



Description	Diagram	Syntax																																										
<p>An <b>inner join</b> matches each row of one table with rows of a second table based on a common column. The resulting table will only contain rows where there is a match in both the left and right tables.</p>	<div><div><table><caption>table1</caption><tr><th>col A</th><th>col B</th></tr><tr><td>a</td><td>x</td></tr><tr><td>b</td><td>y</td></tr><tr><td>c</td><td>z</td></tr></table></div><div><div>=</div><div><table><caption>table2</caption><tr><th>col B</th><th>col C</th></tr><tr><td>x</td><td>d</td></tr><tr><td>w</td><td>e</td></tr><tr><td>z</td><td>f</td></tr></table></div></div><div><div>=</div><div><table><caption>INNER JOIN</caption><tr><th>col A</th><th>col B</th><th>col C</th></tr><tr><td>a</td><td>x</td><td>d</td></tr><tr><td>c</td><td>z</td><td>f</td></tr></table></div></div></div>	col A	col B	a	x	b	y	c	z	col B	col C	x	d	w	e	z	f	col A	col B	col C	a	x	d	c	z	f	<pre>SELECT * FROM table1 JOIN table2   ON table1.colB = table2.colB;</pre>																	
col A	col B																																											
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col A	col B	col C																																										
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<p>A <b>left join</b> matches each row of one table with rows of a second table based on a common column. The resulting table will only contain all data from the first (left) table, and additional data from the second (right) table for where there was no matching information from the right table.</p>	<div><div><table><caption>table1</caption><tr><th>col A</th><th>col B</th></tr><tr><td>a</td><td>x</td></tr><tr><td>b</td><td>y</td></tr><tr><td>c</td><td>z</td></tr></table></div><div><div>=</div><div><table><caption>table2</caption><tr><th>col B</th><th>col C</th></tr><tr><td>x</td><td>d</td></tr><tr><td>w</td><td>e</td></tr><tr><td>z</td><td>f</td></tr></table></div></div><div><div>=</div><div><table><caption>LEFT JOIN</caption><tr><th>col A</th><th>col B</th><th>col C</th></tr><tr><td>a</td><td>x</td><td>d</td></tr><tr><td>b</td><td>y</td><td></td></tr><tr><td>c</td><td>z</td><td>f</td></tr></table></div></div></div>	col A	col B	a	x	b	y	c	z	col B	col C	x	d	w	e	z	f	col A	col B	col C	a	x	d	b	y		c	z	f	<pre>SELECT * FROM table1 LEFT JOIN table2   ON table1.colB = table2.colB;</pre>														
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<p>A <b>cross join</b> combines all rows of one table with all rows of another table.</p>	<div><div><table><caption>table1</caption><tr><th>col A</th><th>col B</th></tr><tr><td>a</td><td>c</td></tr><tr><td>b</td><td>d</td></tr></table></div><div><div></div><div><table><caption>table2</caption><tr><th>col C</th><th>col D</th></tr><tr><td>e</td><td>h</td></tr><tr><td>f</td><td>i</td></tr><tr><td>g</td><td>j</td></tr></table></div></div><div><div></div><div><table><caption>CROSS JOIN</caption><tr><th>col A</th><th>col B</th><th>col C</th><th>col D</th></tr><tr><td>a</td><td>c</td><td>e</td><td>h</td></tr><tr><td>b</td><td>d</td><td>e</td><td>h</td></tr><tr><td>a</td><td>c</td><td>f</td><td>i</td></tr><tr><td>b</td><td>d</td><td>f</td><td>i</td></tr><tr><td>a</td><td>c</td><td>g</td><td>j</td></tr><tr><td>b</td><td>d</td><td>g</td><td>j</td></tr></table></div></div></div>	col A	col B	a	c	b	d	col C	col D	e	h	f	i	g	j	col A	col B	col C	col D	a	c	e	h	b	d	e	h	a	c	f	i	b	d	f	i	a	c	g	j	b	d	g	j	<pre>SELECT * FROM table1 CROSS JOIN table2;</pre>
col A	col B																																											
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a	c	g	j																																									
b	d	g	j																																									
<p>The command <b>union</b> allows us to stack one dataset on top of the other.</p>	<div><div><table><caption>table1</caption><tr><th>col A</th><th>col B</th></tr><tr><td>a</td><td>c</td></tr><tr><td>b</td><td>d</td></tr></table></div><div><div></div><div><table><caption>table2</caption><tr><th>col C</th><th>col D</th></tr><tr><td>e</td><td>h</td></tr><tr><td>f</td><td>i</td></tr><tr><td>g</td><td>j</td></tr></table></div></div><div><div></div><div><table><caption>UNION</caption><tr><th>col A</th><th>col B</th></tr><tr><td>a</td><td>c</td></tr><tr><td>b</td><td>d</td></tr><tr><td>e</td><td>h</td></tr><tr><td>f</td><td>i</td></tr><tr><td>g</td><td>j</td></tr></table></div></div></div>	col A	col B	a	c	b	d	col C	col D	e	h	f	i	g	j	col A	col B	a	c	b	d	e	h	f	i	g	j	<pre>SELECT * FROM table1 UNION SELECT * FROM table2;</pre>																
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