Interview Assignments

▼ Data Engineer

What we want to validate:

- SQL
- Data Modeling
- Organization, Communication
- Attention to Detail / Business Minded — avoid “data” issues only detectable with knowledge of business logic and end use.

▼ Assignment

Background

CookUnity offers different Weekly subscription plans where customers receive ready to eat meals from chefs.

We have different kitchens across the US, and depending on where the user lives, they will be able to purchase from a different group of local chefs and menu items.

Each week, users can:

- Order
  - Or then have their order cancelled
- Skip this week’s order
  - Or then unskip
- Pause their account for up to 8 weeks. As a result, skipping all these week’s orders.
  - Or then unpausing
- Cancel their account

    - Or then reactivate

It is crucial for us to understand how these users are behaving.

Dataset

> https://s3-us-west-2.amazonaws.com/secure.notion-static.com/38e75885-5f20-4791-b0c2-5031e6efa164/engineer_assignment.zip

Currently the data is available in various production tables, which are difficult for the analysts to use, and may not be reliable.

For order data, we have the following:

- OrderCreations — when an order is placed
    - Creation Date vs. Delivery Date: I might place 2 Orders on January 9 (creation date), one for the week of Jan 16, and another for the week of Jan 23 (delivery dates).
- OrderCancellation — when an order is later cancelled
- Invoices — when an order is confirmed, here the revenue is added
- Stripe Charges — Stripe is our payment processor. This captures attempts to officially *charge* the Invoice and capture payment.

For other key user subscription events (Skip, Pause, Cancel), we have the following:

- Skips — when a user either skips an order, or pauses their account
- Unskips — when a user undoes a skip or a pause
- SubscriptionEvents — when a user creates or cancels their account

Assignment

1. Map the relationship of our order and invoice tables above. Also note any potential issues in being able to join these tables reliably.
2. Using SQL, design and create new table/s that analysts could use to easily analyze:
    - each week,

- what percentage of our users
  - placed an order
  - skipped
  - paused
  - cancelled (churned)

Outline any design decisions and data cleaning work needed.

The more detail the better for both questions.

▼ Data Analyst (II)

What we want to validate:

- SQL
- Business analysis
- Organization
- Verbal & Visual Communication & Storytelling

Assignment

This is a take home test done within 7 days from receipt.

Dummy Dataset

https://s3-us-west-2.amazonaws.com/secure.notion-static.com/df5b24c4-280f-4243-abe3-26b11355a694/data_analyst_assignment.zip

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Dataset

- Orders
  - Order ID
  - Customer ID
  - Store ID
  - Order Delivery Date
  - Subtotal Price
- Order Line Items
  - Order ID
  - Product ID
- Products
  - Product ID
  - Chef ID
  - *various product attributes*

Part 1 — Technical Exam

Answer the following questions, with the SQL queries used to get each answer.

- How many customers bought Mexican and American cuisines in their lifetime?
- How many customers bought Mexican and American cuisines in the same order?
- What was the Repeat Rate of these customers, and how does this compare to all other customers?
- Which first order month cohort had the highest repeat rate?

Part 2. Analysis & Presentation

- Analyze the dummy dataset and prepare a CookUnity Q4, 2021 - Key Order & Product Trends presentation.
- Think about what KPIs and Metrics would be most important to the company, be prepared to explain why.
- Include some product insights.

Document any SQL work so that another analyst could easily utilize it in future.

Please reach out for any clarifying questions needed.

If work is high quality, they may then be asked to present the deck.

Ideal Results

- Clear and effective story telling.
- Appropriate and clear visualizations. Each chart provides an immediate takeaway.

▼ Data Analyst (I)

👩🏽‍💻 Data Analyst (I)- SQL Assignment with answers

👨🏽‍🍳 Data Analyst - SQL Challenge

💼 Business Analyst I - SQL Challenge with answers

💼 Business Analyst I - SQL Challenge

♟️ Expansion Analyst - SQL Challenge

💼 Business Analyst I - SQL Challenge - Maria Victoria Gomez Answers.