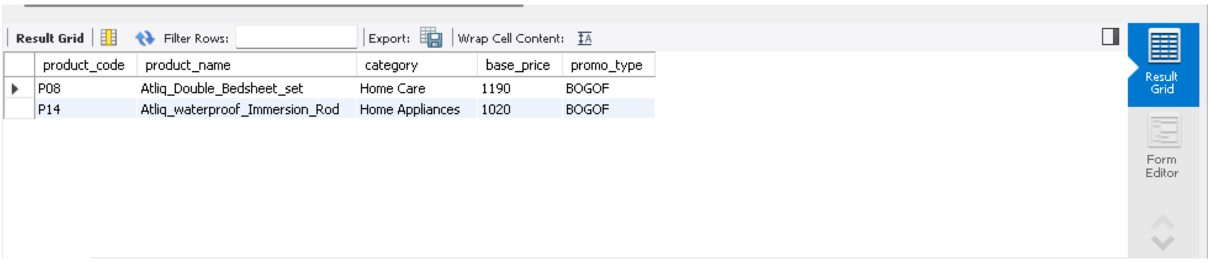
SQL Queries

Q.1 provide a list of products with a base price > 500 and that are featured in BOGOF

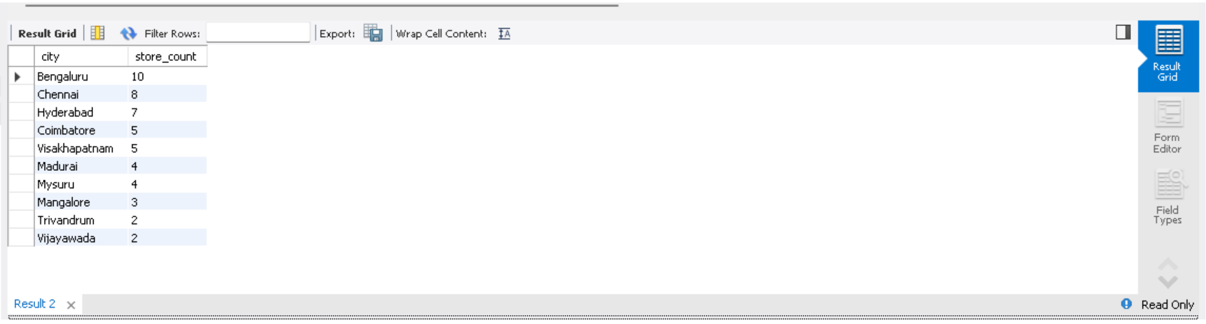
```
select
            distinct p.product_code,
            p.product_name,
            p.category,
            f.base_price,
            f.promo_type
from fact_events as f
join dim_products as p
on p.product_code = f.product_code
where base_price >500 and promo_type ="BOGOF";
```



product_code	product_name	category	base_price	promo_type
P08	Atliq_Double_Bedsheet_set	Home Care	1190	BOGOF
P14	Atliq_waterproof_Immersion_Rod	Home Appliances	1020	BOGOF

Q.2 generate a report that showcase number of stores in each city ,order by descending

```
SELECT
      city,
      COUNT(distinct store_id) AS store_count
FROM
      dim_stores
GROUP BY
      city
ORDER BY store_count DESC;
```



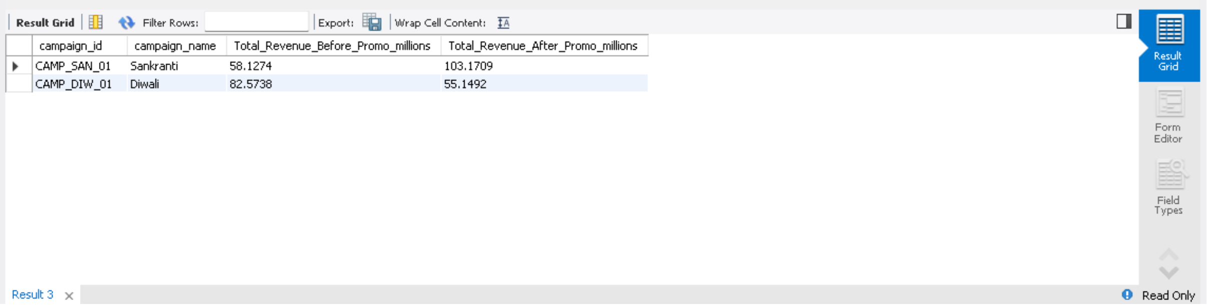
city	store_count
Bengaluru	10
Chennai	8
Hyderabad	7
Coimbatore	5
Visakhapatnam	5
Madurai	4
Mysuru	4
Mangalore	3
Trivandrum	2
Vijayawada	2

