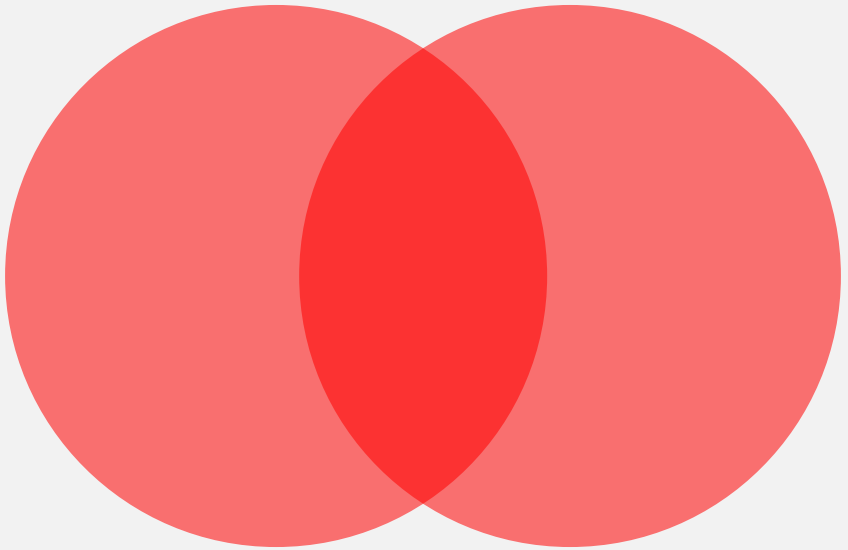

INNER JOIN

INNER JOIN

INNER JOIN

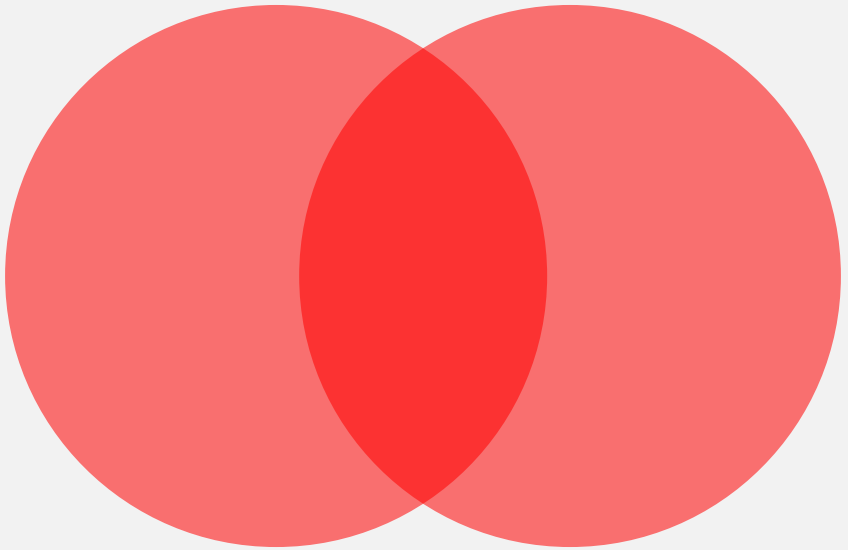
INNER JOIN

INNER JOIN



INNER JOIN

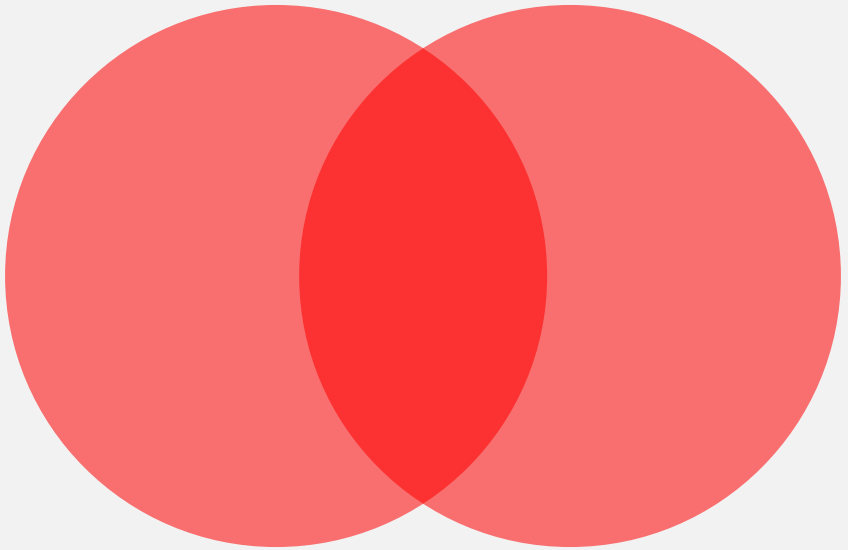
INNER JOIN



Venn diagram

INNER JOIN

INNER JOIN



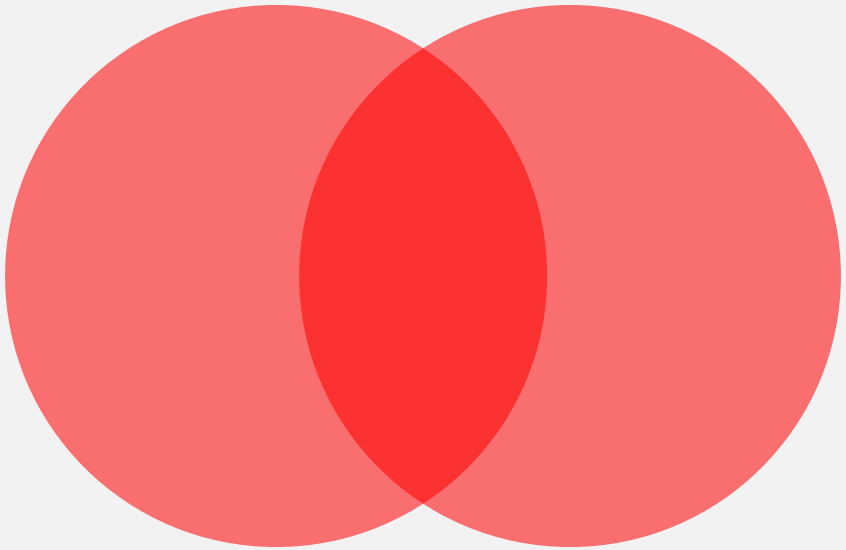
Venn diagram

