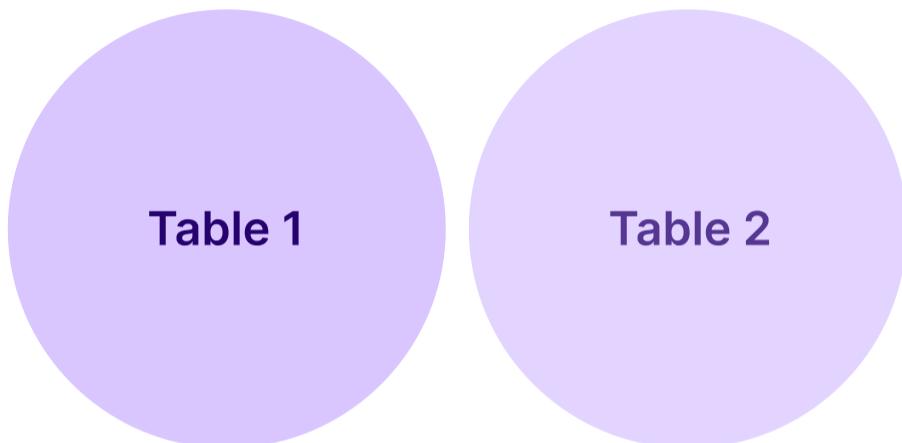




SQL Join Types

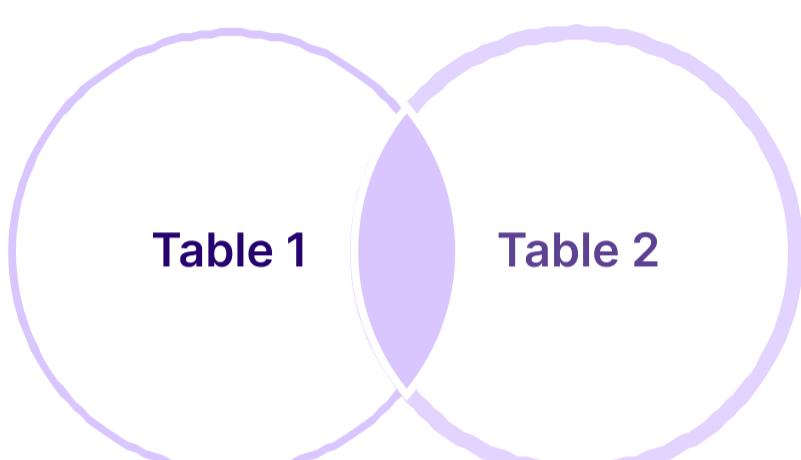
1



SELECT from two tables

```
SELECT *  
FROM Table_1;  
  
SELECT *  
FROM Table_2;
```

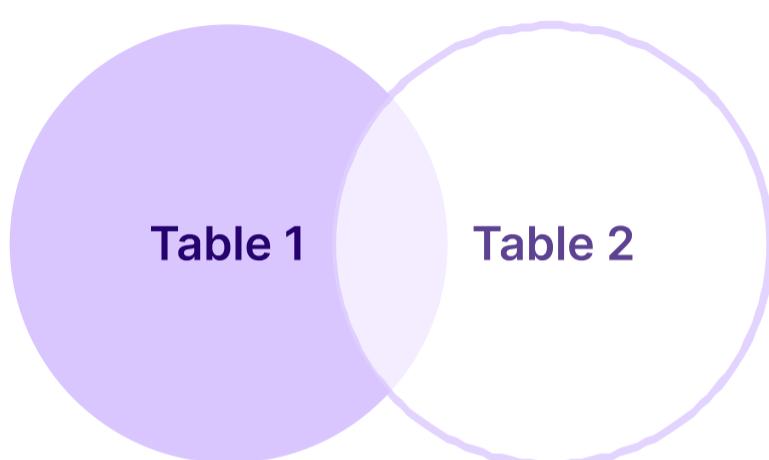
2



INNER JOIN

```
SELECT *  
FROM Table_1 t1  
INNER JOIN Table_2 t2  
ON t1.id = t2.fk
```

