

## **Sales Analytics Using SQL Set Operators (UNION, INTERSECT, EXCEPT)**

Project Title:

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Overview:

This project showcases a wide range of practical data analytics scenarios solved using SQL Set Operators. Using a rich sales and product dataset, the queries demonstrate how to extract business insights, detect changes across time periods, compare targets vs actuals, and identify data gaps.

Skills Demonstrated:

- SQL Set Operators: UNION, INTERSECT, EXCEPT
- Temporal Comparisons: Year-over-year, monthly, historical gaps
- Duplicate vs Unique product identification
- Region-wise product/category analysis
- Salesperson handoff and reassignment tracking
- Actual vs Target sales matching
- Data quality auditing and performance evaluation

Key Highlights:

1. Find products with no sales.
2. Compare sales between 2023 and 2024.
3. Detect dropped product categories by region.
4. Identify when a new salesperson took over a product.
5. Flag months where targets existed but no sales were made.
6. Compare loyalty programs across years.

7. Use INTERSECT to detect common customers/salespersons.
8. Use EXCEPT to identify missing or excluded values.

Ideal For:

Clients seeking SQL-driven analytics solutions, BI dashboards, reporting workflows, or insights over structured sales or customer data. This project shows logic clarity and powerful use of set-based SQL.