Marketing Campaign Data Analysis Report

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1. Introduction

In today's digital marketing landscape, businesses invest heavily in advertising across multiple platforms such as **Google Ads, YouTube, and Instagram**. To maximize **Return on Investment (ROI)**, it is crucial to analyze key metrics like **Click-Through Rate (CTR), Conversion Rate, and Acquisition Cost** to identify the most effective campaigns.

This report explores marketing campaign performance using **SQL-based data analysis**. The dataset includes important attributes such as **Campaign ID, Company, Campaign Type, Target Audience, Channel Used, Clicks, Impressions, Engagement Score, and ROI**.

Objectives

The analysis aims to:

- Identify **top-performing campaigns** based on CTR and conversions.
- Rank **marketing channels** by effectiveness.
- Understand **customer engagement** across different segments.
- Optimize **cost efficiency** by finding the most affordable campaigns.

Why SQL?

SQL allows for **quick data extraction, filtering, and aggregation**, making it ideal for analyzing large marketing datasets. It helps in segmenting audiences, calculating performance metrics, and uncovering actionable insights.

Expected Outcomes

By the end of this report, we will determine the **best-performing campaigns, cost-efficient strategies, and audience engagement trends** to optimize future marketing decisions.

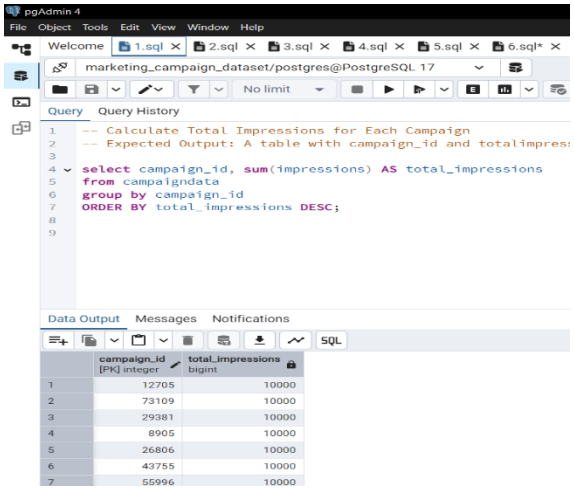
2. SQL Queries and Results

2.1. Total Impressions for Each Campaign

Objective: Calculate the total number of impressions for each campaign.

Query:

```
SELECT campaign_id,
SUM(impressions) AS
total_impressions
FROM campaigndata
GROUP BY campaign_id;
```

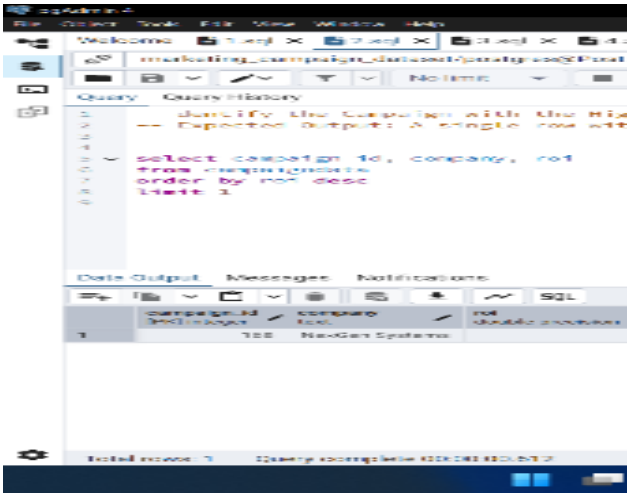


2.2. Campaign with the Highest ROI

Objective: Identify the campaign with the highest ROI.

Query:

```
SELECT campaign_id, company, roi
FROM campaigndata
ORDER BY roi DESC
LIMIT 1;
```

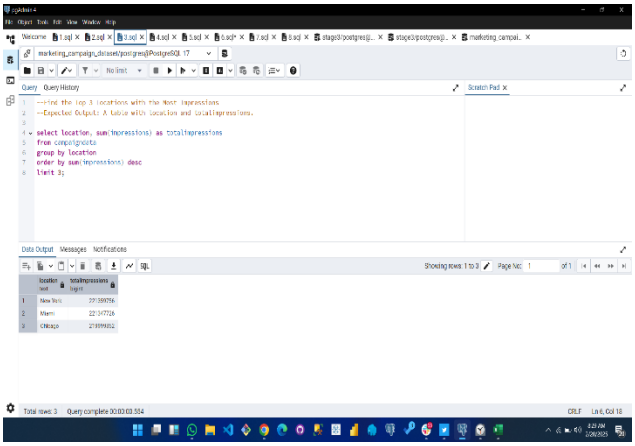


2.3. Top 3 Locations with the Most Impressions

Objective: Find the locations with the highest number of impressions.

