Developing an Open Source Budget Management System

A Capstone Project by Callahan Hirrel

Background

- Original idea for this application came from Nora Simmons, the administrative assistant for the Biology and Psychology Departments

- The system currently used is disorganized

  - Different professors manage their own budgets differently

  - Monthly reports can be late, are stored as PDFs in email

The Solution

- A Web application that displays budget data in real time

- Users can sort and organize data with simple button clicks and keyword searches

Thinking Long Term

- Previous experiences indicate that this project cannot be completed in one semester

- So focus became building a solid foundation and skeleton, to make contributions easy

- Wrote user stories, extensive use cases,

- Set up framework, database model, dependencies, some basic functionality for additional features to mimic

Current Functionality

- Basic 'user' logic

- Users can register, login, view and update account information

- All forms have working validation

- Passwords are hashed before storing

- A login manager helps keep track of user sessions

Goals Met

- User stories and use cases

- Working database model

- Prototype with functional user logic

- A framework that is easily scalable and open to contribution

Future Work (for me)

- Advertising to other Computer Science students that a relatively easy project is available

- Completing functionality of the budget side of the data model

- Finish making the overall application distributable (using Python's setuptools)

Work for Future Student Contributors

- Mostly Web page design/routing

- Currently it uses a lot of Bootstrap templates with default styles

- Good way to get some experience with design, CSS, HTML and the like

- Routing good way to learn how frameworks operate

The End