ATLIQ STORE

SUPERMARKET

Problem Statement

AtliQ Mart is a retail giant with over 50 supermarkets in the southern region of India. All their 50 stores ran a massive promotion during the Diwali 2023 and Sankranti 2024 (festive time in India) on their AtliQ branded products. Now the sales director wants to understand which promotions did well and which did not so that they can make informed decisions for their next promotional period.

Business Request

Query-1) Provide a list of products with a base price greater than 500 and that are featured in promo type of 'BOGOF' (Buy One Get One Free). This information will help us identify high-value products that are currently being heavily discounted, which can be useful for evaluating our pricing and promotion strategies.

```sql
3 •  select distinct(fe.product_code),product_name,base_price from
4    fact_events fe
5    join dim_products dp
6    on fe.product_code=dp.product_code
7    where base_price>500 and promo_type='BOGOF';
```

product_code	product_name	base_price
P08	Atliq_Double_Bedsheet_set	1190
P14	Atliq_waterproof_Immersion_Rod	1020

Business Request

Query-2)
Generate a report that provides an overview of the number of stores in each city. The results will be sorted in descending order of store counts, allowing us to identify the cities with the highest store presence. The report includes two essential fields: city and store count, which will assist in optimizing our retail operations.

```sql
1 • select city,count(store_id) as store_count
2   from dim_stores
3   group by city
4   order by store_count desc
```

city	store_count
Bengaluru	10
Chennai	8
Hyderabad	7
Coimbatore	5
Visakhapatnam	5
Madurai	4
Mysuru	4
Mangalore	3
Trivandrum	2
Vijayawada	2

Business Request

Query-3)

Generate a report that displays each campaign along with the total revenue generated before and after the campaign. The report includes three key fields: campaign_name,
total_revenue(before_promotion),
total_revenue(after_promotion).
This report should help in evaluating the financial impact of our promotional campaigns. (Display the values in millions) -------**Solution:Method-1**

```sql
1 • with cte as (select campaign_name,base_price,quantity_sold_before_promo,
2   case
3   when promo_type='50%' then base_price*0.5
4   when promo_type='25%' then base_price*0.75
5   when promo_type='500 Cashback' then base_price-500
6   when promo_type='BOGOF' then base_price
7   else base_price*0.67
8   end  as base_price_aft_promo,quantity_sold_after_promo
9    from
10  fact_events fe
11  join dim_campaigns d
12  on fe.campaign_id=d.campaign_id)
13  select campaign_name,
14  round(sum(base_price*quantity_sold_before_promo)/1000000,2)
15  as revenue_in_mln_before_promo ,
16  round(sum(base_price_aft_promo*quantity_sold_after_promo)/1000000,2)
17  as revenue_in_mln_after_promo
18  from cte
19  group by campaign_name
20
```

campaign_name	revenue_in_mln_before_promo	revenue_in_mln_after_promo
Sankranti	58.13	124.21
Diwali	82.57	171.25

Business Request

Query-3)

Generate a report that displays each campaign along with the total revenue generated before and after the campaign. The report includes three key fields: campaign_name, total_revenue(before_promotion), total_revenue(after_promotion).
This report should help in evaluating the financial impact of our promotional campaigns. (Display the values in millions) -------**Solution:Method-2**

```
1 •  select campaign_name,round(sum(base_price*quantity_sold_before_promo)/1000000,2)
2    as revenue_in_mln_before_promo,
3    round(sum((case
4    when promo_type='50%' then base_price*0.5
5    when promo_type='25%' then base_price*0.75
6    when promo_type='500 Cashback' then base_price-500
7    when promo_type='BOGOF' then base_price
8    else base_price*0.67
9    end ) *(quantity_sold_after_promo))/1000000,2) as revenue_in_mln_after_promo
10    from fact_events fe
11   join dim_campaigns d
12   on fe.campaign_id=d.campaign_id
13   group by campaign_name
```

campaign_name	revenue_in_mln_before_promo	revenue_in_mln_after_
Sankranti	58.13	124.21
Diwali	82.57	171.25

Created views **'final_fact_events'** by using the query below:

```sql
select * ,
case
when promo_type='50% OFF'then base_price*0.5
when promo_type='25% OFF' then base_price*0.75
when promo_type='500 Cashback' then base_price-500
when promo_type='BOGOF'then base_price*0.5
else
base_price*0.67
end as Base_price_after_promo,
case
when promo_type='BOGOF' then quantity_sold_after_promo*2
else
quantity_sold_after_promo
end as final_qty_sold_after_promo
from fact_events
```

