

## Business Insights by SQL

**1.**List products priced over 500 and that are featured in promo type 'BOGOF' to identify valuable items with big discounts, helping evaluate pricing and promotion strategies.

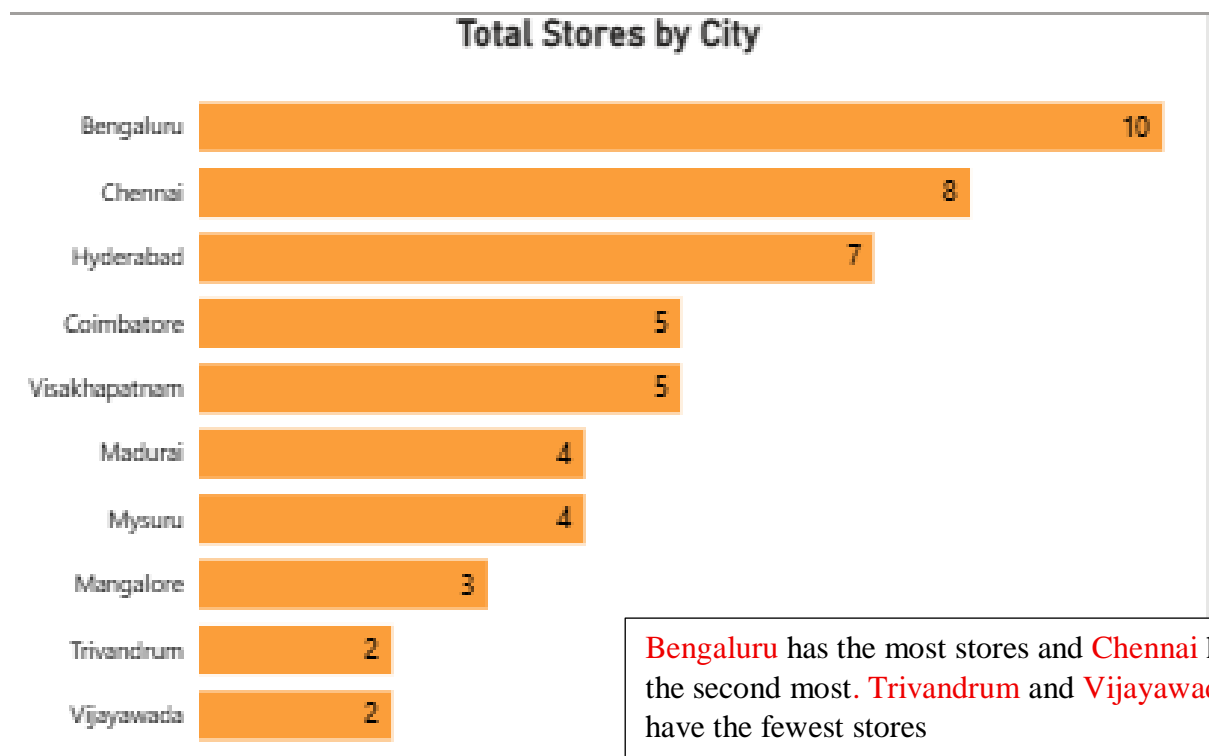
```
select distinct p.product_name,f.base_price as price
from fact_events f
join dim_products p
on f.product_code = p.product_code
where f.promo_type= 'BOGOF' and f.base_price > 500;
```



product_name	price
Atliq_Double_Bedsheet_set	1190
Atliq_waterproof_Immersion_Rod	1020

**2. Generate a report listing cities and their respective store counts, sorted by descending order of store presence, to optimize retail operations.**

```
SELECT City,COUNT(store_id) as Total_Stores  
FROM dim_stores  
GROUP BY City  
ORDER BY Total_Stores DESC;
```



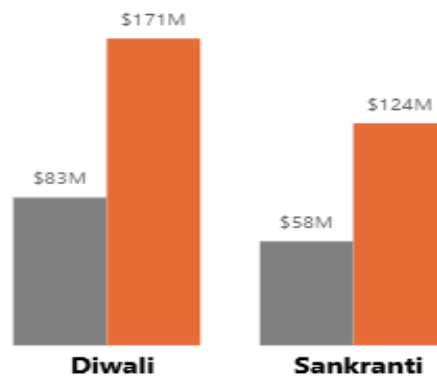
3. Generate a report showing each campaign's total revenue before and after promotion, helping assess the financial impact of promotional campaigns.

```
select
  campaign_name,
  round(sum(f.base_price * qty_before)/1000000,0)
  as total_revenue_before_promotion,
  round(sum(case
    when promo_type = 'BOGOF' then base_price * 0.5 * (qty_after * 2)
    when promo_type = '500 Cashback' then (base_price - 500) * qty_after
    when promo_type = '50% OFF' then base_price * 0.5 * qty_after
    when promo_type = '33% OFF' then base_price * 0.67 * qty_after
    when promo_type = '25% OFF' then base_price * 0.75 * qty_after
    end)/1000000,0) as total_revenue_after_promotion
from fact_events f
join dim_campaigns c
on f.campaign_id = c.campaign_id
group by campaign_name;
```



#### Campaign Revenue Analysis - Before and After Promotion

● Revenue Before Promotion ● Revenue After Promotion



**4. Generate a report calculating ISU% for each category during the Diwali campaign, along with rankings. This will help assess category-wise success and impact of the campaign on incremental sales.**

```
with Diwali_campaign_sale as (select category,
round(sum((case when promo_type = 'BOGOF' Then qty_after *2 else qty_after end )
      qty_before) *100 / sum(qty_before),0) as `ISU%`
from fact_events
join dim_products using(product_code)
join dim_campaigns using(campaign_id)
where campaign_name = 'Diwali'
group by category )

Select category,`ISU%`, row_number() over (order by `ISU%` desc) as Rank_Order
from Diwali_campaign_sale;
```



category	ISU%	Rank_Order
Home Appliances	588	1
Home Care	203	2
Combo 1	202	3
Personal Care	31	4
Grocery & Staples	18	5

**5. Generate a report listing the Top 5 products by IR% across all campaigns, providing product name, category, and IR%. This assists in identifying successful products for optimization.**

```
select product_name, category,
round((sum(case
    when promo_type = 'BOGOF' then base_price * 0.5 * (qty_after * 2)
    when promo_type = '500 Cashback' then (base_price - 500) * qty_after
    when promo_type = '50% OFF' then base_price * 0.5 * qty_after
    when promo_type = '33% OFF' then base_price * 0.67 * qty_after
    when promo_type = '25% OFF' then base_price * 0.75 * qty_after
    else 0
end) - sum(base_price * qty_before)) * 100 / sum(base_price * qty_before), 0) as `IR%`
from fact_events
inner join dim_products using(product_code)
group by product_name, category
order by `IR%` desc
limit 5 ;
```



product_name	category	IR%
Atliq_waterproof_Immersion_Rod	Home Appliances	266
Atliq_High_Glo_15W_LED_Bulb	Home Appliances	263
Atliq_Double_Bedsheet_set	Home Care	258
Atliq_Curtains	Home Care	255
Atliq_Farm_Chakki_Atta (1KG)	Grocery & Staples	160