Frequently Purchased Pairs [Walmart SQL Interview Question]

This is the same question as problem #30 in the SQL chapter of Ace the Data Science Interview!

Assume you are given the following tables on Walmart transactions and products. Find the number of **unique** product combinations that are purchased in the same transaction.

For example, if there are 2 transactions where apples and bananas are bought, and another transaction where bananas and soy milk are bought, my output would be 2 to represent the 2 **unique** combinations.

Assumptions:

- For each transaction, a maximum of 2 products is purchased.
- You may or may not need to use the products table.

P.S Solution is updated as of 1 Feb 2023.

transactions **Table:**

Column Name	Type
transaction_id	integer
product_id	integer
user_id	integer
transaction_date	datetime

transactions **Example Input:**

transaction_id	product_id	user_id	transaction_date
231574	111	234	03/01/2022 12:00:00

231574	444	234	03/01/2022 12:00:00
231574	222	234	03/01/2022 12:00:00
137124	111	125	03/05/2022 12:00:00
137124	444	125	03/05/2022 12:00:00

products **Table:**

Column Name	Type
product_id	integer
product_name	string

products **Example Input:**

product_id	product_name
111	apple
222	soy milk
333	instant oatmeal
444	banana
555	chia seed

Example Output:

unique_pairs
4

There are 4 unique purchase combinations present in the example data.

The dataset you are querying against may have different input & output – **this is just an example!**