**Subject:** Data Solution Consultant - Assignments for Data Migration & Household Grouping

Hello

Thank you again for your interest in joining our team. As part of our recruitment process, we would like you to complete the following assignments.

Those are designed to give you the opportunity to demonstrate your problem-solving skills, attention to detail, and ability to prepare clear, customer-ready deliverables. Please carefully review both assignments below. All required files are attached.

You will have time to work on these exercises before our next meeting. Please send us your completed work in advance so we can review it ahead of time. Then, bring a copy with you to the in-person interview, where **you’ll have the opportunity to walk us through** your approach and results.

## **Assignment 1 – Data Migration**

### **Context**

You are completing a **data migration** for an organization. This includes migrating **payment methods**, so members do not need to re-enter their information and the organization can continue relying on its cash flow.

You will find the data in **Assignment 1.xlsx**, which contains:

* **Tokens tab (Orange):** credit card token report
* **draftExport (Blue):** latest financial transactions of user accounts
* **Users (Blue):** user/group structures (*Group ID = household*)
* **Memberships (Blue):** memberships assigned to each group, with pricing

### **Instructions**

1. On the **Memberships tab**, determine the **Payment Link Id** for each membership.
   1. Populate **column F** using the correct **profileid** from the **Tokens tab**.
   2. You may use any tools or methods to establish this connection.
2. Prepare a short **summary** including:
   1. Your **success rate** in determining payment link IDs
   2. The **perceived financial impact** (in dollars)
3. **Draft a customer-facing email** that communicates your findings clearly.

### **Important Note**

The *Masked Last 4 Digits* field in **draftExport** has its final digit masked.

* If you use this field for matching, subtract 1 from the masked last digit.
* Example: 1234 in Tokens will match 1235 in draftExport (compare on 123 vs 123).

### **Deliverables to Bring**

* Updated **Memberships tab** with Payment Link Ids populated
* A **text file** explaining your approach and solution
* Your **draft customer email**

## **Assignment 2 – Micro Household Grouping**

### **Goal**

Assign a **GroupID (household)** to each person and select exactly **one Account Owner** per group, based on the rules below.

You will find the data in **people.csv**, which contains:  
 PersonId, FirstName, LastName, DOB, Address1, City, State, Zip, Email, GuardianEmail

Use **2025-09-11** as today’s date for age calculations.

### **Things to Look out for**

1. **Same normalized address ⇒ same group**
   1. Trim spaces; standardize "Street/St./St" to one form
   2. Uppercase City; compare (Address1, City, State, Zip)
   3. Treat Zip as text
2. **GuardianEmail ⇒ child links to guardian’s household**
   1. Normalize by removing any “+tag” (e.g., [alex.smith+kids@example.com](mailto:alex.smith+kids@example.com) → [alex.smith@example.com](mailto:alex.smith@example.com))

*(No fuzzy matching or graphs required.)*

### **Account Owner Selection (exact rule)**

Choose exactly one owner per group using these priorities:

1. Over 18 **with an Email**
2. Over 18
3. Under 18  
    **Tie-breaker within a priority:** smallest PersonId (deterministic).

### **Deliverables to Bring**

* **groups\_out.csv** with: PersonId, GroupID
* **owners\_out.csv** with: GroupID, OwnerPersonId
* **README (2–5 lines):** how to run your solution and your logic

### **Requirements**

* No manual edits to people.csv (must be reproducible)
* Stable output regardless of row order
* Deterministic GroupID (e.g., G-<min PersonId in group>)

## **General Notes**

* If anything is unclear, you may ask up to **two clarification questions per assignment**.
* Please treat both tasks as if you were preparing deliverables for a real customer.
* Be ready to **present and explain your results** during the in-person interview.

We look forward to seeing your approach and discussing your results with you in person!

Best regards,

[**Tristan & Emmanuel**]