

Analyzing eCommerce campaigns using SQL and GA4



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Goal of the project: To solidify acquired skills in **SQL** and information processing using **PostgreSQL** and **BigQuery**

Project completed as part of the Data Analytics course from GOIT



Data and Environments for Analysis



BigQuery



Tools

PostgreSQL (DBEaver), BigQuery (Google Cloud)

Data Sources

- Training database ads_analysis_goit_course (**Facebook/Google Ads**)
- Public dataset ga4_obfuscated_sample_ecommerce (**GA4 Events**)

Key Responsibilities



DBBeaver



BigQuery

- Calculated aggregate metrics for advertising campaigns (Costs, Revenue, and ROMI - Return on Marketing Investment).
- Analyzed user reach and the continuity (or sustained delivery) of advertising campaigns.
- Constructed a conversion funnel from the initial user session to the final purchase.
- Compared the effectiveness of landing pages (A/B testing or comparative analysis).
- Analyzed the correlation between user engagement and purchase conversion.

Analysis Results



DBBeaver

BigQuery

- ✓ Identified the peak days for overall ROMI (Return on Marketing Investment).
- ✓ Determined the advertising campaign with the highest ROMI.
- ✓ Calculated the growth in user reach (or audience size) month-over-month.
- ✓ Analyzed user action conversions by date and traffic channel.
- ✓ Identified the landing pages with the highest conversion rate.
- ✓ Determined the correlation between user engagement and purchases.

Summary and Key Outcomes



DBEaver



BigQuery

- ✓ Proficient in using DBEaver and writing queries in PostgreSQL.
- ✓ Skilled in data retrieval from databases, calculating metrics, conversions, aggregating data, and building complete event and session chains.
- ✓ Gained experience working with Google Cloud (BigQuery).
- ✓ Familiarized myself with the GA4 data structure and public datasets.
- ✓ Ready to build reports in BI systems (Business Intelligence).
- ✓ The data from this project can be utilized for visualization in Looker Studio.

Thanks for attention!



DBBeaver



BigQuery

READY TO COOPERATE

CONTACTS

[Email](#)

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