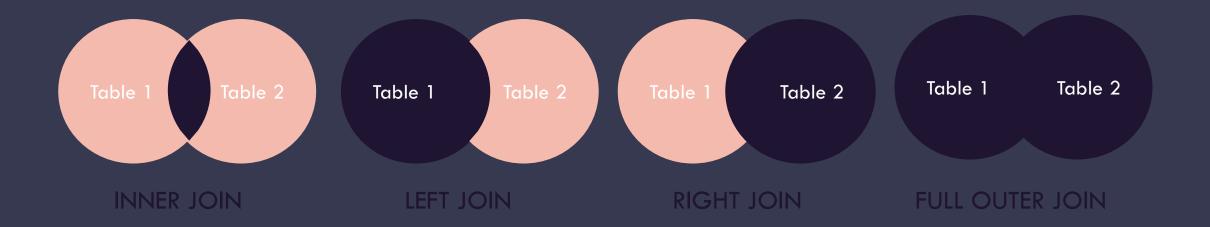
Joins

- A JOIN clause is used to combine rows from two or more tables, based on a related column between them
- There are 4 different types of joins

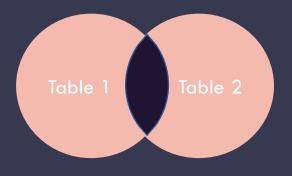


Inner Joins

EMP						
ENAME	JOB	DEPTNO				
KING	PRESIDENT	10				
JONES	MANAGER	20				
SCOTT	ANALYST	20				
FORD	ANALYST	20				
SMITH	CLERK	20				
ALLEN	SALESMAN	30				
TURNER	SALESMAN	30				
JAMES	CLERK	30				

DEPT						
DEPTNO	DNAME	LOC				
40	OPERATIONS	BOSTON				
20	RESEARCH	DALLAS				
30	SALES	CHICAGO				

ENAME LOC JOB DEPTNO DMAME JONES MANAGER 20 RÉSEARCH DALLAS SCOTT 20 ANALYST RESEARCH DALLAS **FORD** ANALYST RESEARCH DALLAS 20 CLERK RESEARCH DALLAS **SMITH** 30 ALLEN SALESMAN SALES CHICAGO TURNER SALESMAN 30 SALES CHICAGO SALES JAMES CLERK 30 CHICAGO



INNER JOIN

Left Joins

EMP							
ENAME	JOB	DEPTNO					
KING	PRESIDENT	10					
JONES	MANAGER	20					
SCOTT	ANALYST	20					
FORD	ANALYST	20					
SMITH	CLERK	20					
ALLEN	SALESMAN	30					
TURNER	SALESMAN	30					
JAMES	CLERK	30					

DEPT							
DEPTNO	TNO DNAME LOC						
10	OPERATIONS	BOSTON					
0	RESEARCH	DALLAS					
80	SALES	CHICAGO					

ENAME	JOB	DEPTNO	DNAME	LOC
KING	PRESIDENT	10	-	-
JONES	MANAGER	20	RESEARCH	DALLAS
SCOTT	ANALYST	20	RESEARCH	DALLAS
FORD	ANALYST	20	RESEARCH	DALLAS
SMITH	CLERK	20	RESEARCH	DALLAS
ALLEN	SALESMAN	30	SALES	CHICAGO
TURNER	SALESMAN	30	SALES	CHICAGO
JAMES	CLERK	30	SALES	CHICAGO