a mathematical tool representing all possible logical relations between a finite collection of sets

INNER JOIN

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



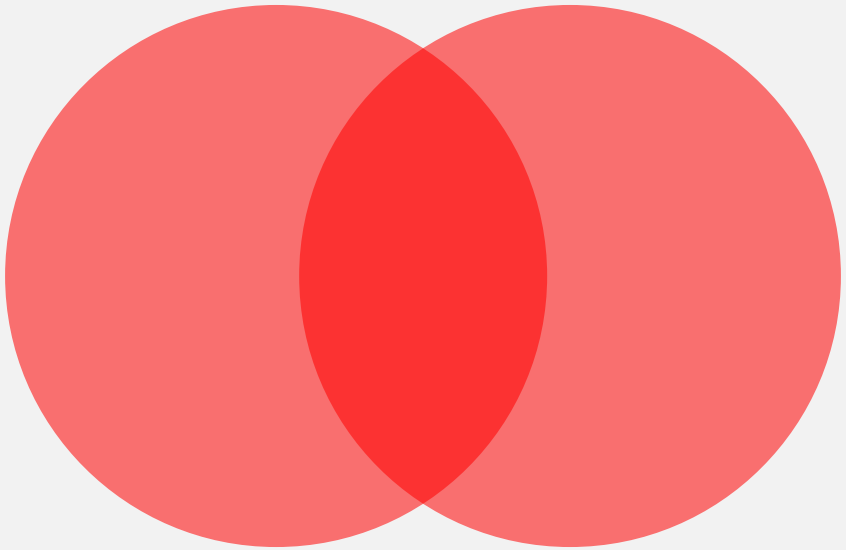
Venn diagram

a mathematical tool representing all possible logical relations between a finite collection of sets

