



CS 407 - Software Engineering Senior Project

## Sprint Three Planning Document

Team 5:

John Robinson

Wesley Turnbull

Henry Wellman

Patrick Spitzer

## Sprint Overview

The main focus of this sprint will be the implementation of the social hub and continued refinement of pre-existing features

### Scrum Master

John Robinson

### Meeting Schedule

Sunday 4:30pm

Tuesday 5:30pm

Thursday 8:30pm

### Risks and Challenges

The biggest risk we are taking for this sprint is implementing an entire social media network into FinanceFriend. This will be a team effort unlike the previous sprints, because we were each able to implement our own individual features. However, for this feature, it will be 'all hands on deck.' This will require much coordination in deciding which features must be done and when so that the next team member can continue off of the other teammate's work.

## Current Sprint Detail

### User Story #1 (Backlog #56)

As a user, I would like to see animations when switching pages.

#	Description	Estimated Time	Owner
1	Add a basic transition animation when navigating to a new page	4 hours	Henry
2	Have the animation function for every page in the project	1 hour	Henry
3	Have a section in the settings section about the page navigation animations	1 hour	Henry
4	Be able to toggle the page animations from the settings section	3 hours	Henry
<i>User Story #1 Total Hours -</i>		9 hours	

#### Acceptance Criteria:

- Given the animations work properly, the user will be able to see a simple animation whenever they leave their page for a new one in the app.
- Given the settings section is created properly, users will be able to see a brief description of the page animations in the settings menu.
- Given the settings section is created properly, users will be able to toggle the page navigation animations on or off.

### User Story #2 (Backlog #57)

As a user, I would like to see a loading animation when logging in.

#	Description	Estimated Time	Owner
1	Have a splash screen appear after the user logs in	3 hours	Henry
2	Have the Finance Friend Logo appear on the splash screen	3 hours	Henry
3	Have the splash screen contrast the main app's UI appearance	2 hours	Henry
4	Have a simple animation transition between the splash screen and dashboard page.	4 hours	Henry
<i>User Story #2 Total Hours -</i>		12 hours	

*Acceptance Criteria:*

- Given the splash screen works, the user will see the splash screen after they log into the application and before the dashboard page is loaded.
- Given the splash screen works, the Finance Friend logo will appear in a sequence shortly after the initial screen is loaded.
- Given the splash screen works, there will be a simple transition animation between the splash screen and the dashboard page.

### User Story #3 (Backlog #58)

As a user, I would like to see a list of challenges for me to join based on what I need to save money on

#	Description	Estimated Time	Owner
1	Within the challenges section have a custom challenge button	1 hour	Henry
2	Create a custom challenge based on any budget amounts that have exceeded their spending limits	4 hours	Henry
3	This challenge should be added beneath the list of pre-existing challenges.	2 hours	Henry
4	Users will be able to join the custom challenge	2 hours	Henry
User Story #3 Total Hours -		19 hours	

*Acceptance Criteria:*

- Given the custom challenge button works, it will create a new challenge based off the user's budget category spending.
- Given the challenge is created properly, the user will see the new challenge displayed beneath the list of pre-existing ones.
- Given the challenge functions properly, the user will be able to join the challenge like they would a standard challenge.

### ~~User Story #4 (Backlog #66)~~

I dropped this user story because the challenges and custom challenge user story took far longer than I expected to finish and was quite complicated to implement from interacting with the database point of view. I thought that the charts package that I was using would be easy to extend for bar graph functionality, but some of the dependencies were out of date and not currently supported. Using other packages might be possible, but most that were tried don't play well with the pie chart package that I have currently used which is quite complicated (around 1000+ lines of code). In the end, I feel like the increased time spent working on the custom

challenges user story, coupled with the difficulties faced with the bar graph user story are why I am requesting to remove it from this sprint.

~~As a user, I would like to generate a bar graph to see a visual representation of my investment portfolio~~

#	Description	Estimated Time	Owner
1	Generate a bar graph when the bar graph button is clicked	4 hours	Henry
2	Have different colors display for the different investments	2 hours	Henry
3	Have the prices shown adjusted by the number of shares owned	2 hours	Henry
4	Be able to toggle the graph on and off	3 hours	Henry
<del>User Story #4 Total Hours -</del>		11 hours	

~~Acceptance Criteria:~~

- ~~Given the bar graph button works, when I click on it for the first time, the graph is displayed on the page.~~
- ~~Given the bar graph button works, when I click on it for the second time, the graph will disappear from the page.~~
- ~~Given the bar graph is displayed properly, users will be able to see the investment name and price for each investment from the user's DataTable.~~

