

join: Join as many tables as you desire using a common key between tables

Tables

- Common key
 - shapes and shapeArea tables: shape field
 - shapeArea and colorValue tables: color field
 - Field names don't need to be the same, but the data type needs to be the same for a proper join

shapes					shapeArea		colorValue			
	shape	color	cost	entryDate	shape	area	color	redRGB	greenRGB	blueRGB
1	square	red	9	2021-04-03	1	circle	33.5700			
2	triangle	blue	5	2021-03-04	2	triangle	12.5400			
3	triangle	red	1	2021-07-05						
4	triangle	green	3	2021-08-01						
5	square	blue	7	2021-09-26						
6	circle	green	8	2021-10-31						
7	circle	red	10	2021-11-16						
8	square	red	13	2021-12-02						
9	circle	red	16	2022-01-07						
10	triangle	red	12	2022-02-02						
11	square	green	6	2022-03-15						
12	circle	blue	2	2022-04-05						

join multiple tables (note the left join / join difference)

```
select
    s.shape
  , sa.area
  , cv.redRGB R
  , cv.greenRGB G
  , cv.blueRGB B
from shapes s
left join shapeArea sa
    on s.shape = sa.shape
left join colorValue cv
    on s.color = cv.color;
```

	shape	area	R	G	B
1	square	NULL	255	0	0
2	square	NULL	198	224	180
3	triangle	12.5400	189	215	238
4	circle	33.5700	189	215	238
5	triangle	12.5400	255	0	0
6	triangle	12.5400	198	224	180
7	circle	33.5700	198	224	180
8	square	NULL	255	0	0
9	circle	33.5700	255	0	0
10	circle	33.5700	255	0	0
11	square	NULL	189	215	238
12	triangle	12.5400	255	0	0

```
select
    s.shape
  , sa.area
  , cv.redRGB R
  , cv.greenRGB G
  , cv.blueRGB B
from shapes s
join shapeArea sa
    on s.shape = sa.shape
left join colorValue cv
    on s.color = cv.color;
```

	shape	area	R	G	B
1	triangle	12.5400	189	215	238
2	circle	33.5700	189	215	238
3	circle	33.5700	198	224	180
4	circle	33.5700	255	0	0
5	circle	33.5700	255	0	0
6	triangle	12.5400	255	0	0
7	triangle	12.5400	255	0	0
8	triangle	12.5400	198	224	180