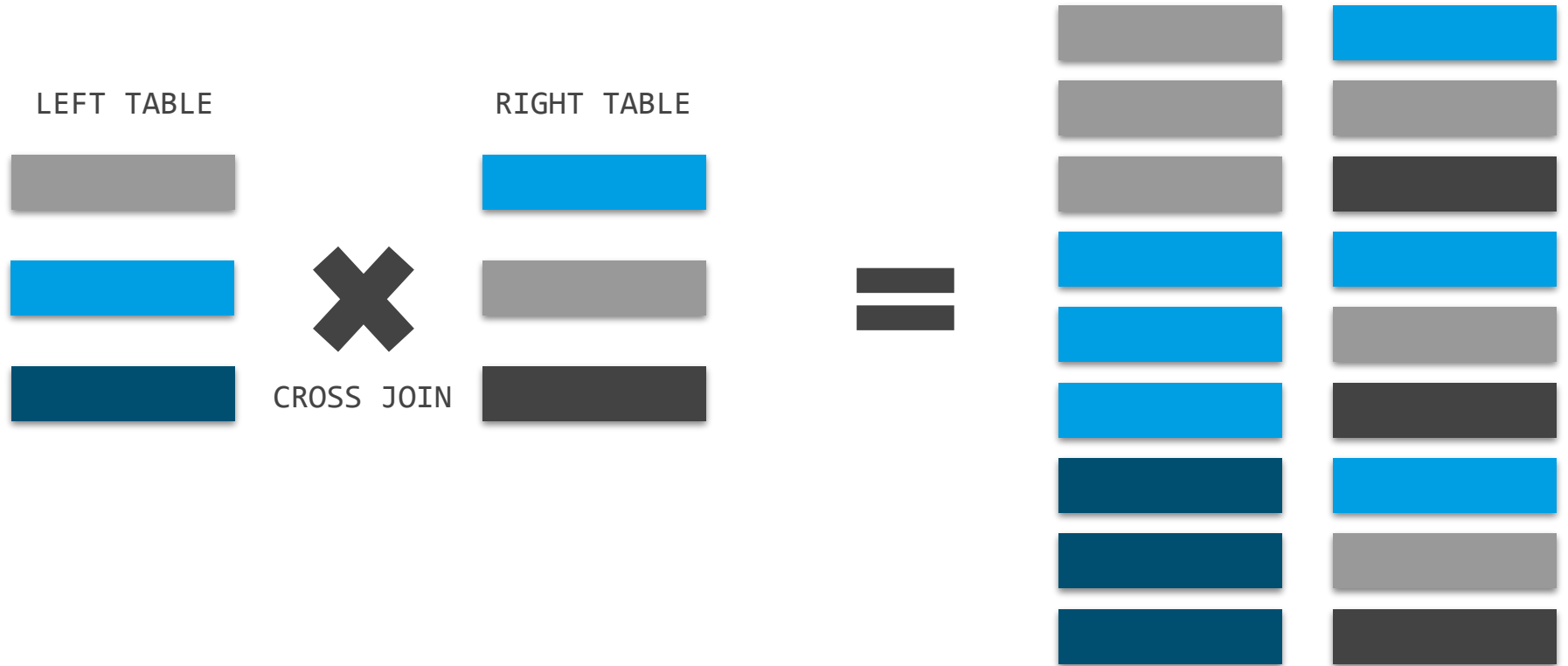
customers	
<u>customerId</u>	lastName
1	Müller
2	Meyer
3	Schulze
4	Schmidt



CROSS JOIN

JOIN TYPES

CROSS JOIN



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

JOIN TYPES

CROSS JOIN WITH SQL

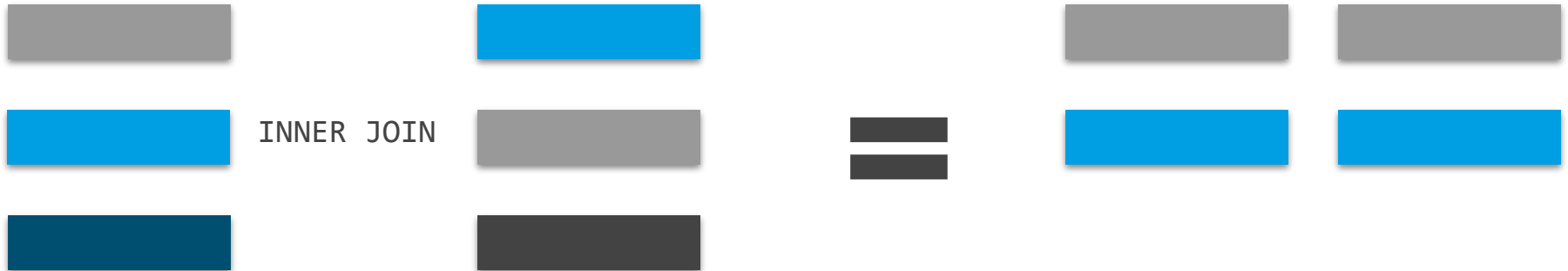
```
SELECT o.*, c.*  
FROM orders o  
CROSS JOIN customers c
```