3

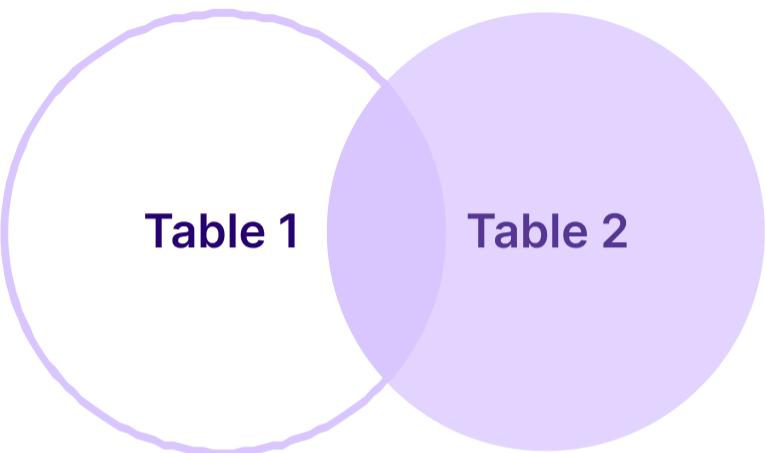


LEFT OUTER JOIN

```
SELECT *  
FROM Table_1 t1  
LEFT JOIN Table_2 t2  
ON t1.id = t2.fk;
```

SQL Join Types

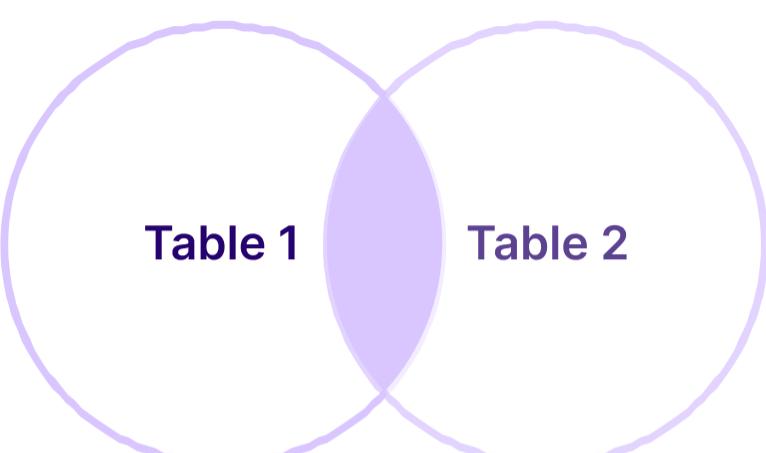
4



RIGHT OUTER JOIN

```
SELECT *
FROM Table_1 t1
RIGHT JOIN Table_2 t2
ON t1.id = t2.fk;
```

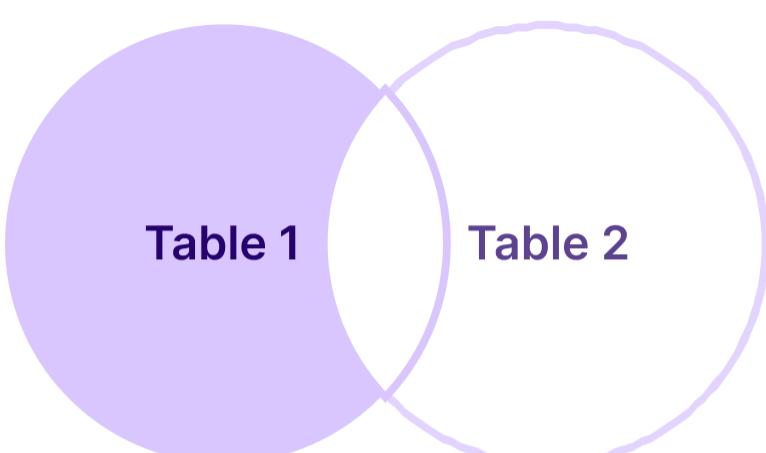
5



SEMI JOIN — Similar to INNER JOIN,
with less duplication from Table 2.

```
SELECT *
FROM Table_1 t1
WHERE EXISTS (SELECT 1
FROM Table_2 t2
WHERE t2.id = t1.fk
);
```

