Dear Data Science Team Leader,

I hope this email finds you well. I wanted to provide an update on our progress with the initial exploratory data analysis for the stocking optimization project.

I found the foll owing insights as part of the analysis:

* **Fruit and vegetables** being the 2 most frequently purchased product categories and **spices and herbs** being the least
* **Non membership customers** appear to be the most frequent type of customers, closely followed by standard and premium customers
* **Cash** seems to be the most frequently used method of payment, closely followed by credit card
* **11th, 16th and 18th** hour of the day are the top 3 hours of the day for customers to purchase

After analyzing the sample data provided, it is evident that we need to address several key points before proceeding further.

1. **Increasing the Dataset**: The current sample represents only one store and one week's worth of data. To gain a more comprehensive understanding, we should aim to gather additional data from multiple stores and over a more extended period.
2. **Reframing the Problem Statement**: The current business problem regarding stock optimization is too broad. We should narrow down the focus and define a specific problem statement that we want to address. This will enable us to deliver a more valuable and targeted end product.
3. **Augmenting the Features**: To gain deeper insights into the desired outcome, we need to enrich our dataset with additional relevant columns (features). This will allow us to better understand the factors influencing stock management and identify potential patterns or correlations.

I propose scheduling a meeting with the team to discuss these points in detail and determine the best way forward. By addressing these areas, we can ensure a more robust and effective approach to solving the client's business problem.

Please let me know your availability for a meeting so that we can align our strategies and move the project forward successfully.

Thank you for your attention to this matter.

Best regards,

Khoi Bui

Artificial Intelligence Intern

Cognizant