INNER JOIN

JOIN TYPES

INNER JOIN

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



JOIN TYPES

INNER JOIN WITH R

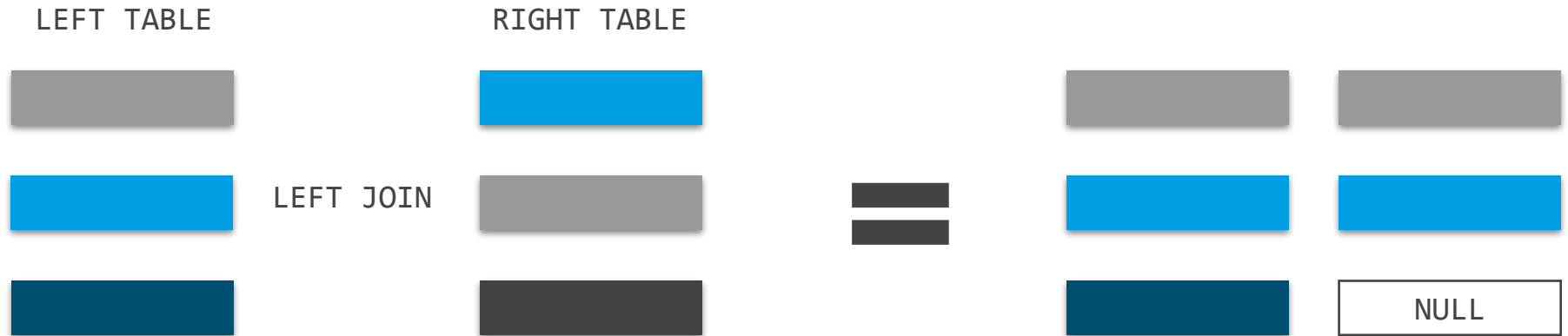
```
orders |>  
  inner_join(customers)
```

```
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

JOIN TYPES

LEFT JOIN WITH R

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

JOIN TYPES

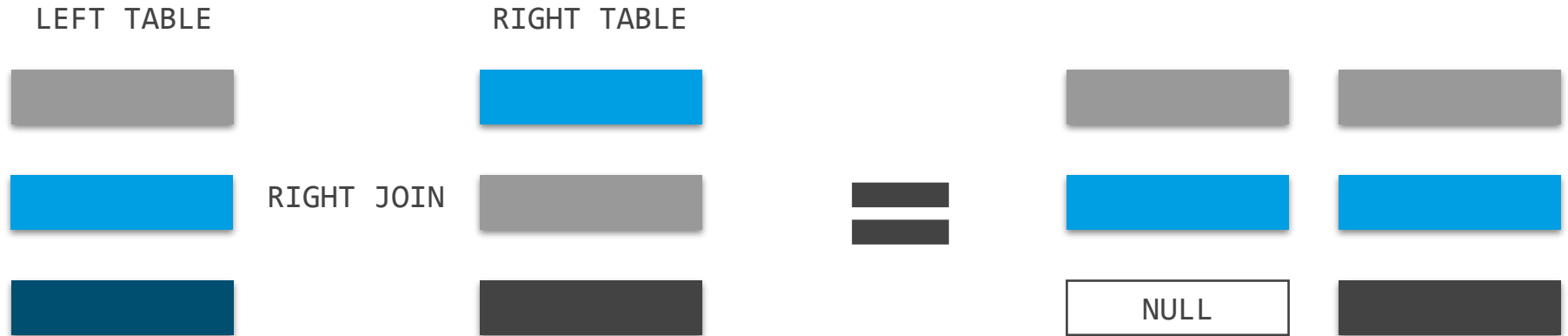
LEFT JOIN WITH SQL

```
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

JOIN TYPES

RIGHT JOIN WITH R

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

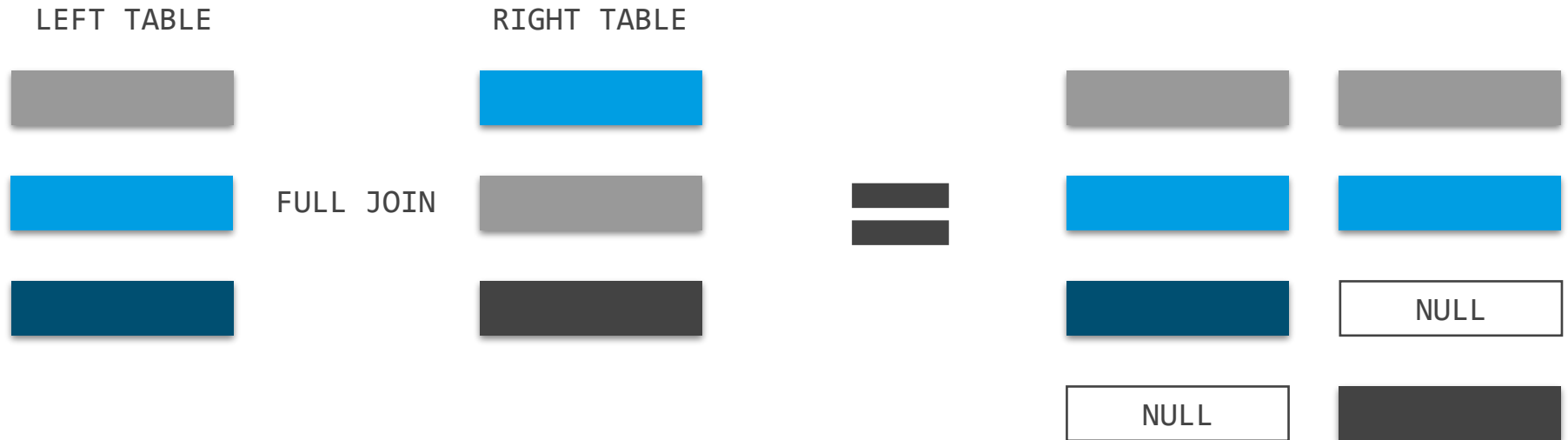
```
SELECT o.*, c.*  
FROM orders o  
RIGHT JOIN customers c  
ON o.orderId = c.customerId
```

FULL JOIN

JOIN TYPES

FULL JOIN

The rows from both tables are in the result set



JOIN TYPES

FULL JOIN WITH R

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

JOIN TYPES

FULL JOIN WITH SQL

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