

Example tables

Table A

A-1	1
A-2	4
	5
	6

Table B

B-1	2
B-2	3
B-3	4
	6
	7
	1
	4

Note that in the join constructs it does not matter how many rows each table has, the fact that both tables here have three rows is just a coincidence.

Inner Join

In an inner join, rows are combined if there are equal attribute values in certain selected columns from each table.

We join table A on column A-2 with table B on column B-3, if we select from table A and B, where the values of A-2 are the same as the values of B-3.

The result is

A-1	A-2	B-1	B-2	B-3
1	4	2	3	4
1	4	1	1	4
6	3	6	7	3

Left Outer Join

In a left outer join, we have the same rows as in the inner join, but add the rows in the first table that were not involved in the inner join, with NULL values for the second table columns.

A-1	A-2	B-1	B-2	B-3
1	4	1	1	4
1	4	2	3	4
4	5			
6	3	6	7	3

Right Outer Join

In a right outer join, we have the same rows as in the inner join, but add the rows in the second table that were not involved in the inner join, with NULL values for the first table columns.

A-1	A-2	B-1	B-2	B-3
1	4	2	3	4
6	3	6	7	3
1	4	1	1	4

Homework: Joining multiple columns

A-1	A-2	A-3	A-4
a	b	c	d
e	f	g	d
!	j	k	l
m	b	o	l

B-1	B-2	B-3	B-4
a	b	c	d
c	j	l	f
f	b	d	g
x	y	z	h
s	j	l	j

Compute inner join, left and right outer join between A-2,A-4 and B-2,B-4. Verify your answers using MS Access.