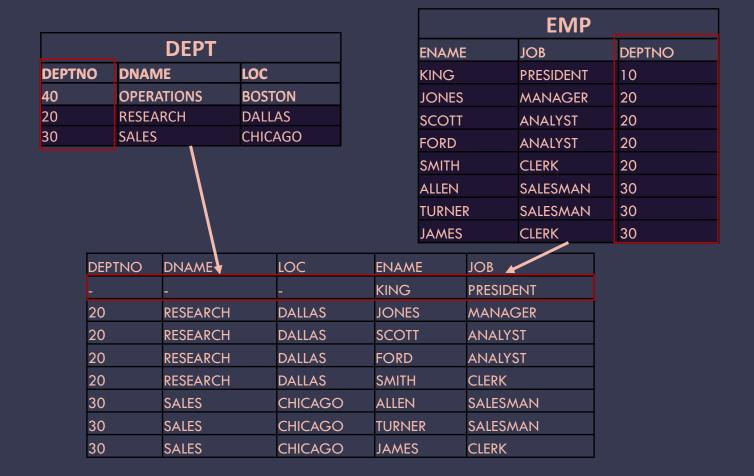


Left Joins

						EMP				
DEPT						ENAMI	=	JOB	DEPTNO	
DEPTNO	DNAME	NAME LO		LOC			KING		PRESIDENT	10
40	OPERAT	OPERATIONS BOST		BOSTON		JONES		MANAGER	20	
20	RESEAR	СН	DALLAS				SCOTT		ANALYST	20
30	SALES	SALES CHI			AGO		FORD		ANALYST	20
		\							CLERK	20
		\					ALLEN			30
		\ \					TURNER SALESMAN		30	
								CLERK	30	
						37 ti 1120		CLERK	00	
	DEPTNO DNAME			LOC	EN	ENAME		JOB		
	40	OPERATIO	ONS	BOSTO	N -	_		_		
	20 RESEARCH 20 RESEARCH		Н			JONES MANAG SCOTT ANALY		MANA	GER	
			Н					ST		
	20 RESEARCH		Н	DALLAS	AS FORD		ANALYST			
	20 RESEARCH		DALLAS	S SM	SMITH		CLERK			
;	30 SALES		CHICAC	GO AL	ALLEN		SALESMAN			
	30 SALES CHICAGO		GO TU	TURNER SALE		SALESA	SALESMAN			
	30	SALES		CHICAC	GO JAMES		S CLERK			



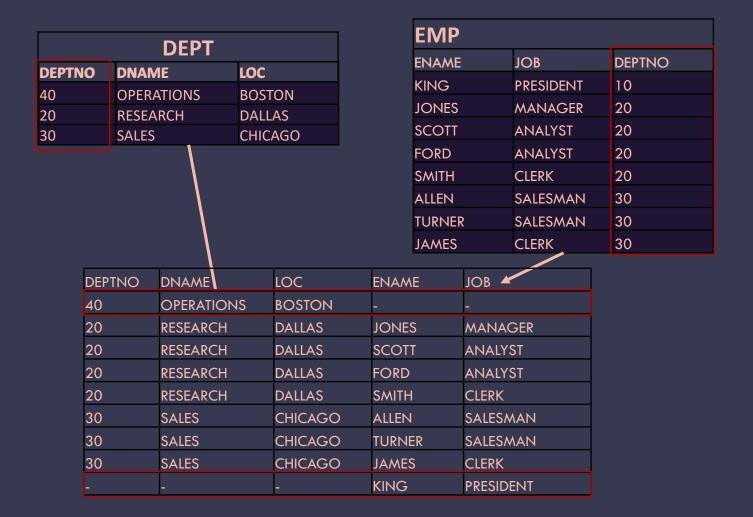
Right Joins





RIGHT JOIN

Full Outer Joins





FULL OUTER JOIN

SYNTAX

Table 1 Table 2

Table 1 Table 2

Table 1 Table 2

INNER JOIN

LEFT JOIN

RIGHT JOIN

FULL OUTER JOIN

SELECT

TABLE_1.COLUMN_NAME(S),
TABLE_2.COLUMN_NAME(S)

FROM TABLE_1

INNER JOIN TABLE_2

ON

TABLE_1.COLUMN = TABLE_2.COLUMN;

SELECT

Table 1

TABLE_1.COLUMN_NAME(S),
TABLE_2.COLUMN_NAME(S)

FROM TABLE 1

LEFT JOIN TABLE 2

ON

TABLE_1.COLUMN = TABLE_2.COLUMN;

SELECT

TABLE_1.COLUMN_NAME(S),

TABLE_2.COLUMN_NAME(S)

FROM TABLE_1

RIGHT JOIN TABLE 2

ON

 $TABLE_1.COLUMN = TABLE_2.COLUMN;$

SELECT

TABLE_1.COLUMN_NAME(S),
TABLE_2.COLUMN_NAME(S)

FROM TABLE 1

FULL OUTER JOIN TABLE 2

ON

TABLE_1.COLUMN = TABLE_2.COLUMN;

Multiple Column Joins

```
SELECT

TABLE_1.COLUMN_NAME(S),

TABLE_2.COLUMN_NAME(S),

TABLE_3.COLUMN_NAME(S)

FROM TABLE_1

INNER JOIN TABLE_2

ON

TABLE_1.COLUMN_1 = TABLE_2.COLUMN_1

AND

TABLE_1.COLUMN_2 = TABLE_2.COLUMN_2
```

```
TABLE_1.COLUMN_NAME(S),

TABLE_2.COLUMN_NAME(S),

TABLE_3.COLUMN_NAME(S)

FROM TABLE_1

INNER JOIN TABLE_2

ON

TABLE_1.COLUMN_1 = TABLE_2.COLUMN_1

OR

TABLE_1.COLUMN_2 = TABLE_2.COLUMN_2
```

Multiple Table Joins

```
SELECT
                                               SELECT
    TABLE_1.COLUMN_NAME(S),
                                                   TABLE_1.COLUMN_NAME(S),
    TABLE_2.COLUMN_NAME(S),
                                                   TABLE_2.COLUMN_NAME(S),
    TABLE_3.COLUMN_NAME(S)
                                                   TABLE_3.COLUMN_NAME(S)
FROM TABLE 1
                                               FROM TABLE 1
INNER JOIN TABLE 2
                                               INNER JOIN TABLE 2
ON
                                               ON
TABLE_1.COLUMN = TABLE_2.COLUMN
                                               TABLE_1.COLUMN = TABLE_2.COLUMN
INNER JOIN TABLE 3
                                               INNER JOIN TABLE 3
```