

finappster

sigma Σ



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MID-PROJECT
REVIEW

Version History

Version	Details	Author	Date
One	Initial Draft	finappster sigma	16/10/2021
Two	Draft Two	finappster sigma	18/10/2021

Key Stakeholders

Name	Student ID	Email
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Executive Summary

The Mid-Project Review will serve to provide an update on the progress that *finappster Sigma* has made through the first semester of their project. The team first began by working with the client to upskill on the FinTech industry and create the fundamental design principles. The main issue that was faced was the misunderstanding with the Project Proposal, but this has been overcome and the team is now on track to meet all upcoming milestones. A comprehensive list of user stories has also been created, encompassing the entirety of *finappster Sigma's* scope.

Project Description

The goal of *finappster Sigma*'s project is to design and prototype the next feature component for the *finappster* application. This will involve creating a quiz to determine users' ethical views, displaying the results of this quiz in an easily digestible format on the user's 'My Values' page and creating a system to suggest future investments that are the closest match to the user's values. Our next key objective is to implement the suggestion system along with dummy investments to test it.

Overview

Objectives

To design and begin prototyping a core missing piece of *finappster*, giving end user investors the ability to align their financial investments with their personal values. The design process will come first, documenting, and illustrating the user journey of investors, investment providers and admin support users. Prototypes for the investor user that were mapped out in the design phase will be implemented by *finappster sigma*. This will serve as a foundation for future teams to build upon.

Scope

To plan out the potential implementation of *finappster*'s three major users and the functionality required to achieve this, with one of these users being the development focus of *finappster sigma*, and the other two designed for use by future *finappster teams*. These three users being the investor, investment provider, and the admin support user, with the investor's expected user journey being the development scope of *finappster sigma*, meaning the development of feature wherein the investor discover where their ethical and sustainable values stand, and using this information to compare how their existing investments stack up against these results, and to get suggestions on new investments based off these results.

Approach

For this project, a mixture of the Scrum and Kanban (Scrum-ban) methodologies will be followed, utilizing two to three-week sprints. Testing is a key part of our approach, and it will initially be performed by the development team. Once they are satisfied the client will test before approving any features.

Milestones / Deliverables

The key deliverables required for a successful completion of this project are:

1. The prototype functionality is completed on time
2. Users will be able to complete the long quiz to determine their ethical beliefs
3. Once a user submits their quiz, they will be able to see investment options that align with their ethical beliefs

Activity	Completion Date	Status
Project Kick-Off	12 th July 2021	Done
Project Proposal Draft Complete	15 th August 2021	Done
User Stories Defined	9 th September 2021	Done
Planning Poker	10 th September 2021	Done
Final Project Proposal Complete	17 th September 2021	Done
Sprint 1 Development Complete	11 th October 2021	Done
Mid Project Review	20 th October 2021	On Track
Sprint 2 Development Complete	29 th November 2021	On Track
Sprint 3 Development complete	10 th December 2021	On Track
Sprint 4 Development complete	28 th Jan 2022	On Track
Sprint 5 Development complete (if needed) and Project Handover	11 st Feb 2022	On Track
Sprint 6 Development & Testing (Polish existing features in preparation for handover)	25 th Feb 2022	On Track
Final Project Poster Complete*	28 th May 2022	On Track
Final Project Presentation*	28 th May 2022	On Track

For a full breakdown of our Project Purpose, Objective, Scope and Approach please refer to our Project Proposal Document.

Changes to the Project Proposal

Sprint one deliverables added to existing finappster work

Originally, the quiz and my values page with existing investments deliverables were to be implemented on a standalone *'create-react-app'* project for Sprint one. When it came time to start writing up user stories and looking into development however, the development team changed their mind on this concept and decided to implement these Sprint one deliverables in the existing *finappster* application. This meant spending more time learning how to use the front and backend of the existing *finappster* application but will save time down the track by not needing to move the Sprint one work done separately onto the existing project.

Heroku deployment moved to Sprint two

The development pipeline decided upon for this project was a mixture of Scrum and Kanban; Scrumban. This is still the plan, but for Sprint One, the user stories and tasks completed were done locally rather than deploying to a development server on Heroku. This meant that the client was not able to test user stories that passed the development team's acceptance tests, (which would be pushed back into earlier columns if the client did not approve) eliminating the Kanban element of the project at this stage.

