Introduction

The dataset comprises cash request and fee records collected during a challenging Covid period. The primary objective of this exploratory analysis is to uncover key patterns in cash requests and associated fees, aiming to derive insights that will inform future strategies about how to navigate economic instability and what kind of ebhavioral patterns to expect to better prepare the company.

Key Statistics

- **Cash Requests Dataset**:

    o   Number of instances: *23970*

    o   Null values in user_id of cash_request: 2103. That's how many accounts were deleted.

    o   The number of accounts that were deleted: 2104

    o   Data types and column names

```
Data types in cash_requests:
id                             int64
amount                         int64
status                         object
created_at                     object
updated_at                     object
user_id                        float64
moderated_at                   object
deleted_account_id             float64
reimbursement_date             object
cash_request_received_date     object
money_back_date                object
transfer_type                  object
send_at                        object
recovery_status                object
reco_creation                  object
reco_last_update               object
dtype: object
```

- **Fees Dataset**:

    o   Number of instances: *21061*

    o   Features: *[list relevant features such as cash_request_id, type, total_amount, etc.]*

    o   The number of NAs in cash_request_id fees dataframe is 4.

     ○ Data types

```
Data types in fees:
id                      int64
cash_request_id       float64
type                   object
status                 object
category               object
total_amount          float64
reason                 object
created_at             object
updated_at             object
paid_at                object
from_date              object
to_date                object
charge_moment          object
dtype: object
```

Visualizations

1. **Fee Types Distribution**: A count plot shows the frequency of different fee types, illustrating the most common fees.

2. **Total Amount Owed by Fee Type**: A bar plot displays the total amount associated with each fee type, highlighting which fees incur the highest costs.

3. **Fee Status Distribution**: A count plot representing the current statuses of fees, indicating which fees are outstanding or paid.

4. **Fee Categories**: A count plot of fee categories to understand the distribution of fees across different categories.

5. **Cash Request Recovery Status**: A count plot illustrating the statuses of cash requests in terms of recovery.

6. **Cash Request Transfer Types**: A count plot showing the different transfer methods used for cash requests.

