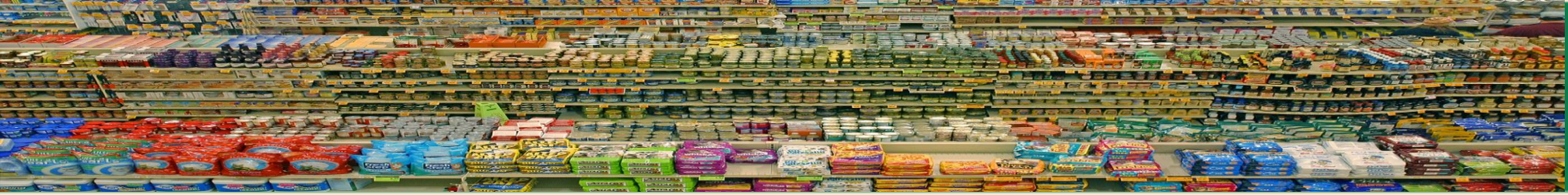


FMCG SALES ANALYSIS

DATABASE : fmcg_sales_db

TOOL : MYSQL

LANGUAGE : SQL

TABLES

- CUSTOMERS
- SALES
- PRODUCT

Q.Show all customers' name, age, and city

```
SELECT name, age, city
FROM Customers;
```

name	age	city
Ayan	22	Kolkata
Riya	24	Delhi
Sourav	28	Mumbai
Neha	30	Bangalore
Ravi	26	Hyderabad

Q.Show product name, category, and price for all products

```
SELECT product_name, category, price
FROM Products;
```

	product_name	category	price
▶	Dove Soap	Personal Care	45.00
	Pepsodent Toothpaste	Personal Care	50.00
	Lays Chips	Snacks	20.00
	Bru Coffee	Beverage	110.00
	Tata Salt	Grocery	25.00

Q.Show all customers from Kolkata

```sql
SELECT *
FROM Customers
WHERE city = 'Kolkata';
```

customer_id	name	age	city
1	Ayan	22	Kolkata
NULL	NULL	NULL	NULL

Q. Show all products with price greater than ₹50

```
SELECT product_name, category, price
FROM Products
WHERE price > 50;
```

product_name	category	price
Bru Coffee	Beverage	110.00
Fair & Lovely	Personal Care	90.00
Tropicana Juice	Beverage	95.00
Ariel Detergent	Cleaning	120.00
Surf Excel	Cleaning	135.00

Q.Show all sales with quantity greater than 2

```
SELECT *
FROM Sales
WHERE quantity > 2;
```

sale_id	customer_id	product_id	quantity	sale_date
3	3	6	3	2024-06-03
5	5	10	4	2024-06-05
10	10	9	5	2024-06-10

Q.Show product name, price, and total price for 3 units

```
SELECT product_name, price, (price * 3) AS total_price
FROM Products;
```

product_name	price	total_price
Dove Soap	45.00	135.00
Pepsodent Toothpaste	50.00	150.00
Lays Chips	20.00	60.00
Bru Coffee	110.00	330.00
Tata Salt	25.00	75.00

Q.Show top 5 most expensive products

```
SELECT product_name, category, price
FROM Products
ORDER BY price DESC
LIMIT 5;
```

product_name	category	price
Surf Excel	Cleaning	135.00
Ariel Detergent	Cleaning	120.00
Bru Coffee	Beverage	110.00
Tropicana Juice	Beverage	95.00
Fair & Lovely	Personal Care	90.00

Q.Show the 3 most recent sales by date

```sql
SELECT sale_id, customer_id, product_id, sale_date, quantity
FROM Sales
ORDER BY sale_date DESC
LIMIT 3;
```

sale_id	customer_id	product_id	sale_date	quantity
15	15	11	2024-06-15	2
14	14	14	2024-06-14	1
13	13	7	2024-06-13	1

Q.Show total quantity sold across all sales

```
SELECT SUM(quantity) AS total_quantity_sold
FROM Sales;
```

total_quantity_sold
29

Q.Show average price of all products

```
SELECT AVG(price) AS average_price_of_all_products
FROM Products;
```

average_price_of_all_products
60.466667

Q. Show each product's total quantity sold

```sql
SELECT p.product_name, SUM(s.quantity) AS total_quantity_sold
FROM Products AS p
INNER JOIN Sales AS s ON p.product_id = s.product_id
GROUP BY p.product_name;
```

product_name	total_quantity_sold
Dove Soap	1
Pepsodent Toothpaste	1
Lays Chips	2
Bru Coffee	1
Tata Salt	2

