

## SQL Practice Snippets for Portfolio - Real-World Analysis

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### 1. Total Revenue by Region and Category

```
SELECT
    c.region,
    p.category,
    SUM(o.quantity * o.unit_price) AS total_revenue
FROM orders o
INNER JOIN customers c ON c.customer_id = o.customer_id
INNER JOIN products p ON p.product_id = o.product_id
GROUP BY c.region, p.category
ORDER BY total_revenue DESC;
```

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### 2. Average Order Value by Region

```
SELECT
    c.region,
    AVG(o.quantity * o.unit_price) AS avg_order_value
FROM orders o
INNER JOIN customers c ON c.customer_id = o.customer_id
GROUP BY c.region
ORDER BY avg_order_value DESC;
```

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### 3. Top 3 Categories by Revenue in North Region

```
SELECT
    p.category,
    SUM(o.quantity * o.unit_price) AS total_revenue
FROM orders o
INNER JOIN customers c ON c.customer_id = o.customer_id
INNER JOIN products p ON p.product_id = o.product_id
WHERE c.region = 'North'
GROUP BY p.category
ORDER BY total_revenue DESC
LIMIT 3;
```

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#### 4. Total Revenue by Category and Region (with HAVING)

```
SELECT
    c.region,
    p.category,
    SUM(o.quantity * o.unit_price) AS total_revenue
FROM orders o
INNER JOIN customers c ON c.customer_id = o.customer_id
INNER JOIN products p ON p.product_id = o.product_id
GROUP BY c.region, p.category
HAVING total_revenue > 400;
```