6

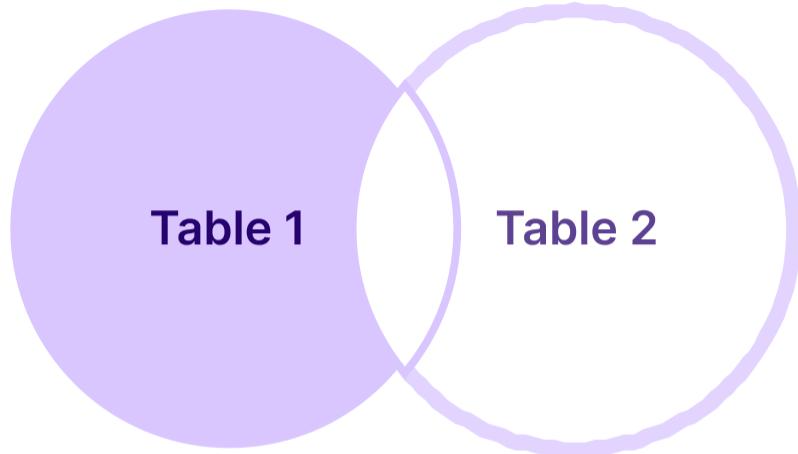


ANTI SEMI JOIN

```
SELECT *
FROM Table_1 t1
WHERE NOT EXISTS (SELECT 1
FROM Table_2 t2
WHERE t2.id = t1.fk
);
```

SQL Join Types

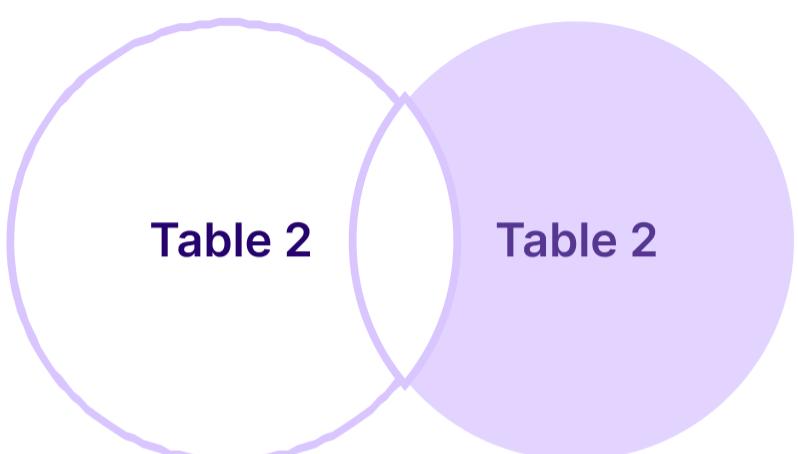
7



```
SELECT *
FROM Table_1 t1
LEFT JOIN Table_2 t2
ON t1.id = t2.fk
WHERE t2.fk is null;
```

LEFT OUTER JOIN with exclusion — replacement for a NOT IN

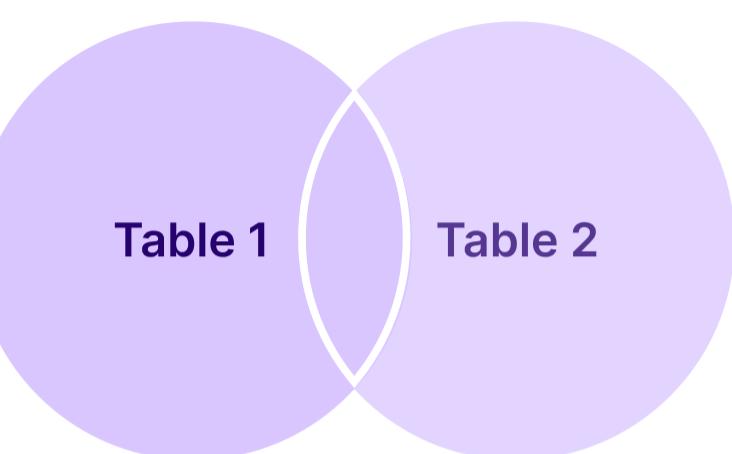
8



```
SELECT *
FROM Table_1 t1
RIGHT JOIN Table_2 t2
ON t1.id = t2.fk
WHERE t2.fk is null;
```

