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Our cost sharing app, **Rumi**, is designed to facilitate the process of splitting costs with *roommates*, assuming that each roommate periodically makes a purchase that benefits at least one other roommate. Costs we are expecting include utilities, rent, or apartment essentials (food, cleaning supplies, furniture, etc).

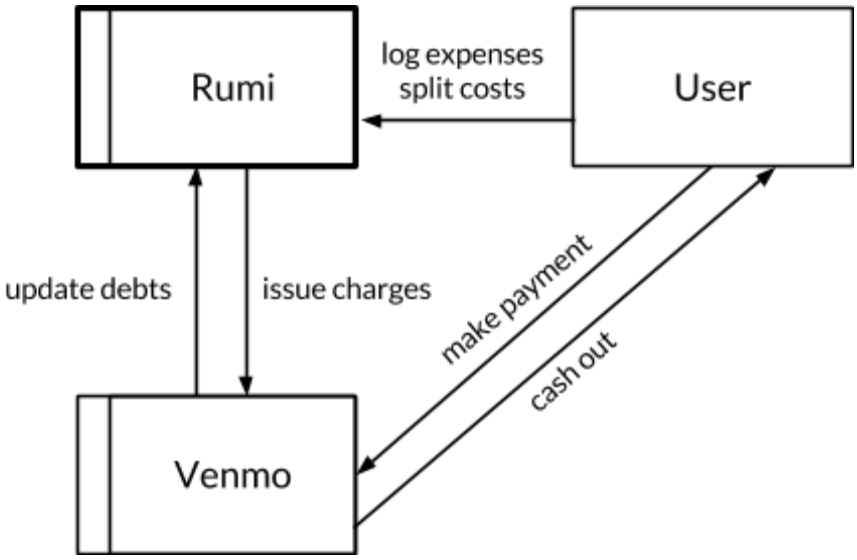
KEY GOALS / PROBLEMS SOLVED

- **Keeping track of shared costs.** Rumi will keep a log of all expenses that is easy to navigate and understand, so everyone is comfortable paying each other because they know what expenses have been made.
- **Treating every expense as important.** Rumi is most useful for a rooming group that will have multiple roommates paying for expenses that will benefit at least one other roommate. If even the smallest expenses are logged, this number can go into calculating the total payout when the balances are "evened out". This means that you don't have to ask your roommate for 63 cents after splitting medium fries, but they will eventually get those 63 cents to you if you include that expense in the Expense Log.

What's wrong with existing solutions:

- **Easy way to pay, no easy way to lump payments.** There are finally easy ways to pay roommates back (other than cash and coins), but no easy way to split rolling costs unless one of your roommates is an accountant. Rumi does the calculations for a group if they decide to balance their expenses.
- **Too much emphasis on one time transactions.** By keeping track of expenses with only the individual in mind, a reshuffling of money could look like (A pays me $4, A pays me $3.50, B pays me $2, B pays me $1.25, C pays me $1.40, I pay A $3…) with the hope that somehow I get all the money that is owed to me. By shifting the focus to multiple group transactions, roommates can see their expenses as benefitting their entire living group. When it is time to get paid back, the idea again is to view the living group as paying back certain roommates who have contributed more during a certain time period (which is accomplished by our "even out" action).