Q.3 Generate a report , showcase each compaign along with the total revenue before and after campaign.
it includes campaign_name,total_revenue(before_promotion),total_revenue(after_promotic

```
-- change column names
ALTER TABLE fact_events
CHANGE COLUMN `quantity_sold(before_promo)` quantity_sold_before_promo INT;

ALTER TABLE fact_events
CHANGE COLUMN `quantity_sold(after_promo)` quantity_sold_after_promo INT;

SELECT
    c.campaign_id,
    c.campaign_name,
    SUM(f.base_price * f.quantity_sold_before_promo)/1000000 AS Total_Revenue_Before_Promo
_millions,
    SUM(
    (CASE WHEN f.promo_type = '25% off' THEN f.base_price * f.quantity_sold_after_promo EL
SE 0 END)+
    (CASE WHEN f.promo_type = '33% off' THEN f.base_price * f.quantity_sold_after_promo EL
SE 0 END)+
    (CASE WHEN f.promo_type = '50% off' THEN f.base_price * f.quantity_sold_after_promo EL
SE 0 END) +
    (CASE WHEN f.promo_type = '500 off' THEN f.base_price * f.quantity_sold_after_promo EL
SE 0 END) +
    (CASE WHEN f.promo_type = 'BOGOF' THEN f.base_price * f.quantity_sold_after_promo ELSE
0 END)
    ) /1000000 AS Total_Revenue_After_Promo_millions
FROM
    fact_events AS f
JOIN
    dim_campaigns AS c ON c.campaign_id = f.campaign_id
GROUP BY
    c.campaign_id, c.campaign_name;
```

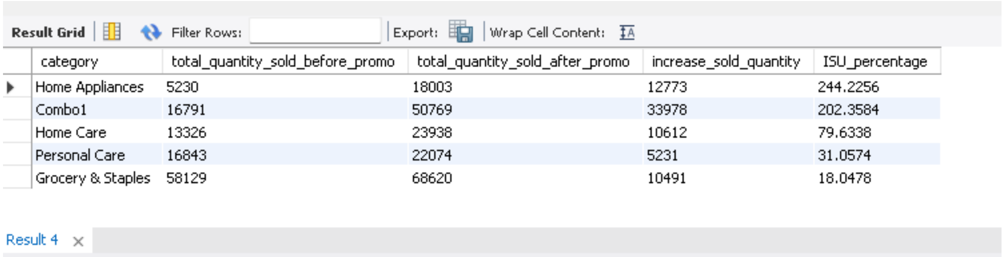


campaign_id	campaign_name	Total_Revenue_Before_Promo_millions	Total_Revenue_After_Promo_millions
CAMP_SAN_01	Sankranti	58.1274	103.1709
CAMP_DIW_01	Diwali	82.5738	55.1492

Q.4 Calculate ISU % for each category during diwali campaign . provides ranking based on ISU %,

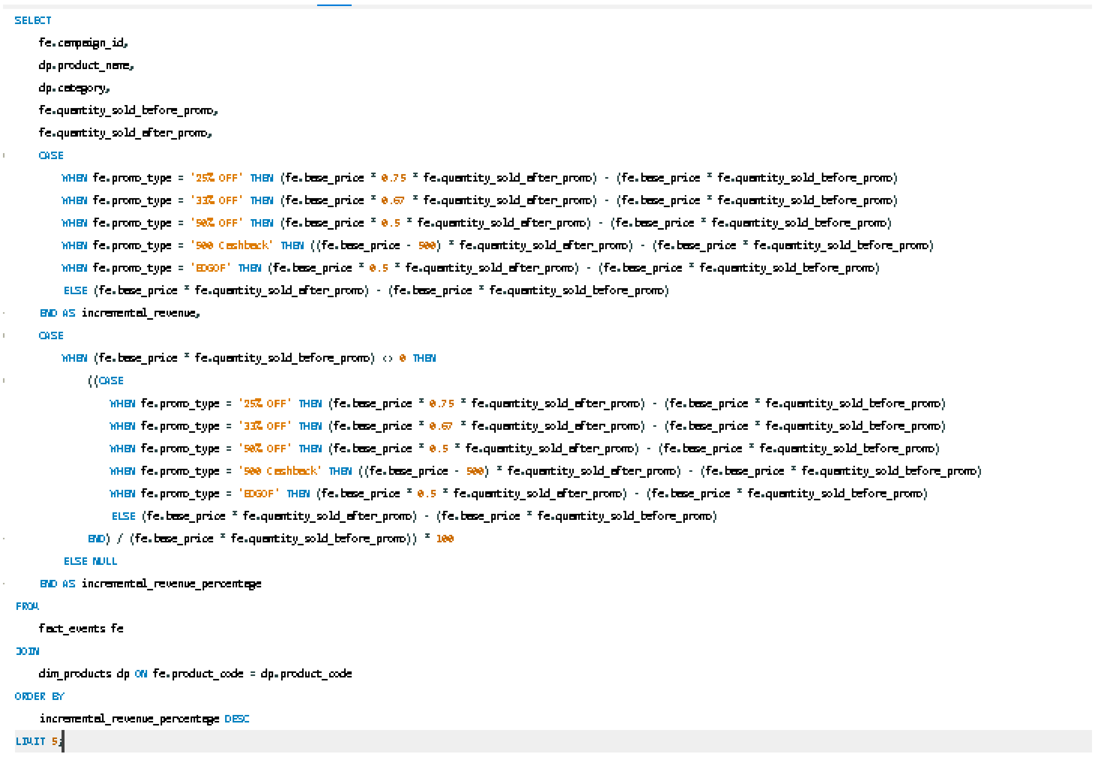
```
SELECT
    p.category,
    SUM(f.quantity_sold_before_promo) AS total_quantity_sold_before_promo,
    SUM(f.quantity_sold_after_promo) AS total_quantity_sold_after_promo,
    SUM(f.quantity_sold_after_promo) - SUM(f.quantity_sold_before_promo) AS increase_sold_quantity,
    (SUM(f.quantity_sold_after_promo) - SUM(f.quantity_sold_before_promo)) / SUM(f.quantity_sold_before_promo) * 100 AS ISU_percentage

FROM
    fact_events AS f
JOIN
    dim_products AS p ON p.product_code = f.product_code
JOIN
    dim_campaigns as c ON f.campaign_id = c.campaign_id
WHERE
    c.campaign_name = 'Diwali'
GROUP BY
    p.category
ORDER BY
    ISU_percentage DESC;
```