ATLIQ STORE
SUPERMARKET

Business Request

Query-4)

Produce a report that calculates the Incremental Sold Quantity (ISU%) for each category during the Diwali campaign. Additionally, provide rankings for the categories based on their ISU%. The report will include three key fields: category, ISU%, and rank order. This information will assist in assessing the category-wise success and impact of the Diwali campaign on incremental sales.
 Note: ISU% (Incremental Sold Quantity Percentage) is calculated as the percentage increase/decrease in quantity sold (after promo) compared to quantity sold (before promo).

```sql
 1 • with cte1 as (select category,sum(quantity_sold_before_promo) as x,
 2                          sum(final_qty_sold_after_promo) as y
 3   from final_fact_events f
 4   join dim_products d
 5   on f.product_code=d.product_code
 6   join dim_campaigns dc
 7   on dc.campaign_id=f.campaign_id
 8   where campaign_name='Diwali'
 9   group by category),
10   cte2 as(select category,round((y-x)*100/x,2) as Incremental_sold_qty_pct
11   from cte1)
12   select *,rank() over(order by incremental_sold_qty_pct desc) as Ranking_by_ISU_pct
13   from cte2
```

category	Incremental_sold_qty_pct	Ranking_by_ISU_pct
Home Appliances	588.45	1
Home Care	203.14	2
Combo1	202.36	3
Personal Care	31.06	4
Grocery & Stapl...	18.05	5

Business Request

Query-5)

Create a report featuring the Top 5 products, ranked by Incremental Revenue Percentage (IR%), across all campaigns. The report will provide essential information including product name, category, and IR%. This analysis helps identify the most successful products in terms of incremental revenue across our campaigns, assisting in product optimization.

```sql
with cte1 as(select product_name,category,sum(quantity_sold_before_promo*base_price) as x,
sum(final_qty_sold_after_promo*Base_price_after_promo) as y
from final_fact_events ff
join dim_products dp
on ff.product_code=dp.product_code
join dim_campaigns d
on ff.campaign_id=d.campaign_id
group by product_name,category),
cte2 as(select product_name,category,y-x as increase_in_rev, round((y-x)*100/x,2) as IR_pct
from cte1),
cte3 as(select *,rank() over(order by IR_pct desc) as rnk
from cte2)
select product_name,category,increase_in_rev,IR_pct
from cte3
where rnk<=5
```

product_name	category	increase_in_rev	IR_pct
Atliq_waterproof_Immersion_Rod	Home Appliances	17561340.00	266.19
Atliq_High_Glo_15W_LED_Bulb	Home Appliances	7589050.00	262.98
Atliq_Double_Bedsheet_set	Home Care	12917450.00	258.27
Atliq_Curtains	Home Care	3517500.00	255.34
Atliq_Farm_Chakki_Atta (1KG)	Grocery & Staples	17363475.00	160.01

Business Request

Query-5)

Create a report featuring the Top 5 products, ranked by Incremental Revenue Percentage (IR%), across all campaigns. The report will provide essential information including product name, category, and IR%. This analysis helps identify the most successful products in terms of incremental revenue across our campaigns, assisting in product optimization.

```sql
 1 • with cte1 as(select product_name,category,sum(quantity_sold_before_promo*base_price) as x,
 2    sum(final_qty_sold_after_promo*Base_price_after_promo) as y
 3    from final_fact_events ff
 4    join dim_products dp
 5    on ff.product_code=dp.product_code
 6    join dim_campaigns d
 7    on ff.campaign_id=d.campaign_id
 8    group by product_name,category),
 9    cte2 as(select product_name,category,y-x as increase_in_rev, round((y-x)*100/x,2) as IR_pct
10    from cte1),
11    cte3 as(select *,rank() over(order by IR_pct desc) as rnk
12    from cte2)
13    select product_name,category,increase_in_rev,IR_pct
14    from cte3
15    where rnk<=5
16
```

product_name	category	increase_in_rev	IR_pct
Atliq_waterproof_Immersion_Rod	Home Appliances	17561340.00	266.19
Atliq_High_Glo_15W_LED_Bulb	Home Appliances	7589050.00	262.98
Atliq_Double_Bedsheet_set	Home Care	12917450.00	258.27
Atliq_Curtains	Home Care	3517500.00	255.34
Atliq_Farm_Chakki_Atta (1KG)	Grocery & Staples	17363475.00	160.01