

## CS 5200 Project 3 Business requirements

Yuhan Chi, Tzu-Chi Tai

### Business rules:

- User **has** demographic information, such as date of birth, gender, and residing state
- User **holds** multiple accounts to get a better view of expenses
- Each account has a name for the user to easily recognize which card/account it represents
- Users **track** expenses, which **records** the date, amount, category, currency, the account that is used to pay for the bill, and an optional description that allow users to put in more details that would help them recall the spending in the future
- Expense can be either group or individual expenses, depending on the amount of accounts associated with it, but we don't care whether an expense is splitted among all users (maybe only 30% of the expense is recorded under our users' account, and the other 70% isn't recorded within our app)
- User **sets** budget for a designated period of time
- Budget **has** a set start date and duration period, so users can better view their spending analysis

Nouns: User, Account, Expense, Budget

Verbs: has, holds, tracks, records, sets

Attributes: User (name, gender, date of birth, state), Account (name), Expense (date, amount, category, percentage, description), Budget (start date, amount, period, description)

Common queries used within the application:

- CRUD user expenses with customizable details, i.e. date, amount, category, description, etc..
- Users can create multiple accounts to better record the payment method used for each transaction. For example, an account named BofA will include all the expenses paid with a Bank of America Credit Card.
- User can set periodical budgets for themselves, with a desired starting date and the duration of the budget cycle.
- The percentage of each expense is set to 100% by default. However, if the user is sharing the bill with other users, manually type in the percentage he/she is paying to split the bill among friends.
- User can view their expenses grouped over categories, period of time, or account.

Functionalities to be used as an in-memory key-value storage

- The amount spent on each category