## User Story #5 (Backlog #46)

As a user, I would like to add fellow users as friends

#	Description	Estimated Time	Owner
1	Design the user interface for adding friends.	3 hours	Wes
2	Implement the functionality to add friends send and accept friend requests.	4 hours	Wes
3	Integrate the friend system with user profiles.	1 hours	Wes
4	Create test inputs and perform testings	1 hour	Wes
User Story #5 Total Hours -		9 hours	

Acceptance Criteria:

- Given a user is on the app, when the user accesses ~~their profile or settings~~ the social page, then the user should see a user-friendly interface for adding friends.
- ~~Given the user wants to add a friend, when the user sends or accepts a friend request, then the system should update the friend list accordingly.~~
- Given the user has added friends, when the user views ~~their profile or settings~~ the social page, then the system should display the list of friends accurately.
- Given the user has friends, when the user interacts with their friends' profiles ~~or activities~~, then the system should reflect the user-friend relationship appropriately.

## User Story #6 (Backlog #45)

As a user, I would like there to be a social hub where I can share my spending goals with my friends on the app

#	Description	Estimated Time	Owner
1	Design the user interface for the social hub.	3 hours	Wes
2	Implement the functionality to create and share spending goals with friends.	2 hours	Wes
3	Integrate the social hub with user profiles and spending goal data.	3 hours	Wes
4	Create testing inputs and perform testing.	1 hour	Wes
User Story #6 Total Hours -		9 hours	

### Acceptance Criteria:

- Given a user is on the app, when the user navigates to the social hub, then the user should see a user-friendly interface for sharing spending goals with friends.
- Given the user wants to share spending goals, when the user creates and shares goals, then the system should update the social hub with the user's goal activities.
- Given the user and their friends have shared spending goals, when the user views the social hub, then the system should display the shared spending goals accurately.

## User Story #7 (NEW / Backlog #67)

As a user, I would like a consistent and clean UI to navigate through across the app

#	Description	Estimated Time	Owner
1	Make overall UI design choices (icons, fonts, colors)	2 hours	Wes
2	Implement UI changes	2 hours	Wes

User Story #7 Total Hours -	4 hours
-----------------------------	---------

*Acceptance Criteria:*

- Given a user is using the app, when the user navigates through different sections, then the user should experience a consistent and clean user interface.
- ~~Given the user interacts with various app features, when the user performs actions, then the system should provide a consistent and clean user experience.~~
- Given the user opens the application, when the user navigates to any screen, then the icons should be consistent.
- Given the user accesses different parts of the app, when the user experiences the user interface, then it should consistently meet the design and usability standards.

## User Story #8 (Backlog #50)

As a user, I would like the ability to direct message users that are my friends.

#	Description	Estimated Time	Owner
1	Design the user interface for direct messaging.	2 hours	Wes
2	Implement the functionality for sending and receiving direct messages.	4 hours	Wes
3	Integrate direct messaging with user profiles and friend lists.	3 hours	Wes
4	Test with test inputs	1 hour	Wes
User Story #8 Total Hours -		10 hours	

*Acceptance Criteria:*

- Given a user is on the app, when the user accesses their ~~profile or~~ friends list, then the user should see a user-friendly interface for sending and receiving direct messages to friends.
- Given the user wants to send direct messages, when the user sends or receives messages, then the system should update the messaging system accordingly.
- Given the user has friends and is exchanging direct messages, when the user views their profile or messaging interface, then the system should display the messages accurately.

## User Story #9 (Backlog #52)

As a user, I would like to be able to see what money-saving challenges my friends are participating in.

#	Description	Estimated Time	Owner
1	Design the user interface for viewing friends' money-saving challenges.	2 hours	Wes
2	Implement the functionality to display friends' active money-saving challenges.	3 hours	Wes
3	Integrate friends' money-saving challenges with user profiles and friend list.	2 hours	Wes
4	Create testing inputs and perform testing.	1 hour	Wes
<i>User Story #9 Total Hours -</i>		8 hours	

*Acceptance Criteria:*

- Given a user is on the app, when the user accesses the social page, then the user should see a user-friendly interface for viewing their friends' active money-saving challenges.
- Given the user's friends are participating in money-saving challenges, when the user views their friends' profile, then the system should display the challenges accurately.
- Given the user's friend is not participating in any challenges, when the user views their friend's profile, it should handle this case properly.
- ~~Given the user wants to engage with friends' challenges, when the user interacts with challenge-related activities, then the system should reflect the user's interactions appropriately.~~
- ~~Given the user and their friends participate in money-saving challenges, when the user views their friend's progress, then the system should display the information accurately.~~

