**Retail Sales Data Analysis**

**-- Q.1 Write a SQL query to retrieve all columns for sales made on '2022-11-05**

select \* from retail\_sales\_analysis

where sale\_date = '2022-11-05' ;

**-- Q.2 Write a SQL query to retrieve all transactions where the category is 'Clothing' and the quantity sold is more than 4 in the month of Nov-2022**

select \* from retail\_sales\_analysis

where category = 'Clothing' and month(sale\_date) = 11

and quantiy>=4 and year(sale\_date)= 2022;

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

select category, sum(total\_sale) as Tota\_sales from retail\_sales\_analysis

group by 1;

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

select category,avg(age) as AVG\_Age from retail\_sales\_analysis

where category = 'Beauty';

**-- Q.5 Write a SQL query to find all transactions where the total\_sale is greater than 1000.**

select \* from retail\_sales\_analysis

where total\_sale> 1000;

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

select gender, category, count(\*) as Total\_transaction from retail\_sales\_analysis

group by 1 ,2;

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

select month(sale\_date) as month, avg(total\_sale) as Average\_Sales

from retail\_sales\_analysis

group by 1

order by 1;

select month(sale\_date) as month, year(sale\_date) as year, avg(total\_sale) as Average\_Sales

from retail\_sales\_analysis

group by 1 ,2

order by 1, 2

desc limit 3 ;

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

select customer\_id as Prime\_customer from retail\_sales\_analysis

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 count(distinct customer\_id) as Unique\_customer\_ID, category

from retail\_sales\_analysis

group by 2;

**-- Q.10 Write a SQL query to create each shift and number of orders (Example Morning <12, Afternoon Between 12 & 17, Evening >17)**

select count(\*) as Total\_orders,

case

when hour(sale\_time)<12 then 'Moring Orders'

when hour( sale\_time) between 12 and 17 then 'Afternoon orders'

else 'evening order'

end as Shift

from retail\_sales\_analysis group by shift;