

Savings Account Extension Report

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Total time spent: (combined)

Category 1: 4 hours 30 minutes

- Changing the database to support savings accounts, writing SQL statements changing these values as well as changing old sql statement to support the new columns.

1 hour 15 minutes

- Adding methods to calculate and process interest for savings accounts.

1 hour 45 minutes

- Adding methods to support the new requests(open and close savings accounts), and changing old requests to support the new return values(savings balance, and savings transaction history).

1 hour

- Small changes throughout the system to support the savings accounts, such as new checks for transaction methods/access methods.

~30 minutes

Category 2: 1 hour 30 minutes

- Writing test suite methods to test the new methods and their results

-30 minutes

- Fixing the code related to interest calculation, there was a bug there causing the interest that as calculated to be way higher than expected.

- 30 minutes

- Trace bug causing transactions to/from savings accounts to be rejected.

- 15 minutes

- Fixing other small bugs throughout the system that occurred during testing

~ 15 minutes

Category 3: negligible

This extension was quite straightforward to implement. We added a two new columns to our ledger database, one that contained a boolean indicating if the savings account belonging to that account was active, and another that contained the savings balance. We also changed our transaction history database to contain a new_savings_balance column which indicates the new savings balance after a transaction. We chose to not create a new table of savings accounts but instead use the already existing ledger table as we could then use the already existing transfer and account creation methods for our savings accounts as well. After these database changes we changed all the surrounding database methods to support these columns and added methods to open/close a savings account(change the savings_active boolean in the database) and changed the existing transfer system to support transactions to and from the savings account. The time processing system that was already in place got expanded a bit to support the interest calculation for the savings accounts. We did not run into any real problems, the extension fit right into the system.

No big coding decisions were needed for this extension and no new libraries have been added.