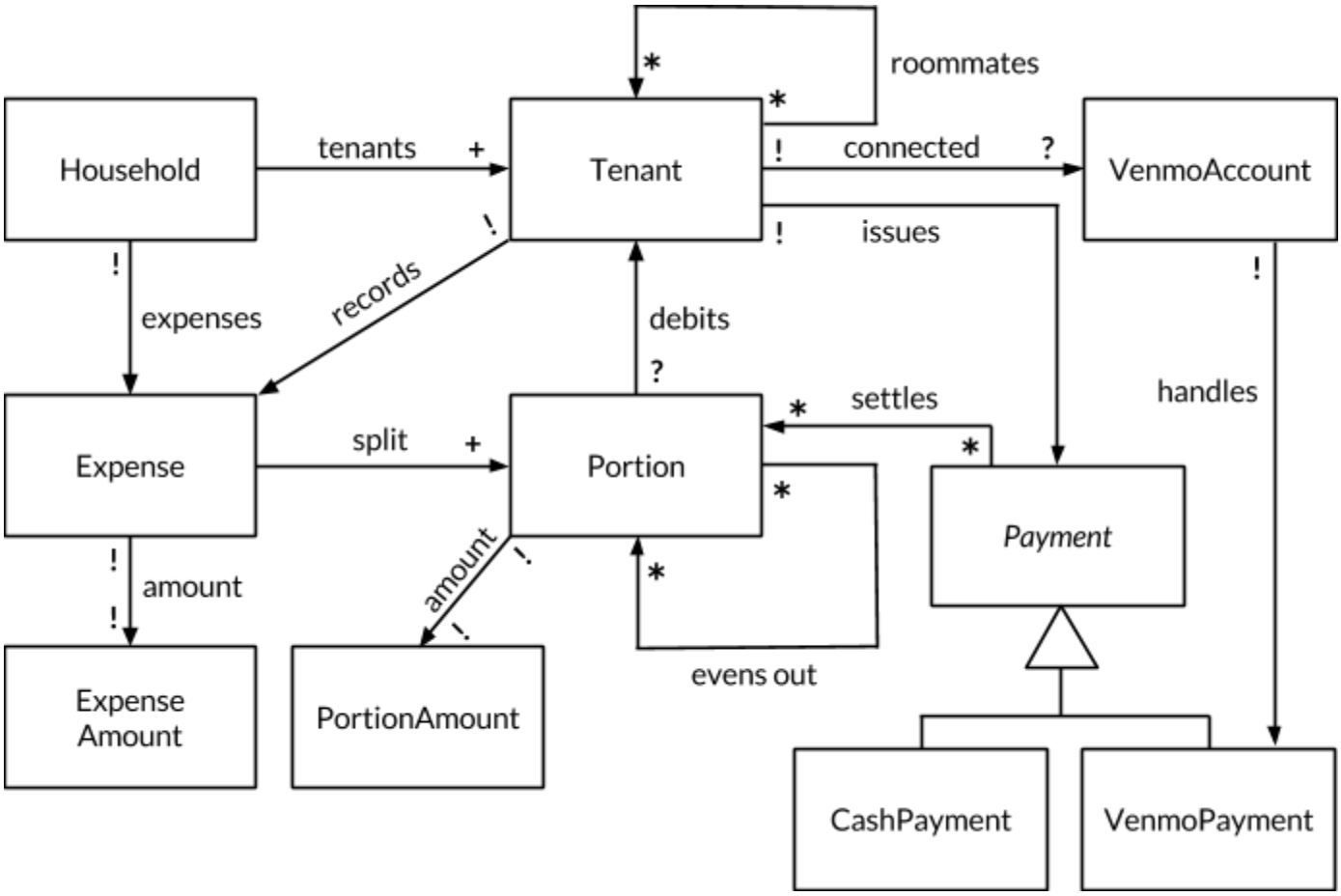
CONTEXT DIAGRAM



CONCEPTS

- **Even out.** Roommates can calculating expenses to every other roommate at the end of each month and resolve all outstanding payments at once by choosing to "even out" the balance, which uses the transitive property to minimize the number of transactions. After the final transactions are calculated, Rumi sends the expense charge through Venmo to the correct roommate.
- **Expense log.** Rumi's Expense Log is not just a rolling receipt of expenses made by the roommates -- it is an interactive way to explore and manage payments between roommates. Beyond editing a specific expense detail, a roommate can "even out" a single expense within the expense log.

DATA MODEL



- tenants can only record expenses to the household they belong to
- expenses can only be split between tenants of the same household
- portions within a household can be evened out with one another
- tenants can issue payments to settle portions they owe

FEATURES

- **Venmo integration.** We know that not all roommates are always ready to pay when a roommate decides to even out. By using Venmo to send charges, roommates can complete a charge when they are ready to avoid overdrafting from their bank account.
- **Easy to read visual representations of each person's status.** When you're trying to keep track of how much money you owe, it's important to have a glanceable interface.
- **Algorithm to lump payments together**. Instead of paying for every small expense, Rumi lets you make the minimum number of payments to resolve all of your debts.
- **Simple user interface.** Rumi takes away the complexity and ease of error of a spreadsheet and tracks expenses in the Expense Log. The Expense Log asks for minimal information (with options to add more details about a specific expense) and gives it the structure of a spreadsheet.

