SUPER STORE SALES ANALYSIS PROJECT PRESENTATION

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Introduction

This project focuses on analyzing sales, customers, products, and profitability using MYSQL. By writing optimized queries on relational datasets consisting of Customers, Orders, Order Details, and Products, we derived meaningful insights into business performance.

Project Background

This project analyzes sales data using SQL to uncover insights on revenue, profit, and customer behavior.

The dataset includes Customers, Orders, Products, and Order Details.

Key focus areas are top customers, product performance, and regional sales trends.

The goal is to provide data-driven recommendations for business growth.

Total Revenue & Profit

```
SELECT
        SUM(sales_amount)   AS
total_revenue,
   SUM(profit) AS total_profit
FROM OrderDetails;
```

total_revenue	total_profit
1329768.05	170963.06

Top 10 Customers by Spending

```
SELECT  c.customer_name,  SUM(od.sales_amount)
AS total_spent
FROM Customers c
JOIN Orders o ON c.customer_id = o.customer_id
JOIN OrderDetails od ON o.order_id = od.order_id
GROUP BY c.customer_name
ORDER BY total_spent DESC
LIMIT 10;
```

customer_name	total_spent
Nora Preis	22579.70
Jane Waco	15859.33
Karen Ferguson	14623.55
Raymond Buch	14517.26
Clay Ludtke	13569.84
Yana Sorensen	13355.24
Tamara Willingham	11894.86
Keith Herrera	11726.29
Justin Deggeller	11112.56
Robert Marley	10821.99

Top 5 Most Profitable Products

```
SELECT p.product_name, SUM(od.profit)
AS total_profit
FROM Products p
JOIN OrderDetails od ON p.product_id =
od.product_id
GROUP BY p.product_name
ORDER BY total_profit DESC
LIMIT 5;
```

product_name	total_profit
Canon imageCLASS 2...	6719.98
Hewlett Packard Lase...	6551.88
Fellowes PB500 Elect...	6100.76
Canon PC1060 Perso...	4535.94
Staples	4226.41

Sales by Category

```
SELECT p.category,
SUM(od.sales_amount
) AS revenue
FROM Products p
JOIN OrderDetails od
ON p.product_id =
od.product_id
GROUP BY p.category
ORDER BY revenue
DESC;
```

category	revenue
Chairs	227848.11
Tables	214180.48
Phones	183652.03
Storage	118978.59
Binders	109104.04
Bookcases	87170.03
Accessories	82032.22
Copiers	76708.66
Machines	51009.89
Paper	44396.78

Monthly Sales Trend

```
SELECT YEAR(o.order_date) AS year,
MONTH(o.order_date) AS month,
                SUM(od.sales_amount) AS
total_sales
FROM Orders o
JOIN OrderDetails od ON o.order_id =
od.order_id
GROUP BY year, month
ORDER BY year, month;
```

year	month	total_sales
2011	4	21294.97
2011	5	14467.79
2011	6	17080.58
2011	7	31358.31
2011	8	22331.49
2011	9	28343.94
2011	10	17477.20
2011	11	42539.92
2011	12	61736.88
2012	1	9420.37

Revenue by state

```
SELECT c.state, SUM(od.sales_amount)
AS revenue
FROM Customers c
JOIN Orders o ON c.customer_id =
o.customer_id
JOIN OrderDetails od ON o.order_id =
od.order_id
GROUP BY c.state
ORDER BY revenue DESC
LIMIT 10;
```

state	revenue
California	846623.13
Washington	235398.53
Arizona	69818.99
Colorado	57538.89
Oregon	39977.53
Nevada	28216.30
Utah	21213.36
Idaho	12069.68
Montana	7305.99
New Mexico	6796.23

Most Ordered Products

```
SELECT p.product_name,
SUM(od.quantity) AS total_quantity
FROM Products p
JOIN OrderDetails od ON p.product_id =
od.product_id
GROUP BY p.product_name
ORDER BY total_quantity DESC
LIMIT 10;
```

product_name	total_quantity
Staples	1340
Bretford Rectangular…	130
Cardinal EasyOpen D…	124
Eldon Wave Desk Acc…	120
KI Conference Tables	115
Memorex Micro Trave…	112
GuestStacker Chair w…	108
GBC Standard Therm…	105
Bevis 36 x 72 Confer…	104
Recycled Pressboard …	104

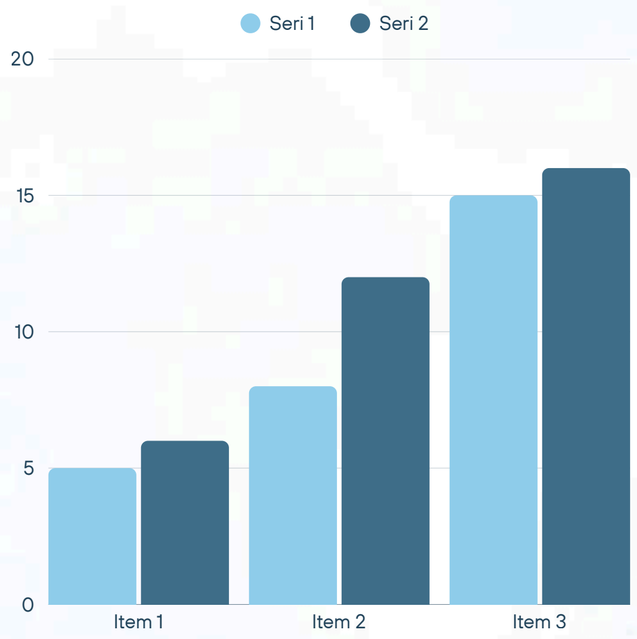
Average Order Value (AOV)

```
SELECT
        SUM(od.sales_amount) /
COUNT(DISTINCT o.order_id) AS
avg_order_value
FROM Orders o
JOIN OrderDetails od ON o.order_id =
od.order_id;
```

avg_order_value
842.692047

Analysis

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras arcu metus, feugiat vitae ante ac, aliquet tempus ante. In euismod nibh eget lacinia imperdiet.