This has been discussed with the client and they understand and approve of this approach. Upskilling, understanding the existing finappster codebase and prioritizing delivery of features formed the development team's focus instead. Rather than deploy to Heroku for Sprint One, the development team showcased the features developed this sprint through screen-sharing the localhost environment of the project over Microsoft Teams. The development team has also declared that implementation of the Heroku development server for the project will be a priority feature for Sprint Two. The client is satisfied with this approach.

Current Status

Though this is the first time most of us have interacted with a real-world client, our team is performing very well and have adapted rapidly to a new environment. Though we had an unfortunate misconception during week 6 about the academic timeline of the year-long R&D project, our team has done well to pivot quickly and adjust the way we work to catch up and maintain the quality that we deliver.

As of now, we have just completed our first sprint where we have implemented the base structure for the quiz and my values page, straying away from developing features which rely on data that we may not have currently as we are presently working in tandem with another *finappster* team.

We as a team also enjoy working with our mentor as he is a great mentor and receives very helpful feedback from him during our weekly meetings. Our client has also been a great and easy client to work with and we are glad to be developing a good relationship with them both that has a solid foundation based on mutual respect.

Work Completed

Project Proposal

For the first six weeks of the semester, our team focused on getting familiar with the current state of finappster and brainstorming new ideas that our client may want to have for us to write the project proposal. Because of the misconception about the academic timeline for our project, we were able to submit it by week 8 which gave our team time to also improve and revise the previously made proposal.

Upskilling & Creating Designs

After the proposal presentation, our team's main priority was to collaborate with our client to fill in any gaps in our knowledge for the project on how it should look and how it should fit within the existing website. In here we explored in great detail how each page shall be integrated within the current live website and refined the user's journey through user journeys and wireframes that we created. We also conducted usability tests on how a standard feels on all our designs to help us refine the choices we have made on the UI/UX of the platform.

This time was also used to fill in any gaps in our knowledge about the current codebase in. During this time, we also scheduled meetings with Tau to get an idea of what type of data we will receive from them and how to use it and made sure to learn how to run the existing codebase on our machines in preparation for sprint 1. To attain the desired knowledge needed, we used online tutorials and official documentation for any missing gaps in our knowledge, specifically on Django.

Sprint One

During Sprint One our main priority was to be able to implement the basic structure for the quiz and my values page. As most of the project will rely on the data that Tau will produce and SDG data that Leanna has retrieved, our user stories were designed to do as much as we can that will not use any data that we currently don't have. We also decided to split up our user stories into separate development tasks which effectively helped our team organise which task is being implemented and keep track of the dependencies of each task when developing.

Mid-Project Review

Upon the completion of sprint 1, we scheduled a sprint review with our client and showed our progress and are now prioritizing preparing for the mid project review and completing the documents required.

Recommendations for improving team performance

While *finappster Sigma* is happy with their progress overall, there remains some room for improvement. Aspects we have identified are listed below:

More thorough user story development

Spending some more time on development of user stories and tasks in future sprints. Something that happened a couple of times in Sprint one was the development of a user story or task was rushed through, and then when it came time to implement it, time was wasted developing it in a way that did not match what we wanted to develop or lead to confusion by the assigned developer until they realized they needed to redesign the user story. One example of this was the task that involved creating dummy data for quiz results. This concept made no sense when the quiz design we had in mind meant we would be adding data to the database when submitting the quiz results, so real data was available. That task ended up being deleted later in the sprint.

We are looking to address this concern by ensuring that the whole team is on the same page when it comes to the content within a task, making sure that tasks are developed with the specific feature required in mind

Assigning developers to work on preferred user stories

This did not end up being too much of a problem, but it could have been. Allocation of user stories to developer was random, with the idea of having developers work on the tasks they want to work on not being used. Certain team members have preferences for certain tasks or certain development environments (backend vs frontend), so in future sprints, having developers work to their strengths and preferences should improve performance.