SECURITY CONCERNS

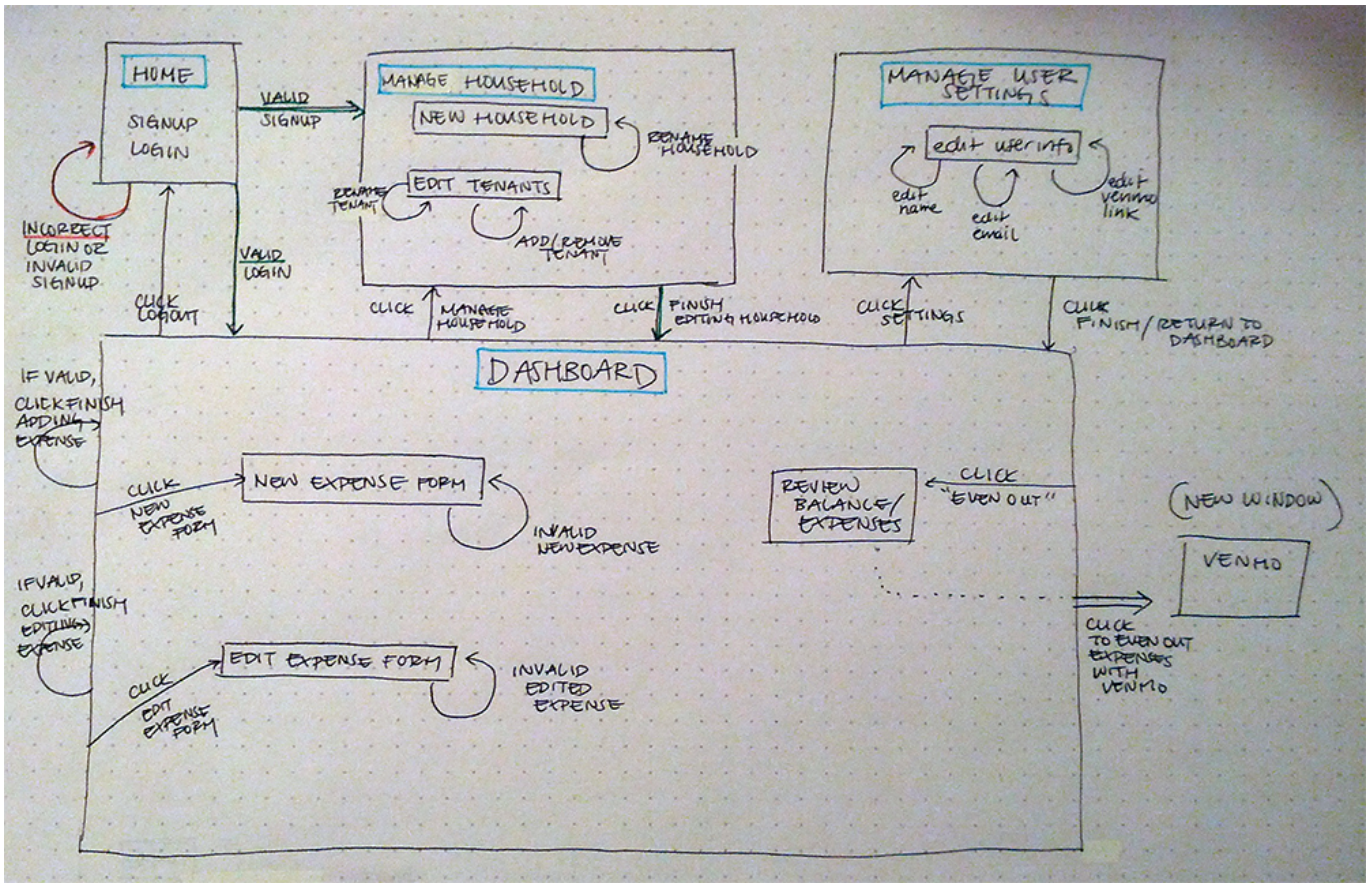
We understand that with any cost sharing application, there is the risk of exposing sensitive information that could give a villain direct access to an individual's funds.

To combat that information exposure, **Rumi does not request or store any personal information** (birthdays, SSN, bank account or routing numbers, credit/debit card numbers, or any identifying information) and instead **delegates the information validation and money transferring to Venmo**. By taking information that the user is already comfortable sharing (a username that does not have to be their real name, expenses made between roommates and their Venmo email) we are able to calculate what a user owes/is owed and send that information to Venmo to handle monetary transactions.

We expect the user to log in to their Venmo account *with another unique password* when finalizing any payments to roommates. Rumi serves as a bookkeeping tool that can do the number crunching, but does not process any of the transactions. It simply produces correct numbers to create a Venmo charge, which must be approved by the person who receives the charge.

In the case that a roommate attempts to make incorrect expenses (either lowering their share of an expense or creating a fake expense), other roommates can moderate these actions and request receipts before any Venmo charges are made. Again, because a Venmo charge is just an expectation of a transaction (no money is actually transferred), faulty requests can be denied so no roommate is forced to pay too much or too little without the consent of the other roommates.

USER FLOW + INTERFACE



rumi

SETTINGS LOGOUT

534 W. 53RD ST.

EDIT HOUSEHOLD

SASHKO

STEPHEN

CONNIE

SASHKO OWES STEPHEN $30.24

CONNIE OWES STEPHEN $52.88

SEE DETAILS

EVEN OUT

ADD EXPENSE

CONNIE
10/18/13

$ amt

description

EVEN SPLIT or drag the handles

DONE

CONNIE 10/17/13	$78.40	DRY CLEANING	
STEPHEN 10/14/13	$42.05	WINE GLASSES	
SASHKO 10/12/13	$32.88	TOWELS