## User Story #10 (Backlog #47)

As a user, I would like to be able to comment on my friend's goals ~~and their progress~~

#	Description	Estimated Time	Owner
1	Create handler to retrieve friends list and that friend's goals list	3 hours	John
2	<del>Create handler to retrieve friend's progress/implement logic for it</del>	<del>4 hours</del>	<del>John</del>
3	Create comment UI and handler for sending comment to friend	3 hours	John
4	Create a test that checks that all data can be retrieved and updated	1 hour	John
<i>User Story #10 Total Hours -</i>		7 hours	



*Acceptance Criteria:*

- Given I can I have friends, I can see their goals
- ~~• Given I can see my friends' goals, I can see their progress~~
- Given I can see my friends' goals, I can comment on them
- ~~• Given I can see my friends' progress, I can send that friend something~~
- Given I can comment on my friends' goals, they can also see my comment

## User Story #11 (Backlog #48)

As a user, I would like to be able to make posts on the social hub that my friends can see

#	Description	Estimated Time	Owner
1	Create Post UI widget	3 hours	John
2	Create post objects to be uploaded to the database	2 hours	John
3	Create handlers to allow users to view each other's posts	4 hours	John
4	Create tests that check that another social page can be connected to	1 hour	John
User Story #11 Total Hours -		10 hours	

*Acceptance Criteria:*

- Given I have a social hub, I can create a post to be displayed there
- Given I have friends on FinanceFriend, they can view my social hub
- Given my friends can view my social hub, they can see a post I've made

## User Story #12 (Backlog #52)

As a user, I would like the ability to block other users.

#	Description	Estimated Time	Owner
1	Add block button to friend's list UI along with confirmation	2 hours	John
2	Create database structure to identify a user as blocked	1 hour	John
3	Create logic to prevent a user from accessing a blocked friend's social page/messaging	3 hours	John
4	Create a test that asserts a user cannot access another user that blocked them	1 hour	John

User Story #12 Total Hours -	7 hours
------------------------------	---------

*Acceptance Criteria:*

- Given I can see my friends list, I can click a 'block' button
- ~~Given I can click a 'block' button, I can a warning to confirm~~
- Given I can click a 'block' button, there is a button to 'unblock'
- ~~Given I confirm, the blocked user cannot message me or see my posts~~
- Given I block a user, the blocked user cannot friend me

### User Story #13 (Backlog #59)

As a user, I would like to join a challenge to save money with other users

#	Description	Estimated Time	Owner
1	Create handler to see challenges	2 hours	John
2	Create UI to join challenge	1 hour	John
3	Implement backend logic to show in the database what challenges the user is apart of	3 hours	John
4	Create a test to verify that when the 'join' button is clicked, that the database shows the user is apart of that challenge	2 hours	John
User Story #13 Total Hours -		8 hours	

*Acceptance Criteria:*

- Given I can see a list of challenges, there is a button allowing me to join the challenge
- Given that I can click the join button, the database shows that I am apart of that challenge
- Given that the database shows that I am apart of a challenge, my social hub also reflects that

### User Story #14 (NEW/Backlog #68)

As a user, I would like there to be a server to handle social media features

#	Description	Estimated Time	Owner
1	Create a server that can retrieve data from the database	2 hours	John
2	Create handlers to retrieve all social media data	4 hours	John

3	Create handlers to fulfill all social media requests	3 hours	John
4	Create tests to verify that data can be retrieved and requests can be fulfilled	2 hours	John
<i>User Story #14 Total Hours -</i>		11 hours	

*Acceptance Criteria:*

- Given the server is running, the user will connect to it on startup
- Given the user connects to the server, data can visibly be retrieved
- Given the user connects to the server, data can visibly be sent

### User Story #15 (Backlog #42)

As a user, I would like to be able to request my friends to see their budgets.

#	Description	Estimated Time	Owner
1	Implement a way to request to view a friend's budgets	2 hours	Patrick
2	Implement a way to accept/deny a request to view budgets	2 hours	Patrick
3	Implement a way to view a friend's budgets, once a request is accepted	4 hours	Patrick
4	Create a test that checks that a request can be sent and accepted	2 hours	Patrick
<i>User Story #15 Total Hours -</i>		10 hours	

*Acceptance Criteria:*

- Given that budget requests have been implemented, a user will be able to request to view another user's budget.
- Given that budget requests have been implemented, a user will be able to accept or deny another user's request to view their budget.
- Given that budget requests have been implemented, a user will be able to view another user's budget once a request is accepted.

