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Lab 6  
Database Management  
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--Number 7

A left outer join takes each value from the LEFT table, and combines it with matching values from the RIGHT table, displaying 'null' where there is not a matching value. A right outer join takes each value from the RIGHT table and combines with matching values from the LEFT table, displaying 'null' where there is not a matching value.

CAP4 on postgres@PostgreSQL 9.6

```
1 select *
2 from customers left outer join orders on customers.cid = orders.cid
```

cid	name	city	discount	ordnumb	month	cid	aid	pid	qty	totalusd
character	text	text	numeric	integer	character	character	character	character	integer	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	Weyland	Risa	0							

CAP4 on postgres@PostgreSQL 9.6

```
1 select *
2 from customers right outer join orders on customers.cid = orders.cid
```

cid	name	city	discount	ordnumb	month	cid	aid	pid	qty	totalusd
character	text	text	numeric	integer	character	character	character	character	integer	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

This shows the difference between left and right outer joins. The left outer join shows each customer, so c005 is included. However, the right outer join only displays each order, and since c005 didn't place an order, that customer isn't displayed at all in the table.