

SQL Queries and Result

Creating New columns for Better Analysis

```
1  USE Global_electronics_project;                # Specifying the database that to be worked
2  select * from overall_data;

3  # Creating the New column as Age
    ALTER TABLE overall_data ADD COLUMN Age INT;

    UPDATE overall_data SET Age = TIMESTAMPDIFF(YEAR, BirthDay, CURDATE()) WHERE BirthDay IS NOT
    NULL;

4  # Creating the New column as Age
    Alter Table Overall_data add column Quarter_year int;

    Update Overall_data set  Quarter_year = Quarter(Order_Date);

5  # Creating the New column as Age_group
    ALTER TABLE overall_data ADD COLUMN Age_group VARCHAR(10);

    UPDATE overall_data
    SET Age_group = CASE
        WHEN age BETWEEN 10 AND 19 THEN '10-19'
        WHEN age BETWEEN 20 AND 29 THEN '20-29'
        WHEN age BETWEEN 30 AND 39 THEN '30-39'
        WHEN age BETWEEN 40 AND 49 THEN '40-49'
        WHEN age BETWEEN 50 AND 59 THEN '50-59'
        WHEN age BETWEEN 60 AND 69 THEN '60-69'
        WHEN age >= 70 THEN '70+'
        ELSE 'Under 10'
    END;
```

1 Distribution of Unique customer based on Location (Continent, Country)

```
select Continent, Customer_Country, COUNT(Distinct CustomerKey) as No_of_Customer,  
COUNT(CustomerKey) AS No_of_Orders, ROUND(SUM(Profit), 2) AS Profit  
from overall_data group by Continent, Customer_Country ORDER BY Profit desc;
```

Continent	Customer_Country	No_of_Customer	No_of_Orders	Profit
North America	United States	5706	33767	17490924
Europe	United Kingdom	1570	8140	4133800.8
Europe	Germany	1150	5956	3185916.5
North America	Canada	1179	5415	2755738.2
Australia	Australia	780	2941	1597300.2
Europe	Italy	530	2685	1450851.1
Europe	Netherlands	534	2250	1154644.1
Europe	France	438	1730	893513.49

2 Analysis of total customers gender wise by country

```
select Customer_Country,gender,count(distinct CustomerKey) as total_customers from  
overall_data group by Customer_Country,gender order by total_customers desc;
```

Customer_Country	Gender	total_customers
United States	Male	2903
United States	Female	2803
United Kingdom	Male	806
United Kingdom	Female	764
Germany	Female	602
Germany	Male	592
Canada	Male	577
Canada	Female	558
Australia	Female	401
Italy	Male	379
Australia	Male	294
Italy	Female	276

Netherlands	Male	254
Netherlands	Female	240
France	Female	227
France	Male	211

3 Analysis of total customers by gender

select Gender, count(CustomerKey) as Tot_Orders, count(distinct CustomerKey) as No_of_Customer from overall_data group by Gender order by Tot_Orders desc;

Gender	total_Orders	No_of_Customer
Male	31804	6029
Female	31080	5858

4 Analysis of top 10 customers by revenue

select Name,round(sum(Quantity * Unit_Price_USD), 2) as total_revenue from overall_data group by Name order by total_revenue desc limit 10;

Name	total_revenue
Daniel Walton	61871.7
Matthew Flemming	45608.27
Margaret Mattson	43517.8
Gaspere Trevisan	42788.04
Edward Rose	41521.53
Essie Scott	40225.01
Kathrin Maurer	38813.88
Paul Warren	38191.06
Ollie Davis	37319.88
David West	36817.28

5 Distribution of customer based on Gender, Age

Select Gender, Age_group, COUNT(Distinct CustomerKey) as No_of_Customer,
count(CustomerKey) as No_of_Oders, Round(sum(profit), 2) as Profits
from overall_data group by Gender, Age_group order by No_of_Customer Desc;

