Project Proposal

Version 2

Version History

Version	Details	Author	Date
One	Initial Draft	finappster Sigma	08/08/2021
Two	Draft	finappster Sigma	12/08/2021

Key Stakeholders

Name	Student ID	Email
Chris Stehlin	1120279	Prq5006@autuni.ac.nz
John Isaiah Sangalang	18017056	Jsj6212@autuni.ac.nz
Jose Santos	17993442	Sff4900@autuni.ac.nz
Peter Scandle	15922445	vzp7444@autuni.ac.nz
Barry Dowdeswell		barry.dowdeswell@aut.ac.nz
Leeanna Kohn-Hardy		leeanna.kohn-hardy@finappster.co.nz

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Executive Summary

N/A

Introduction

Context

Finappster is an informational tool to help users decide how to align their financial investments with their personal values.

Client

Finappster was established in December 2016 by Leeanna Kohn-Hardy. Her experience working for various banks over the previous four years widened her knowledge and understanding of share market investment and enabled her to identify a business opportunity. Leeanna's inspiration to create Finappster arose from a gap she saw in the market, with people wishing to make ethical investments but struggling to locate the information to do so.

Project Purpose

The purpose of this project (to our current understanding) is to provide a functioning platform for the two main types of users of finappster, investors and investment providers (via fund managers/brokers) to be able to make informed decisions on their investments that match their ethical values (based on the 5 Ps/The UN's 17 sustainable goals data) on distinct types of funds (KiwiSaver schemes, investment funds, individual companies and their shares??).

There is also further discussion to be had on the possibility of implementing an administrative support function to finappster as well.

Opportunity, Problem or Need

Leeanna has been working with AUT's Research and Development program since 2019, and Finappster Sigma is her fifth team. At this current stage, finappster has the bare basics functional, but is currently lacking

Project Justification

Current Situation

finappster Sigma is the fifth research and development team. Currently the website is live and accessible at https://www.app.finappster.co.nz.

While the website is functional, it is more of an early prototype at this point. It supports account registration, share and cryptocurrency tracking, a basic quiz system and a few other things, but much of the core functionality that would entice people to use the application is missing. Functionality (at least the functionality to be added that has been discussed as so far) such as allowing users to view detailed information on their investments that matches their ethical/sustainable values, allowing investment providers to add their funds for investors to eventually view, a quiz (for investors and possibly for investment providers) that helps determine one's personal values, and a way to view this information are the current focus for finappster Sigma (More to be added here (e.g. analytics of current most popular 5 P ratio from finappster investor data for investment provider viewing, admin support implementation) early draft of current situation).

Existing System

The production website https://app.finappster.co.nz is currently live, developed by finappster Delta. It is however just an early prototype, missing most of the core functionality expected of finappster. Currently (as far as we know, meeting with tau TBA) finappster Tau is working on developing the data streams that will be used in conjunction with the functionality produced by finappster Sigma to begin delivering some of the more core functionality of finappster.

Scope and Objectives

Project Objective

Over the rest of this semester and next, we aim to accomplish the following:

- Separate registrations and logins for each type of user, giving access to different resources
- Investment Provider user fund/scheme/investment selling platform implementation
- Connecting finappster *tau*'s data streams (that to our knowledge should have the 5 P data and investment information data in some form in database(s)) to share implementation and the quiz(s)
- User quiz to determine what the investor user's values are, and to inform them of such. (Value determination identified through user's 5 P personal score, should this be determined through the user by well worded questions? The 17 sustainable goals ranked by the user (prob not this way, informational overload), ranking just a few of the goals (might be too vague to get accurate 5 P result)? Appropriate implementation of quiz still to be decided.
- Implementation of a list (that displays investments sorted by relevance to the personal 5 P score of the investor user. (perhaps filtered by user's preference of investment type, KiwiSaver Scheme, investment funds, shares in individual companies?)
- Allowing expansion of each fund/share/scheme that a user is looking at, providing in-depth information on how it got its 5P score, which 17 UN sustainable goals are involved, and potentially a visual depiction of this information in something like a sunburst chart. More discussion required.
- In some form, having key aspects of data highlighted to the appropriate users (e.g. the most popular 5 P ratio should be shared with investment providers during fund construction on finappster (acting under the assumption that fund construction will be quite involved on finappster) A lot of discussion still needed on this one.
- Administration support implementation (live chat? FAQ? contact us? other?)
- Creating and upskilling client on an industry standard model for the databases present within finappster
- Creating an accurate model of the data flow within finappster.

