

Adhoc request 1- Provide a list of products with a base price greater then 500 that are featured in promo type of BOGOF(Buy one get one free)

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

Result

	product_code	product_name	base_price	promo_type
▶	P08	Atliq_Double_Bedsheet_set	1190	BOGOF
	P14	Atliq_waterproof_Immersion_Rod	1020	BOGOF

Adhoc request 2 - Generate a report that provides an overview of the number of stores in each city

```
select City, count(store_id) as Total_Stores from dim_stores group by city order by Total_Stores DESC;
```

Result

	City	Total_Stores
►	Bengaluru	10
	Chennai	8
	Hyderabad	7
	Coimbatore	5
	Visakhapatnam	5
	Madurai	4
	Mysuru	4
	Mangalore	3
	Trivandrum	2
	Vijayawada	2

Adhoc request 3 -Generate a report that contains each campaign along with the total revenue generated before and after each campaign

```
SELECT campaign_name,concat(round(sum(base_price * `quantity_sold(before_promo)`)/1000000,2),'M')
      as `Total_Revenue(Before_Promotion)`,
concat(round(sum(
case
when promo_type = "BOGOF" then base_price * 0.5 * 2*(`quantity_sold(after_promo)`)
when promo_type = "50% OFF" then base_price * 0.5 * `quantity_sold(after_promo)`
when promo_type = "25% OFF" then base_price * 0.75* `quantity_sold(after_promo)`
when promo_type = "33% OFF" then base_price * 0.67 * `quantity_sold(after_promo)`
when promo_type = "500 cashback" then (base_price-500)* `quantity_sold(after_promo)`
end)/1000000,2),'M') as `Total_Revenue(After_Promotion)`
FROM retail_events_db.fact_events join dim_campaigns c using (campaign_id) group by campaign_id
```

Result

	campaign_name	Total_Revenue(Before_Promotion)	Total_Revenue(After_Promotion)
►	Sankranti	58.13M	124.15M
	Diwali	82.57M	171.46M

Adhoc request 4 - Produce a report that calculates Incremental sols units(ISU %) for each category during the Diwali campaign.Also provide rankings to each category based on their ISU%.

```
with cte1 as(
SELECT *,(if(promo_type = "BOGOF",`quantity_sold(after_promo)` * 2 ,`quantity_sold(after_promo)`)) as quantities_sold_AP
FROM retail_events_db.fact_events
join dim_campaigns using(campaign_id)
join dim_products using (product_code)
where campaign_name = "Diwali" ),

cte2 as(
select
campaign_name, category,
((sum(quantities_sold_AP) - sum(`quantity_sold(before_promo)`))/sum(`quantity_sold(before_promo)`)) * 100 as `ISU%`
from cte1 group by category
)
select campaign_name, category, `ISU%`, rank() over(order by `ISU%` DESC) as `ISU%_Rank` from cte2
```

Result

	campaign_name	category	ISU%	ISU%_Rank
►	Diwali	Home Appliances	588.4512	1
	Diwali	Home Care	203.1367	2
	Diwali	Combo 1	202.3584	3
	Diwali	Personal Care	31.0574	4
	Diwali	Grocery & Staples	18.0478	5

Adhoc request 5-Create a report featuring top 5 products featured by Incremental Revenue Percentage(IR %) across all campaigns

```
with cte1 as(
SELECT category,product_name,sum(base_price * `quantity_sold(before_promo)` ) as Total_Revenue_BP,
sum(
case
when promo_type = "BOGOF" then base_price * 0.5 * 2*(`quantity_sold(after_promo)`)
when promo_type = "50% OFF" then base_price * 0.5 * `quantity_sold(after_promo)`
when promo_type = "25% OFF" then base_price * 0.75* `quantity_sold(after_promo)`
when promo_type = "33% OFF" then base_price * 0.67 * `quantity_sold(after_promo)`
when promo_type = "500 cashback" then (base_price-500)* `quantity_sold(after_promo)`
end) as Total_Revenue_AP FROM retail_events_db.fact_events
join dim_products using (product_code)
join dim_campaigns using(campaign_id)
group by product_name,category),

cte2 as(
select *,(total_revenue_AP - total_revenue_BP) as IR,
((total_revenue_AP - total_revenue_BP)/total_revenue_BP) * 100 as `IR%`
from cte1)

select product_name,category,`IR`,`IR%`, rank() over(order by`IR%` DESC ) as Rank_IR from cte2 limit 5
```

Result

	product_name	category	IR	IR%	Rank_IR
►	Atliq_waterproof_Immersion_Rod	Home Appliances	17561340.00	266.187384	1
	Atliq_High_Glo_15W_LED_Bulb	Home Appliances	7589050.00	262.983626	2
	Atliq_Double_Bedsheet_set	Home Care	12917450.00	258.267904	3
	Atliq_Curtains	Home Care	3517500.00	255.335366	4
	Atliq_Farm_Chakki_Atta (1KG)	Grocery & Staples	17363475.00	160.005483	5