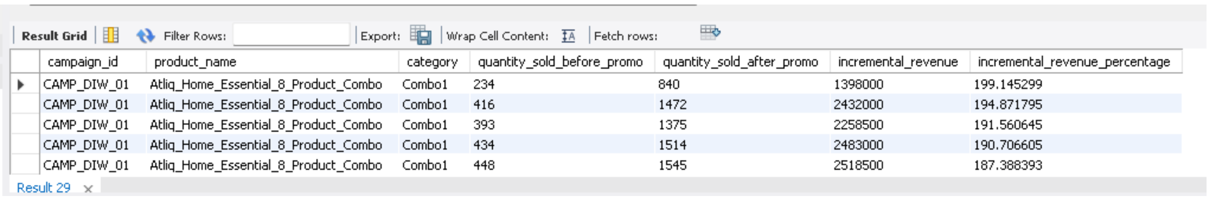


category	total_quantity_sold_before_promo	total_quantity_sold_after_promo	increase_sold_quantity	ISU_percentage
Home Appliances	5230	18003	12773	244.2256
Combo1	16791	50769	33978	202.3584
Home Care	13326	23938	10612	79.6338
Personal Care	16843	22074	5231	31.0574
Grocery & Staples	58129	68620	10491	18.0478

Q. 5 create a report featuring TOP 5 products by IR % across all campaigns



```sql
SELECT
    fe.campaign_id,
    dp.product_name,
    dp.category,
    fe.quantity_sold_before_promo,
    fe.quantity_sold_after_promo,
    CASE
        WHEN fe.promo_type = '25% OFF' THEN (fe.base_price * 0.75 * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
        WHEN fe.promo_type = '33% OFF' THEN (fe.base_price * 0.67 * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
        WHEN fe.promo_type = '50% OFF' THEN (fe.base_price * 0.5 * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
        WHEN fe.promo_type = '500 Cashback' THEN ((fe.base_price - 500) * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
        WHEN fe.promo_type = 'BOGOF' THEN (fe.base_price * 0.5 * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
         ELSE (fe.base_price * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
    END AS incremental_revenue,
    CASE
        WHEN (fe.base_price * fe.quantity_sold_before_promo) <> 0 THEN
            ((CASE
                WHEN fe.promo_type = '25% OFF' THEN (fe.base_price * 0.75 * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
                WHEN fe.promo_type = '33% OFF' THEN (fe.base_price * 0.67 * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
                WHEN fe.promo_type = '50% OFF' THEN (fe.base_price * 0.5 * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
                WHEN fe.promo_type = '500 Cashback' THEN ((fe.base_price - 500) * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
                WHEN fe.promo_type = 'BOGOF' THEN (fe.base_price * 0.5 * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
                 ELSE (fe.base_price * fe.quantity_sold_after_promo) - (fe.base_price * fe.quantity_sold_before_promo)
            END) / (fe.base_price * fe.quantity_sold_before_promo)) * 100
         ELSE NULL
    END AS incremental_revenue_percentage
FROM
    fact_events fe
JOIN
    dim_products dp ON fe.product_code = dp.product_code
ORDER BY
    incremental_revenue_percentage DESC
LIMIT 5;
```



campaign_id	product_name	category	quantity_sold_before_promo	quantity_sold_after_promo	incremental_revenue	incremental_revenue_percentage
CAMP_DIW_01	Atliq_Home_Essential_8_Product_Combo	Combo1	234	840	1398000	199.145299
CAMP_DIW_01	Atliq_Home_Essential_8_Product_Combo	Combo1	416	1472	2432000	194.871795
CAMP_DIW_01	Atliq_Home_Essential_8_Product_Combo	Combo1	393	1375	2258500	191.560645
CAMP_DIW_01	Atliq_Home_Essential_8_Product_Combo	Combo1	434	1514	2483000	190.706605
CAMP_DIW_01	Atliq_Home_Essential_8_Product_Combo	Combo1	448	1545	2518500	187.388393