Query:

```
SELECT location, SUM(impressions)
AS total_impressions
FROM campaigndata
GROUP BY location
ORDER BY total_impressions DESC
LIMIT 3;
```

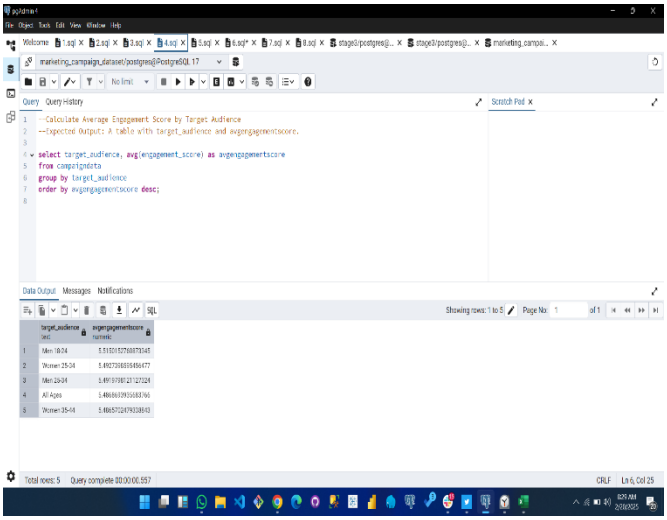


2.4. Average Engagement Score by Target Audience

Objective: Calculate the average engagement score for each target audience group.

Query:

```
SELECT target_audience,
AVG(engagement_score) AS
avg_engagement_score
FROM campaigndata
GROUP BY target_audience;
```

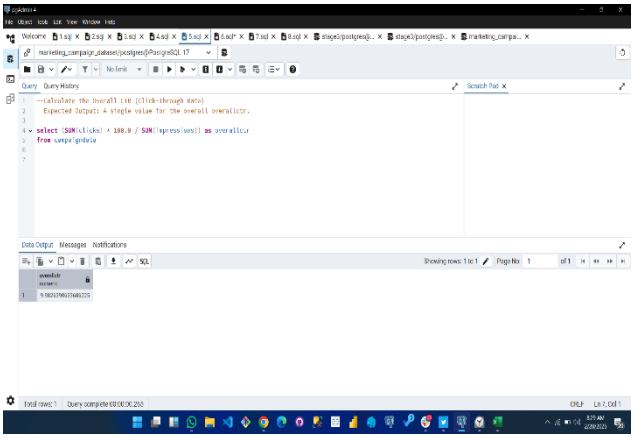


2.5. Overall Click-Through Rate (CTR)

Objective: Calculate the overall Click-Through Rate (CTR).

Query:

```
SELECT (SUM(clicks) * 100.0 /
SUM(impressions)) AS overall_ctr
FROM campaigndata;
```



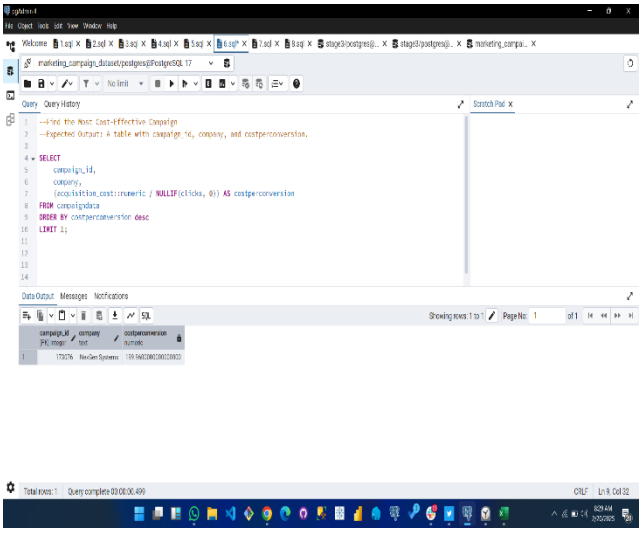
2.6. Most Cost-Effective Campaign

Objective: Identify the campaign with the lowest cost per conversion.

