

# Growth Analytics Challenge

Welcome to the Growth Analytics Challenge!

As discussed on the intro call, from the moment when you've received that email, you have 48 hours to analyse the problem and send us the results back.

You can use any tool you have. Please show all your work (including your code) and assumptions as well as provide a presentation in pdf format with your findings (outcomes).

Please keep in consideration that you will have 15-20 mins to present your findings.

Good luck!

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Please download the [dataset](#) and answer the following questions:

*Note: it is possible to have decimal conversion metrics (e.g 2.4 demo occurred) because of the deployed attribution model.*

## Task 1: Analyzing Sales Funnel Data

- Perform a time series analysis on the number of demo occurrences, sales qualified opportunities, and closed won opportunities. Are there any seasonality patterns in the data, and if so, how can we use this information for marketing strategy planning?
- Calculate the conversion rates for the sales funnel (from demo occurred to sales qualified opportunity, and from sales qualified opportunity to closed won opportunity) over time. Provide visualizations to illustrate these trends.
- Calculate the Cost Per Acquisition (CPA) for UTM medium and source combinations that cost data is provided. How does the CPA vary across different marketing channels?
- Provide insights and recommendations on how to optimize the marketing strategy based on the sales funnel data. Which channels or campaigns should be prioritized for future marketing efforts?

## Task 2: Paid Marketing Channel Analysis

- Calculate the click-through rate (CTR) for each of the four paid marketing channels on a weekly basis. Visualize the CTR trends over time and identify any significant fluctuations.
- Provide recommendations on how to allocate the marketing budget effectively based on the analysis of the paid marketing channels. Which channels should receive more budget, and which ones should be scaled back?

- How would you track and monitor the effectiveness of the revised budget allocation strategy over time, and what key performance indicators (KPIs) would you use to measure success?
- Visualize the relationship between cost and sales funnel conversions over time. Are there any noticeable patterns or trends?

### **Task 3: General Questions**

- Are there any data quality issues or missing values in the datasets? How would you handle them if you found any?
- How would you handle outliers in the data? Are there any outliers in the provided datasets?
- Summarize the key takeaways and actionable recommendations from your analysis for a non-technical audience.
- How would you describe how marketing attribution models work? Note: this is a general question, not related to Deel or the dataset you have worked on for this task
- What attribution model do you propose for our business? Why?
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