***PMG INTERVIEW SQL ROUND***

*#Q1. Generate a query to get the sum of the clicks of the marketing data*

**SELECT SUM(clicks) FROM marketing\_data;**

Text

Description automatically generated with medium confidence

*#Q2. Generate a query to gather the sum of revenue by store\_location from the store\_revenue table*

**SELECT store\_location,SUM(revenue)**

**FROM store\_revenue**

**GROUP BY store\_location;**

Graphical user interface, text, table

Description automatically generated with medium confidence

*#Q3. Merge these two datasets so we can see impressions, clicks, and revenue together by date and geo. Please ensure all records from each table are accounted for*

**create table merged\_data as**

**SELECT s.\*,m.date as date2,m.geo,m.impressions,m.clicks**

**FROM store\_revenue s**

**Left OUTER JOIN marketing\_data m**

**on s.date=m.date and right(s.store\_location,2)=m.geo**

**UNION**

**SELECT s.\*,m.date as date2,m.geo,m.impressions,m.clicks**

**FROM store\_revenue s**

**RIGHT OUTER JOIN marketing\_data m**

**on s.date=m.date and right(s.store\_location,2)=m.geo;**

**select \* from merged\_data;**

Table

Description automatically generated

Table

Description automatically generated

*#Q4. In your opinion, what is the most efficient store and why?*

**SELECT geo2 as geo, tot\_impressions as impressions,**

**tot\_clicks as clicks,**

**round(tot\_clicks\*100/tot\_impressions,3) as CTR,**

**tot\_revenue as revenue**

**FROM(**

**SELECT coalesce(geo,right(store\_location,2)) as geo2,**

**sum(impressions) as tot\_impressions,**

**sum(clicks) as tot\_clicks,**

**sum(revenue) as tot\_revenue**

**FROM merged\_data**

**GROUP BY geo2) a;**

Graphical user interface, table

Description automatically generated

1st metric: **CTR is the efficiency of the ads that stores are running (CTR=clicks\*100/impression)**

So we say that CTR can be the metric that can be used find the stores efficency

*as revenue for MN is null, we won't consider it's CTR,*

Then we can go on to say that the ***TX store has maximum CTR so it's ads are most efficient***

(But if we are ignorning revenue, we can say MN store has maximum CTR so it's ads are most efficient)

2nd metric that can be used is revenue/impression.

This will show which store had maximum revenue per impression (cost).

*#Q5. Generate a query to rank in order the top 10 revenue producing states*

**SELECT RANK() OVER(ORDER BY revenue DESC) Rank\_by\_Revenue , store\_location, revenue**

**FROM store\_revenue**

**ORDER BY revenue DESC**

**LIMIT 10;**

Table

Description automatically generated

*#Q5a. Generate a query to rank in order the top 10 revenue producing states*

**SELECT RANK() OVER(ORDER BY tot\_revenue DESC) Rank\_by\_Revenue ,store\_location,tot\_revenue**

**FROM(**

**select store\_location,sum(revenue) as tot\_revenue**

**FROM store\_revenue**

**GROUP BY store\_location**

**ORDER BY tot\_revenue DESC**

**LIMIT 10)aa;**

Graphical user interface, text, application

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