INNER JOIN

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



departments_dup

```
dept_no CHAR(4)
dept_name VARCHAR(40)
```

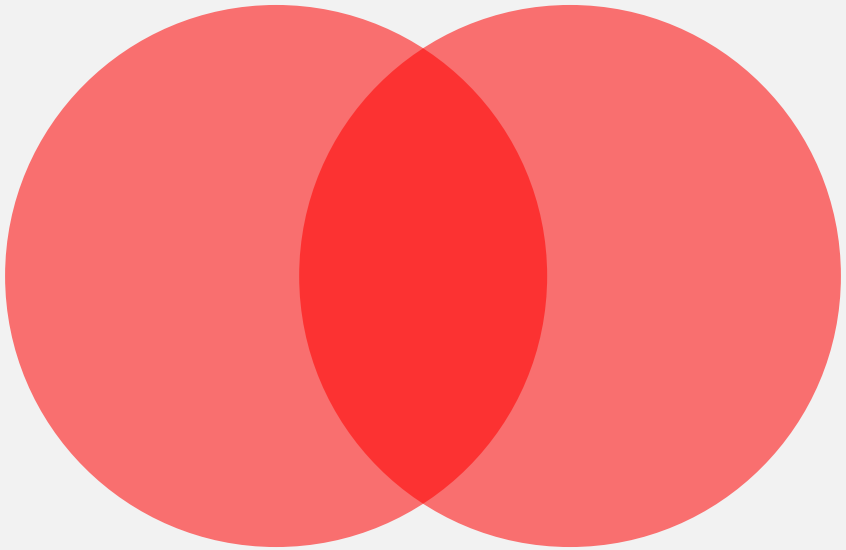
Venn diagram

a mathematical tool representing all possible logical relations between a finite collection of sets

INNER JOIN

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



departments_dup

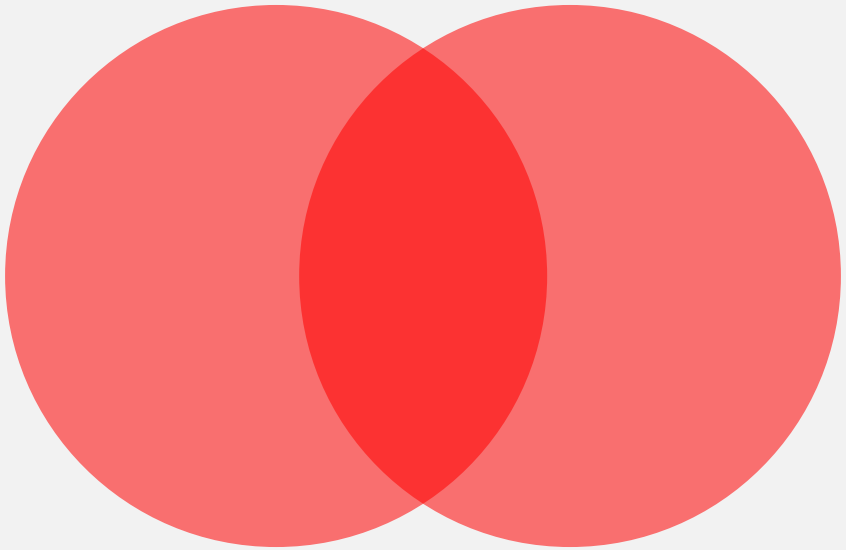
```
dept_no CHAR(4)
dept_name VARCHAR(40)
```

Which will be the related column here?