Gender	Age_group	No_of_customer	No_of_Orders	Profit
Male	70+	1769	9366	5004754
Female	70+	1699	8992	4531800
Male	30-39	929	4772	2457376
Male	50-59	917	4805	2480700
Male	60-69	899	4849	2554610
Female	40-49	889	4720	2478170
Female	60-69	878	4422	2254001
Female	50-59	877	4692	2415789
Female	30-39	876	4756	2620142
Male	40-49	862	4474	2315050
Male	20-29	653	3538	1795209
Female	20-29	639	3498	1755086

6 Average Order Value from overall Dataset for every Quarter of the Year

with AOV as (
select Quarter_year, Count(Quarter_year) as Total_Orders, sum(Unit_Price_USD) as Revenue
from overall_data group by Quarter_year)
select Quarter_year, Total_Orders, round(Revenue, 2) as Tot_Revenue,
round(Revenue/Total_Orders, 2) as Average_order_value from AOV group by Quarter_year;

Quarter_year	Total_Order	Tot_Revenue	Average_order_value
1	18907	17227980.26	911.2
2	10878	9658354.38	887.88
3	14197	12301448.73	866.48
4	18902	16567696.16	876.5

7 Calculating the of purchase for every line_item

with Line_Items as(

```
SELECT Order_Number, COUNT(DISTINCT Line_Item) AS line_item_count FROM  
Overall_data GROUP BY Order_Number
```

¶

```
select line_item_count, count(line_item_count) as No_of_Customers from Line_Items  
group by line_item_count;
```

line_item_count	No_of_Customers
1	9198
2	6913
3	5212
4	2840
7	661
5	775
6	727

8 Calculating the frequency of purchase more than one order

#-- Step 1: Count the number of line items per order

WITH OrderCounts AS (

```
SELECT Order_Number,  
COUNT(DISTINCT Line_Item) AS line_item_count  
FROM Overall_data GROUP BY Order_Number)
```

#-- Step 2: Calculate the percentage

```
SELECT COUNT(CASE WHEN line_item_count > 1 THEN 1 END) * 100.0 / COUNT(*) AS  
percentage_multiple_purchases  
FROM OrderCounts ;
```

Percentage_multiple_purchases
65.06116

Sales & Product Analysis

- 9 **Sales by Product: Evaluate which products are the top performers in terms of quantity Revenue generated.**

Select Product_Name, sum(Quantity) as Quantity, count(Product_Name) as Product_Count, sum(profit) as Profit from overall_data group by Product_Name order by profit Desc limit 10;

Product_Name	Quantity	Product_Count	Profit
WWI Desktop PC2.33 X2330 Black	550	154	337986.0107
Adventure Works Desktop PC2.33 XD233 Silver	481	146	311663.9557
Adventure Works Desktop PC2.33 XD233 Brown	479	144	310368.0569
Adventure Works Desktop PC2.33 XD233 Black	462	151	299352.9064
Adventure Works Desktop PC2.33 XD233 White	451	142	292225.4558
WWI Desktop PC2.33 X2330 White	462	131	283908.249
WWI Desktop PC2.33 X2330 Brown	460	151	282679.209
Adventure Works 52" LCD HDTV X590 White	136	40	263727.1299
Adventure Works 52" LCD HDTV X590 Black	129	44	250152.9395
WWI Desktop PC2.33 X2330 Silver	392	142	240891.8477

- 10 **Sales analysis on profit by currency**

select Currency,sum(Unit_Price_USD-Unit_Cost_USD)as profit from overall_data group by Currency order by profit desc;

Currency	Profit
USD	5538569.016
EUR	2076193.199
GBP	1333636.459
CAD	885297.69
AUD	499203.4892

11 Sales by Product: Evaluate which products are the top performers in terms of quantity Quantity Sold .

Select Product_Name, sum(Quantity) as Quantity, count(Product_Name) as Product_Count, sum(profit) as Profit from overall_data group by Product_Name order by Quantity Desc limit 10;

