

## Project 1: E-Commerce Sales Insights

### 1. Total Revenue

```
SELECT SUM(revenue) AS total_revenue
FROM sales;
```

### 2. Total Orders

```
SELECT COUNT(DISTINCT order_id) AS total_orders
FROM sales;
```

### 3. Total Quantity Sold

```
SELECT SUM(quantity) AS total_quantity
FROM sales;
```

### 4. Profit Calculation

```
SELECT
    SUM(revenue - (cost * quantity)) AS total_profit
FROM sales;
```

### 5. Average Order Value (AOV)

```
SELECT
    SUM(revenue) * 1.0 / COUNT(DISTINCT order_id) AS aov
FROM sales;
```

### 6. Revenue by Month

```
SELECT
    DATE_TRUNC('month', order_date) AS month,
    SUM(revenue) AS total_revenue
FROM sales
GROUP BY 1
ORDER BY 1;
```

### 7. Revenue by Category

```
SELECT
    p.category,
    SUM(s.revenue) AS total_revenue
FROM sales s
JOIN products p ON s.product_id = p.product_id
GROUP BY p.category
ORDER BY total_revenue DESC;
```

### **8. Top 10 Products by Revenue**

```
SELECT
    p.product_name,
    SUM(s.revenue) AS total_revenue
FROM sales s
JOIN products p ON s.product_id = p.product_id
GROUP BY p.product_name
ORDER BY total_revenue DESC
LIMIT 10;
```

### **9. Region-Wise Revenue**

```
SELECT
    region,
    SUM(revenue) AS total_revenue
FROM sales
GROUP BY region
ORDER BY total_revenue DESC;
```

### **10. Daily Revenue Trend**

```
SELECT
    order_date,
    SUM(revenue) AS daily_revenue
FROM sales
GROUP BY order_date
ORDER BY order_date;
```