

ANALYZING PROMOTION EFFECTIVENESS AT ATLIQ MART

Ad – Hoc Analysis in MySQL

Recently, Codebasics announced their 9th Data Analysis Challenge . This time I took part in the challenge first time. We have given the Dataset of promotional events of a fictional Supermarket Giant called as “AtliQ Mart”. We’ve given some queries to do on the dataset and they are :

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.
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.
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)
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 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.
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.

You can download queries written by me from here :



REQUEST 1

Follow : List of products with a base price greater than 500 and that are featured in promo type of 'BOGOF' (Buy One Get One Free).

```
1  /*Provide a list of products with a base price greater than 500 and that are featured in promo type
2    of 'BOGOF' (Buy One Get One Free). This information will help us identify high-value products that are
3    currently being heavily discounted, which can be useful for evaluating our pricing and promotion strategies.*/
4
5
6  •  select distinct product_name as "Product Name"
7     from fact_events f
8     join dim_products p using (product_code)
9     where base_price>500 and promo_type="BOGOF";
```

Product Name
Atliq_Double_Bedsheet_set
Atliq_waterproof_Immersion_Rod

REQUEST 2

Follow : 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

```
1  /*Generate a report that provides an overview of the number of stores in each city The results will be sorted
2  in descending order of store counts, allowing us to identify the cities with the highest store presence.
3  The report includes two essential fields: city and store count, which will assist in optimizing our retail
4  operations.*/
5
6  •  select city,count(*) as "Store Count" from dim_stores group by city order by 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

REQUEST 3

Follow : 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).

```
1  /*Generate a report that displays each campaign along with the total revenue generated before and after
2  the campaign? The report includes three key fields: campaign_name, total_revenue(before_promotion),
3  total_revenue(after_promotion). This report should help in evaluating the financial impact of our promotional
4  campaigns. (Display the values in millions)*/
5
6  • ALTER TABLE fact_events
7    RENAME COLUMN `quantity_sold(before_promo)` TO quantity_sold_before_promo,
8    RENAME COLUMN `quantity_sold(after_promo)` TO quantity_sold_after_promo;
9
10
11 • select campaign_name as "Campaign",
12    concat(round(
13        sum(base_price*f.quantity_sold_before_promo)/1000000,
14        2)," M" ) as Total_Revenue_BP,
15    concat(
16        round(
17            sum(
18                if(promo_type='50% OFF',base_price*0.5*f.quantity_sold_after_promo,0)+
19                if(promo_type='25% OFF',base_price*0.75*f.quantity_sold_after_promo,0)+
20                if(promo_type='BOGOF',base_price*0.5*f.quantity_sold_after_promo,0)+
21                if(promo_type='500 Cashback',(base_price-500)*f.quantity_sold_after_promo,0)+
22                if(promo_type='33% OFF',base_price*0.67*f.quantity_sold_after_promo,0)
23            )/1000000,
24            2),
25            " M") as Total_Revenue_AP
26    from dim_campaigns c
27    join fact_events f using (campaign_id)
28    group by campaign_name;
```

Campaign	Total_Revenue_BP	Total_Revenue_AP
Sankranti	58.13 M	87.70 M
Diwali	82.57 M	160.29 M

REQUEST 4

Follow : 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 include three key fields: category, ISU%, and rank order.

```
1  /*Produce a report that calculates the Incremental Sold Quantity (ISU%) for each category during the Diwali campaign.
2  Additionally, provide rankings for the categories based on their ISU%. The report include three key fields: category,
3  isu%, and rank order. This information will assist in assessing the category-wise success and impact of the Diwali campaign
4  on incremental sales.*/
5
6  • with
7  total_qs_bp(category,qs) as (
8      select category,sum(quantity_sold_before_promo)
9      from fact_events
10     join dim_products p using(product_code)
11     join dim_campaigns c using(campaign_id)
12     where campaign_name='Diwali'
13     group by category
14 ),
15 total_qs_ap(category,qs) as(
16     select category,sum(quantity_sold_after_promo)
17     from fact_events
18     join dim_products p using(product_code)
19     join dim_campaigns c using(campaign_id)
20     where campaign_name='Diwali'
21     group by category
22 )
23 select pd.category,
24     round(
25         ((select qs from total_qs_ap where category=pd.category)-(select qs from total_qs_bp where category=pd.category))
26         /(select qs from total_qs_bp where category=pd.category)*100,
27         2) as ISU_PCT,
28     rank() over(order by round(
29         ((select qs from total_qs_ap where category=pd.category)-
30         (select qs from total_qs_bp where category=pd.category))/(select qs from total_qs_bp where category=pd.category)*100,
31         2) desc) as ranking
32 from fact_events f
33 join dim_campaigns camp using(campaign_id)
34 join dim_products pd using(product_code)
35 group by pd.category;
```

category	ISU_PCT	ranking
Home Appliances	244.23	1
Combo1	202.36	2
Home Care	79.63	3
Personal Care	31.06	4
Grocery & Staples	18.05	5

REQUEST 5

Follow : 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%.

```
1  /*Create a report featuring the Top 5 products, ranked by Incremental Revenue Percentage (IR%), across all
2   campaigns. The report will provide essential information including product name, category, and ir%.
3   This analysis helps identify the most successful products in terms of incremental revenue across our campaigns,
4   assisting in product optimization.*/
5
6  •  select product_code as "Product Code",
7     product_name as "Product Name",
8     category,
9     round(
10      (
11       sum(
12        if(promo_type='50% OFF',base_price*0.5*f.quantity_sold_after_promo,0)+
13        if(promo_type='25% OFF',base_price*0.75*f.quantity_sold_after_promo,0)+
14        if(promo_type='BOGOF',base_price*0.5*f.quantity_sold_after_promo,0)+
15        if(promo_type='500 Cashback',(base_price-500)*f.quantity_sold_after_promo,0)+
16        if(promo_type='33% OFF',base_price*0.67*f.quantity_sold_after_promo,0)
17       )
18       - sum(base_price*f.quantity_sold_before_promo)
19       )/sum(base_price*f.quantity_sold_before_promo)*100
20     ,2) as IR_pct
21  from fact_events f
22  join dim_products p using(product_code)
23  group by product_code
24  order by ir_pct desc limit 5;
```

Product Code	Product Name	category	IR_pct
P15	Atliq_Home_Essential_8_Product_Combo	Combo1	136.11
P14	Atliq_waterproof_Immersion_Rod	Home Appliances	83.09
P13	Atliq_High_Glo_15W_LED_Bulb	Home Appliances	81.49
P08	Atliq_Double_Bedsheet_set	Home Care	79.13
P07	Atliq_Curtains	Home Care	77.67

