Task 2: Top Customers, Products, Markets

Module: Problem Statement and Pre-Invoice Discount Report

-- Include pre-invoice deductions in Croma detailed report

```
    SELECT
      s.date,
    s.product_code,
    p.product,
      p.variant,
    s.sold_quantity,
    g.gross_price as gross_price_per_item,
    ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total,
    pre.pre_invoice_discount_pct
    FROM fact_sales_monthly s
    JOIN dim_product p
   ON s.product_code=p.product_code
    JOIN fact_gross_price g
      ON g.fiscal_year=get_fiscal_year(s.date)
      AND g.product_code=s.product_code
    JOIN fact_pre_invoice_deductions as pre
   ON pre.customer_code = s.customer_code AND
   pre.fiscal_year=get_fiscal_year(s.date)
    WHERE
      s.customer_code=90002002 AND
      get_fiscal_year(s.date)=2021
    LIMIT 1000000;
```

-- Same report but all the customers

```
    SELECT
      s.date,
    s.product_code,
    p.product,
      p.variant,
    s.sold_quantity,
    g.gross_price as gross_price_per_item,
    ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total,
    pre.pre_invoice_discount_pct
    FROM fact_sales_monthly s
    JOIN dim_product p
   ON s.product_code=p.product_code
    JOIN fact_gross_price g
      ON g.fiscal_year=get_fiscal_year(s.date)
      AND g.product_code=s.product_code
    JOIN fact_pre_invoice_deductions as pre
   ON pre.customer_code = s.customer_code AND
   pre.fiscal_year=get_fiscal_year(s.date)
    WHERE
      get_fiscal_year(s.date)=2021
    LIMIT 1000000;
```

Module: Performance Improvement # 1

-- creating dim_date and joining with this table and avoid using the function 'get_fiscal_year()' to reduce the amount of time taking to run the query

```
  SELECT
     s.date,
    s.customer_code,
    s.product_code,
    p.product, p.variant,
    s.sold_quantity,
    g.gross_price as gross_price_per_item,
    ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total,
    pre.pre_invoice_discount_pct
  FROM fact_sales_monthly s
  JOIN dim_date dt
  ON dt.calendar_date = s.date
  JOIN dim_product p
  ON s.product_code=p.product_code
  JOIN fact_gross_price g
        ON g.fiscal_year=dt.fiscal_year
        AND g.product_code=s.product_code
  JOIN fact_pre_invoice_deductions as pre
  ON pre.customer_code = s.customer_code AND
        pre.fiscal_year=dt.fiscal_year
  WHERE
        dt.fiscal_year=2021
  LIMIT 1500000;
```

Module: Performance Improvement # 2

-- Added the fiscal year in the fact_sales_monthly table itself

```
    SELECT
        s.date,
    s.customer_code,
    s.product_code,
    p.product, p.variant,
    s.sold_quantity,
    g.gross_price as gross_price_per_item,
    ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total,
    pre.pre_invoice_discount_pct
     FROM fact_sales_monthly s
     JOIN dim_product p
     ON s.product_code=p.product_code
     JOIN fact_gross_price g
            ON g.fiscal_year=s.fiscal_year
            AND g.product_code=s.product_code
     JOIN fact_pre_invoice_deductions as pre
     ON pre.customer_code = s.customer_code AND
            pre.fiscal_year=s.fiscal_year
     WHERE
            s.fiscal_year=2021
     LIMIT 1500000;
```

Module: Database Views: Introduction

```
-- Get the net_invoice_sales amount using the CTE's

        WITH cte1 AS (
                SELECT
                  s.date,
                  s.customer_code,
                  s.product_code,
            p.product, p.variant,
            s.sold_quantity,
            g.gross_price as gross_price_per_item,
            ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total,
            pre.pre_invoice_discount_pct
                FROM fact_sales_monthly s
                JOIN dim_product p
                ON s.product_code=p.product_code
                JOIN fact_gross_price g
                        ON g.fiscal_year=s.fiscal_year
                        AND g.product_code=s.product_code
                JOIN fact_pre_invoice_deductions as pre
                ON pre.customer_code = s.customer_code AND
                        pre.fiscal_year=s.fiscal_year
                WHERE
                        s.fiscal_year=2021)
```

```
SELECT    *, (gross_price_total-pre_invoice_discount_pct*gross_price_total) as net_invoice_sales
          FROM cte1
          LIMIT 1500000;
```

-- Creating the view `sales_preinv_discount` and store all the data in like a virtual table

```
          CREATE  VIEW `sales_preinv_discount` AS
          SELECT
             s.date,
         s.fiscal_year,
         s.customer_code,
         c.market,
         s.product_code,
         p.product,
         p.variant,
         s.sold_quantity,
         g.gross_price as gross_price_per_item,
         ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total,
         pre.pre_invoice_discount_pct
          FROM fact_sales_monthly s
          JOIN dim_customer c
                    ON s.customer_code = c.customer_code
          JOIN dim_product p
          ON s.product_code=p.product_code
          JOIN fact_gross_price g
                    ON g.fiscal_year=s.fiscal_year
```

```
        AND g.product_code=s.product_code
    JOIN fact_pre_invoice_deductions as pre
    ON pre.customer_code = s.customer_code AND
        pre.fiscal_year=s.fiscal_year
```

-- Now generate net_invoice_sales using the above created view "sales_preinv_discount"

```
    SELECT
   *,
      (gross_price_total-pre_invoice_discount_pct*gross_price_total) as net_invoice_sales
    FROM gdb0041.sales_preinv_discount
```