Markelytics Project-SQL Queries

Tool Used – PostgreSQL

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Data Analyst

--- 1. Find the total revenue generated from each campaign.

```
select cm.campaign_name, sum(cn.revenue) as Revenue
from campaign as cm
join conversions as cn
ON cm.campaign_id = cn.compaignid
group by 1
order by 2 desc
```

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	campaign_name text	revenue numeric
1	Winter Fitness Kickstart	112795
2	Refer & Earn Campaign	107451
3	Summer Splash Sale	106010
4	Buy 1 Get 1 ?? Festive Bonanza	100690
5	Black Friday Early Access	78486
6	Back to School Essentials	70558
7	Limited Time Tech Promo	51658
0	Flach Deal Friday	50001

```
Query Query History

--- 2. Identify the top 5 products by conversion revenue.

select p.product_name, sum(cn.revenue) as Revenue

from conversions as cn

join products as p

ON cn.productid = p.productid

group by 1

order by 2 desc

limit 5
```

Data (output messages i	votifications
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	product_name text	revenue numeric
1	Titan Hard Drive	69988
2	Echo Smart Home Hub	67618
3	Galaxy Soundbar	66326
4	Omni VR Headset	58514
5	Solar Powerbank	55085

Query Query History --- 3. Calculate the ad spend per campaign and compare it against its allocated budget. --- filter the campaign that exceed their allocated busget select * from (select cm.campaign_name, round(sum(mp.ad_spend)::numeric,0) as Ad_spend, max(cm.budget) as Budget from marketingperformance as mp join campaign as cm ON mp.campaign_id = cm.campaign_id group by 1) as o where ad_spend > budget

Data Output Messages Notifications

=+		• ~	SQL
	campaign_name text	ad_spend numeric	budget bigint
1	Black Friday Early Access	328	300
2	New Arrival: Smart Gadgets	1218	750
3	Winter Fitness Kickstart	383	250
4	Year-End Clearance	1216	1150

```
--- 4. List all customers who made a purchase conversion and the total revenue they generated.

select c.customer_name, sum(cn.revenue) as Revenue from conversions as cn

join customer as c

ON cn.customerid = c.customer_id

group by 1

--- 86 customers successufluly converted.
```

Data Output Messages Notification		
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	customer_name text	revenue numeric
1	Aidan Hansen	20742
2	Paisley Palacios	920
3	Taylor Massey	329
4	Malakai Andersen	17236
5	Alexandra Leach	10612
6	Hayden Winters	3504
7	Eugene Webster	340
8	Audrey Vargas	2385

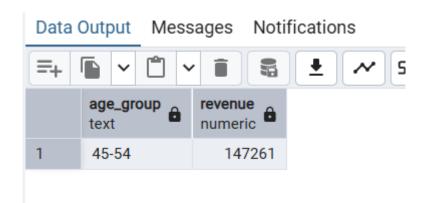
Query Query History 1 --- 5. Find the conversion rate for each campaign. 2 3 --- Marketing Table 4 v with marketing as (select campaign_id, sum(case when status = 'Clicks' then 1 else 0 end) as Clicks 5 from marketingperformance 6 7 group by 1 order by 1 8 9), 10 11 --- Conversion Table 12 conversion_table as (select campaign_id, count(*) as Conversions 13 14 from conversions 15 group by 1 order by 1 16 17) 18 19 --- Final Table select *, round(conversions * 100.0/clicks) || '%' as Conversion_rate from 20 (select cm.campaign_name, mm.Clicks, cn.conversions 21 22 from campaign as cm join marketing as mm 23 24 ON cm.campaign_id = mm.campaign_id join conversion_table as cn 25 ON cm.campaign_id = cn.campaign_id) 26 27 order by 4 desc

