SQL Query Task

Task :-

Description

As a Product owner, I want to generate a report of individual product sales (aggregated on a monthly basis at the product level) for Chroma India Customer for **FY = 2021** so that I can track individual product sales and run further product analysis on it in excel.

The report should be in following fields :-

1. Months
2. Product Name and Variant
3. Sold Quantity
4. Gross Price Per Item
5. Gross Price Total
6. Variants

1.) Create a User Defined function that Generates FY from **1-Sep to 31 Aug.**

FY of Atliq is Sep to Aug

```
CREATE FUNCTION `get_fiscal_year` ( calendar_date date )
RETURNS INTEGER

DETERMINISTIC

BEGIN

        DECLARE fiscal_year int;

        SET fiscal_year = YEAR(DATE_ADD(calendar_date, INTERVAL 4 MONTH));

RETURN fiscal_year;

END
```

2.) Retrieve the Monthly Sales of Chroma Store in FY=2021?

```
SELECT
        *
FROM gdb0041.fact_sales_monthly
        where customer_code = 90002002 and
        get_fiscal_year(date) = 2021
    order by date desc;
```

3.) Develop a function to determine the fiscal quarter for any given month, based on the fiscal year

FY of Atliq is Sep to Aug

```
CREATE FUNCTION `get_fiscal_quarter` ( calendar_date date )
RETURNS CHAR(2)
DETERMINISTIC
BEGIN
    DECLARE qtr CHAR(2);

    Case
        when MONTH(calendar_date) in (9,10,11) then Set qtr = "Q1";
        WHEN MONTH(calendar_date) in (12,1,2) then set qtr =  "Q2";
         WHEN MONTH(calendar_date) in (3,4,5) then  set  qtr = "Q3";
        Else set qtr = "Q4";
   end case;

RETURN qtr ;
END
```

4.) Generate the Total Gross Price of Chroma store in **FY = 2021?**

```
SELECT
        s.date, s.product_code,
    p.product, p.variant, s.sold_quantity,
    g.gross_price,
    round((s.sold_quantity*g.gross_price),2) as gross_price_total

FROM gdb0041.fact_sales_monthly s
JOIN dim_product p
        on s.product_code = p.product_code
JOIN fact_gross_price g
        on g.product_code = s.product_code and
   get_fiscal_year(s.date)=g.fiscal_year
WHERE
        s.customer_code = 90002002 and
   get_fiscal_year(s.date) = 2021
order by s.date
limit 1000000 ;
```

5.) Generate Monthly total gross price of Chroma Store ?

```
SELECT
        s.date,
    sum(g.gross_price*s.sold_quantity) as gross_price_total
```

```
FROM gdb0041.fact_sales_monthly s
JOIN fact_gross_price g
on
        s.product_code = g.product_code and
        get_fiscal_year(s.date) = g.fiscal_year
WHERE
        s.customer_code = 90002002
GROUP BY s.date
order by s.date
```

1) Generate a yearly report for Croma India where there are two columns

a. Fiscal Year

b. Total Gross Sales amount In that year from Croma

```
SELECT
            get_fiscal_year(s.date) as FY,
    sum(g.gross_price*s.sold_quantity) as gross_price_total
FROM gdb0041.fact_sales_monthly s
JOIN fact_gross_price g
on
        s.product_code = g.product_code and
        get_fiscal_year(s.date) = g.fiscal_year
WHERE
        s.customer_code = 90002002
GROUP BY get_fiscal_year(s.date)
```

6.) Create a Store Procedure to retrieve monthly gross sales for a costumer.

```
CREATE PROCEDURE `get_monthly_gross_sales_for_customer` ( customer_code int )
BEGIN
	SELECT
			s.date,
			sum(g.gross_price*s.sold_quantity) as gross_price_total
	FROM gdb0041.fact_sales_monthly s
	JOIN fact_gross_price g
	on
		s.product_code = g.product_code and
		get_fiscal_year(s.date) = g.fiscal_year
	WHERE
		s.customer_code = customer_code
	GROUP BY s.date
	order by s.date;
END
```

7.) Create a Stored Procedure that retrieve the FY Total Gross sale for a customer.

```
SELECT
		get_fiscal_year(s.date) as FY,
	sum(g.gross_price*s.sold_quantity) as gross_price_total
FROM gdb0041.fact_sales_monthly s
JOIN fact_gross_price g
on
	s.product_code = g.product_code and
```

```
    get_fiscal_year(s.date) = g.fiscal_year
WHERE
        s.customer_code = 90002002
GROUP BY get_fiscal_year(s.date)
```

8.) Create a Stored Procedure that can determine the market badge based on the following logic,

If **Total sold quantity > 5 million** than it's a **Gold** market else its **Silver**

My input will be :-

- Market
- Fiscal year

```
CREATE PROCEDURE `get_market_badge` (
        in in_market text,
    in in_fiscal_year year,
    out out_badge varchar(7)
)
BEGIN
            declare qty int ;

            # retrieve total quantity of given market and fy
            SELECT
                    sum(s.sold_quantity) into qty
            FROM gdb0041.fact_sales_monthly s
            join dim_customer c
            on
                s.customer_code = c.customer_code
            where
                get_fiscal_year(s.date)=in_fiscal_year and
```

```
                    c.market = in_market
                group by c.market;

    # determine market badge
    if qty > 5000000 then
      set out_badge = "Gold";
    else
      set out_badge = "Silver";
    end if;
END
```