### User Story #16 (Backlog #39)

As a user, I would like to be able to request my friends to see their calendars.

#	Description	Estimated Time	Owner
1	Implement a way to request to view a friend's bill	2 hours	Patrick

	calendar		
2	Implement a way to accept/deny a request to view bill calendar	2 hours	Patrick
3	Implement a way to view a friend's bill calendar, once a request is accepted	4 hours	Patrick
4	Create a test that checks that a request can be sent and accepted	2 hours	Patrick
<i>User Story #16 Total Hours -</i>		10 hours	

*Acceptance Criteria:*

- Given that budget requests have been implemented, a user will be able to request to view another user's bill calendar.
- Given that budget requests have been implemented, a user will be able to accept or deny another user's request to view their bill calendar.
- Given that budget requests have been implemented, a user will be able to view another user's bill calendar once a request is accepted.

### User Story #17 (Backlog #43)

As a user, I would like my budget to be exportable to a CSV-type format

#	Description	Estimated Time	Owner
1	Implement a way to convert a user's budget data to csv format and export	4 hours	Patrick
2	Add a button on the budget page to export to csv	2 hours	Patrick
3	Test button and output	2 hours	Patrick
<i>User Story #17 Total Hours -</i>		8 hours	

*Acceptance Criteria:*

- Given that budget exporting has been implemented, an export button will appear on a user's budget page.
- Given that budget exporting has been implemented, a user will be able to download a csv file by clicking the export button on the budget page.
- Given that budget exporting has been implemented, the downloaded csv file will contain the information on the user's currently selected budget.

### User Story #18 (NEW/Backlog #69)

As a user, I would like to have an updated bill tracking page with a running bill total,

error handling, and an improved display.

#	Description	Estimated Time	Owner
1	Expand what data is collected when creating a bill (amount)	4 hours	Patrick
2	Add extra error handling to ensure bills have correct formatting to be added to the calendar/database	3 hours	Patrick
3	Add a running total amount owed for a user's bills	2 hours	Patrick
4	Improve the aesthetics of the bill tracking page	3 hours	Patrick
5	Test new bills	2 hours	Patrick
User Story #18 Total Hours -		14 hours	

*Acceptance Criteria:*

- Given that the bill tracking page has been updated, incorrectly formatted information should be rejected from being added as a bill.
- Given that the bill tracking page has been updated, added bills should now have an explicit amount field associated with them.
- Given that the bill tracking page has been updated, there should be a running total amount owed for added bills.

## Sprint 2 Hours Breakdown

Name	Hours
Wes Turnbull	40 hours
John Robinson	43 hours
Henry Wellman	40 hours
Patrick Spitzer	42 hours
Total:	165 hours

# Backlog

L: Login

UI: UI/UI Elements

B: Backend (Database, website functionality)

F: Part of a feature

*If time allows*

Henry

John

Wes

Patrick

ID	Function Requirement	Category
1	<del>As a user, I would like to be able to create a <i>FinanceFriend</i> account</del>	L
2	<del>As a user, I would like to login to my Finance Friend account.</del>	L
3	<del>As a user, I want to be able to reset my password.</del>	L
4	<del>As a user, I want to be able to delete my <i>FinanceFriend</i> account.</del>	L
5	<del>As a user, I want to be able to update my login information.</del>	L
6	<del>As a user, I would like to be greeted with an overview of my finances.</del>	UI
7	<del>As a user, I would like for my data to be saved for the next time I login to <i>FinanceFriend</i></del>	B
8	<del>As a user, I would like there to be a dedicated page for investment information.</del>	UI
9	<del>As a user, I would like there to be a dedicated page for tracking bill deadlines and other important dates.</del>	UI
10	<del>As a user, I would like a calendar interface on the tracking page so I can easily see how many days I really have left.</del>	UI
11	<del>As a user, I would like to be able to add new bills and their deadlines to the project and see them on the tracking page.</del>	F
12	<del>As a user, I would like to generate graphs to see my percentages of spending within my budget in a new way.</del>	UI

