

TODO: Recurring Interest

The following document will go over the design of XXX, as outlined in Story ticket UFC-XXX.

Acceptance Criteria

For reference, the following are the acceptance criteria for this ticket:

- TODO

Design Brainstorming

I figure there'll be two 'hard' parts to this: creating the recurring transactions for existing accounts that have interest (and making sure we don't create duplicates), and the actual interest calculations themselves.

- For the first, I figure we'll need to add an account ID field to the recurring transactions to be able to optionally relate them to a recurring transaction.
- For the second, that's just gonna be a pain cause there are technically different ways to calculate interest. But I assume calculated daily, applied monthly is the most common.
 - I think the formula is $\text{INTEREST RATE} / 365 = \text{daily interest rate}$, then apply that interest rate to the daily balance. It *compounds* annually, but is *applied* monthly, so the user would get a monthly end-of-month transaction for the interest amount.

Hmm, what's also gonna be a pain is that we need to make sure the user has an Interest income account that we can apply the transactions against. And that we need to make sure they can't edit/delete that account.

And that they can't edit/delete the recurring transactions that are created for the interest calculation.

And that the recurring transactions are updated whenever the user updates the account's interest rate.

Plus we actually need two separate interest accounts: one for Assets and one for Liabilities, since the Asset one needs to be an Income account and the Liability one needs to be an expense.

Plus we'd need to account for delayed interest on credit cards, since they often don't start applying interest till the next period...

Hmm, maybe this feature isn't as simple as I thought it would be.