US Retail Superstore Sales SQL Case Study Analysis Using MySQL Workbench

Create database
us_retail_superstore;

use us_retail_superstore;

select * from samplesuperstore;

Ship Mode	Segment	Country	City	State	Postal Code	Region	Category	sub_Category	Sales	Quantity	Discount	Profit
Second Class	Consumer	United States	Henderson	Kentucky	42420	South	Furniture	Bookcases	261.96	2	0	41.9136
Second Class	Consumer	United States	Henderson	Kentucky	42420	South	Furniture	Chairs	731.94	3	0	219.582
Second Class	Corporate	United States	Los Angeles	California	90036	West	Office Supplies	Labels	14.62	2	0	6.8714
Standard Class	Consumer	United States	Fort Lauderdale	Florida	33311	South	Furniture	Tables	957.5775	5	0.45	-383.031
Standard Class	Consumer	United States	Fort Lauderdale	Florida	33311	South	Office Supplies	Storage	22.368	2	0.2	2.5164
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Furniture	Furnishings	48.86	7	0	14.1694
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Office Supplies	Art	7.28	4	0	1.9656
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Technology	Phones	907.152	6	0.2	90.7152
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Office Supplies	Binders	18.504	3	0.2	5.7825
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Office Supplies	Appliances	114.9	5	0	34.47
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Furniture	Tables	1706.184	9	0.2	85.3092
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Technology	Phones	911.424	4	0.2	68.3568
Standard Class	Consumer	United States	Concord	North C...	28027	South	Office Supplies	Paper	15.552	3	0.2	5.4432
Standard Class	Consumer	United States	Seattle	Washing...	98103	West	Office Supplies	Binders	407.976	3	0.2	132.5922
Standard Class	Home Off...	United States	Fort Worth	Texas	76106	Central	Office Supplies	Appliances	68.81	5	0.8	-123.858
Standard Class	Home Off...	United States	Fort Worth	Texas	76106	Central	Office Supplies	Binders	2.544	3	0.8	-3.816
Standard Class	Consumer	United States	Madison	Wisconsin	53711	Central	Office Supplies	Storage	665.88	6	0	13.3176
Second Class	Consumer	United States	West Jordan	Utah	84084	West	Office Supplies	Storage	55.5	2	0	9.99
Second Class	Consumer	United States	San Francisco	California	94109	West	Office Supplies	Art	8.56	2	0	2.4924

select count(*) from samplesuperstore


```
8
9    select count(*) from samplesuperstore;
```

count(*)
9994

Scenario 1

-- Summary Statistics: -- Obtain summary statistics such as total sales, average sales, total profit, average profit, etc.,

-- to understand the overall performance.

SELECT SUM(Sales) AS TotalSales,
AVG(Sales) AS AverageSales, SUM(Profit) AS TotalProfit,
AVG(Profit) AS AverageProfit
FROM samplesuperstore;

```sql
11    -- Scenario 1 -- Summary Statistics:
12    -- Obtain summary statistics such as total sales, average sales, total profit, average profit, etc.,
13    -- to understand the overall performance.
14
15 •  SELECT
16        SUM(Sales) AS TotalSales,
17        AVG(Sales) AS AverageSales,
18        SUM(Profit) AS TotalProfit,
19        AVG(Profit) AS AverageProfit
20    FROM  samplesuperstore;
21
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

TotalSales	AverageSales	TotalProfit	AverageProfit
2297200.860299955	229.8580008304938	286397.0217000013	28.656896307784802

Scenario 2

--Sales Distribution by Category
--Analyze sales distribution across different categories to identify top-selling categories.

```
SELECT   Category,  SUM(Sales) AS TotalSales
        FROM  samplesuperstore
        GROUP BY  Category
        ORDER BY  TotalSales DESC;
```

Scenario 3

-- Top Selling Products:
--Identify the top-selling products based on sales quantity or revenue.

desc samplesuperstore;

--Scenario 4

ALTER TABLE samplesuperstore-- RENAME COLUMN Sub-Category TO sub_Category;
--giving error

ALTER TABLE samplesuperstoreCHANGE COLUMN `Sub-Category`sub_Category varchar(50);

SELECT Sub_Category,
SUM(Quantity) AS TotalQuantity,
SUM(Sales) AS TotalSales
FROM samplesuperstore
GROUP BY Sub_Category
ORDER BY TotalSales DESC;

	Result Grid		Filter Rows:		Export:		Wrap Cell Content:

Sub_Category	TotalQuantity	TotalSales
Phones	3289	330007.0540000001
Chairs	2356	328449.10300000076
Storage	3158	223843.60800000012
Tables	1241	206965.5320000001
Binders	5974	203412.7330000001
Machines	440	189238.63099999996
Accessories	2976	167380.3180000001
Copiers	234	149528.02999999994
Bookcases	868	114879.99629999997
Appliances	1729	107532.161
Furnishings	3563	91705.16400000005
Paper	5178	78479.20600000002
Supplies	647	46673.538000000015
Art	3000	27118.791999999954
Envelopes	906	16476.402
Labels	1400	12486.312
Fasteners	914	3024.2799999999997

--Scenario 5

-- Profit Analysis by Segment:

-- Analyze profit across different market segments.

SELECT Segment,
SUM(Profit) AS TotalProfit
FROM samplesuperstore
GROUP BY Segment;

```sql
59
60      -- Scenario 5 -- Profit Analysis by Segment:
61      -- Analyze profit across different market segments.
62
63  •   SELECT
64          Segment,
65          SUM(Profit) AS TotalProfit
66      FROM
67          samplesuperstore
68      GROUP BY
69          Segment;
70
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: ⫯A

Segment	TotalProfit
Consumer	134119.20919999972
Corporate	91979.13400000021
Home Office	60298.678500000075

-- *Scenario 6*

 -- *Discount Impact on Profit:*

 -- *Investigate the impact of discounts on profit.*

SELECT Discount, AVG(Profit) AS
AverageProfit
FROM samplesuperstore
GROUP BY Discount
ORDER BY Discount;

```
72      -- Scenario 6 -- Discount Impact on Profit:
73      -- Investigate the impact of discounts on profit.
74
75  •   SELECT
76          Discount,
77          AVG(Profit) AS AverageProfit
78      FROM
79          samplesuperstore
80      GROUP BY
81          Discount
82      ORDER BY
83          Discount;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Conten

Discount	AverageProfit
0	66.90029245518961
0.1	96.05507446808508
0.15	27.288298076923077
0.2	24.702572053595855
0.3	-45.679636123348004
0.32	-88.56065555555558
0.4	-111.92742912621364
0.45	-226.64646363636365
0.5	-310.703456060606
0.6	-43.077211594202915
0.7	-95.87405956937788
0.8	-101.79679733333329

-- Scenario 7

Geographical Analysis:

-- Analyze sales performance by country, city, or region

SELECT Country,
SUM(Sales) AS TotalSales
FROM samplesuperstore
GROUP BY Country
ORDER BY TotalSales
DESC;

```sql
84
85    -- Scenario 7-- Geographical Analysis:
86    -- Analyze sales performance by country, city, or region.
87
88  • SELECT
89        Country,
90        SUM(Sales) AS TotalSales
91    FROM
92        samplesuperstore
93    GROUP BY
94        Country
95    ORDER BY
96        TotalSales DESC;
97
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Country	TotalSales
United States	2297200.860299955