Q. Show only those products with more than 3 units sold

```
SELECT p.product_name, SUM(s.quantity) AS total_quantity_sold
FROM Products AS p
INNER JOIN Sales AS s ON p.product_id = s.product_id
GROUP BY p.product_name
HAVING SUM(s.quantity) > 3;
```

product_name	total_quantity_sold
Maggie Noodles	5
Good Day Cookies	4

Q. Show full sale records with customer and product names

```sql
SELECT
    c.name AS customer_name,
    p.product_name,
    s.sale_id,
    s.customer_id,
    s.product_id,
    s.quantity
FROM Customers AS c
INNER JOIN Sales AS s ON c.customer_id = s.customer_id
INNER JOIN Products AS p ON s.product_id = p.product_id;
```

customer_name	product_name	sale_id	customer_id	product_id	quantity
Ayan	Lays Chips	1	1	3	2
Riya	Dove Soap	2	2	1	1
Sourav	Parle-G Biscuits	3	3	6	3
Neha	Tata Salt	4	4	5	2
Ravi	Good Day Cookies	5	5	10	4

Q.Show sales in the last 7 days

```
SELECT *

FROM Sales

WHERE sale_date >= DATE_SUB(CURDATE(), INTERVAL 7 DAY);
```

	sale_id	customer_id	product_id	quantity	sale_date
*	NULL	NULL	NULL	NULL	NULL

Q.Show all customers whose names start with 'A'

```
SELECT customer_id, name, age, city
FROM Customers
WHERE name LIKE 'A%';
```

customer_id	name	age	city
1	Ayan	22	Kolkata
7	Arjun	32	Pune
12	Ankita	24	Patna

Q.Classify customers into age groups

```sql
SELECT name, age, city,
  CASE
    WHEN age < 25 THEN 'Young'
    WHEN age BETWEEN 25 AND 40 THEN 'Adult'
    WHEN age > 40 THEN 'Senior'
  END AS age_group
FROM Customers;
```

name	age	city	age_group
Ayan	22	Kolkata	Young
Riya	24	Delhi	Young
Sourav	28	Mumbai	Adult
Neha	30	Bangalore	Adult
Ravi	26	Hyderabad	Adult

Q.Label each sale as bulk or regular based on quantity

```sql
SELECT
  p.product_name,
  s.sale_id,
  s.customer_id,
  s.product_id,
  s.sale_date,
  s.quantity,
  CASE
    WHEN s.quantity > 3 THEN 'BULK_ORDER'
    ELSE 'REGULAR_ORDER'
  END AS sales_status
FROM Sales AS s
INNER JOIN Products AS p ON s.product_id = p.product_id;
```

product_name	sale_id	customer_id	product_id	sale_date	quantity	sales_status
Lays Chips	1	1	3	2024-06-01	2	REGULAR_ORDER
Dove Soap	2	2	1	2024-06-02	1	REGULAR_ORDER
Parle-G Biscuits	3	3	6	2024-06-03	3	REGULAR_ORDER
Tata Salt	4	4	5	2024-06-04	2	REGULAR_ORDER
Good Day Cookies	5	5	10	2024-06-05	4	BULK_ORDER

Q.Show top 3 customers by total quantity purchased

```sql
SELECT c.customer_id, c.name, SUM(s.quantity) AS highest_total_quantity
FROM Customers AS c
INNER JOIN Sales AS s ON c.customer_id = s.customer_id
GROUP BY c.customer_id, c.name
ORDER BY highest_total_quantity DESC
LIMIT 3;
```

customer_id	name	highest_total_quantity
10	Kriti	5
5	Ravi	4
3	Sourav	3

Q. Show products with ₹10 discount applied

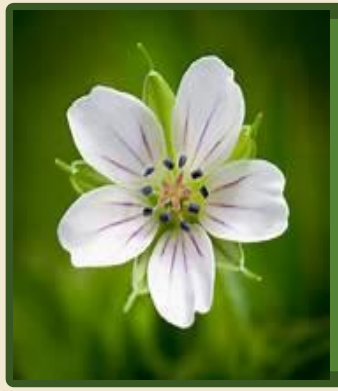
```
SELECT product_name, price, (price - 10) AS discounted_price
FROM Products;
```

product_name	price	discounted_price
Dove Soap	45.00	35.00
Pepsodent Toothpaste	50.00	40.00
Lays Chips	20.00	10.00
Bru Coffee	110.00	100.00
Tata Salt	25.00	15.00

Q. Show top-selling product overall

```sql
SELECT p.product_name, SUM(s.quantity) AS total_sold
FROM Products AS p
INNER JOIN Sales AS s ON p.product_id = s.product_id
GROUP BY p.product_name
ORDER BY total_sold DESC
LIMIT 1;
```

product_name	total_sold
Maggie Noodles	5



THANK YOU