

Total Revenue by County

```
SELECT c.County,
       ROUND(SUM(f.Revenue),2) AS total_revenue
FROM `familysmsdev.retail_sales_star_schema.sales_fact` f
JOIN `familysmsdev.retail_sales_star_schema.customer_dim` c
  ON f.CustomerID = c.CustomerID
GROUP BY c.County
ORDER BY total_revenue DESC;
```

Shows: Which towns drive the most revenue.

Importance: One join from fact → customer dimension is enough.

Advantage: County data is stored once in `customer_dim`, no duplication.

Monthly Revenue Trend

```
SELECT t.Year, t.Month,
       ROUND(SUM(f.Revenue),2) AS monthly_sales
FROM `familysmsdev.retail_sales_star_schema.sales_fact` f
JOIN `familysmsdev.retail_sales_star_schema.time_dim` t
  ON f.TimeID = t.TimeID
GROUP BY t.Year, t.Month
ORDER BY t.Year, MIN(t.TimeID);
```

Shows: Seasonality and growth over months.

Importance: The Time dimension already has Year/Month fields.

Advantage: No need to parse dates in the fact table.

Top 10 Products by Units Sold

```
SELECT p.ProductName,
       SUM(f.UnitsSold) AS total_units
FROM `familysmsdev.retail_sales_star_schema.sales_fact` f
JOIN `familysmsdev.retail_sales_star_schema.product_dim` p
  ON f.ProductID = p.ProductID
GROUP BY p.ProductName
ORDER BY total_units DESC
LIMIT 10;
```

Shows: Best-selling products.

Advantage: Product names and categories live in one dimension, keeping fact lean.

Average Discount by Product Category

```
SELECT p.Category,
       ROUND(AVG(f.Discount)*100,2) AS avg_discount_pct
FROM `familysmsdev.retail_sales_star_schema.sales_fact` f
JOIN `familysmsdev.retail_sales_star_schema.product_dim` p
  ON f.ProductID = p.ProductID
GROUP BY p.Category
ORDER BY avg_discount_pct DESC;
```

Shows: Which product categories get the biggest discounts.

Importance: Combines facts (Discount) with product metadata.

Revenue per Store and Manager

```
SELECT s.StoreName,
       s.Manager,
       ROUND(SUM(f.Revenue),2) AS total_revenue
FROM `familysmsdev.retail_sales_star_schema.sales_fact` f
JOIN `familysmsdev.retail_sales_star_schema.store_dim` s
  ON f.StoreID = s.StoreID
GROUP BY s.StoreName, s.Manager
ORDER BY total_revenue DESC;
```

Shows: Store performance with manager accountability.

Advantage: Easy to swap Store dimension attributes (e.g., location).