In Class 5; Class Specification

Class selected; Customer

Method Signature; `transferFunds()`

Parameters or arguments to pass;

Amount to be transferred; `amount_transferrable`

Account number of recipient; `account_number`

Receiver of the funds being transferred; `receiver_name`

Types of values to be returned

The function typically returns nothing, from state diagram submitted, there will only be a change of state if the conditions are met, so the return type will be None

Complete method signature; `transferFunds(receiver_name | string, account_number | int, amount_transferrable | float) -> None`

Definition of constraints that must be preserved

Preconditions;

The customer's bank balance must be greater than amount_transferrable; `[customer_balance > ${amount_transferrable}]`

The receiver's amount must be either be $5 or greater than $5; `[amount_transferrable >= $5]`

The receiver's account must be verified and valid; `[account_number != None]`

Postconditions;

Daily transaction limits are updated; `[daily_transactional limits updated to {limit – amount transacted that day}]`

Balance of customer is updated; `[customer_balance updated]`

Transaction list is updated; `[transaction.state = success]`

Invariants;

Customer currency must always be the same as the receiver's currency.

Handling Constraints violations

Raise a `ValueError` for each condition not satisfied, in any preconditions.

Raise a `ValueError` for any, or all postconditions violated.

Raise a `ValueError` for invariant violated.

Members that contributed

Sharon K Mungania

References

ChatGPT; https://chatgpt.com/

Stack overflow; https://stackoverflow.com/questions/1331964/what-are-the-differences-pre-condition-post-condition-and-invariant-in-computer

Google; https://www.google.com/

Stack Edit to edit document, insert code snippets; https://stackedit.io/app#