13	<del>As a user, I would like to be able to create a new budget with a custom name and categories.</del>	F
14	<del>As a user, I would like to see the percentage and exact amounts I have spent in each category.</del>	F
15	<del>As a user, I'd like there to be a database for the data I enter into FinanceFriend.</del>	B
16	<del>As a user, I would like to see each transaction in the budget section in an itemized list/table format.</del>	UI
17	<del>As a user, I would like to track the prices of my investments in the investments section.</del>	F
18	<del>As a user, I would like to generate graphs to see the percentages of my total investment portfolio.</del>	UI
19	<del>As a user, I would like to see how my investment prices have changed over time and see the percentage growth.</del>	F
20	<del>As a user, I would like to be able to create spending goals and have a system notify me if I achieved the goals or not.</del>	F
21	<del>As a user, I would like to be able to see a history of the places I visited.</del>	UI
22	<del>As a user, I would like the option to get notified at a time of my choosing when to enter my expenses at stored locations.</del>	F
23	<del>As a user, I would like to enter how much I spent at the places I visited in my location history.</del>	F
24	<del>As a user, I would like the option to get notified to enter my expenses whenever I leave a location.</del>	F
25	<del>As a user, I would like to be able to use <i>FinanceFriend</i> on multiple devices.</del>	B
26	As a user, I would like to get specific feedback on my spending and areas where I can save	F
27	<del>As a user, I would like to be able to add/omit any spending data from the budget tracking</del>	F
28	<del>As a user, I would like to customize the dashboard to prioritize the information that matters most to me.</del>	UI

29	<del>As a user, I would like to see how my spending would look on multiple different credit cards</del>	F
30	<del>As a user, I would like to be able to set specific saving goals for big purchases</del>	F
31	<del>As a user, I would like to receive warning alerts if my spending has reached a certain threshold for the different categories</del>	F
32	<del>As a user, I would like the option to enable or disable push notifications for the app.</del>	F
33	<del>As a user, I would like to be able to personalize push notifications based on category and how much my budget has been exceeded.</del>	F
34	As a user, I would like the option to see my expected future costs for certain categories based on data from previous periods.	B
35	<del>As a user, I would like tips on how to use a credit card to keep my credit score from getting low</del>	F
36	As a user, I would like to highlight certain transactions in the itemized list that were not planned.	F
37	<del>As a user, I would like there to be different colors for spending categories shown in the generated graphs</del>	UI
38	<del>As a user, I would like to see different colors for investments based on overall ROI results.</del>	UI
39	As a user, I would like to be able to request my friends to see their calendars.	F
40	As a user, I would like to generate graphs based on the expected future spending reports.	F
41	<del>As a user, I would like to see tips on what stocks to invest in based on my level of risk.</del>	F
42	As a user, I would like to be able to request my friends to see their budgets.	F
43	As a user, I would like my budget to be exportable to a CSV-type format	B
44	As a user, I would like an encouraging summary at the end of	F



	<i>the month telling me about my spending habits</i>	
45	<i>As a user, I would like there to be a social hub where I can share my spending goals with my friends on the app</i>	UI
46	<i>As a user, I would like to add fellow users as friends</i>	F
47	<i>As a user, I would like to be able to comment on my friend's goals and their progress</i>	F
48	<i>As a user, I would like to be able to make posts on the social hub that my friends can see</i>	F
49	<i>As a user, I would like there to be a dedicated page for creating budgets.</i>	UI
50	<i>As a user, I would like the ability to direct message users that are my friends.</i>	F
51	<i>As a user, I would like the ability to block other users.</i>	F
52	<i>As a user, I would like to be able to see what money-saving challenges my friends are participating in.</i>	F
53	<i>As a user, I would like to be able to export an overview of my spending suggestions and analytics to a PDF format</i>	F
54	<i>As a user, I would like to see a color indicator for how effectively I am managing my budget.</i>	UI
55	<i>As a user, I would like to see cohesive branding across the app in the form of images, stylized text, and quality logos.</i>	UI
56	<i>As a user, I would like to see animations when switching pages.</i>	UI
57	<i>As a user, I would like to see a loading animation when logging in.</i>	UI
58	<i>As a user, I would like to see a list of challenges for me to join based on what I need to save money on</i>	F
59	<i>As a user, I would like to join a challenge to save money with other users</i>	F
60	<i>As a user, I would like to add a short description to my account describing what my financial goals are</i>	F
61	<i>As a user, I would like to add a profile picture to my account</i>	F

62	<del>As a user, I would like to add data consistency and utilization to the investments page.</del>	F
63	<del>As a user, I would like a cohesive appbar with a homepage button and settings options that appears on every page.</del>	UI
64	<del>As a user, I would like to create and view multiple budgets</del>	UI/B
65	<del>As a user, I'd like to have an aesthetic dashboard view for quickly viewing my information.</del>	UI
66	As a user, I would like to generate a bar graph to see a visual representation of my investment portfolio	F
67	As a user, I would like a consistent and clean UI to navigate through across the app	UI
68	As a user, I would like there to be a server to handle social media features	B
69	As a user, I would like to have an updated bill tracking page with a running bill total, error handling, and an improved display.	UI/F