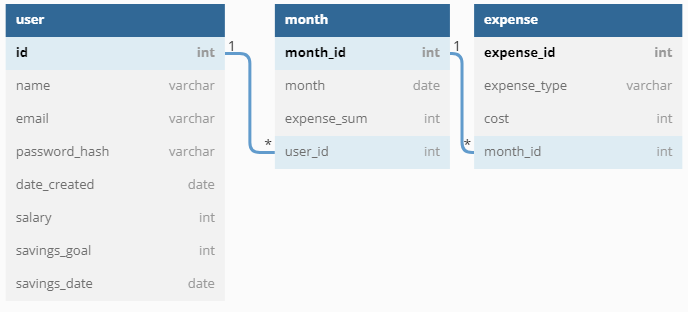
Under Budget Database Design

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Overview

Under Budget will be using a SQLite database to persist the data of my web application. I chose this due to the relationships my tables will possess to allow for the easiest storage and identification of expense sheets. The easiest way to track what expenditures a user has in a specific month is through a relational database.

Table Design



Users

My user table is comprised of an id primary key for identification, a name field for user greetings, along with an email and password (password\_hash) field for user authentication. These values are all needed for when a new user is initialized, along with the date created field which logs the day the account was created. After a user has created their account they are able to set their salary, the amount they want to save(savings\_goal), and by what date they want to have it saved by(savings\_date). This information will be used when tracking and comparing the current savings progress tracked on expense sheets.

Table user as U {

id int [pk, increment]

name varchar

email varchar

password\_hash varchar

date\_created timestamp

salary int

savings\_goal int

savings\_date date

}

Month

My month table consists of an id primary key for identification, a month date field for tracking/displaying the chosen month/year, and a foreign key connection to my user table. There is a one to many relationship between the users and months table since a single user can track their expenses and generate multiple sheets over multiple months.

Stretch:

Implement tracking for an expense\_sum value to assist with the stretch goal of tracking overall savings progress. This will be used to present overall savings since budgeting has started.

Table months as M {

month\_id int [pk, increment]

month date

expense\_sum int

user\_id int

}

Ref: U.id < M.user\_id

Expense

My expense table holds an id primary key for identification, an expense type (expense\_type) field for the categorization of expenses, a cost field to store the expense, and a foreign key relationship between my months and expenses table as each month budget sheet will contain multiple expenses.

Table expenses as E {

expense\_id int [pk, increment]

expense\_type varchar

cost int

month\_id int

}

Ref: M.month\_id < E.month\_id