**SQL Analysis**

1. Data interpretation

SELECT COUNT(\*) FROM marketing\_users;

2. Types of channels

SELECT DISTINCT ad\_platform FROM marketing\_campaigns;

3. ROI Calculation

SELECT ad\_platform,

SUM(revenue) AS total\_revenue,

SUM(ad\_spend) AS total\_spend,

ROUND(SUM(revenue)/NULLIF(SUM(ad\_spend), 0), 2) AS ROI

FROM marketing\_campaigns

GROUP BY ad\_platform;

4. Funnel metrics based on gender

SELECT

c.ad\_platform,

u.gender,

u.age,

SUM(cj.conversion) AS total\_conversions,

SUM(c.revenue) AS total\_revenue,

SUM(c.ad\_spend) AS total\_spend

FROM marketing\_customer\_journey cj

JOIN marketing\_users u ON cj.user\_id = u.user\_id

JOIN marketing\_campaigns c ON cj.ad\_id = c.ad\_id

GROUP BY c.ad\_platform, u.gender, u.age

ORDER BY total\_revenue DESC;

5. Joining all three tables

CREATE OR REPLACE VIEW full\_customer\_journey AS

SELECT

cj.user\_id,

cj.ad\_id,

u.age,

u.gender,

u.device\_type,

c.ad\_platform,

c.revenue,

c.ad\_spend,

cj.conversion

FROM marketing\_customer\_journey cj

JOIN marketing\_users u ON cj.user\_id = u.user\_id

JOIN marketing\_campaigns c ON cj.ad\_id = c.ad\_id;

6. Funnel metrics (gender vs impressions)

SELECT ad\_platform, gender, COUNT(\*) AS impressions

FROM full\_customer\_journey

GROUP BY ad\_platform, gender;

7. Funnel metrics (device type vs metrics)

SELECT

u.device\_type,

SUM(cj.impressions) AS impressions,

SUM(cj.clicks) AS clicks,

SUM(cj.conversion) AS conversions,

ROUND(SUM(cj.clicks)\*100.0 / NULLIF(SUM(cj.impressions), 0), 2) AS ctr

FROM marketing\_customer\_journey cj

JOIN marketing\_users u ON cj.user\_id = u.user\_id

GROUP BY u.device\_type

ORDER BY conversions DESC;

8. First Touch attribution

SELECT

u.device\_type,

SUM(cj.impressions) AS impressions,

SUM(cj.clicks) AS clicks,

SUM(cj.conversion) AS conversions,

ROUND(SUM(cj.clicks)\*100.0 / NULLIF(SUM(cj.impressions), 0), 2) AS ctr

FROM marketing\_customer\_journey cj

JOIN marketing\_users u ON cj.user\_id = u.user\_id

GROUP BY u.device\_type

ORDER BY conversions DESC;

9. Last Touch attribution

SELECT

user\_id,

ad\_id AS last\_touch\_ad,

MAX(day\_of\_week) AS last\_touch\_day

FROM marketing\_customer\_journey

GROUP BY user\_id, ad\_id;