SQL TIPS AND TRICKS

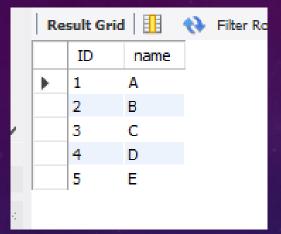
PART 28

CROSS JOIN

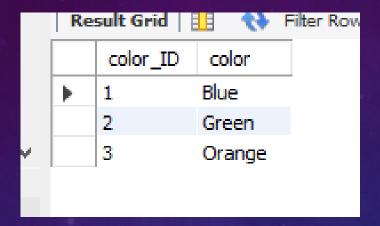
MAYURI DANDEKAR

Example--

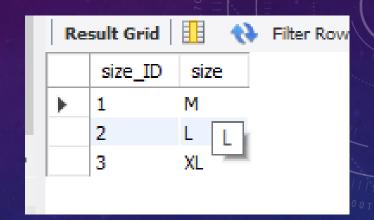
prod



colors



sizes



transactn



Normal Cross Join

9 • **SELECT** p.*, c.*

10 FROM prod p, colors c

Re	sult Grid		🙌 Filter Ro	ows:
	ID	name	color_ID	color
)	1	Α	3	Orange
	1	Α	2	Green
	1	Α	1	Blue
	2	В	3	Orange
	2	В	2	Green
	2	В	1	Blue
	3	C	3	Orange
	3	C	2	Green
	3	C	1	Blue
	4	D	3	Orange
	4	D	2	Green
	4	D	1	Blue
	5	E	3	Orange
	5	Е	2	Green
	5	E	1	Blue

USE CASE 1— construct a master list of all product, color, and size combinations and joins it with actual sales data to include combinations with no sales, showing `NULL` or `0` for those.

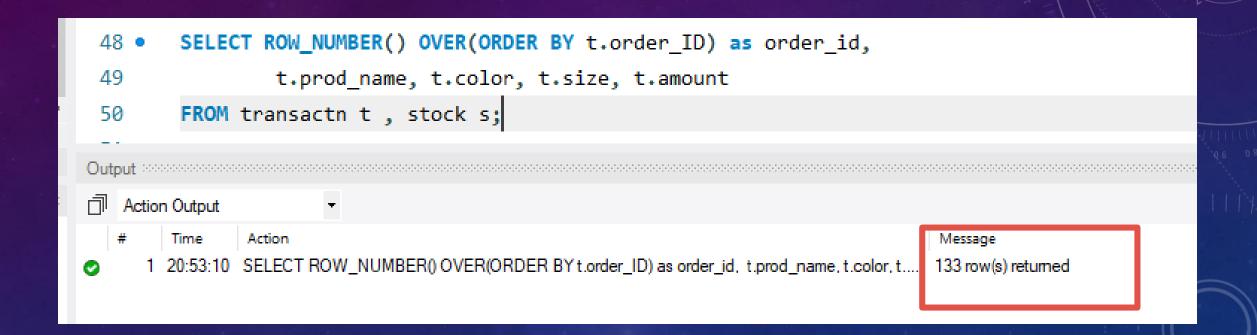
```
30 • ⊝ WITH master data AS (
31
           SELECT p.name, c.color, s.size
32
           FROM prod p, colors c, sizes s
33
34

⊖ sales AS(
35
           SELECT prod name, color, size, SUM(amount) AS totalamount
36
           FROM transactn t
37
           GROUP BY prod name, color, size
38
39
       SELECT md.name, md.color, md.size,
40
           IFNULL(s.totalamount, 0) AS totalamount
41
       FROM master data md
       LEFT JOIN sales s
42
43
       ON md.name = s.prod name AND md.color = s.color AND md.size = s.size
44
       ORDER BY totalamount:
```

	name	color	size	totalamount
>	Α	Blue	XL	0
	Α	Green	XL	0
	Α	Orange	XL	0
	Е	Orange	M	0
	Α	Green	L	0
	Α	Orange	L	0
	Α	Blue	M	0
	Α	Green	M	0
	Α	Orange	M	0
	Е	Orange	L	0
	В	Green	XL	0
	В	Orange	XL	0
	В	Blue	L	0
	E	Blue	M	0
	В	Orange	L	0
	В	Blue	M	0
	В	Green	М	0
	В	Orange	M	0
	С	Blue	XL	0
	С	Green	XL	0
	С	Orange	XL	0
	E	Green	M	0
-	-			

IV-	anc dina	T BEET TIME	r KOWS.	
	name	color	size	totalamount
	C	Orange	L.	0
	C	Blue	M	0
	C	Green	M	0
	C	Orange	M	0
	D	Blue	XL	0
	D	Green	XL	0
	D	Orange	XL	0
	D	Blue	L.	0
	D	Green	L.	0
	D	Blue	M	0
	Е	Blue	L.	0
	D	Orange	M	0
	Е	Blue	XL	0
	E	Green	XL	0
	Е	Orange	XL	0
	В	Blue	XL	150
	В	Green	L.	250
	C	Blue	L.	250
	D	Green	M	250
	E	Green	L.	270
	Α	Blue	L.	300
	D	Orange	L	300

USE CASE 2-- Generate a large dataset by cross joining two tables and assigning row numbers to the resulting rows, which is useful for performance testing purposes.



	1	1 *				
Ī		order_id	prod_name	color	size	amount
)	1	A	Blue	L	300
		2	Α	Blue	L	300
		J	Α	Blue	L	300
		4	Α	Blue	L	300
		5	Α	Blue	L	300
		6	Α	Blue	L	300
		7	Α	Blue	L	300
		8	Α	Blue	L	300
		9	Α	Blue	L	300
		10	Α	Blue	L	300
		11	Α	Blue	L	300
		12	Α	Blue	L	300
		13	A	Blue	L	300
		14	Α	Blue	L	300
		15	Α	Blue	L	300
		16	Α	Blue	L	300
		17	Α	Blue	L	300
		18	Α	Blue	L	300
		19	Α	Blue	L	300
		20	В	Blue	XL	150
		21	В	Blue	XL	150
		22	В	Blue	XL	150

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	order_id	prod_name	color	size	amount
	112	D	Orange	L	300
	113	D	Orange	L	300
	114	D	Orange	L	300
	115	D	Green	M	250
	116	D	Green	M	250
	117	D	Green	М	250
	118	D	Green	M	250
	119	D	Green	M	250
	120	D	Green	M	250
	121	D	Green	M	250
	122	D	Green	M	250
	123	D	Green	M	250
	124	D	Green	M	250
	125	D	Green	М	250
	126	D	Green	M	250
	127	D	Green	М	250
	128	D	Green	M	250
	129	D	Green	М	250
	130	D	Green	M	250
	131	D	Green	М	250
┖	132	D	Green	M	250
L	133	D	Green	M	250
	10.00				

THANK YOU

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