RIGHT OUTER JOIN with exclusion — replacement for a NOT IN

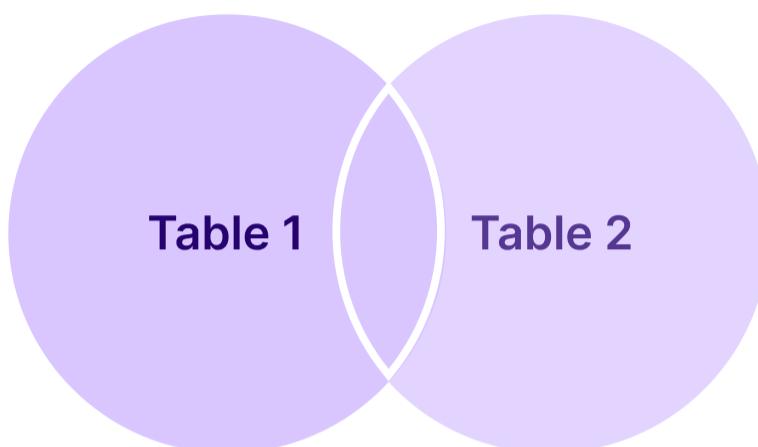
9



```
SELECT *
FROM Table_1 t1
FULL OUTER JOIN Table_2 t2
ON t1.id = t2.fk;
```

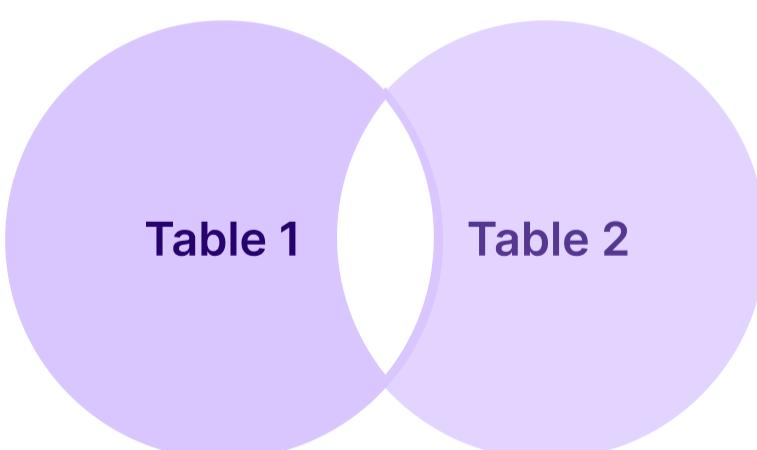
FULL OUTER JOIN

SQL Join Types



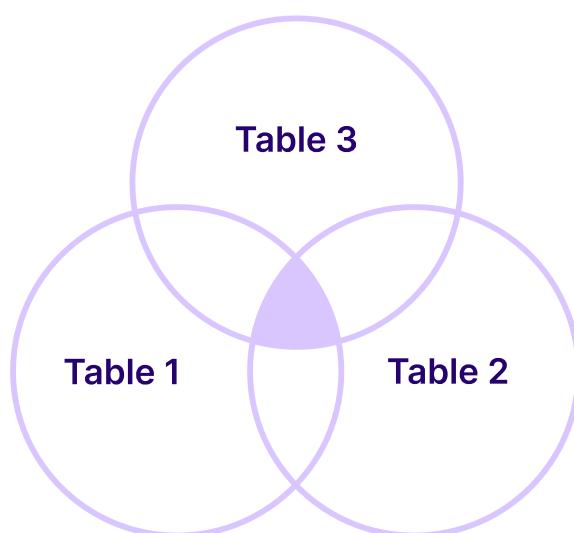
```
SELECT *
FROM Table_1 t1
CROSS JOIN Table_2 t2;
```

CROSS JOIN, like a FULL OUTER JOIN
with out specifying JOIN condition.



```
SELECT *
FROM Table_1 t1
FULL OUTER JOIN Table_2 t2
ON t1.id = t2.fk
WHERE t1.id is null
OR t2.fk is null;
```

