E-COMMERCE SALES PERFORMANCE ANALYSIS

SALES PERFORMANCE FOR FLIPKART DURING BIG BILLION DAYS

Objective

This project aims to analyze and optimize the sales performance of an e-commerce platform using SQL. The focus is on extracting key performance indicators (KPIs) such as total revenue, sales growth, top-selling products, regional sales distribution, and customer segmentation to enable data-driven decision-making.

Key Analysis & Findings

1) Total Sales & Number of Orders by region

```
Limit to 1000 rows

-- 1) Total Sales & Number of Orders by region.

SELECT
    Region,
    COUNT(Order_ID) AS Total_Orders,
    SUM(Total_Sales) AS Total_Revenue
FROM
    sales_data
GROUP BY Region
ORDER BY Total_Revenue DESC;

/* This data show the highest revenue generated by East Region.*/
```

Result Grid Filter Rows: Search Export:

Region	Total_Orders	Total_Revenue
East	26	1845
South	25	1665
West	24	1405
North	25	1225

This query gives the total number of orders and total revenue generated.

Monthly Sales Trends.

```sql
75
76  -- 2) Monthly Sales Trends.
77
78  SELECT
79      DATE_FORMAT(Order_Date, '%Y-%m') AS Month,
80      SUM(Total_Sales) AS MonthlyRevenue
81  FROM
82      sales_data
83  GROUP BY Month
84  ORDER BY Month;
85
86  /* This data show the how revenue has changed over month.*/
87
```

Result Grid | Filter Rows: Search | Export:

Month	MonthlyRevenue
2024-01	605
2024-02	1700
2024-03	1990
2024-04	1845

This shows how revenue has changed over different months.

Top 5 Customers by Total Spending

```sql
-- 3) Top 5 Customers by Total Spending

SELECT
    C.Customer_ID,
    C.Customer_Name,
    SUM(S.Total_Sales) AS Total_Spent
FROM
    sales_data S
        JOIN
    Customer_data C ON S.Customer_ID = C.Customer_ID
GROUP BY C.Customer_ID , C.Customer_Name
ORDER BY Total_Spent DESC
LIMIT 5;

/* This data show high value customers.*/
```

Result Grid | Filter Rows: Search | Export: | Fetch rows:

Customer_ID	Customer_Name	Total_Spent
C097	Peter Ross	180
C037	Christopher Reed	180
C069	Aaron Brooks	150
C082	Sophie Jenkins	150
C012	Sophia Clark	150

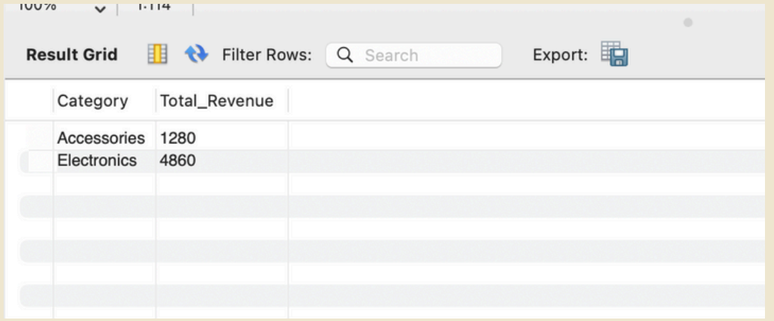
Identifies high-value customers.

Product Categories Revenue Breakdown

```sql
-- 4) Product Categories Revenue Breakdown

SELECT
    P.Category, SUM(S.Total_Sales) AS Total_Revenue
FROM
    sales_data S
        JOIN
    product_data P ON S.Product_ID = P.Product_ID
GROUP BY P.Category
ORDER BY Total_Revenue;

/* This data shows Electronic products are most demanding.*/
```



Result Grid | Filter Rows: Search | Export:

Category	Total_Revenue
Accessories	1280
Electronics	4860

Shows which product categories generate the most revenue.

