PersonalBudget

Tavish Misra
@tmisra2004

Description

This application simplifies the process of making a personal monthly financial budget. I was inspired to do this project when I saw the needlessly complicated process of making a budget on my bank's application.

Features

- User Authentication (Login, registration, and password hashing)
- Create monthly budgets and add budget items with a running total
- Make transactions which then deduct the budget items balances by the transaction amount

Planning - User Stories

The user would like to be able to have a simple interface in which minimal time is spent creating and managing a budget. The user would like the application to be secured with a username and password.

Planning - Database

The tables used are User, Role, Budget, Item, and Budget_Items. The User and Role tables are for user authentication. The User table stores the user's numeric ID, first name, last name, username, and hashed password. The budget IDs and Item IDs are linked in the associative entity titled Budget_Items.

Technology Stack

- Java 8
- Spring Framework (including Spring Security)
- Thymeleaf Template engine
- MySQL (InnoDB engine)
- Passay (for password validation)

Demo

What I Learned

- I learned more about the Spring Framework and Spring Security
- I learned how to create a custom annotation for password validation.
- I learned how to use Spring Security's BCrypt Password Encoder to hash passwords

What's Next

- Generating spending reports with a Javascript Pie Chart, so the user can see where they are spending their money within a budget period
- Generating PDF reports for easy printing and sending to others who don't have access to the application
- Archiving budgets for historical record keeping