Data Output Messages Notifications

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	campaign_name text	clicks bigint	conversions bigint	conversion_rate text
1	Buy 1 Get 1 ?? Festive Bonanza	287	22	8%
2	Black Friday Early Access	268	20	7%
3	Back to School Essentials	246	17	7%
4	Winter Fitness Kickstart	309	20	6%
5	Refer & Earn Campaign	324	19	6%
6	Flash Deal Friday	266	12	5%
7	Limited Time Tech Promo	295	10	3%
8	Summer Splash Sale	1039	15	1%

```
--- 6. Identify which age group contributed the most revenue from conversions.

select c.age_group, sum(cn.revenue) as revenue
from customer as c
join conversions as cn
ON c.customer_id = cn.customerid
group by 1
order by 2 desc
limit 1
```



1 --- 7. Find the total number of impressions, clicks, and signups per campaign. 2 3 --- SignUp Table 4 v with signups as (select campaign_id, count(*) as SignUp from conversions 7 where conversiontype = 'SignUp' 8 group by 1 9 order by 1 10), 11 --- Marketing Table 12 13 14 impressions_clicks as (15 select campaign_id, sum(case when status = 'Impressions' then 1 else 0 end) as impressions, sum(case when status = 'Clicks' then 1 else 0 end) as Clicks 16 from marketingperformance 17 18 group by 1 19 order by 1 20) 21 22 --- Per Campaigns 23 select cm.campaign_name, ic.impressions, ic.Clicks, s.Signup from campaign as cm 24 join impressions_clicks as ic 25 26 ON cm.campaign_id = ic.campaign_id 27 **join** signups **as** s 28 ON cm.campaign_id = s.campaign_id 29

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	campaign_name text	impressions bigint	clicks bigint	signup bigint
1	Summer Splash Sale	18888	1039	5
2	New Arrival: Smart Gadgets	19172	985	4
3	Year-End Clearance	18949	981	5
4	Flash Deal Friday	5401	266	8
5	Refer & Earn Campaign	5458	324	9
6	Limited Time Tech Promo	5495	295	6
7	Winter Fitness Kickstart	5430	309	5
8	Back to School Essentials	5436	246	10
9	Black Friday Early Access	5386	268	12
10	Buy 1 Get 1 ?? Festive Bonanza	5385	287	9

```
--- 8. Determine which city generated the highest conversion revenue.

select c.city, sum(cn.revenue)

from customer as c

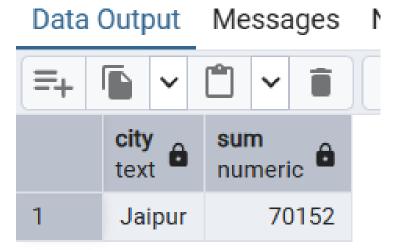
join conversions as cn

ON c.customer_id = cn.customerid

group by 1

order by 2 desc

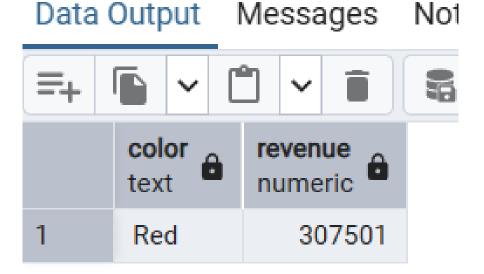
limit 1
```



1 --- 9. Show the return on ad spend (ROAS) for each campaign (Revenue ÷ Ad_Spend 2 3 --- Ad_Spend Table 4 5 v with ad_spend AS (select campaign_id, round(sum(ad_spend)::numeric, 1) as spend 7 from marketingperformance 8 group by 1 9), 10 11 --- Revenue Table 12 13 revenue as (14 select campaign_id, sum(revenue) as Revenue from conversions 15 16 group by 1 17 18 19 --- ROAS per Campaign 20 select *, round(revenue/spend,0) as ROAS from 21 22 (select cm.campaign_name, ad.spend, r.Revenue 23 from campaign as cm 24 join ad_spend as ad 25 ON cm.campaign_id = ad.campaign_id 26 join revenue as r ON cm.campaign_id = r.campaign_id 27 28 29

