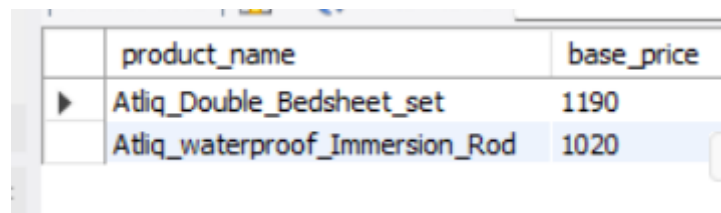1.Provide a list of products with a base price greater than 500 and that are featured in promo type of 'BOGOF' (Buy One Get One Free).

SELECT DISTINCT(p.product_name),base_price

FROM fact_events f

JOIN dim_products p

USING (product_code)

WHERE promo_type='BOGOF' AND base_price > 500;

**OUTPUT:**

| product_name | base_price |
|---|---|
| Atliq_Double_Bedsheet_set | 1190 |
| Atliq_waterproof_Immersion_Rod | 1020 |

2.Generate a report that provides an overview of the number of stores in each city.

SELECT city,count(store_id)  as No_of_stores

FROM dim_stores

GROUP BY city

ORDER BY No_of_stores desc;

**OUTPUT:**

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

3.Generate a report that displays each campaign along with the total revenue generated before and after the campaign

SELECT campaign_name,sum(revenue_BP),sum(revenue_AP)

FROM dim_campaigns c

JOIN fact_events f

USING (campaign_id)

group by campaign_name;

**OUTPUT:**

| campaign_name | sum(revenue_BP) | sum(revenue_AP) |
|---------------|-----------------|-----------------|
| Sankranti | 58127429 | 140403941 |
| Diwali | 82573759 | 207456209 |

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%

WITH ISU as (

SELECT P.category,

(sum(`quantity_sold(after_promo)`)-
sum(`quantity_sold(before_promo)`))/sum(`quantity_sold(before_promo)`)*100

as ISU_per

FROM dim_products p

JOIN fact_events f

USING (product_code)

JOIN dim_campaigns c

USING (campaign_id)

WHERE c.campaign_name='Diwali'

GROUP BY category)

SELECT category,ISU_per,

 rank () over (order by ISU_per desc ) as rank_ISU

from ISU ;

**OUTPUT:**

| category | ISU_per | rank_ISU |
|---|---|---|
| Home Appliances | 244.2256 | 1 |
| Combo 1 | 202.3584 | 2 |
| Home Care | 79.6338 | 3 |
| Personal Care | 31.0574 | 4 |
| Grocery & Staples | 18.0478 | 5 |

 5.Create a report featuring top 5 products, ranked by incremental revenue percentage (IR%), across all campaigns the report will provide essential information including product name, category, and IR%.

SELECT p.category,p.product_name,

ROUND(sum(incremental_revenue)/sum(revenue_BP)*100,2) as IR_per

FROM dim_products p

JOIN fact_events f

USING (product_code)

GROUP BY p.category,p.product_name

LIMIT 5;

**OUTPUT:**

| category | product_name | IR_per |
|---|---|---|
| Personal Care | Atliq_Doodh_Kesar_Body_Lotion (200ML) | 33.57 |
| Grocery & Staples | Atliq_Suflower_Oil (1L) | 155.57 |
| Home Care | Atliq_Curtains | 255.34 |
| Combo1 | Atliq_Home_Essential_8_Product_Combo | 183.33 |
| Home Care | Atliq_Scrub_Sponge_For_Dishwash | -13.48 |

6.which are the Top 10 stores in terms of incremental revenue (IR)generated from the promotions?

SELECT store_id,

CONCAT(ROUND(sum(revenue_AP-revenue_BP)/1000000,2),"M")as IR

from fact_events

group by store_id

order by IR desc

limit 10;

**OUTPUT:**

| store_id | IR |
|----------|--------|
| STMYS-1 | 6.45M |
| STCHE-4 | 6.32M |
| STBLR-0 | 6.16M |
| STBLR-7 | 6.12M |
| STBLR-6 | 6.01M |
| STCHE-7 | 6.00M |
| STMYS-3 | 5.72M |
| STCHE-3 | 5.71M |
| STCHE-6 | 5.32M |
| STBLR-3 | 5.21M |

7. which are the Bottom 10 stores in terms of incremental Sold Units (ISU) generated from the promotions?

SELECT store_id,sum(`quantity_sold(after_promo)`-`quantity_sold(before_promo)`) as ISU

from fact_events

group by store_id

order by ISU

limit 10;

**OUTPUT:**

| store_id | ISU |
|----------|------|
| STMLR-0 | 1952 |
| STVSK-3 | 2209 |
| STVSK-4 | 2469 |
| STTRV-1 | 2604 |
| STMLR-2 | 2664 |
| STTRV-0 | 2733 |
| STVJD-1 | 2763 |
| STMLR-1 | 2784 |
| STCBE-4 | 2927 |
| STVJD-0 | 3046 |

8.What are the Top 2 promotion types that resulted in the highest incremental Revenue?

SELECT promo_type,

CONCAT(ROUND(sum(revenue_AP-revenue_BP)/1000000,2),"M")as IR

from fact_events

group by promo_type

order by IR  desc

limit 2;

**OUTPUT:**

| promo_type | IR |
|------------|--------|
| BOGOF | 69.32M |
| 33% OFF | 15.66M |

9.What are the Bottom 2 promotion types in terms of their impact on incremental sold units?

SELECT promo_type,

sum(`quantity_sold(after_promo)`-`quantity_sold(before_promo)`) as ISU

from fact_events

group by promo_type

order by ISU

limit 2;

**OUTPUT:**

| promo_type | ISU |
|------------|------|
| 25% OFF | -5717 |
| 50% OFF | 6931 |

10.which product categories saw the most significant lift in sales from the promotions?

SELECT promo_type, sum(`quantity_sold(after_promo)`)-sum(`quantity_sold(before_promo)`)

as ISU

from fact_events

group by promo_type

order by ISU  DESC

limit 2;

**OUTPUT:**

| promo_type | ISU |
|------------|--------|
| BOGOF | 157073 |
| 500 Cashback | 40881 |

 11.Are there specific products that respond exceptionally  well or poorly to promotions?

SELECT product_name,IR

FROM

(SELECT p.product_name,

CONCAT(ROUND(sum(incremental_revenue)/1000000,2),"M") as IR,

ROW_NUMBER() OVER(ORDER BY sum(incremental_revenue) DESC) AS top_rank,

ROW_NUMBER() OVER(ORDER BY sum(incremental_revenue) ASC) AS Bottom_rank

 FROM dim_products p

JOIN fact_events f

USING (product_code)

GROUP BY p.product_name) as EP

where  top_rank <=3 OR Bottom_rank<=3;

**OUTPUT:**

| product_name | IR |
| --- | --- |
| Atliq_Fusion_Container_Set_of_3 | -0.31M |
| Atliq_Scrub_Sponge_For_Dishwash | -0.04M |
| Atliq_Body_Milk_Nourishing_Lotion (120ML) | 0.07M |
| Atliq_waterproof_Immersion_Rod | 17.56M |
| Atliq_Farm_Chakki_Atta (1KG) | 18.25M |
| Atliq_Home_Essential_8_Product_Combo | 122.64M |