INNER JOIN

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



departments_dup

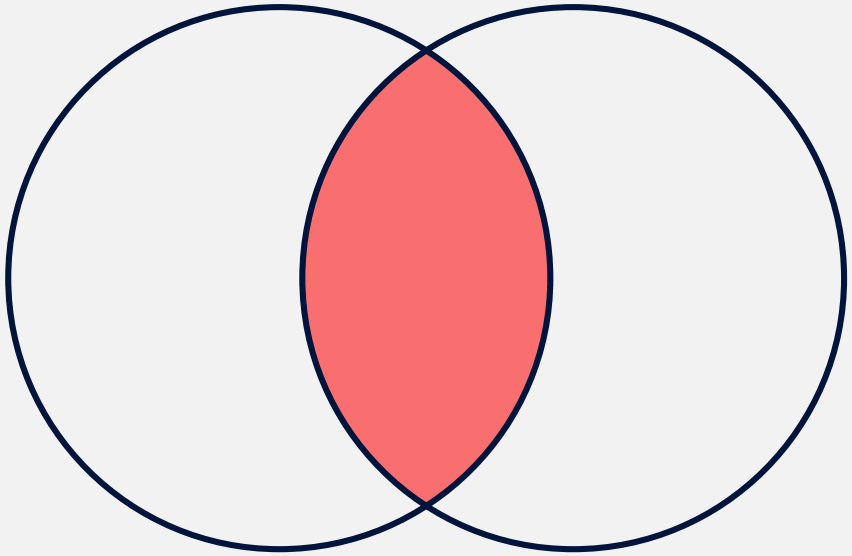
```
dept_no CHAR(4)
dept_name VARCHAR(40)
```

Related column: dept_no

INNER JOIN

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



departments_dup

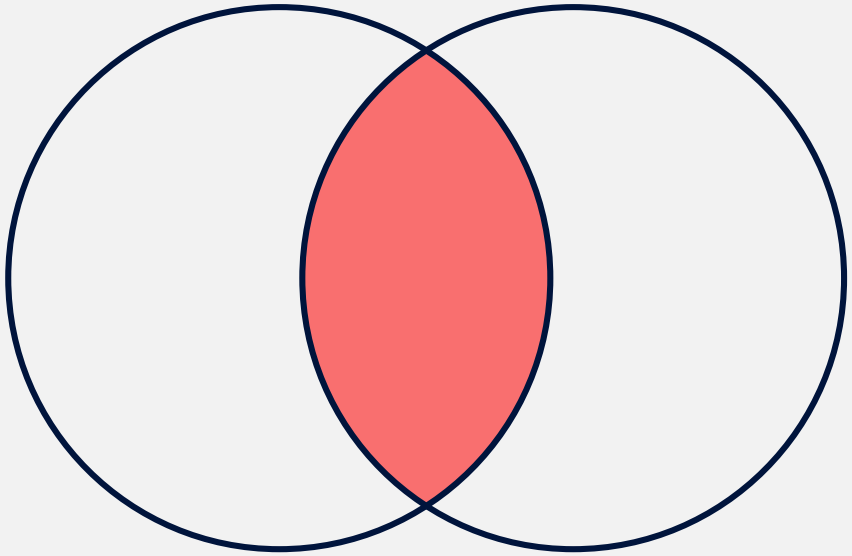
```
dept_no CHAR(4)
dept_name VARCHAR(40)
```

the area that belongs to both circles, which is filled with red, represents all records belonging to *both* the “Department Manager Duplicate” and the “Departments Duplicate” tables

INNER JOIN

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



departments_dup

```
dept_no CHAR(4)
dept_name VARCHAR(40)
```

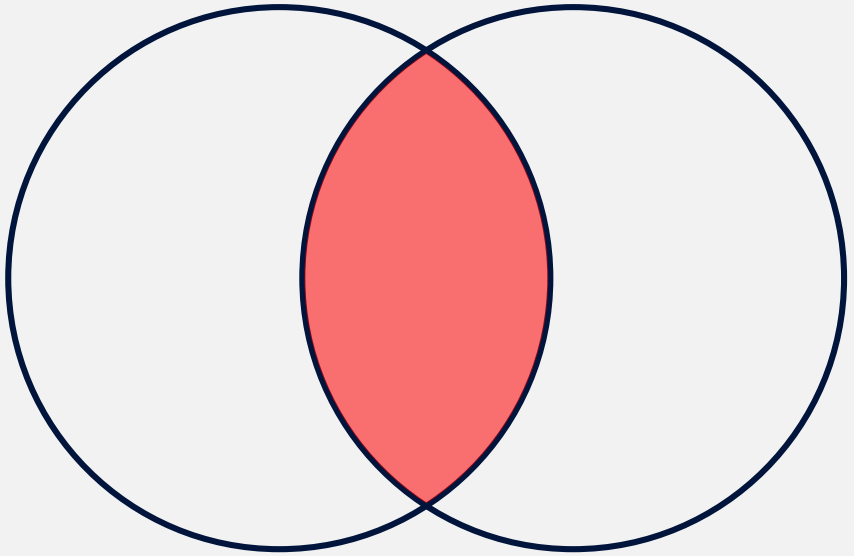
result set

the area that belongs to both circles, which is filled with red, represents all records belonging to *both* the “Department Manager Duplicate” and the “Departments Duplicate” tables

