Alfred Acosta

Database Management

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Lab 6

Left outer join vs Right outer join

An inner join selects all rows form both tables if there is a match between the columns in both tables. While this is useful, it must be specific, whereas outer joins simply return all the rows from both tables. This can be useful when it comes to comparing them, and what we use to compare them are Left outer joins and Right outer joins. The tables are separating into left and right while using a outer join. So, a Left outer join returns all the rows from the left table with the matching rows on the right. If there is no match on the right side, the result for that row is NULL. A right outer join is the opposite, where it returns all the rows from the right table with the matching rows on the left, and where there is no match, the result is null. These can be useful when trying to compare data from both tables, while also finding what data from one table doesn't exist on the other table. As you can see in the example below, with the use of a left outer join, the customer Alan exists in the left table but not in the right table, so all the rows in the right table are NULL. On the other hand, with the Right outer join, Alan doesn't exist on the right table, so the row for Alan does not appear in the results.

Example of left outer join:

Select *

from customers left outer join orders on customers.cid = orders.cid;

cid character	name text	city text	discount numeric ...	ordnumb... integer	month character	cid character	aid character	pid character	qty integer	totalusd numeric ...
c001	Tiptop	Duluth	10	1011	Jan	c001	a01	p01	1000	450
c002	Tyrell	Dallas	12	1012	Jan	c002	a03	p03	1000	880
c003	Allied	Dallas	8	1015	Jan	c003	a03	p05	1200	1104
c006	ACME	Kyoto	0	1016	Jan	c006	a01	p01	1000	500
c001	Tiptop	Duluth	10	1017	Feb	c001	a06	p03	600	540
c001	Tiptop	Duluth	10	1018	Feb	c001	a03	p04	600	540
c001	Tiptop	Duluth	10	1019	Feb	c001	a02	p02	400	180
c006	ACME	Kyoto	0	1020	Feb	c006	a03	p07	600	600
c004	ACME	Duluth	8.5	1021	Feb	c004	a06	p01	1000	460
c001	Tiptop	Duluth	10	1022	Mar	c001	a05	p06	400	720
c001	Tiptop	Duluth	10	1023	Mar	c001	a04	p05	500	450
c006	ACME	Kyoto	0	1024	Mar	c006	a06	p01	800	400
c001	Tiptop	Duluth	10	1025	Apr	c001	a05	p07	800	720
c002	Tyrell	Dallas	12	1026	May	c002	a05	p03	800	744
c005	Alan	Risa	0							

Example of right outer join:

Select *

from customers right outer join orders on customers.cid = orders.cid;

cid character	name text	city text	discount numeric ...	ordnumb... integer	month character	cid character	aid character	pid character
c001	Tiptop	Duluth	10	1011	Jan	c001	a01	p01
c002	Tyrell	Dallas	12	1012	Jan	c002	a03	p03
c003	Allied	Dallas	8	1015	Jan	c003	a03	p05
c006	ACME	Kyoto	0	1016	Jan	c006	a01	p01
c001	Tiptop	Duluth	10	1017	Feb	c001	a06	p03
c001	Tiptop	Duluth	10	1018	Feb	c001	a03	p04
c001	Tiptop	Duluth	10	1019	Feb	c001	a02	p02
c006	ACME	Kyoto	0	1020	Feb	c006	a03	p07
c004	ACME	Duluth	8.5	1021	Feb	c004	a06	p01
c001	Tiptop	Duluth	10	1022	Mar	c001	a05	p06
c001	Tiptop	Duluth	10	1023	Mar	c001	a04	p05
c006	ACME	Kyoto	0	1024	Mar	c006	a06	p01
c001	Tiptop	Duluth	10	1025	Apr	c001	a05	p07
c002	Tyrell	Dallas	12	1026	May	c002	a05	p03