7. **Cash Request Status**: A count plot that outlines the status of cash requests, revealing how many are pending, completed, or canceled.
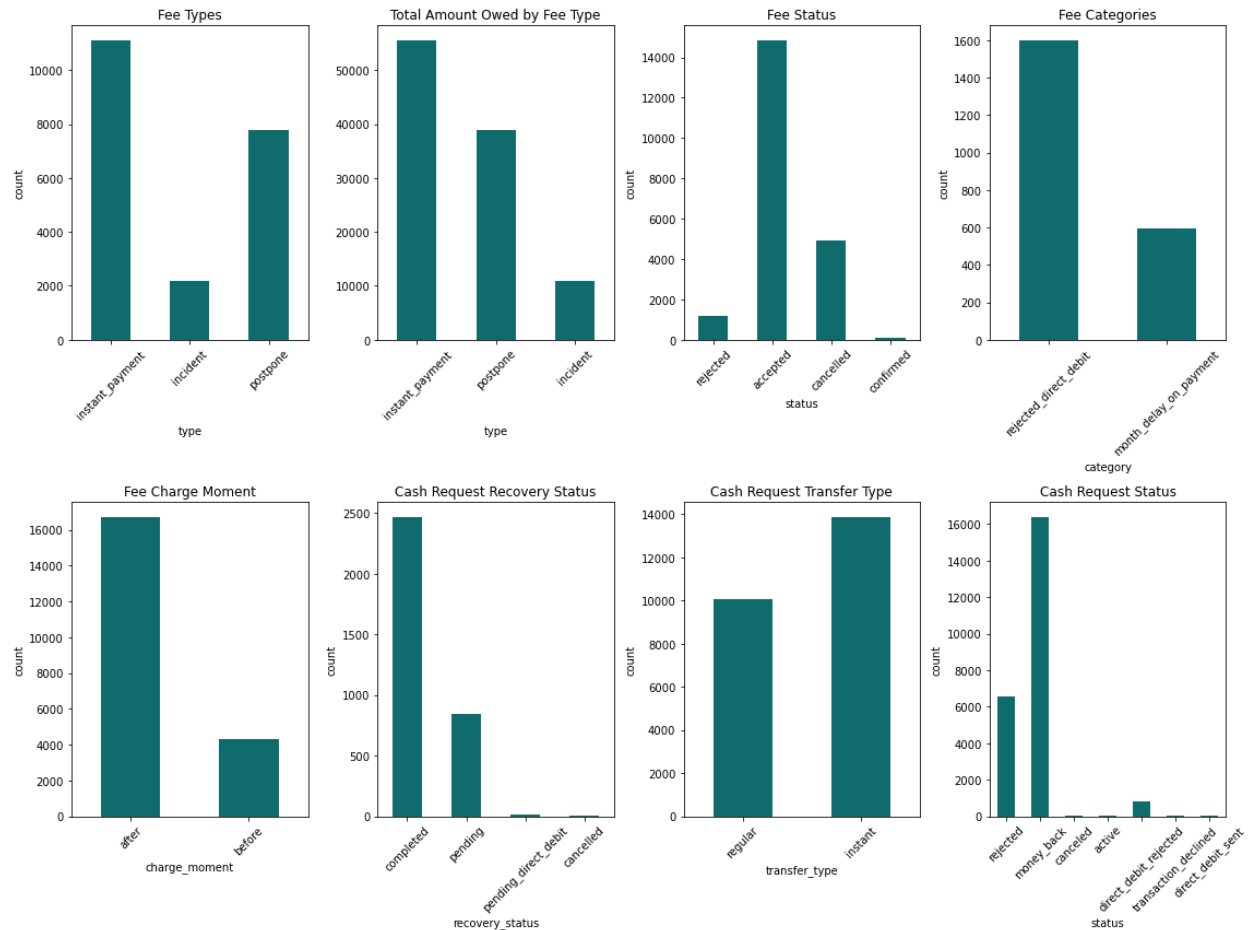
Insights

Cash Request Status:

- A majority of cash requests (16,397) are marked as **money_back**, indicating that most users are receiving the funds they requested, which reflects positively on user satisfaction and the effectiveness of the cash advance process.

- The number of **rejected** requests (6,568) is significant, suggesting that there may be stringent criteria for approval or issues that users encounter when applying for cash. This could warrant further investigation into the reasons for rejection to improve user experience.

- The low counts for statuses like **active** (59) and **transaction_declined** (48) indicate that only a small portion of requests are still in progress or facing issues.

Recovery Status:

- With **2,468** requests marked as **completed**, there is a solid recovery rate, but the **pending** status (845) suggests there are still outstanding cases. This could indicate

potential delays in processing that could affect user experience, warranting further investigation to streamline recovery processes.

Transfer Types:

- The preference for **instant** transfers (13,882) over **regular** transfers (10,088) highlights a demand for quicker access to funds. This insight may lead to an emphasis on promoting instant transfer options or even expanding the capacity for instant transfers.

Fee Types:

- The predominant fee type is **instant_payment** (11,099), followed by **postpone** (7,766) and **incident** (2,196). This distribution suggests that users are more inclined to engage in transactions that incur instant fees. Understanding the nature of these fees and their impact on user behavior may help tailor pricing strategies.

Status of Fees:

- The majority of fees (14,841) are **accepted,** which indicates that the fee structure is generally well-accepted by users. However, a significant number of **canceled** fees (4,938) suggests that there may be instances where users reconsider or are unable to follow through with payments.

Categories of Fees:

- The top categories indicate potential areas for improvement: **rejected_direct_debit** (1,599) and **month_delay_on_payment** (597) indicate users are experiencing issues with direct debits and payment timelines. Addressing the reasons behind these categories could improve user retention and satisfaction.

Charge Moments:

- The overwhelming majority of fees are charged **after** (16,724) the transactions, compared to those charged **before** (4,337). This trend suggests users prefer or are more comfortable with post-transaction charges, which may influence future policy on how fees are structured.