## COMMUNICATION WITH BUSINESS STAKEHOLDERS

Hello Everyone,

I hope this email finds you in the best spirits. I am Bhavya Batra, I recently finished working with the data for the Fetch rewards. The three data files in JSON format were receipts, brands, and users. I was hoping to give you all an update on my progress, findings, and some data quality issues that I found.

First, I would like to summarize my approach to dealing with these data files. The data was in zipped JSON files, so I performed Data Cleaning and Preprocessing to convert and transform the data in a more structured form i.e in a data frame using Python. After this, I checked for some data quality issues. I noticed some issues within the data which I would like to discuss with you.

- 1. I wanted to check if the attribute \_id is unique for the receipt, but I noticed that there are multiple records for one \_id. I was hoping to understand that if \_id is the primary key in the receipts table then why is it not unique?
- 2. The next thing I noticed was that there were a lot of unique brand codes in the receipts data that did not exist in the brand data. This could be a problem when we map them.
- 3. There were some records in the brand table that had the same brand code and brand name which doesn't make sense as both are different attributes.
- 4. Last, some of the data (rewardsReceiptItemList, dates, CPG) were embedded in dictionaries that required an extra step. It would be great if we get them expanded beforehand but I will understand if it has to be like that.

Thank you for your time and consideration. I would welcome the opportunity to discuss these points further and schedule a meeting to elaborate on these questions. Please do not hesitate to contact me.

I look forward to hearing from you.

Sincerely, Bhavya Batra