INNER JOIN

INNER JOIN

can help us extract this result set

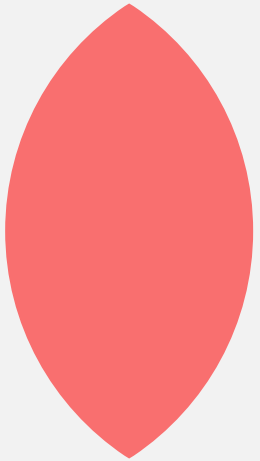


result set

INNER JOIN

INNER JOIN

can help us extract this result set



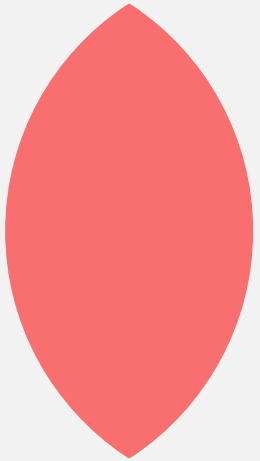
result set

INNER JOIN

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```

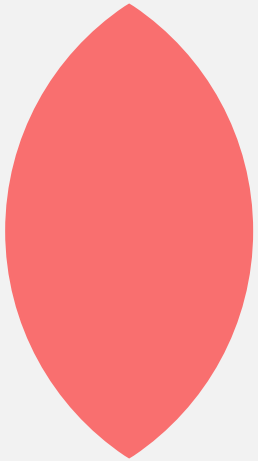
dept_no CHAR(4)



departments_dup

```
dept_no CHAR(4)
dept_name VARCHAR(40)
```

INNER JOIN

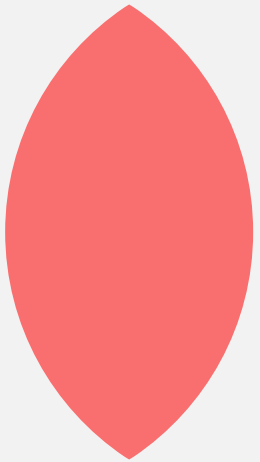


matching values = matching records

INNER JOIN

dept_manager_dup

dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE



departments_dup

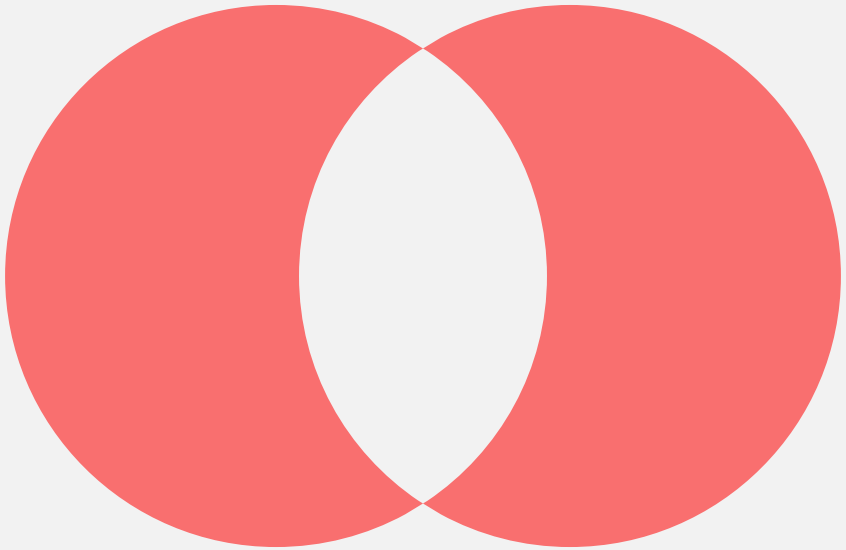
dept_no CHAR(4)
dept_name VARCHAR(40)

