



Sprint 1 Retrospective

Team 7: Haris Sohail, Mayur Patil, Jack Crawford, Jacob Riggs

What went well?

Our team did a great job in communicating amongst one another on a frequent basis to make sure everyone's part of the project went as planned. Everybody in the group expressed what parts of their particular user stories they were having difficulties with, and other members of our group would try to research and help find solutions to their problems.

1. As a user, I would like to be able to create an account

Task	Estimated Time	Owner
Create Registration page backend	4 hrs	Mayur
Create Registration page UI	4 hrs	Jacob
Implement Reset Password page and Change Email page backend	3 hrs	Mayur
Implement Reset Password page and Change Email page backend	3 hrs	Jacob
Setup Database & Create User Table	5 hrs each	Haris & Jacob
Create unit tests to verify that authentication works properly	3 hrs	Haris

Completed:

Our database is nearly complete, and we've implemented and tested functionality for almost all account registration and management tasks. Users currently have the ability to register accounts, log in, and change their passwords.

2. **As a user, I would like to be able to view graphs that show my spending across different time intervals and spending categories.**

Task	Estimated Time	Owner
Create a homepage (dashboard)	4 hrs	Mayur
Implement graphs that show spending across different time intervals	3 hrs	Mayur
Implement graphs that show spending across different categories	3 hrs	Mayur
Add unit tests to verify the graphs are showing the proper data	3 hrs	Haris

Completed:

We successfully implemented graph functionality into our web application. This was our entire groups first exposure to working with graphs in frontend development, so it required a lot of research and usage of different methods to implement the graphs correctly.

3. As a user, I would like to be able to create new spending categories.

Task	Estimated Time	Owner
Create Categories Table	1 hr each	Haris & Jacob
Add predefined categories	2 hrs each	Haris & Jacob
Implement “Add Category” page	2 hrs	Jacob
Implement “Add Category” method in backend to send category details to database	2 hrs	Haris
Implement unit tests to make sure categories are added successfully	1 hr	Haris

Completed:

Our database has been updated to include a categories table which is slightly different than our original schema. Rather than have each category exclusively storing expenses, expenses each have a category id which links them to a category, but also store a user id linked to their user. This allows easier querying between expenses and users and still allows for quick calculations of expense sums by category. Users are able to add categories also receive some categories when they initially create an account. We may consider adding some functionality to remove empty categories if users do not want their predefined categories or accidentally create a category they didn't mean to.

4. As a user, I would like to be able to manually enter purchases.

Task	Estimated Time	Owner
Create a UI allowing users to enter in new purchases	2 hrs	Haris
Create tables in database that stores purchase details	1 hr	Haris
Create function in backend used to interpret new purchase details and send details to database	3 hrs	Mayur

Completed:

Our expenses entry system is fully functional, allowing users to enter expenses within categories and also to specify whether they are recurring. If so, their total cost can be calculated.

5. As a user, I would like to be able to enter recurring spending amounts.

Task	Estimated Time	Owner
Add an option in the UI to define an expense as recurring when creating it, along with the time interval over which it recurs.	3 hrs	Jacob
Implement a method to check whether or not recurring expenses in the database have existed for the specified time interval and add them as an expense if they have	2 hrs	Haris
Allow the option for the user to toggle if the item is recurring or not	2 hrs	Jack

Completed:

We successfully implemented the feature that can allow entering recurring expenses to be tracked. This was done through accessing the specific date that each expense was entered at and add the total amount that would be added after the entire duration and dividing it by the frequency of the recurring expense.

6. **As a user, I would like to be able to view detailed analytics on the expenses that cost me the most.**

Task	Estimated Time	Owner
Add an analytics page (UI) to display more detailed spending data (including top five items spent per category)	4 hrs	Jack
Implement functions in the backend that will query the database and return the analytics requested	3 hrs	Jack
Allow the user to select the number of items to be displayed for each category	2 hrs	Jack

Completed:

We are currently using a Morris chart to display our spending information by category over a week's time. This allowed for a very easy implementation of our data that was going to be entered into the graph.

7. As a user, I would like to be able to customize my BudgetWise dashboard to my liking

Task	Estimated Time	Owner
Create a setting page	3 hrs	Jack
Add buttons for different functionalities (themes,color of categories, change email, change password)	2 hrs	Jack

Completed:

A settings page has been created on the BudgetWise application. The settings page has been formatted with different buttons and a custom layout just for that particular page. The change email function works, along with temporary functionality to delete button and changing the background color.

What did not go well?

Despite our eventual completion of some user stories we had not originally planned on completing, there were some that we had planned on that did not quite get completed. These were the ability to customize colors of dashboard items/categories and to add functionality of dark/light themes.

User Story 7:

Add functionality of dark/light themes	2 hrs	Jack
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Not Completed:

The interface of BudgetWise looks great as we have used a predefined template as a guideline for the application. However, by using this template we have found great difficulty in adding the functionality of dark/light themes. There currently exists a button on the settings page that acts as a proof of concept, which changes the color of the settings page only. Further research needs to be done on if this task is feasible or not.

Add ability to change the color of different spending categories	2 hrs	Jack
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Not Completed:

This feature was pushed down our priority list over more functional features that had to get completed for the first sprint. While this feature isn't an overall priority, I think it is quite reasonable to finish it during the next sprint.

How should you improve?

One of the main issues that our team will need to improve on is having a more organized code structure. Many of the methods and particular functions for javascript files that we have require navigating through several unnecessary sub folders in order to access them. On top of this, most of the backend work in node is done through the same files, which should be split into separate files to make more sense for developing.

Another issue that our group experienced throughout this sprint included having inconsistent meeting times and not having too much planned out to discuss during our meeting. This resulted in some time that was wasted during each of our meetings, which could have been used more productively.