

# **SQL LEETCODE PROBLEMS**

## **QUESTION 9**

### **Market Analysis**

-- Mayuri D.

## Data--

11 • **SELECT \* FROM users;**



Result Grid



Filter Rows:

	user_id	join_date	favorite_brand
▶	1	2019-01-01	Lenovo
	2	2019-02-09	Samsung
	3	2019-01-19	LG
	4	2019-05-21	HP

12 • **SELECT \* FROM items;**



Result Grid



Filter Rows:

	item_id	item_brand
▶	1	Samsung
	2	Lenovo
	3	LG
	4	HP

13 • **SELECT \* FROM orders;**



Result Grid



Filter Rows:

Export:

	order_id	order_date	item_id	buyer_id	seller_id
▶	1	2019-08-01	4	1	2
	2	2019-08-02	2	1	3
	3	2019-08-03	3	2	3
	4	2019-08-04	1	4	2
	5	2019-08-04	1	3	4
	6	2019-08-05	2	2	4

Get sellers having 2<sup>nd</sup> order

```
23 • WITH rnk_orders AS
24 (
25     SELECT *,
26     RANK() OVER(PARTITION BY seller_id ORDER BY order_date ASC) AS rn
27     FROM orders
28 )
29 SELECT * FROM rnk_orders
30 WHERE rn = 2;
```

<

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	order_id	order_date	item_id	buyer_id	seller_id	rn
▶	4	2019-08-04	1	4	2	2
	3	2019-08-03	3	2	3	2
	6	2019-08-05	2	2	4	2




Get which item brand was sold on 2<sup>nd</sup> order and their fav. Brand & compare both

```
23 • WITH rnk_orders AS
24 (
25     SELECT *,
26     RANK() OVER(PARTITION BY seller_id ORDER BY order_date ASC) AS rn
27     FROM orders
28 )
29 SELECT ro.*,i.item_brand, u.favorite_brand
30 FROM rnk_orders ro
31 INNER JOIN items i ON i.item_id = ro.item_id
32 INNER JOIN users u ON ro.seller_id = u.user_id
33 WHERE rn = 2;
```

	order_id	order_date	item_id	buyer_id	seller_id	rn	item_brand	favorite_brand
▶	4	2019-08-04	1	4	2	2	Samsung	Samsung
	3	2019-08-03	3	2	3	2	LG	LG
	6	2019-08-05	2	2	4	2	Lenovo	HP



## Compare both brands

```
23 • WITH rnk_orders AS
24 (
25     SELECT *,
26     RANK() OVER(PARTITION BY seller_id ORDER BY order_date ASC) AS rn
27     FROM orders
28 )
29 SELECT ro.*,i.item_brand, u.favorite_brand ,
30     CASE WHEN i.item_brand = u.favorite_brand
31     THEN 'Yes' ELSE 'No'
32     END AS seconditem_favbrand
33 FROM rnk_orders ro
34 INNER JOIN items i ON i.item_id = ro.item_id
35 INNER JOIN users u ON ro.seller_id = u.user_id
36 WHERE rn = 2;
```

<div><div>&lt;</div><div>Result Grid</div><div> Filter Rows: <input type="text"/></div><div>Export: </div><div>Wrap Cell Content: </div></div>									
	order_id	order_date	item_id	buyer_id	seller_id	rn	item_brand	favorite_brand	seconditem_favbrand
▶	4	2019-08-04	1	4	2	2	Samsung	Samsung	Yes
	3	2019-08-03	3	2	3	2	LG	LG	Yes
	6	2019-08-05	2	2	4	2	Lenovo	HP	No

If seller solds less than 2 items, then report as no

```
23 • WITH rnk_orders AS
24 (
25     SELECT *,
26     RANK() OVER(PARTITION BY seller_id ORDER BY order_date ASC) AS rn
27     FROM orders
28 )
29 SELECT u.user_id, ro.*,i.item_brand, u.favorite_brand ,
30     CASE WHEN i.item_brand = u.favorite_brand
31         THEN 'Yes' ELSE 'No'
32     END AS seconditem_favbrand
33 FROM users u
34 LEFT JOIN rnk_orders ro ON ro.seller_id = u.user_id AND rn = 2
35 LEFT JOIN items i ON i.item_id = ro.item_id
36 ;
```

Result Grid										
Filter Rows: <input type="text"/>										
Export:  Wrap Cell Content: 										
	user_id	order_id	order_date	item_id	buyer_id	seller_id	rn	item_brand	favorite_brand	seconditem_favbrand
▶	1	NULL	NULL	NULL	NULL	NULL	NULL	NULL	Lenovo	No
	2	4	2019-08-04	1	4	2	2	Samsung	Samsung	Yes
	3	3	2019-08-03	3	2	3	2	LG	LG	Yes
	4	6	2019-08-05	2	2	4	2	Lenovo	HP	No

## Final script

```
23 • WITH rnk_orders AS
24 (
25     SELECT *,
26     RANK() OVER(PARTITION BY seller_id ORDER BY order_date ASC) AS rn
27     FROM orders
28 )
29 SELECT u.user_id AS seller_id,
30     CASE WHEN i.item_brand = u.favorite_brand
31     THEN 'Yes' ELSE 'No'
32     END AS seconditem_favbrand
33 FROM users u
34 LEFT JOIN rnk_orders ro ON ro.seller_id = u.user_id AND rn = 2
35 LEFT JOIN items i ON i.item_id = ro.item_id
36 ;
```

< **Result Grid** | Filter Rows:  | Export:  | Wrap Cell Content: 

	seller_id	seconditem_favbrand
▶	1	No
	2	Yes
	3	Yes
	4	No

**THANK YOU**

-- Mayuri D.