Product_Name	Quantity	Product_Count	Profit
WWI Desktop PC2.33 X2330 Black	550	154	337986.0107
WWI Desktop PC1.80 E1800 White	538	158	60627.22131
Adventure Works Desktop PC1.60 ED160 Black	521	155	68938.72382
Adventure Works Desktop PC2.30 MD230 White	521	158	168564.3436
Adventure Works Desktop PC1.80 ED180 Black	520	146	94052.39746
Adventure Works Desktop PC2.30 MD230 Black	514	162	166299.5633
WWI Desktop PC1.60 E1600 Black	509	158	54875.28876
WWI Desktop PC1.60 E1600 Silver	507	156	54659.66876
WWI Desktop PC1.60 E1600 Red	505	149	54444.04877
WWI Desktop PC1.80 E1801 Black	505	157	66811.50217

12 Sales analysis by category on quantity sold Through Online

select Category,sum(Quantity) as total_quantity, round(sum(profit),2) as Profit from overall_data where Store_Country = 'Online' group by category order by total_quantity desc;

Category	Quantity	Profit
Computers	9258	2398023.65
Cell phones	6888	776440.66
Music, Movies and Audio Books	5932	385301.87
Audio	4890	385904.52
Games and Toys	4847	82640.52
Cameras and camcorders	3693	743131.35
Home Appliances	3544	1233129.84
TV and Video	2259	668120.26

13 Sales analysis by category on quantity sold through Offline

```
select Category,sum(Quantity) as total_quantity, round(sum(profit),2) as Profit
from overall_data where Store_Country != 'Online' group by category order by
total_quantity desc;
```

Category	Quantity	Profit
Computers	34893	8879424.33
Cell phones	24589	2722185.89
Music, Movies and Audio Books	22870	1523957.34
Audio	18600	1441947.25
Games and Toys	17744	314028.25
Home Appliances	14857	5063208.96
Cameras and camcorders	13916	3176669.65
TV and Video	8977	2868574.2

14 Finding No of Order through the Online based on Continent

```
select Continent, count(StoreKey) as No_of_Orders,
Sum(Quantity) as Quantity_orders, round(sum(profit), 2) as Profit
from overall_data
where Store_Country = 'Online'
```

Continent	No_of_Orders	Quantity_orders	Profit
Europe	4051	12616	2098657.08
North America	8421	26571	4220365.28
Australia	693	2124	353670.31

Store Analysis

15 Finding the Top 10 stores based on Profit , Quantiy Sold and Customer

```
select StoreKey, Count(StoreKey) as No_of_order, sum(Quantity) as Quantity_sold,  
round(sum(profit), 2) as Profit, count(distinct CustomerKey) as No_of_Customer from  
overall_data group by StoreKey order by No_of_order desc limit 10 ;
```

StoreKey	No_of_Orders	Quantity_Sold	Profit	No_of_Customer
0	13165	41311	2119175.33	4547
9	1577	4894	254256.98	515
50	1519	4773	253927.66	508
55	1518	4826	256186.66	533
54	1498	4686	259693.34	559
61	1485	4771	238505.11	525
59	1472	4674	231334.1	515
45	1471	4672	251671.18	523
57	1442	4407	253920.49	540
44	1436	4581	224534.83	500

16 Finding No of Unique stores located on Continent Wise and the sales and Quatity sold

```
select Continent, count(StoreKey) as No_of_Orders, count(Distinct StoreKey) as Unique_Store,  
Sum(Quantity) as Quantity_orders, round(sum(Square_Meters), 2) as Store_SQM,  
round(sum(profit), 2) as Profit  
from overall_data  
where Store_Country != 'Online' group by Continent ;
```

Continent	No_of_Orders	Unique_Store	Quantity order	Store_SQM	Profit
Australia	2248	5	7085	4061710	1243629.88
Europe	16710	29	52732	24966890	8720068.91
North America	30761	23	96629	50245505	16026297.08