Global Superstore Practical Test

1.Find the total generated revenue.

```
SELECT
  SUM(sales) AS Total_Revenue,
  SUM(quantity) AS Total_Quantities,
  SUM(profit) AS Total_Profit
FROM superstore;
```

OUTPUT:

	TOtal_Quantity	Total_Revenue	Total_Profit
▶	14452	1174336.64	134146.22

2.Find the segment wise distribution of the sales**.**

```
SELECT SUM(SALES) AS distribution_of
 FROM SUPERSTORE
 GROUP BY SALES;
```

OUTPUT:

	Segment	Total_sales
▶	Home Office	199494.17
	Corporate	350747.62
	Consumer	624094.85

3.Find the top 3 most profitable Products**.**

```
select `product name`,sum(profit) as total_profit
   from superstore
   group by`product name`
   order by total_profit desc
   limit 3;
```

OUTPUT:

	Product_Name	Profit
▶	Sauder Classic Bookcase, Metal	2316.51
	KitchenAid Stove, Silver	1644.03
	Hamilton Beach Refrigerator, Silver	1202.016

4.How many orders are placed after January 2016**.**

```
SELECT Count(*) as order_after_january_2016
  from superstore
  where `Order Date`>'2016-01-31';
```

OUTPUT:

	Orders_After_Jan2016
▶	2410

5. How many states from Mexico are under the roof of business?

```
SELECT COUNT(DISTINCT `State`) AS num_states
FROM Superstore
WHERE Country = 'Australia';
```

OUTPUT :

	num_states
▶	8

6. which products and subcategories are most and least profitable?

```
SELECT `Product Name`,`Sub-Category`,SUM(PROFIT)AS TOTAL_PROFIT
    FROM SUPERSTORE
      GROUP BY `Product Name`,`Sub-Category`
      ORDER BY TOTAL_PROFIT DESC
```

OUTPUT :

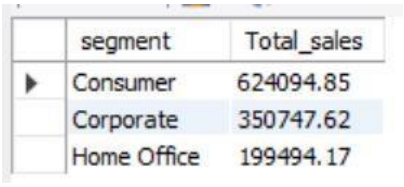
	Product Name	Total_Profit
▶	Sauder Classic Bookcase, Metal	2978.37
	Nokia Smart Phone, with Caller ID	2887.59
	Novimex Executive Leather Armchair, Adjustable	2523.55
	Hon Executive Leather Armchair, Adjustable	2410.27
	Brother Copy Machine, Color	1963.36

	Product Name	Total_Profit
▶	Ikea Library with Doors, Traditional	-1748.17
	Panasonic Inkjet, Red	-1410.19
	Chromcraft Conference Table, with Bottom Stor...	-1335.29
	Bevis Wood Table, with Bottom Storage	-1056.81
	Lesro Wood Table, Adjustable Height	-953.44

7. Which customer segment contributes the most to the total revenue?

```
SELECT segment,ROUND(SUM(sales), 2) AS Total_sales
FROM superstore
GROUP BY segment
ORDER BY Total_sales desc;
```

OUTPUT :



segment	Total_sales
Consumer	624094.85
Corporate	350747.62
Home Office	199494.17

8. What is the year-over-year growth in sales and Profit**?**

```
SELECT YEAR(STR_TO_DATE(`Order Date`, '%d-%m-%Y')) AS Year,
ROUND(SUM(Sales), 2) AS Total_Sales,
ROUND(SUM(Profit), 2) AS Total_Profit
FROM superstore
GROUP BY Year
ORDER BY Year;
```

OUTPUT :

Year	Total_Sales	Total_Profit
2014	191180.62	24989.55
2015	253645.96	33521.23
2016	331950.64	34228.8
2017	397559.43	41406.65

9. Which countries and cities are driving the highest sales?

```
SELECT Country,ROUND(SUM(Sales), 2) AS Total_Revenue
FROM superstore
GROUP BY Country
ORDER BY Total_Revenue DESC
LIMIT 10;
```

CITY AND COUNTRY:

Country	Total_Sales
Australia	925235.85
Austria	92539.05
Argentina	57511.78
Algeria	36091.59
Angola	25554
Afghanistan	21673.32

Country	City	Total_Sales
Australia	Sydney	101945.52
Australia	Brisbane	75729.02
Australia	Melbourne	73843.55
Australia	Gold Coast	72626.92
Australia	Perth	64292.2
Austria	Vienna	62023.53

10. What is the average delivery time from order to ship date across regions?

```
SELECT Region, COUNT(*) AS n_orders,
AVG(DATEDIFF(STR_TO_DATE(`Ship Date`,'%d-%m-%Y'),
STR_TO_DATE(`Order Date`,'%d-%m-%Y'))) AS avg_delivery_days
FROM Superstore
GROUP BY Region
ORDER BY avg_delivery_days desc;
```

OUTPUT:

Region	n_orders	avg_delivery_days
Southern Asia	58	4.5172
Central Africa	122	4.2049
Western Europe	331	3.9849
Oceania	2837	3.9475
North Africa	196	3.8520
South America	390	3.8256
Southern Europe	16	3.6250

11. what is the profit distribution across order priority?

```
SELECT `Order Priority`,
COUNT(*) AS Num_Orders,
ROUND(SUM(Profit), 2) AS Total_Profit,
ROUND(AVG(Profit), 2) AS Avg_Profit_Per_Order
```

OUTPUT:

```
FROM superstore
```

GROUP BY `Order Priority`

ORDER BY Total_Profit DESC;

Order Priority	Num_Orders	Total_Profit	Avg_Profit_Per_Order
Medium	2294	73509.69	32.04
High	1269	46576.52	36.7
Critical	286	9776.81	34.18
Low	135	4283.19	31.73

12. Suggest data-driven recommendations for improving profit and reducing losses.

Improving Profit

- **Optimize Pricing Strategies**: Use data analytics to examine customer demand, competitor pricing, and market conditions to find the optimal price point for products or services. Dynamic pricing models, like those used by airlines and hotels, can maximize revenue during peak demand periods.

- **Target the Most Profitable Customers/Segments**: Analyze customer data (demographics, purchasing habits, preferences) to segment your audience and focus marketing efforts on high-value customers. This increases the return on investment (ROI) of marketing campaigns and the likelihood of conversions.

- **Enhance Product Offerings**: Analyze sales data and customer feedback to identify which products are top performers and which are underperforming. Double down on popular items and consider modifying or discontinuing those that aren't selling well to reallocate resources more effectively.

- **Leverage Upselling and Cross-selling**: Use behavioral data to recommend relevant upgrades or complementary products to existing customers. Selling to an existing customer is significantly more likely than acquiring a new one, offering a major source of potential revenue.

- **Expand into Profitable Markets**: Conduct market research and competitive analysis to identify new regions or demographics where your products or services are likely to succeed, thus opening up new revenue streams.

: Reducing Losses and Costs

- **Optimize Operational Efficiency**: Analyze operational data to identify bottlenecks, redundant processes, and areas of inefficiency. For example, logistics companies like UPS use data to optimize delivery routes, cutting fuel use and labor costs.

- **Enhance Inventory Management**: Use predictive analytics to forecast demand fluctuations based on historical data and seasonal trends. This helps maintain optimal stock levels, avoiding costly overstocking (tying up capital) or stockouts (missing sales opportunities).