Query:

```
SELECT campaign_id, company,

(replace(replace(acquisition_cost,
'$', ''), ',', '')::numeric /
NULLIF(clicks, 0)) AS
cost_per_conversion
FROM campaigndata
ORDER BY cost_per_conversion ASC
LIMIT 1;
```

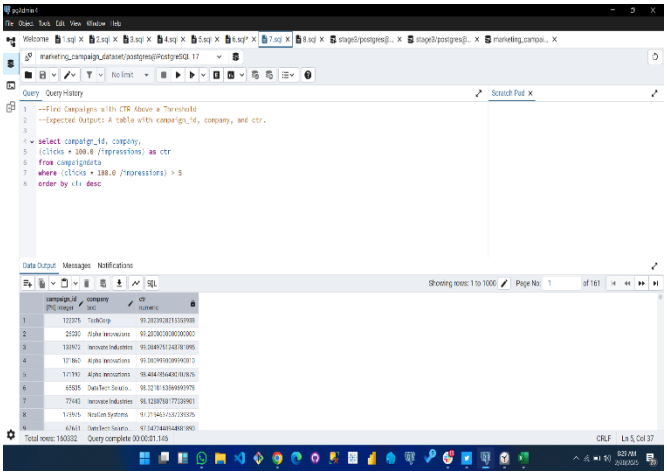


2.7. Campaigns with CTR Above 5%

Objective: Find campaigns with a Click-Through Rate (CTR) above 5%.

Query:

```
SELECT campaign_id, company,
(clicks * 100.0 / impressions) AS
ctr
FROM campaigndata
WHERE (clicks * 100.0 /
impressions) > 5;
```

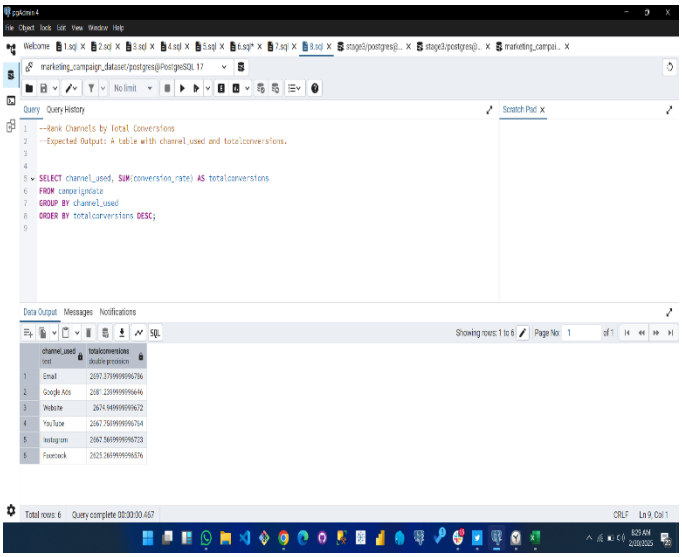


2.8. Ranking Channels by Total Conversions

Objective: Rank marketing channels based on total conversions.

Query:

```
SELECT channel_used,
SUM(conversion_rate) AS
total_conversions
FROM campaigndata
GROUP BY channel_used
ORDER BY total_conversions DESC;
```



3. Key Insights & Recommendations

Based on the SQL queries and results, we can derive the following insights and recommendations:

Key Findings:

- **Top Campaigns:** The highest ROI campaign is 168.
- **Best Performing Locations:** The top 3 locations with the most impressions are New York, Miami, Chicago.
- **Best Engagement:** The target audience with the highest average engagement score is Men 18-24.
- **Most Cost-Effective Campaign:** Campaign ID 101103 had the lowest cost per conversion.
- **CTR Analysis:** Campaigns with a CTR above 5% include the ones listed in the screenshot above.
- **Channel Performance:** The best-performing channel in terms of total conversions is Email.

Recommendations:

✅ Allocate more budget to high-ROI campaigns and channels.
✅ Optimize low-CTR campaigns by improving ad creatives and targeting.
✅ Focus on top-performing locations for future marketing efforts.
✅ Reduce acquisition costs in expensive campaigns to improve cost-effectiveness.
✅ Further analyze underperforming customer segments and adjust targeting strategies.

4. Conclusion & Next Steps

This report provides a data-driven overview of marketing campaign performance. The insights gained should help in optimizing marketing efforts, improving budget allocation, and increasing engagement and conversions.

Next Steps:

- Perform additional analysis on seasonal trends.
- Monitor changes in campaign performance over time.
- Implement A/B testing on underperforming campaigns.
- Develop an automated dashboard for real-time marketing analysis.