Top 5 Best Selling Products

```sql
-- 5) Top 5 Best Selling Products

SELECT
    P.Product_Name,
    P.Product_ID,
    SUM(S.Total_Sales) AS Total_Revenue,
    SUM(S.Quantity) AS Total_Unit_sold
FROM
    sales_data S
        JOIN
    product_data P ON S.Product_ID = P.Product_ID
GROUP BY P.Product_Name , P.Product_ID
ORDER BY Total_Revenue DESC
LIMIT 5;

/* This data shows Desktop related products are best seller.*/
```

Result Grid | Filter Rows: Search | Export: | Fetch rows:

Product_Name	Product_ID	Total_Revenue	Total_Unit_so...
Monitor	P005	1710	57
Wireless Mouse	P001	1475	59
Laptop Stand	P004	1280	64
USB Keyboard	P002	945	63
Bluetooth Speaker	P003	730	73

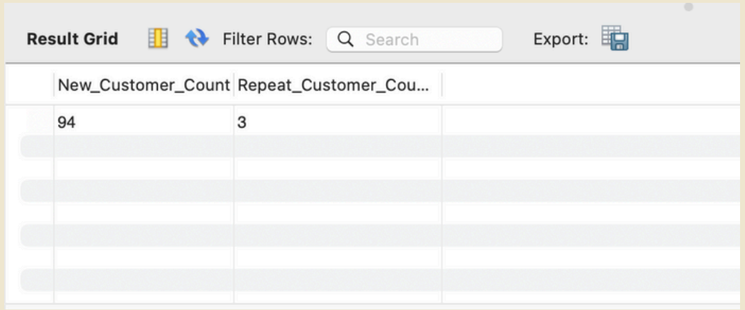
Identifies top-selling products by quantity and revenue.

Customer Retention Rate (New vs. Returning Customers)

```sql
-- 6) Customer Retention Rate (New vs. Returning Customers)

SELECT
    SUM(CASE WHEN Order_Count = 1 THEN 1 ELSE 0 END) AS New_Customer_Count,
    SUM(CASE WHEN Order_Count > 1 THEN 1 ELSE 0 END) AS Repeat_Customer_Count
FROM (
    SELECT Customer_ID, COUNT(Order_ID) AS Order_Count
    FROM Sales_Data
    GROUP BY Customer_ID
) AS Customer_Orders;

/* This data shows most customer are one time purchaser.*/
```



Helps understand customer loyalty.

Highest-Spending Customers by Region

Limit to 1000 rows

```sql
-- 7) Highest-Spending Customers by Region

SELECT
    S.Region, C.Customer_Name, SUM(S.Total_Sales) AS Total_Spent
FROM
    sales_data S
        JOIN
    customer_data C ON S.Customer_ID = C.Customer_ID
GROUP BY S.Region , C.Customer_Name
ORDER BY S.Region , Total_Spent DESC;

/* This data Shows top customers per region.*/

-- 8) Customer Segmentation (Based on Spending)

SELECT
    C.Customer_ID,
    C.Customer_Name,
```

Result Grid Filter Rows: Search Export:

Region	Customer_Name	Total_Spent
East	Sophie Jenkins	150
East	Bella Murphy	125
East	Hannah Ramirez	120
East	Paisley Long	120
East	Michael Brown	100
East	Keira Powell	100
East	Hailey Alexander	100
East	Lily Evans	100
East	Leah Adams	90

Shows top customers per region.

Customer Segmentation (Based on Spending)

```sql
-- 8) Customer Segmentation (Based on Spending)

SELECT
    C.Customer_ID,
    C.Customer_Name,
    SUM(S.Total_Sales) AS Total_Spent,
    CASE
        WHEN SUM(S.Total_Sales) > 150 THEN 'High-Value'
        WHEN SUM(S.Total_Sales) BETWEEN 100 AND 150 THEN 'Medium-Value'
        ELSE 'Low-Value'
    END AS CustomerSegment
FROM
    sales_data S
        JOIN
    Customer_data C ON S.Customer_ID = C.Customer_ID
GROUP BY C.Customer_ID , C.Customer_Name
ORDER BY Total_Spent DESC;

/* This data Shows customers segementation based on spending.*/
```

Result Grid | Filter Rows: Search | Export:

Customer_ID	Customer_Name	Total_Spent	CustomerSegme...
C097	Peter Ross	180	High-Value
C037	Christopher Reed	180	High-Value
C082	Sophie Jenkins	150	Medium-Value
C012	Sophia Clark	150	Medium-Value
C069	Aaron Brooks	150	Medium-Value
C089	Asher Gonzales	125	Medium-Value
C054	Bella Murphy	125	Medium-Value
C090	Paisley Long	120	Medium-Value
C050	Hannah Ramirez	120	Medium-Value

Segments customers into High, Medium, and Low-value groups based on spending.