



Case Study - Data Analyst

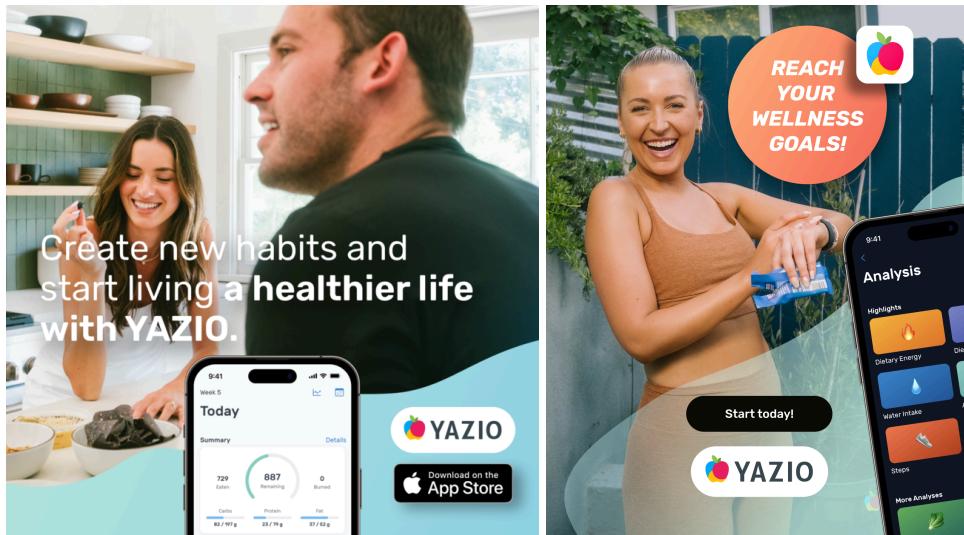
Here is your case study for the Data Analyst position. We are excited for your solutions!

Task One - Paid Marketing Campaign Data

Our Paid Marketing team is dedicated to engaging potential users for our app through targeted campaigns across various channels. The objective of these campaigns is to maximize app installations while maintaining a balanced consideration of financial implications. Users who sign up for a subscription within the YAZIO app count as converted. The revenue generated by subscriptions must be set against the marketing spend.

You are provided with a dataset that includes campaign data for five marketing channels and multiple countries for November 2023. Our paid marketing team is interested in an analysis for two of our focus regions: Germany and the USA. Please consider 3 relevant KPIs of your choice to evaluate the performance in the past November and provide recommendations for the next November.

Here you can see two examples of ads used:

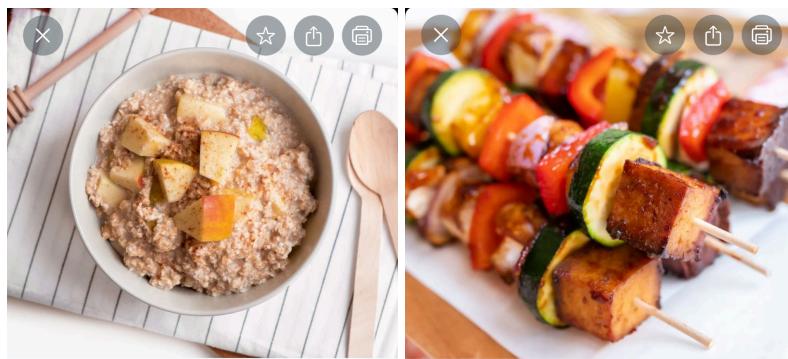


Task Two - Recipe Data

One of the main parts of our app is the recipe tab that allows users with a subscription to view numerous recipes provided by the recipe team. Users can search for recipes, view preparation details and save recipes as favorites. The recipe team wonders whether there are features that distinguish successful recipes from less successful recipes and asks for your help.

You are provided with an aggregated data set containing data on the recipes viewed by the users. Some of the fields contain text, for example recipe title, description, instructions, etc. related to the recipe.

Here you can see two examples of recipe screens:



Overnight Apple Oats



345 kcal



485 minutes



Easy

Prepare these Overnight Apple Oats the day before and you'll have a delicious breakfast to enjoy in the morning! That means you can take a little extra time to get up without feeling guilty or enjoy a morning workout. Tip: With a lunchbox or screw-top jar, it's super easy to take with you!

300–400 kcal Breakfast Christmas Easy
Fruits Low Fat On the Go Pescatarian



Cooking Mode



Veggie Skewers



134 kcal



40 minutes



Easy

Our Veggie Skewers have a fantastic flavor thanks to their delicious marinade! Plus, the red bell pepper will give you a boost of vitamin C. Did you know that they contain more vitamin C than lemons? Tip: You can also use baby potatoes for this recipe. It will save you some prep time.

100–200 kcal Dinner Easy Lactose Free
Lunch Pescatarian Vegan Vegetables



Cooking Mode



Some comments for both tasks

- Both datasets are provided as a compressed (via gzip) parquet file. For the description of the available columns please see the Data Dictionary below.
- Use any tool and methodology to answer the tasks. Please elaborate on why you used a certain method, made particular assumptions (so we Data Analysts can follow your steps) and summarize the findings for the marketing and recipe team.
- We are excited to learn more about your statistics and econometrics repertoire and please feel free to show it to us in all facets. When submitting your case study please also hand in your commented code and analysis work.
- Of course, we will use your results only within the application process and nowhere else and feel free to always contact us if you have any questions.
- Most importantly: Have fun with your case study :)

Data Dictionary

The datasets can be downloaded here:

- [Paid Marketing Campaign Data](#)
- [Recipes Usage Dataset](#)

Paid Marketing Campaign Data

Column	Type	Definition	Value details
date	date	Date of interest.	In a format YYYY-MM-DD
platform	varchar	Shows the operating system (OS) of the device of the (potential) user.	android ios
marketing_channel	varchar	channel on which the campaign was shown	Channel A Channel B Channel C Channel D Channel E
campaign_id	varchar	Unique identifier for each campaign.	Depending on the marketing channel, it can be a combination of numbers or a string.
country	varchar	Location reported by the marketing channel (ISO ALPHA-2 country code).	AT = Austria CH = Switzerland DE = Germany FR = France IT = Italy NL = Netherlands US = United States of America unknown
impressions	integer	Number of impressions generated by this campaign on this date.	
clicks	integer	Number of clicks generated by this campaign on this date.	
app_installs	integer	Number of app installs generated by this campaign on this date.	
conversions	integer	Number of users who sign up for a subscription generated by this campaign on this date.	

marketing_spend_euro	double	Amount spent for this marketing campaign on this date.	
revenue_euro	double	Amount received for subscriptions generated by this campaign on this date.	

Recipes Usage Dataset

Column	Type	Definition	Value details
date	date	Date	In a format YYYY-MM-DD
recipe_id	varchar	Global recipe id of the recipe	
no_hits	integer	Shows how often a recipe was viewed	
no_sessions	integer	Shows how many sessions viewed a recipe. Everytime no further activity for more than 30 min is recorded a new session is started.	
name	varchar	Name of the recipe	
description	varchar	Description of the recipe	
preparationtime	integer	Shows the suggested preparation time in minutes for a recipe	
difficulty	varchar	Indicates the difficulty of a recipe	easy normal hard
steps	integer	Number of steps included in the recipe instructions	
instructions	varchar	Instructions of the recipe	Instructions have the format ['step 1', 'step 2', ..]
tags	varchar	Tags assigned to a recipe by the content team	tags are comma separated: tag1,tag2,tag3,..