Keeping options open

One hiccup that led to a task being stuck in limbo for a week was a front-end library that was almost working to complete a certain task. The library, according to the documentation, should have been able to accomplish what the developer set out to do, but it was discovered much later after much trouble that it was not capable of properly accomplishing the task being worked on. The main developer at this point had received help from another developer, but progress was still slow. At this point, the developers decided to look elsewhere and found an alternative library that managed to complete the task in short order. This situation served as a lesson to the team; if the method at hand is not working, remember to consider alternative methods (something that React has plenty of, in most scenarios).

Individual contributions / learning

We discussed our individual contributions as a team and agreed on the following:

Chris Stehlin

Chris contributed to all facets of the *finappster Sigma* project, whether that be communication, documentation, design, or programming.

Communication-wise, Chris served as the primary communication medium between client and development team, speaking and often helping articulate ideas on behalf of the development team in client meetings and emails.

Documentation-wise, Chris contributed to many sections of the project proposal and helped proof-check all project documentation. He also helped construct many of the user stories and acceptance tests on Trello.

Design-wise, Chris encouraged discussion on design concepts between client, development team, and amongst the development team themselves. He also contributed to whiteboard, paper, figma and Miro designs, additionally fleshing these out as needed.

Programming-wise, Chris added to both front-end and back-end user stories/tasks, but with a focus on the back end. In the Python/Django Rest Framework pre-existing backend of *finappster*, he spent time learning how to use this language/framework that his team was not familiar with, working with John to understand it. Following that, he created the Sustainable Development Goals (SDG) table, added the 17 SDG fields to it, and linked it to the existing user table. Thereafter, he set up the POST, GET, PUT and DELETE requests for the new table, testing it using Postman. Finally, he created and formatted the bars of the 5Ps on the My Values page, the bars reading in the data from the quiz developed by others of his team.

John Isaiah Sangalang

John contributed to the initial design in Miro and Figma particularly in creating user journeys, wireframes, and designs for the three major users (investor, investment provider and admin support). At the same time working with our client and the development team to understand the user journey and visualize the missing piece of *finappster*, along the way he was able to grasp better understanding on how the software works and the benefit it brings in terms of designing and prototyping.

In terms of development, John was active on both the backend and frontend, assisting the team in setting up their development environment and helping them understand if they are not on track with their tasks. The tech stack for the backend was relatively new for him, however, by setting up the environment and assisting his team members, he was able to gain a better understanding of it. Allowing him to complete tasks that he was involved with such as setting up the base code for both the long-quiz and my-values page so that the team may start developing, setting up the route for API requests (POST, GET, UPDATE and DELETE), implementation of the SDG model data with the assistance of a team member, implementation of long-quiz page with a team member utilising a React library to help achieve this goal and fixing bugs that occur while at the same time consult his team members about his task and whether they are up to standard.

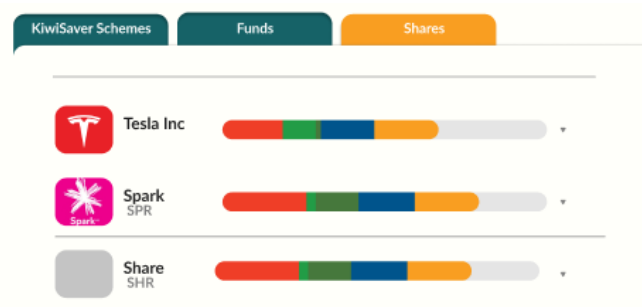
Jose Santos

During the early stages of the project, Jose contributed to the brainstorming of the initial idea of our project through the creation of diagrams on paper and whiteboard. During the initial discussion on

how we are going to refine the idea of finding your kiwisaver into smaller steps, Jose mocked up example designs for how it could look.

Along with contributing to the creation of the project proposal document, Jose also helped with the creating user stories, acceptance tests and suggested to the team a new method of creating and assigning tasks on the Trello board that proved to be more efficient than what most of the team was used to.

During the initial creation of the design and discussion for the specifics of the new features to be implemented, Jose contributed by creating the initial wireframes for the quiz and my values page and creating multiple mock-up designs for how each page could look to give our client choices on how data could be efficiently communicated to the user.



