**Generate a Report of individual product sales from Croma India customer for FY - 2021 so that individual product sales can be tracked and the report can be further used to do product analytics in excel.**

**The report should include**

1. **month**
2. **Product name**
3. **variant**
4. **sold quantity**
5. **gross price per item**
6. **gross price total**

**Step-by-Step Query Construction to Generate the Report**

Get customer\_code of croma

select \* from dim\_customer where customer like "%croma%" and market="india";

from the output, customer\_code of croma is 90002002

Search for transactions with the customer\_code 90002002 from fact\_sales\_monthly

select \* from fact\_sales\_monthly where customer\_code=90002002;

The report must contain data of FY-2021, but in the tables we have the calender dates. so we need to change the calender dates to fiscal year

select \* from fact\_sales\_monthly where

customer\_code=90002002 and

YEAR(DATE\_ADD(date,INTERVAL 4 MONTH)) = 2021

Alternatively I created a funtion to get fiscal year

CREATE FUNCTION 'get\_fiscal\_year' (calender\_date DATE) returns INTEGER

DETERMINISTIC

BEGIN

DECLARE fiscal\_year INT

SET fiscal\_year = YEAR(DATE\_ADD(calender\_date,INTERVAL 4 MONTH));

RETURN fiscal\_year;

END

So I rewrite the above query using function:

select \* from fact\_sales\_monthly

where customer\_code = 90002002 and

get\_fiscal\_year(date) = 2021

Now the output of the report contains product\_code, sold\_quantity of the customer\_Code = 90002002 and fiscal\_year = 2021

For the variant and product name in the report, they are present in the product table, So, the fact\_sales\_monthly table needs to be joined with dim\_product table with the column product\_code

select \* from fact\_sales\_monthly s join dim\_product p

on p.product\_code=s.product\_code

where customer\_code = 90002002 and

get\_fiscal\_year(date) = 2021

Now the ouput of the report contains product\_code, product name, variant, sold\_quantity of the customer\_Code = 90002002 and fiscal\_year = 2021

For gross price per item and gross price total in the report, they are present in the fact\_gross\_price table, So, the fact\_sales\_monthly table needs to be joined with dim\_product table with the column product\_code

select s.date,s.product\_code, p.product,p.variant,s.sold\_quantity,g.gross\_price,

g.gross\_price\*s.sold\_quantity as gross\_price\_total

from fact\_sales\_monthly s join dim\_product p

on p.product\_code=s.product\_code

join fact\_gross\_price g

on g.product\_code=s.product\_code and

g.fiscal\_year=get\_fiscal\_year(s.date)

where customer\_code = 90002002 and

get\_fiscal\_year(date) = 2021

We got the desired data of the report (3006 rows) through the above query Exported report as 'croma\_2021\_transacs' as csv file