

Retail sales

-- Q. 1 Write a query to retrieve all columns for sales made on '22-11-05'

```
select * from retailsales where sale_date = '2022-11-05';
```

-- Q. 2 Write a query to retrieve all transactions where the category is 'clothing' and the quantity sold is more than 10 in the month of nov 2022

```
SELECT *  
FROM retailsales  
WHERE category = 'clothing'  
AND quantity > 10  
AND sale_date >= '2022-11-01'  
AND sale_date <= '2022-11-30';
```

-- NO Such Row

-- Q.3 Write a SQL query to calculate the total sales (total_sale) for each category

```
select Category, sum(total_sale) as Total_Sale from retailsales  
group by category;
```

-- Q.4 Write a SQL query to find the average age of customers who purchased items from the 'Beauty' category

```
select avg(age) as Average_age from retailsales where category = 'Beauty';
```

-- Q. 5 Write a SQL query to find all transactions where the total_sale is greater than 1000.

```
Select * from retailsales where total_sale > 1000;
```

-- Q. 6 Write a SQL query to find the total number of transactions (transactions_id) made by each gender in each category.

```
select gender, category, count(transactions_id) as Total_Transaction from retailsales  
group by gender, category ;
```

-- Q. 7 Write a SQL query to calculate the average sale for each month. Also, find out the best-selling month in each year.

```
SELECT YEAR(sale_date) AS year, MONTH(sale_date) AS month, AVG(total_sale) AS  
avg_sale  
FROM retailsales  
GROUP BY YEAR(sale_date), MONTH(sale_date)  
ORDER BY year, month;
```

-- Q. 8 Write a SQL query to find the top 5 customers based on the highest total sales.

```
Select * from retailsales  
order by total_sale desc limit 5;
```

-- Q. 9 Write a SQL query to find the number of unique customers who purchased items from each category.

```
SELECT category as Category, COUNT(DISTINCT customer_id) AS unique_customers
FROM retailsales
GROUP BY category
ORDER BY unique_customers DESC;
```

-- Q. 10 Write a SQL query to create each shift and number of orders.

```
SELECT
    CASE
        WHEN HOUR(sale_time) < 12 THEN 'Morning'
        WHEN HOUR(sale_time) BETWEEN 12 AND 17 THEN 'Afternoon'
        ELSE 'Evening'
    END AS shift,
    COUNT(transactions_id) AS total_orders
FROM retailsales
GROUP BY shift
ORDER BY total_orders DESC;
```