Revenue per Customer

```
SELECT
    c.customer_name,
        SUM(od.sales_amount) / COUNT(DISTINCT
o.order_id) AS revenue_per_customer
FROM Customers c
JOIN Orders o ON c.customer_id = o.customer_id
JOIN OrderDetails od ON o.order_id = od.order_id
GROUP BY c.customer_name
ORDER BY revenue_per_customer DESC
LIMIT 10;
```

customer_name	revenue_per_customer
Lindsay Castell	10706.680000
Brosina Hoffman	9026.810000
Raymond Buch	7258.630000
John Stevenson	6573.080000
Christopher Con…	6512.770000
Nora Preis	5644.925000
Robert Marley	5410.995000
Jane Waco	5286.443333
Maria Etezadi	5268.395000
Ted Trevino	4635.665000

Profit Margin (%)

```
SELECT
    (SUM(od.profit) / SUM(od.sales_amount)) * 100
AS profit_margin_percent
FROM OrderDetails od;
```

profit_margin_percent
12.856608

Repeat Customers

```
SELECT COUNT(*) AS repeat_customers
FROM (
    SELECT c.customer_id
    FROM Customers c
        JOIN Orders o ON c.customer_id =
o.customer_id
    GROUP BY c.customer_id
    HAVING COUNT(DISTINCT o.order_id) > 1
) t;
```

repeat_customers
126

Best-Selling Category (by Revenue)

```
SELECT p.category, SUM(od.sales_amount)
AS revenue
FROM Products p
JOIN OrderDetails od ON p.product_id =
od.product_id
GROUP BY p.category
ORDER BY revenue DESC
LIMIT 1;
```

category	revenue
Chairs	227848.11

Most Profitable Category (by Profit)

```
SELECT p.category, SUM(od.profit) AS total_profit
FROM Products p
JOIN OrderDetails od ON p.product_id = od.product_id
GROUP BY p.category
ORDER BY total_profit DESC
LIMIT 1;
```

category	total_profit
Binders	29546.50

Low Profit Margin Products

```
SELECT p.product_name,
    SUM(od.sales_amount) AS revenue,
    SUM(od.profit) AS profit,
        (SUM(od.profit)/SUM(od.sales_amount))*100
AS profit_margin_percent
FROM Products p
JOIN OrderDetails od ON p.product_id =
od.product_id
GROUP BY p.product_name
HAVING profit_margin_percent < 5
ORDER BY profit_margin_percent ASC
LIMIT 5;
```

product_name	revenue	profit	profit_margin
Bush Westfield Collec...	90.88	-190.85	-210.002201
Bush Westfield Collec...	69.58	-143.79	-206.654211
Sauder Barrister Boo...	145.76	-247.80	-170.005488
Bush Cubix Collection...	66.29	-103.86	-156.675215
Hon Metal Bookcases...	127.76	-191.65	-150.007827

Average Delivery Time

```
SELECT AVG(DATEDIFF(o.ship_date, o.order_date))
AS avg_delivery_days
FROM Orders o;
```

avg_delivery_days
3.9278

Year-over-Year Growth (%)

```
SELECT
    YEAR(o.order_date) AS year,
    SUM(od.sales_amount) AS revenue,
                        (SUM(od.sales_amount)      -
LAG(SUM(od.sales_amount))
        OVER (ORDER BY YEAR(o.order_date)))
         / LAG(SUM(od.sales_amount)) OVER (ORDER BY
YEAR(o.order_date)) * 100
    AS yoy_growth_percent
FROM Orders o
JOIN OrderDetails od ON o.order_id = od.order_id
GROUP BY YEAR(o.order_date)
ORDER BY year;
```

year	revenue	yoy_growth
2011	291205.83	NULL
2012	259732.49	-10.807936
2013	334336.66	28.723465
2014	444493.07	32.947751

Top 5 States by Profitability

```
SELECT c.state, SUM(od.profit) AS total_profit
FROM Customers c
JOIN Orders o ON c.customer_id = o.customer_id
JOIN OrderDetails od ON o.order_id = od.order_id
GROUP BY c.state
ORDER BY total_profit DESC
LIMIT 5;
```

state	total_profit
California	125263.37
Washington	52134.74
Nevada	4828.93
Utah	4546.44
Idaho	2272.67

Project Insights

- Revenue is strong, but profit margins vary across products.
- Top customers contribute the majority of sales.
- Some popular products have very low profit margins.
- Few categories and states dominate revenue and profitability.
- Sales show seasonal trends with positive year-over-year growth.
- Delivery times can be optimized to improve customer satisfaction.
- Repeat customers form a strong base, showing healthy retention.

Conclusion

The SQL-based sales analysis provided valuable insights into revenue, profit, customer behavior, and product performance. The findings show that while the business is profitable, growth can be accelerated by focusing on high-value customers, improving low-margin products, and expanding in top-performing regions. Optimizing delivery efficiency and leveraging data-driven strategies will further enhance overall business performance.

THANK YOU