matching values = matching records

INNER JOIN

dept_manager_dup

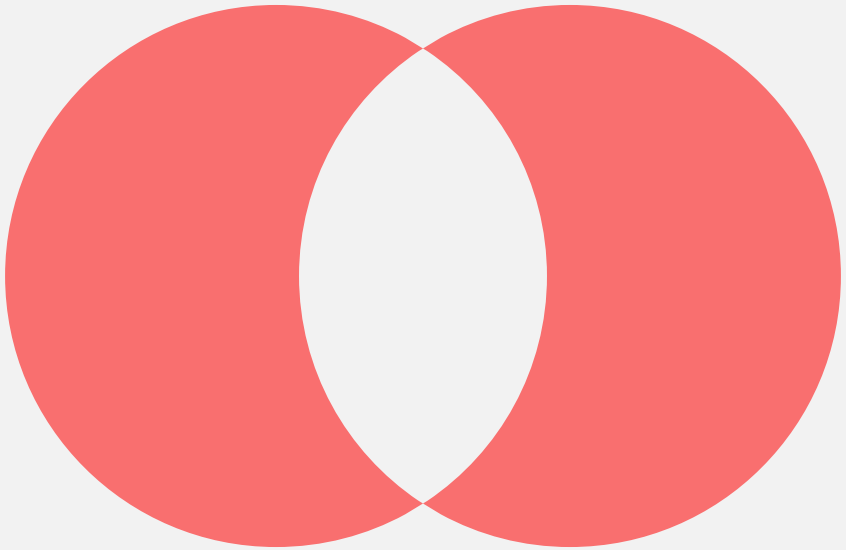
```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



departments_dup

```
dept_no CHAR(4)
dept_name VARCHAR(40)
```

INNER JOIN

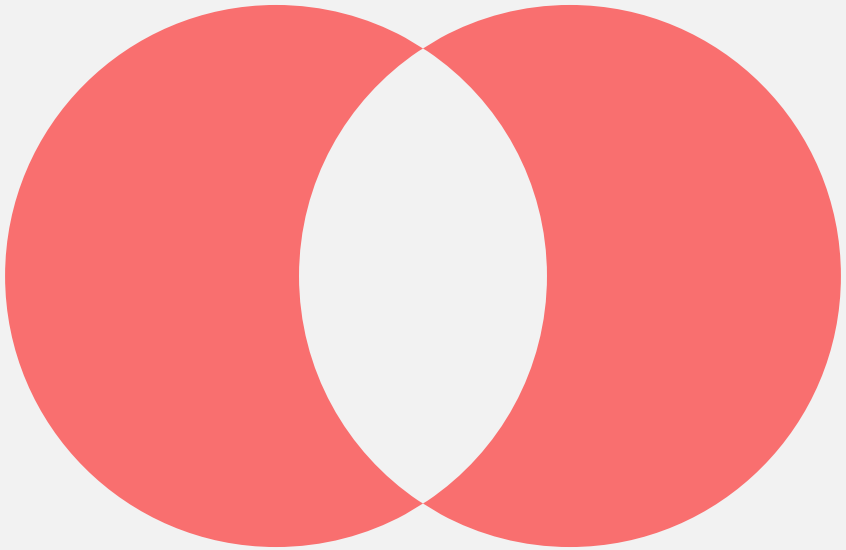


non-matching values = non-matching records

INNER JOIN

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



departments_dup

```
dept_no CHAR(4)
dept_name VARCHAR(40)
```

non-matching values = non-matching records

INNER JOIN

INNER JOIN


