

Instructions

Thank you for your interest in the Senior Analyst, Product Analytics position. This data challenge represents the types of questions a Product Analyst at Condé Nast receives each day. You are welcome to use any analytical method that you are comfortable with, however we will award bonus points to those who utilize python and relevant packages (namely pandas, matplotlib, seaborn, plotly, etc.). Complete and return the following questions to your Talent Acquisition Partner one week after receiving this challenge. In addition to clear responses, please provide any code or other analyses to show your work.

Dataset

We've included a csv file with several months (6/19-12/19) of artificial user interactions with Conde Nast Brands.

Brand: Brand Name

Market: Market of the Brand

User_Id: unique visitor ID

Session_Id: An identifier of a session. Is only unique to a user id.

Date: The date of a session. This will persist throughout a session.

Device: The user's device type. This will persist throughout a session.

Event_Name: The type of interaction

Component_Name: The component that the interaction took place on

Site_Section: The site section that the interaction took place on

Event_Order: The nth interaction of a session

Part I. Getting Comfortable With The Data Structure

How many Pageviews did Glamour have in August?

How many people saw a video on CNT?

You can identify video views with impression events

What percentage of SELF's sessions are bounces. Which device type has the highest bounce rate?

We define a "bounce" as a session with only one pageview.

Part II. Understanding Behavior

CNT exists in multiple markets. Our stakeholders are curious which market's subscription [order form](#) is the best. Find the subscription rate for each of CNT's markets. What might you say to a stakeholder to contextualize these results?

We define subscription rate as subscriptions/unique users

Glamour launched a new marketing strategy on 09/01/2020 with more personalized ads. Compare the click through rate for Ads on Glamour before and after the change in strategy. Did it increase the CTR? What other insights can you find about the new strategy?

We define click through rate as clicks/impressions

A product manager is interested in brand loyalty. Please create a monthly cohort retention graph for Pitchfork.

Reminder: Session Id is only distinct to an individual user

Part III. Data Exploration

Here is your opportunity to showcase your skills. Find an interesting trend, create a cool visualization and tell us a story. What product recommendations would you make based on these results? There is no right answer here - we just want to see how you approach ambiguity.