

Requirements Problems

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Overview

Over the past week of phase #1, several ambiguities have been exposed in the requirements. Many of these received clarifications from the customer, a few were found too late or were implementation dependent.

Unreported ambiguities/Implementation details:

- Though the design document claims that the transaction format is 40 characters, it was found to be 41. We opted to use 41 characters and to consider the transactions to be of length 41 going into the future.
- It may have been unclear whether there were any constraints on what kind of values should be acceptable for console.

Record of Clarifications:

- Accounts will not complete more than 9999 transactions each day.
- During login, we chose to use the flags 'A' and 'S' in the miscellaneous field to represent whether the session was standard or admin, in addition to using the name 'admin' as a parameter.
- An Admin can delete an account that has been disabled.
- Truncate account names if necessary during creation.
- Everyone can add an extra flag to the end of the current and master bank accounts files, NNNNN_AAAAAAAAAAAAAAAAAAAAAA_S_PPPPPPP_P_Q, where Q is S for student plans and N for non-student plans.
- By default, accounts should be non-student plans.
- Yes, it should allow changes in the other direction for student plans to non-student plans and vice versa.
- Users should not be allowed to access the end_of_file account.
- Wait unless your text file told it to terminate during execution.
- Money will always be in the format #####.## where # is a number from 0-9. No dollar signs. Values that don't fit in this format aren't allowed.
- Admins can perform any action when they've logged into an account, unless the account is disabled. Reject log ins for non-matching name/accounts, even if they are an admin.
- Let's go with the front end deducting the 5-10 cent transaction fee every time a transaction is made. Do this first, so that if someone tries to withdraw 400\$ from a 400\$ account, it is rejected since the 5-10 cents will be removed before the withdraw

happens.

- Disabled accounts can log in, but can't do any transactions. Admins can re-enable accounts; I'll make a separate message for the details.

- Transaction Code 09

enable – enable a bank account

- should ask for the bank account holder's name (as a text line)
- should ask for the account number (as a text line)
- should change the bank account from disabled (D) to active (A)
- should save this information for the bank account transaction file
- Constraints:

- o privileged transaction - only accepted when logged in admin mode

- o Account holder's name must be the name of an existing account holder

- o Account number must be the number of the account holder specified

- No further transactions can be made in that session to a disabled account. The front end should keep track of whether or not an account has been disabled.

- Withdraw, Deposit, Transfer, and Paybill transactions are the only ones that incur fees. They are not charged when an admin is logged in.

- The front end should keep track of whether the current logged in user is standard or admin.

- Use the transaction code 10 for login. For the Miscellaneous information, use " A" for admin and " S" for standard logins.

- You can assume no two users have the exact same name.

- No coins but yes all paper currency is allowed. \$5, \$10, \$20, \$50, \$100

- Canadian only currency

- Paper currency only applies to withdrawals

- If you run enable on a disabled account you can immediately run transactions with it again.

- If an account is changed to a student account half way through the day do all subsequent transactions for that session/day get charged the student rate

- Someone can withdraw 500 twice if they have two accounts and take once from each.

- If the user tries something like withdrawing 1000000, it should take the user back to the place where they can try another transaction

- Transfers are > \$0

- The maximum amount of money that can be paid to a bill holder in current session and current day is \$2000.

- You need to keep track of balances.

- A new account holder would have a new name.

- Can not transfer funds to a disabled account.
- Responsibility of the back end to manage the passing of days.
- Fail gracefully on no input
- If you enable an account, you can immediately start changing the balance. If you disable an account, you immediately can't start changing the balance.
- When an admin logs in, they don't need an account holder name or account number
- Left align all strings
- Only 5.00 is acceptable (with the right number of 0s to the left)
- \$0.05 for students and \$0.10 for non-students
- Account number is unique when creation happens and front end will generate one.

Also can't be used in the same day as creation

- No more than \$2000 per company for paybill
- No errors in the accounts' file