

## Subject: Enhancing Data Quality and Optimizing Fetch's Reward System

Hi,

I hope this message finds you well. Recently, while analyzing the data from Fetch, several insights and observations came to light that could be crucial for optimizing the current processes and ensuring that the reward system operates smoothly.

### Data Quality Insights:

During the review, some areas of the dataset showed potential concerns. One significant observation was the presence of missing data in several key fields, particularly within the receipts and item-level data. For example, there were discrepancies between the *totalSpent* field and the *sum of finalPrice at the item level*. In many cases, the total spend recorded in the receipt did not match the sum of item prices, which could potentially lead to inaccuracies in point calculations and reward allocations.

Additionally, there were instances where the *purchasedItemCount* field did not reflect the actual number of items recorded. This discrepancy may affect the reward system's performance, potentially resulting in incorrect rewards being issued, which could impact user trust and satisfaction.

Another important observation was the *identification of users without any associated receipts*. This raised the question of whether these users are truly inactive or if there are challenges in mapping receipts to users. Gaining more clarity on this aspect could help identify strategies for re-engagement or to better understand potential gaps in user interactions.

### Refining the Point and Reward System

A deeper understanding of Fetch's point and reward system would be highly beneficial to resolve some of the current data discrepancies. Insights into how points are calculated and what criteria users must meet to become eligible for rewards would ensure that any data processing aligns perfectly with business objectives.

It would also be valuable to understand the impact of rewards on user behaviour. For example, after users receive points or rewards, how do they typically engage with the platform? Is there an increase in submission frequency, or a noticeable drop in interaction post-reward? Insights into user performance after becoming eligible for rewards could help shape future engagement strategies and further improve customer satisfaction.

### Data Transformation Process

To address these data quality issues and prepare for future growth, a structured data pipeline is being developed that follows the **Bronze-Silver-Gold framework**. In the Bronze Layer, raw data will be ingested with minimal cleaning, allowing for full transparency in how data arrives from source systems. In the Silver Layer, the focus shifts to cleaning, standardizing, and removing inconsistencies—ensuring that fields such as *totalSpent* and *purchasedItemCount* are accurate and aligned with business logic. Finally, the Gold Layer will produce "golden tables" that are enriched and optimized for business analysis, ensuring accuracy in reporting and decision-making.

However, for the success of this transformation process, further clarification on the reward mechanism is essential. Understanding the business rules behind point allocation, thresholds for eligibility, and the expected outcomes will ensure that the data processed at each layer aligns with Fetch's objectives.

### **Scalability and Future Growth**

As Fetch continues to grow, certain scalability and performance concerns are anticipated. The system must be able to dynamically expand its capacity to accommodate an increasing volume of data as more users submit receipts. Ensuring the security of sensitive user data, both at rest and in transit, is another critical consideration that must be addressed to safeguard privacy.

To address these challenges, a **cloud-based solution** may offer the most cost-effective and flexible approach, providing scalable storage and computing resources as needed. In addition, any third-party SaaS solutions under consideration should be carefully evaluated to ensure they meet the requirements for data security and compliance, while also supporting the evolving needs of Fetch.

Moving Forward, to proceed effectively, more information is needed regarding the details of Fetch's point and reward mechanism. Specifically:

- **What are the criteria for users to be eligible for rewards?**
- **What is the process for issuing rewards, and are there any thresholds or limits users must meet?**
- **Do you have any historical data on how users performed after receiving rewards? Understanding this could help us refine our approach to increase user engagement and satisfaction.**

Addressing these questions will help resolve the current data quality issues and ensure that the system operates efficiently and accurately in the future. Additionally, these insights can guide improvements in customer satisfaction and engagement strategies.

Please feel free to reach out if further clarification is needed, and I'd be happy to discuss any of these points in more detail.

Best regards,  
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