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	campaign_name text	spend numeric	revenue numeric	roas numeric
1	Summer Splash Sale	1258.3	106010	84
2	New Arrival: Smart Gadgets	1218.0	30052	25
3	Year-End Clearance	1216.0	43461	36
4	Flash Deal Friday	333.8	50001	150
5	Refer & Earn Campaign	394.5	107451	272
6	Limited Time Tech Promo	369.7	51658	140
7	Winter Fitness Kickstart	383.3	112795	294
8	Back to School Essentials	307.6	70558	229
9	Black Friday Early Access	328.2	78486	239
10	Buy 1 Get 1 ?? Festive Bonanza	357.8	100690	281

Query Query History --- 10. Identify the product color that brought in the highest sales revenue. select p.color, sum(c.revenue) as Revenue from products as p join conversions as c ON p.productid = c.productid group by 1 order by 2 desc limit 1



```
--- 11. List the top 3 customers by lifetime revenue (FactConversion).

select c.customer_name, sum(cn.revenue) as revenue from customer as c join conversions as cn

ON c.customer_id = cn.customerid

group by 1

order by 2 desc

limit 3
```

Data Output Messages Notifications

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	customer_name text	revenue numeric
1	Archer Allison	37726
2	Tucker McGuire	31063
3	Jonas Robbins	27767

```
--- 12. Calculate the average revenue per purchase grouped by region.

select c.region, round(avg(cn.revenue),1) as revenue from customer as c join conversions as cn

ON c.customer_id = cn.customerid

group by 1

order by 1
```

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	region text	revenue numeric	
1	East	4223.	5
2	North	6342.6	5
3	South	5050.7	7
4	West	5595.0)

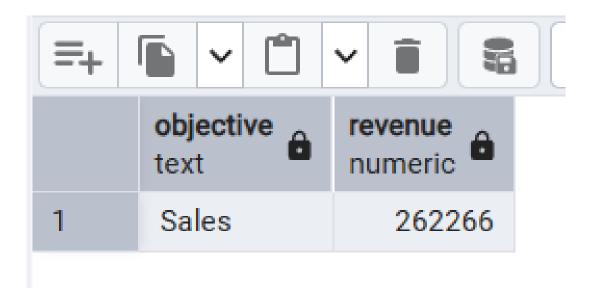
Query Query History --- 13. Compare impressions vs. actual conversions for each campaign to check effectiveness. 2 3 --- Impression Table 4 5 v with impressionsTable AS (select campaign_id, count(*) as Impressions 6 from marketingperformance 7 where status = 'Impressions' 9 group by 1 10 order by 1), 11 12 13 --- Conversion Table 14 15 ConversionTable as (16 select campaign_id, count(*) as Conversions 17 **from** conversions 18 group by 1 19 20 21 --- Campaign Wise select cm.campaign_name, im.impressions, cn.conversions from 22 23 campaign as cm 24 join impressionsTable as im ON cm.campaign_id = im.campaign_id 25 26 join conversionTable as cn ON cm.campaign_id = cn.campaign_id 27 28

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	campaign_name text	impressions bigint	conversions bigint
1	Summer Splash Sale	18888	15
2	New Arrival: Smart Gadgets	19172	7
3	Year-End Clearance	18949	8
4	Flash Deal Friday	5401	12
5	Refer & Earn Campaign	5458	19
6	Limited Time Tech Promo	5495	10
7	Winter Fitness Kickstart	5430	20
8	Back to School Essentials	5436	17
9	Black Friday Early Access	5386	20

```
Query Query History
```

```
--- 14. Identify the campaign objective (Sales, Brand Awareness, Lead Generation, etc.) that generated the highest total revenue.

select cm.objective, sum(cn.revenue) as Revenue
from campaign as cm
join conversions as cn
ON cm.campaign_id = cn.campaign_id
group by 1
order by 2 desc
limit 1
```



```
--- 15. Find the top 5 customers by number of conversions (not revenue), to highlight loyalty/engagement.

select c.customer_name, count(cn.*) as Conversions
from customer as c
join conversions as cn
ON c.customer_id = cn.customerid
group by 1
order by 2 desc
limit 5
```

	customer_name text	conversions bigint	
1	Caden Ford	5	
2	Melany Liu	4	
3	Stephen Roberts	4	
4	Finley Hurley	3	
5	Yousef Nunez	3	