```sql
SELECT
    table_1.column_name(s), table_2.column_name(s)
FROM
    table_1
JOIN
    table_2 ON table_1.column_name = table_2.column_name;
```

INNER JOIN

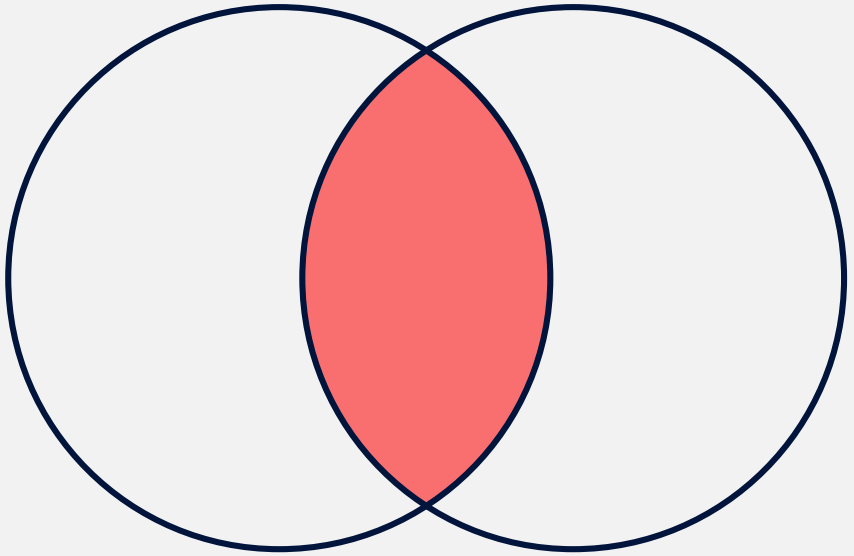
INNER JOIN


```sql
SELECT
    t1.column_name, t1.column_name, …, t2.column_name, …
FROM
    table_1 t1
JOIN
    table_2 t2 ON t1.column_name = t2.column_name;
```

INNER JOIN

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



departments_dup

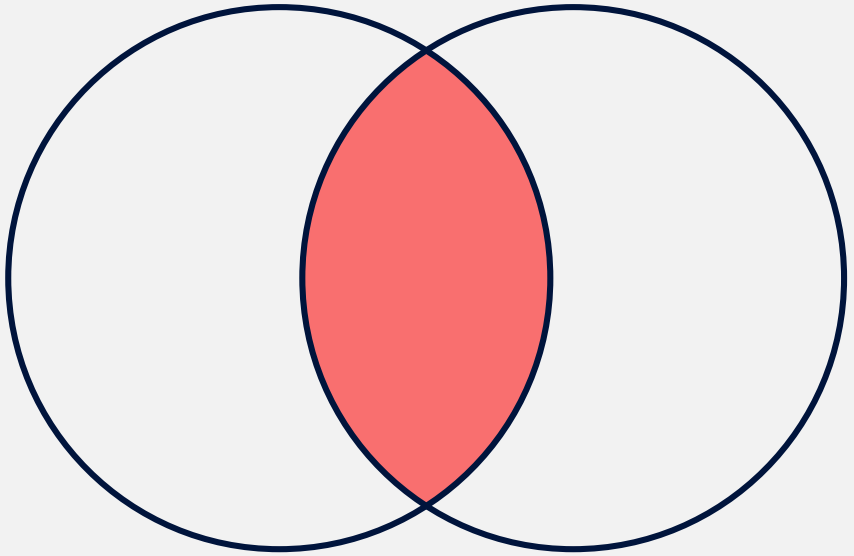
```
dept_no CHAR(4)
dept_name VARCHAR(40)
```

INNER JOIN

M

dept_manager_dup

```
dept_no CHAR(4)
emp_no INT
from_date DATE
to_date DATE
```



D

departments_dup