FULL OUTER JOIN with exclusion — replacement for a double NOT IN

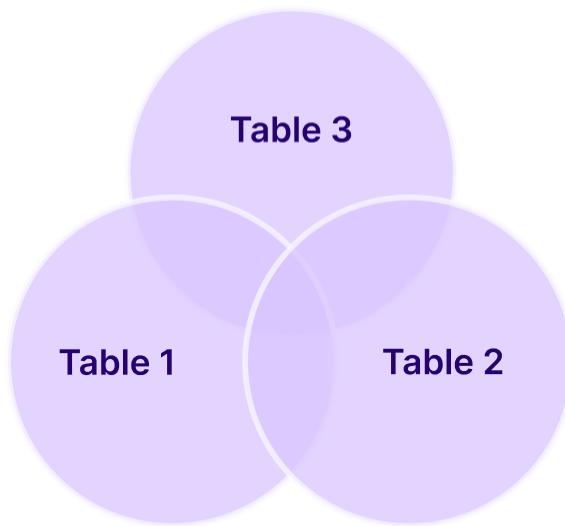


```
SELECT *
FROM Table_1 t1
INNER JOIN Table_2 t2
ON t1.id = t2.fk
INNER JOIN Table_3 t3
ON t1.id = t3.fk;
```

Two INNER JOINS

SQL Join Types

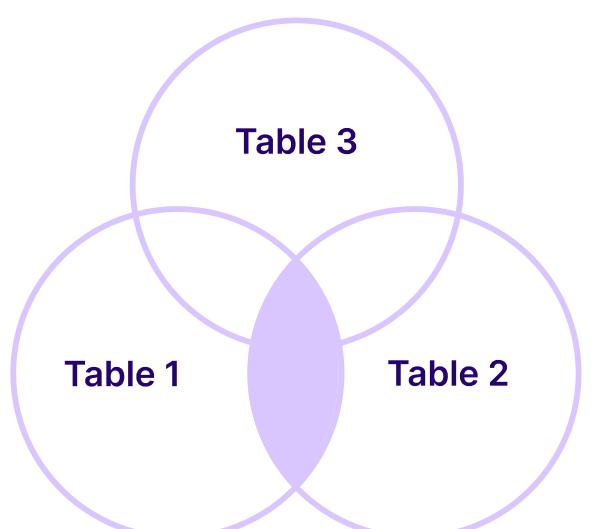
13



Two FULL OUTER JOINS

```
SELECT *
FROM Table_1 t1
FULL OUTER JOIN Table_2 t2
ON t1.id = t2.fk
FULL OUTER JOIN Table_3 t3
ON t1.id = t3.fk;
```

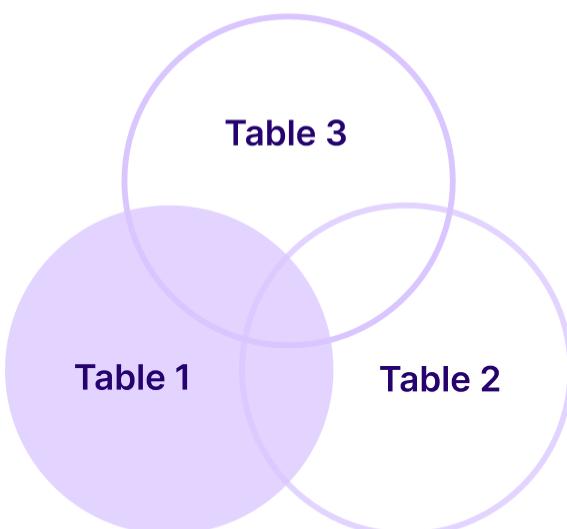
14



```
SELECT *
FROM Table_1 t1
INNER JOIN Table_2 t2
ON t1.id = t2.fk
LEFT OUTER JOIN Table_3 t3
ON t1.id = t3.fk;
```

INNER JOIN and LEFT OUTER JOIN

15



Two LEFT OUTER JOINS

```
SELECT *
FROM Table_1 t1
LEFT JOIN Table_2 t2
ON t1.id = t2.fk
LEFT JOIN Table_3 t3
ON t1.id = t3.fk;
```