SQL Queries for Sales and Business Analysis

1. List of Markets for "Atliq Exclusive" in the APAC Region

```sql
SELECT DISTINCT
    market
FROM
    dim_customer
WHERE
    customer = 'Atliq Exclusive'
        AND region = 'APAC';
```

2. Percentage Increase in Unique Products (2021 vs. 2020)

```sql
WITH a AS (
    SELECT COUNT(DISTINCT product_code) AS products_2020
    FROM fact_sales_monthly
    WHERE fiscal_year = 2020
),
b AS (
    SELECT COUNT(DISTINCT product_code) AS products_2021
    FROM fact_sales_monthly
    WHERE fiscal_year = 2021
)
SELECT
```

```
    a.products_2020,
    b.products_2021,
    ROUND((b.products_2021 - a.products_2020) * 100.0 / a.products_2020, 2) AS
percentage_chg
FROM a, b;
```

3. Unique Product Counts by Segment

```sql
SELECT
    segment, COUNT(DISTINCT product_code) AS product_count
FROM
    dim_product
GROUP BY segment
ORDER BY product_count DESC;
```

4. Segment with the Most Increase in Unique Products (2021 vs. 2020)

```sql
WITH cte1 AS (
    SELECT
        p.segment,
        COUNT(DISTINCT p.product_code) AS product_count_2020
    FROM dim_product p
    JOIN fact_sales_monthly f
        ON p.product_code = f.product_code
    WHERE fiscal_year = 2020
```

```
    GROUP BY p.segment
),
cte2 AS (
    SELECT
        p.segment,
        COUNT(DISTINCT p.product_code) AS product_count_2021
    FROM dim_product p
    JOIN fact_sales_monthly f
        ON p.product_code = f.product_code
    WHERE fiscal_year = 2021
    GROUP BY p.segment
)
SELECT
    cte1.segment,
    cte1.product_count_2020,
    cte2.product_count_2021,
    (cte2.product_count_2021 - cte1.product_count_2020) AS difference
FROM cte1, cte2
WHERE cte1.segment = cte2.segment
ORDER BY difference DESC;
```

5. Products with the Highest and Lowest Manufacturing Costs

```sql
WITH cte1 AS (
    SELECT
        d.product_code,
```

```
        d.product,
        ROUND(m.manufacturing_cost, 2) AS manufacturing_cost
    FROM dim_product d
    JOIN fact_manufacturing_cost m
        ON m.product_code = d.product_code
    WHERE m.manufacturing_cost = (
        SELECT MAX(manufacturing_cost) FROM fact_manufacturing_cost
    )
),
cte2 AS (
    SELECT
        d.product_code,
        d.product,
        ROUND(m.manufacturing_cost, 2) AS manufacturing_cost
    FROM dim_product d
    JOIN fact_manufacturing_cost m
        ON m.product_code = d.product_code
    WHERE m.manufacturing_cost = (
        SELECT MIN(manufacturing_cost) FROM fact_manufacturing_cost
    )
)
SELECT cte1.product_code,
       cte1.product,
       cte1.manufacturing_cost
FROM cte1
UNION
SELECT cte2.product_code,
```

```
    cte2.product,
    cte2.manufacturing_cost
FROM cte2;
```

6. Top 5 Customers with Highest Average Pre-Invoice Discounts (2021, Indian Market)

```sql
SELECT
  d.customer_code,
  d.customer,
        ROUND(AVG(f.pre_invoice_discount_pct) * 100, 2) AS average_discount_percentage
FROM dim_customer d
JOIN fact_pre_invoice_deductions f
  ON d.customer_code = f.customer_code
WHERE f.fiscal_year = 2021
 AND d.market = 'India'
GROUP BY d.customer_code, d.customer
ORDER BY average_discount_percentage DESC
LIMIT 5;
```

7. Gross Sales Amount for "Atliq Exclusive" by Month

```sql
WITH cte1 AS (
  SELECT
```

```
        MONTHNAME(s.date) AS Month,
        s.fiscal_year AS Fiscal_year,
        s.customer_code,
        s.sold_quantity,
        g.gross_price
    FROM fact_sales_monthly s
    JOIN fact_gross_price g
        ON s.product_code = g.product_code
        AND s.fiscal_year = g.fiscal_year
    JOIN dim_customer c
        ON c.customer_code = s.customer_code
    WHERE c.customer = 'Atliq Exclusive'
)
SELECT
    Month,
    Fiscal_year,
    ROUND(SUM(sold_quantity * gross_price)) AS Gross_Sales_Amount
FROM cte1
GROUP BY Month, Fiscal_year
ORDER BY Fiscal_year;
```

8. Quarter of 2020 with Maximum Sold Quantity

```sql
WITH cte1 AS (
    SELECT
        MONTH(date) AS month_no,
```

```
        SUM(sold_quantity) AS Total_Sold_Quantity
    FROM fact_sales_monthly
    WHERE fiscal_year = 2020
    GROUP BY MONTH(date)
    ORDER BY month_no
)
SELECT
    CASE
        WHEN month_no IN (9,10,11) THEN 'Q1'
        WHEN month_no IN (12,1,2) THEN 'Q2'
        WHEN month_no IN (3,4,5) THEN 'Q3'
        WHEN month_no IN (6,7,8) THEN 'Q4'
    END AS quarter,
    SUM(Total_Sold_Quantity) AS sold_qty
FROM cte1
GROUP BY quarter
ORDER BY sold_qty DESC;
```

9. Channel Contribution to Gross Sales (2021)

```sql
WITH cte1 AS (
    SELECT
        c.channel,
                ROUND(SUM(s.sold_quantity * g.gross_price) / 1000000, 2) AS
gross_sales_mln
    FROM fact_sales_monthly s
```

```
    JOIN fact_gross_price g
        ON s.product_code = g.product_code
        AND s.fiscal_year = g.fiscal_year
    JOIN dim_customer c
        ON c.customer_code = s.customer_code
    WHERE s.fiscal_year = 2021
    GROUP BY c.channel
)
SELECT
    channel,
    gross_sales_mln,
        ROUND(gross_sales_mln * 100 / SUM(gross_sales_mln) OVER(), 2) AS
percentage_contribution
FROM cte1
ORDER BY percentage_contribution DESC;
```

10. Top 3 Products by Division with Highest Sold Quantity (2021)

```sql
WITH cte1 AS (
    SELECT
        p.division,
        p.product_code,
        p.product,
        SUM(s.sold_quantity) AS total_sold_quantity
    FROM dim_product p
    JOIN fact_sales_monthly s
```

```
        ON p.product_code = s.product_code
    WHERE s.fiscal_year = 2021
    GROUP BY
        p.division,
        p.product,
        p.product_code
    ORDER BY total_sold_quantity DESC
),
cte2 AS (
    SELECT
        *,
                DENSE_RANK() OVER (PARTITION BY division ORDER BY
total_sold_quantity DESC) AS rank_order
    FROM cte1
)
SELECT *
FROM cte2
WHERE rank_order <= 3;
```