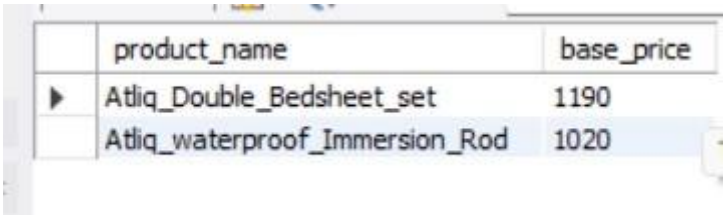
1.Provide a list of products with a base price greater than 500 and that are featured in promo type of ‘BOGOF’ (Buy One Get One Free).

```
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
Combo1	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(befor
e_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