

Exercises

1. Do the following two steps:

- a. Write a query that selects from the `customer_purchases` table and numbers each customer's visits to the farmer's market (labeling each market date with a different number). Each customer's first visit is labeled 1, second visit is labeled 2, etc. (We are of course not counting visits where no purchases are made, because we have no record of those.) You can either display all rows in the `customer_purchases` table, with the counter changing on each new market date for each customer, or select only the unique market dates per customer (without purchase details) and number those visits.

HINT: One of these approaches uses `ROW_NUMBER()` and one uses `DENSE_RANK()`.

- b. Reverse the numbering of the query from a part so each customer's most recent visit is labeled 1, then write another query that uses this one as a subquery and filters the results to only the customer's most recent visit.

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2. Using a `COUNT()` window function, include a value along with each row of the `customer_purchases` table that indicates how many different times that customer has purchased that `product_id`.
3. In the last query we used `LAG` and sorted by `market_date`. Can you think of a way to use `LEAD` in place of `LAG`, but get the exact same output?

Exercises

1. Get the `customer_id`, month, and year (in separate columns) of every purchase in the `farmers_market.customer_purchases` table.
2. Write a query that filters to purchases made in the past two weeks, returns the earliest `market_date` in that range as a field called `sales_since_date`, and a sum of the sales ($\text{quantity} * \text{cost_to_customer_per_qty}$) during that date range.
 - Your final answer should use the `CURDATE()` function, but if you want to test it out on the Farmer's Market database, you can replace your `CURDATE()` with the value '2019 03-31' to get the report for the two weeks prior to March 31, 2019 (otherwise your query will not return any data, because none of the dates in the database will have occurred within two weeks of you writing the query).