```
dept_no CHAR(4)
dept_name VARCHAR(40)
```

INNER JOIN

- inner joins extract only records in which the values in the related columns match. Null values, or values appearing in just one of the two tables and not appearing in the other, are not displayed

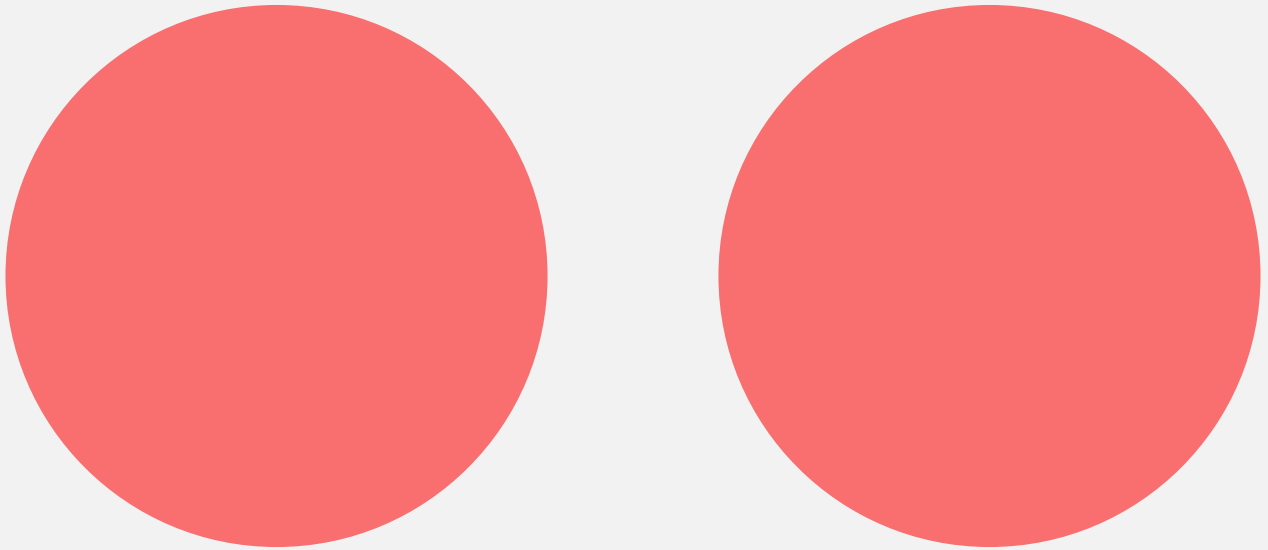
  - only non-null matching values are in play

INNER JOIN

- And what if such *matching values* did not exist?

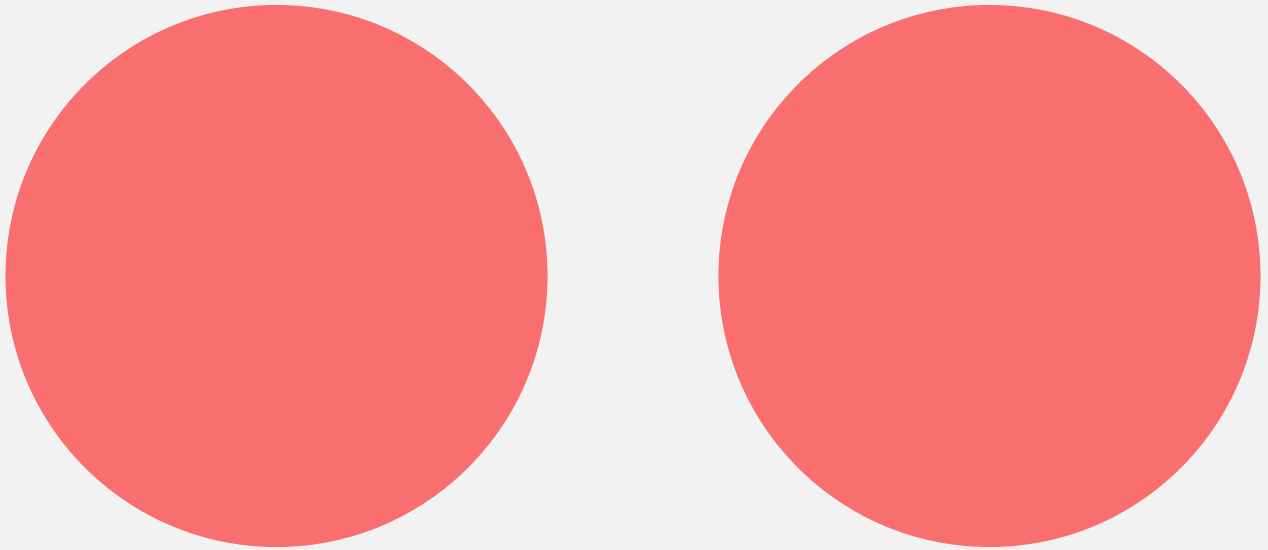
INNER JOIN

And what if such *matching values* did not exist?



INNER JOIN

And what if such *matching values* did not exist?



Simply, the result set will be empty. There will be no link between the two tables.