1 -----

```
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(s.date)=2021
LIMIT 1000000;
```

2 -----

```
SELECT s.date, SUM(s.sold_quantity * g.gross_price) AS gross_price_total
FROM fact_sales_monthly s  JOIN fact_gross_price g
ON
  s.product_code = g.product_code AND g.fiscal_year = get_fiscal_year(s.date)
WHERE customer_code = 90002002
GROUP BY s.date
LIMIT 100000;
```

3 -----

```
SELECT SUM(sold_quantity) AS total_sold_quantity
FROM fact_sales_monthly s JOIN dim_customer c
ON s.customer_code = c.customer_code
WHERE get_fiscal_year(s.date) = 2021 AND market = "India"
```

```
GROUP BY market;



4 -----

-- STEP-1: Get the net_invoice_sales amount using the CTE's


SELECT     s.date,
           s.fiscal_year,
           s.product_code,
           c.market,
           p.product,
           p.variant,
           s.sold_quantity,
           g.gross_price AS gross_price_per_item,
       ROUND(g.gross_price*s.sold_quantity, 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 dim_customer c
ON
 s.customer_code = c.customer_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 pre
ON
  pre.customer_code = s.customer_code AND pre.fiscal_year = s.fiscal_year
WHERE s.fiscal_year = 2021;
```

```
-- STEP-2: Creating the view `sales_preinv_discount`

SELECT     s.date,
           s.fiscal_year,
           s.product_code,
           s.customer_code,
           c.market,
           p.product,
           p.variant,
           s.sold_quantity,
           g.gross_price AS gross_price_per_item,
       ROUND(g.gross_price*s.sold_quantity, 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 dim_customer c
ON
 s.customer_code = c.customer_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 pre
ON
  pre.customer_code = s.customer_code AND pre.fiscal_year = s.fiscal_year;



-- STEP-3: Now generate 'net_invoice_sales' and 'post_invoice_discount_pct' using the above created
view "sales_preinv_discount"

SELECT
```

```
		s.date, s.fiscal_year,
		s.customer_code, s.market,
		s.product_code, s.product, s.variant, s.sold_quantity,
	s.gross_price_total, s.pre_invoice_discount_pct,
		(s.gross_price_total-s.pre_invoice_discount_pct*s.gross_price_total) as
net_invoice_sales,
		(po.discounts_pct+po.other_deductions_pct) as post_invoice_discount_pct
FROM sales_preinv_discount s
JOIN fact_post_invoice_deductions po
ON po.customer_code = s.customer_code AND
po.product_code = s.product_code AND
po.date = s.date;

SELECT * FROM sales_postinv_discount;

-- STEP-4: Create a report for net sales
SELECT
	*,
	net_invoice_sales*(1-post_invoice_discount_pct) as net_sales
	FROM sales_postinv_discount;


-- STEP-5: Finally creating the view `net_sales` which inbuiltly use/include all the previous created
view and gives the final result
SELECT * FROM net_sales;


-- STEP-6: Get top 5 market by net sales in fiscal year 2021
	SELECT
	   market,
	round(sum(net_sales)/1000000,2) as net_sales_mln
	FROM net_sales
```

```
        where fiscal_year=2021
        group by market
        order by net_sales_mln desc
        limit 5;
```

5 -----

```
WITH cte2 AS (
WITH cte1 AS (
SELECT
        p.division,
   p.product,
   SUM(sold_quantity) AS total_sold_quantity
FROM net_sales s
JOIN dim_product p
ON
 s.product_code=p.product_code
WHERE fiscal_year = 2021
GROUP BY p.division, p.product
)
SELECT *,
dense_rank() OVER(Partition by division Order by total_sold_quantity desc) AS drnk
FROM cte1
Order by division
)
SELECT * FROM cte2
WHERE drnk < 4;
```

6 -----

```
with forecast_err_table as (
        select
            s.customer_code as customer_code,
            c.customer as customer_name,
            c.market as market,
            sum(s.sold_quantity) as total_sold_qty,
            sum(s.forecast_quantity) as total_forecast_qty,
            sum(s.forecast_quantity-s.sold_quantity) as net_error,
            round(sum(s.forecast_quantity-s.sold_quantity)*100/sum(s.forecast_quantity),1) as
net_error_pct,
            sum(abs(s.forecast_quantity-s.sold_quantity)) as abs_error,
            round(sum(abs(s.forecast_quantity-sold_quantity))*100/sum(s.forecast_quantity),2) as
abs_error_pct
        from fact_act_est s
        join dim_customer c
        on s.customer_code = c.customer_code
        where s.fiscal_year=2021
        group by customer_code
         )
         select
        *,
        if (abs_error_pct > 100, 0, 100.0 - abs_error_pct) as forecast_accuracy
          from forecast_err_table
      order by forecast_accuracy desc;
```