SQL Queries and Their Outcomes

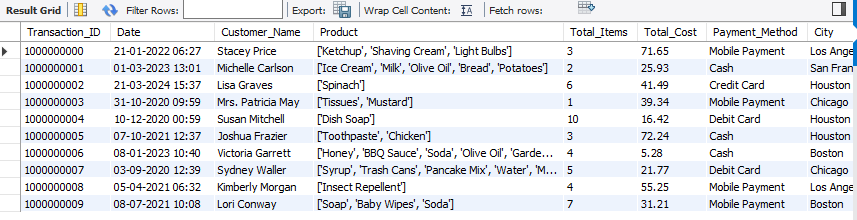
This document contains SQL queries and their respective outcomes based on the dataset 'Retail\_with\_categories.csv'.

# Query 1

SQL:

SELECT \* FROM enhanced\_retail\_transactions\_dataset LIMIT 10;

Output:



# Query 2

SQL:

SELECT

SUM(CASE WHEN Transaction\_ID IS NULL THEN 1 ELSE 0 END) AS null\_Transaction\_ID,

SUM(CASE WHEN Date IS NULL THEN 1 ELSE 0 END) AS null\_Date,

SUM(CASE WHEN Customer\_Name IS NULL THEN 1 ELSE 0 END) AS null\_Customer\_Name,

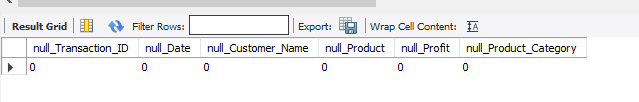
SUM(CASE WHEN Product IS NULL THEN 1 ELSE 0 END) AS null\_Product,

SUM(CASE WHEN Profit IS NULL THEN 1 ELSE 0 END) AS null\_Profit,

SUM(CASE WHEN Product\_Category IS NULL THEN 1 ELSE 0 END) AS null\_Product\_Category

FROM enhanced\_retail\_transactions\_dataset;

Output:

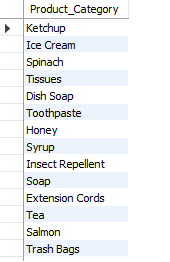


# Query 3

SQL:

SELECT DISTINCT Product\_Category FROM enhanced\_retail\_transactions\_dataset;

Output:



# Query 4

SQL:

CREATE VIEW retail\_with\_categories AS

SELECT \*,

CASE

WHEN Product\_Category IN ('Ketchup', 'Mustard', 'BBQ Sauce', 'Mayonnaise') THEN 'Condiments'

WHEN Product\_Category IN ('Ice Cream', 'Yogurt', 'Cheese', 'Butter') THEN 'Dairy'

WHEN Product\_Category IN ('Spinach', 'Tomatoes', 'Potatoes', 'Carrots', 'Onions') THEN 'Vegetables'

WHEN Product\_Category IN ('Banana', 'Apple', 'Orange') THEN 'Fruits'

WHEN Product\_Category IN ('Cereal', 'Cereal Bars', 'Pancake Mix', 'Bread', 'Pasta', 'Rice') THEN 'Grains & Bakery'

WHEN Product\_Category IN ('Salmon', 'Shrimp', 'Tuna', 'Beef', 'Chicken', 'Eggs') THEN 'Meat & Seafood'

WHEN Product\_Category IN ('Tea', 'Coffee') THEN 'Beverages'

WHEN Product\_Category IN ('Soda', 'Chips', 'Jam', 'Pickles', 'Peanut Butter', 'Honey', 'Syrup', 'Olive Oil', 'Vinegar', 'Canned Soup') THEN 'Pantry & Snacks'

WHEN Product\_Category IN ('Toothpaste', 'Toothbrush', 'Shampoo', 'Shaving Cream', 'Deodorant', 'Feminine Hygiene Products', 'Hair Gel', 'Soap', 'Shower Gel') THEN 'Personal Care'

WHEN Product\_Category IN ('Laundry Detergent', 'Dish Soap', 'Cleaning Spray', 'Sponges', 'Tissues', 'Paper Towels', 'Trash Bags', 'Toilet Paper', 'Cleaning Rags') THEN 'Cleaning Supplies'

WHEN Product\_Category IN ('Vacuum Cleaner', 'Iron', 'Ironing Board', 'Extension Cords', 'Power Strips', 'Light Bulbs') THEN 'Household Electronics'

WHEN Product\_Category IN ('Mop', 'Broom', 'Dustpan', 'Trash Cans') THEN 'Cleaning Equipment'

WHEN Product\_Category IN ('Lawn Mower', 'Garden Hose', 'Plant Fertilizer') THEN 'Garden Tools'

WHEN Product\_Category IN ('Diapers', 'Baby Wipes') THEN 'Baby Care'

WHEN Product\_Category IN ('Air Freshener', 'Bath Towels', 'Hand Sanitizer') THEN 'Home & Misc'

ELSE 'Other'

END AS Category,

Product\_Category AS Sub\_Category

FROM enhanced\_retail\_transactions\_dataset;

Output:

Whole table

# Query 5

SQL:

select \* from retail\_with\_categories;

Output:

Error executing query: "Column(s) ['UnitPrice'] do not exist"

# Query 6

SQL:

select DISTINCT Category from retail\_with\_categories;

Output:

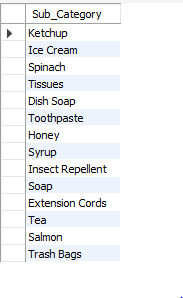
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# Query 7

SQL:

select DISTINCT Sub\_Category from retail\_with\_categories;

Output:



# Query 8

SQL:

SELECT

Category,

Sub\_Category,

COUNT(\*) AS total\_transactions,

SUM(Total\_Cost) AS total\_sales,

SUM(Profit) AS total\_profit,

ROUND(SUM(Profit) / SUM(Total\_Cost) \* 100, 2) AS profit\_margin\_percent

FROM retail\_with\_categories

GROUP BY Category, Sub\_Category

ORDER BY profit\_margin\_percent ASC;

Output:

