Cashflow3 Design

# System Concepts

* Each paycheck, contribute a fixed dollar amount or percentage to special funds / “envelopes”. These add up to less than 100% of paycheck:
  + Charity
  + gifts
  + travel
  + home improvement
  + new car
  + car expenses
  + Emergency Fund
  + The remainder goes to “General” to get to 100% of paycheck
* create separate transaction types for Paycheck and Other Income. For paycheck, used fixed dollar amounts. For other income, use percentages.
* Create a budget based on monthly income that accounts for bills and distributions to Funds (envelopes). Update this budget each time salary changes, and adjust how much is allotted to each Fund if needed.
* Money not allotted to funds is all pooled together and available for whatever. Bills will come out of here, as well as spending and living expenses. It can be implemented as a category called General.
* Project a desired account balance to account for fund balances (emergency, charity, and all funds and goals). Calculate balance of all accounts and compare to desired balance to determine spending power (ie balance of General).
* Record the following transactions: Charity, Emergency, all other Funds and Goals
* Do NOT need to record the following transactions (anything considered “General”), but can:
  + Bills
  + Spending and Living
* Balancing accounts
  + log in to bank accounts periodically and review transactions for accuracy. Enter balance of each account, and the date of that balance, in ledger. No need to record each transaction, just the balances, as well as any transaction that counts against a Fund.
  + When balance is entered, system calculates the amount of unrecorded transactions and enters it as a line item in the “General” category.
* Question with this: Do I want to keep recording transactions by hand in order to verify

I can also enter transactions against the General category by hand if I want to, in order to record the purpose of it. The line item that is inserted automatically when a balance is taken will account for any items not entered. If I later add a transaction for a time period that was already balanced, the system will automatically adjust for it next time an account balance is entered

# Design

## Overview

The system will include the following components:

* Method to enter transactions and record Date, Description, Amount, Account, Category, Sort Order (default highest plus one), and whether or not it has cleared yet (default true)
* Method to enter account balance and date of balance; automatically archives transactions entered on or before that date. (Instead of being kept in a separate database, “archived” is a Boolean property of each transaction
* screen to view spending power
* screen to review transactions entered by hand and calculated automatically
* screen to view budget and distributions
* screen to view balance of each Fund/Goal/Envelope

The components above will be organized into the following pages

* Dashboard
  + view general spending power (Account Balances minus desired minimum balance)
  + view balance of Funds/Goals/Envelopes
  + view transactions for a defined time range, account, and/or category (default is last 60 days, all accounts and all categories
* Account
  + view balance of account, including last balance entered and transactions entered manually since that time
  + view transactions against that account over a specified date range (default last 90 days) and category (default all)
  + Enter transaction
* Fund
  + view balance of Fund/Goal/Envelope
  + view transactions against that fund/goal/envelope, including income transactions if the fund receives a distribution
  + future: view graph of Fund over specified date range (default last 6 months)
  + Enter transaction
* Transaction
  + Enter a transaction
  + View recent, unarchived transactions
* Mobile entry
  + Mobile-friendly page to enter a transaction
  + Confirm entry and provide button to view full transaction page, where recent, unarchived transactions are displayed

## Database

|  |  |  |  |
| --- | --- | --- | --- |
| **accounts** | | | |
| **name** | **balance** | **balanceDate** | **otherNames** |
| Cash |  |  |  |
| WidgetSavings |  |  | GE Savings |
| WidgetChecking |  |  | GE Checking |
| ChaseCredit |  |  | Chase |
| ChaseCheck |  |  | Chase Check |
| Amex |  |  |  |
| Southwest |  |  |  |

|  |  |  |
| --- | --- | --- |
| **funds** | | |
| **name** | **active** | **goal** |
| Charity | true | 0 |
| Marann | true | 300 |
| Ten Percent | true | 0 |
| Emergency (include Home Improvement, Car Expenses, and New Car in balance?) | true | $ 13,771.06 |
| Gifts | true | 300 |
| Wedding | true | 2000 |
| Mwed | true | 0 |
| Home Improvement | true | 0 |
| Car Expenses | true | 500 |
| New Car | true | 20000 |

|  |  |
| --- | --- |
| **paycheck’** | |
| **IDX** | 1 |
| **date** | 7/3/2017 |
| **Charity** | $412 |
| **Marann** | $300 |
| **Ten Percent** | $51 |
| **Emergency** | $51 |
| **Gifts** | $51 |
| **Wedding** | $51 |
| **Home Improvement** | $76 |
| **Car Expenses** | $76 |
| **New Car** | $76 |

|  |  |
| --- | --- |
| **other\_income’** | |
| **IDX** | 1 |
| **date** | 7/3/2017 |
| **Charity** | 10% |
| **Marann** | 12% |
| **Ten Percent** | 10% |
| **Emergency** |  |
| **Gifts** | 5% |
| **Wedding** |  |
| **Home Improvement** | 5% |
| **Car Expenses** |  |
| **New Car** | 5% |

# Implementation