During the development however, Jose was focused on the front-end and the implementation of the quiz page and its sortable grid feature for the 17 SDG's. Jose also noted that because we are working with code from previous teams, we may be working with the previous team's technical debt. Because of this, he brought it up to the team and asked for our mentor's suggestion as it is not clear if refactoring their old code, having two coding standards as the current one seems untidy or if it's more efficient to follow the old coding standards.

Peter Scandle

During the initial design and industry upskilling phase Pete worked with the rest of the team, helping them create user journeys, wireframes and Miro designs as required. He worked with the client and the rest of the team, creating designs and user journeys to both upskill in the industry and shape the direction of the project.

He also met with the client to discuss the implementation of the databases currently in *finappster* and liaised between her and the rest of the team to gain an understanding of what data was already in the system and what data would need to be added to meet *finappster Sigma's* goal. Pete worked with Chris to help lead team meetings and keep them on track.

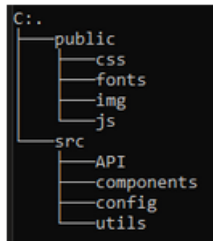
Pete contributed to many sections of the Project Proposal and did a lot of the formatting of team documents. He performed proof-reads throughout development of the document, including assisting Chris with the final proof-read. He proof-read and formatted the Mid-Project Review document as well.

Programming wise Pete needed to spend much of the first sprint upskilling, as he was largely unfamiliar with both the React frontend and the Django / Postgres backend. Once he had completed this, he began working on the *add dummy data for existing investments* task as well as the *switch deployment from localhost to Heroku* task, but both of these tasks were pushed back to the next sprint for a multitude of reasons.

From: Jose Santos <sff4900@autuni.ac.nz>
Sent: Friday, 24 September 2021 11:45 PM
To: Barry Dowdeswell <barry.dowdeswell@aut.ac.nz>
Subject: Finappster - front-end code suggestion

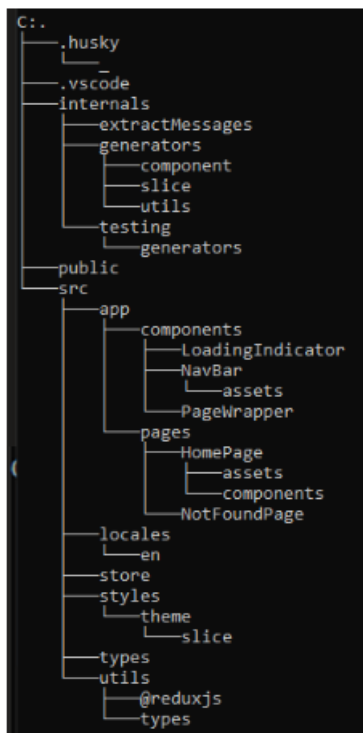
Hi Barry,

I just have one question about the front-end. I have been playing around a lot with the code in front-end and I can't help but notice that the folder structure is a bit unorganized and that the code could be written in a better way. The current folder structure looks like this:



All the pages and components are all put inside the components folder and nearly all of the CSS is put inside one file. Files like dashboard file and CSS files are way over a thousand line long. I was wondering if it may be a good idea to fit in within our project or as I was thinking, during the semester break, to restructure it to make it easier for future teams to add on to the current design in the front-end and potentially improve in speed when a user has a lot of investments to load on each page.

I'm a bit stuck currently as I'm caught in between if we should follow the old teams coding standards or improve upon it and by organizing the file structure. I was thinking of a structure like this which is what I normally use in my projects.



This structure will not only organize it, but I was also thinking of new technologies as opposed to the ones being used currently.

I would love to hear your input on this as we've started on developing and I feel the front-end could be improved a lot for future teams and for us. The backend, though have a lot of deprecated technologies is fine however and only requires us to learn more about python and the Django framework.

Also, I understand if refactoring the code base is not ideal, but should we follow the old teams coding standards, or would it be a good idea if we use our own coding standards and use new technologies as this most likely won't affect the code at all. It will affect future teams as two different coding standards could be confusing to debug. But if you have any questions, I would like to discuss this with you further when you have the time.

Thanks,

Jose Santos
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