Commented [PS1]: Is this beyond our scope?

Scope Statement

This section is just like the one above now, but with more of a discussion on what was discussed above amongst the team/Leeanna.

Separate logins for each type of user, giving access to different resources How to determine if an investment provider should be allowed to post funds? Is there some form of authorization from the company they are a part of that should be required?

Investment provider platform for selling Clarification on what sort of funds this will include still needs to be discussed. KiwiSaver Scheme? Investment funds? Advertising individual companies? Should descriptions by the investment provider be moderated? Discussion on how exactly this user journey should go still needs to be clarified as well. The online seller user journey covered with the client doesn't translate perfectly.

Quiz for investment providers? FURTHER DISCUSSION WITH LEEANNA REQUIRED HERE (The appropriate way to accomplish this is still in discussion. Leeanna has mentioned briefly at the end of our last client meeting that she would like a quiz system for investment providers, like what investors looking to determine their values use. At first the dev team thought it didn't make sense to do this, as any fund being put together by an investment provider would ultimately have hard data (the 5 Ps/UN 17 sustainable goals data) backing this up, making any quiz for an investment provider to determine their personal stance on their ethical values irrelevant to a fund they have put together.

Upon further reflection however, the idea of a quiz could work if it were finappster's job to help investment providers design their funds. If the investment provider were to do a quiz, not to determine the individual behind the account's personal values, but the intended direction of the fund (so crafting it in a particular way that the quiz the investment provider does helps them design a fund that achieves a certain 5 P value) this could work. This would be combined with a constantly updating 5 P value of their fund as it is slowly built, while the provider adds investments one by one, until they have the ratio, they're after.

Quiz for investors The idea behind this quiz is already pretty clear and discussed with the client; implement a quiz that allows the user to input what is important to them in the context of the 17 sustainable goals/5 Ps. This data will be used to determine which schemes are relevant to them, and thus displayed to them first. What still needs to be addressed is how to do this quiz. Should it just be a ranking of the 17 sustainable goals (information overload, so unlikely). A set of well written questions that make it clear which of the goals is most important to the user (difficult to do) or ranking a subset of the 17 sustainable goals (will this be accurate enough?). Still puzzling that out.

Expansion of 5 Ps Covered In meetings with the client in a little detail, but a proper breakdown of how exactly we are going to go about designing this exactly (Scheme/fund being viewed → 5Ps → info about the P clicked → 17 sustainable goals information for that particular P → → easy way to go back to the scheme being viewed. Also if the funds returns information should be added here, and how the sunburst chart display fits in exactly.

Key data/analytics

Not a lot here at the moment.

Administration support

Still to be discussed with client in next meeting – user journey to be covered.

Project Requirements

Functional Requirements

- The investment provider must register to advertise their scheme/fund
- The investment provider should be able to login to the website
- The investment provider should be able to add their scheme/fund
- The user should be able to view available schemes in finappster
- The user should be able to do the quiz
- The user must be able to view their values upon doing a quiz.
- The system must record a user data into the database.

Non-Functional Requirements

- All key functionalities should be accessible within three clicks.
- The system shall provide the current pricing of a fund provided by an investment provider (Is this important??)
- The system shall display user's quiz result values within three seconds
- The user should be able to answer the quiz with ease
- The quiz should be usable for end users.

Summary of Project Deliverables

Key Milestones

Milestone Title	Date
First Client Meeting	17 June 2021
Project-Kick off	13 July 2021
Mid-Project Proposal Draft Complete	13 August 2021
User stories defined	TBD
Project Proposal Complete	TBD
Final Project Poster	TBD
Final Project Presentation	TBD

Project Methodology WIP

Introduction

Agile

Within the Agile methodology, change is expected. As individual sprints are only measured in weeks, there is significantly more flexibility available if the client needs /desires change throughout the project. It also allows for more accurate representations of what a client wants in their project, as they have constant say in how it is developed, iteration by iteration. (REFERENCE perhaps?).

Scrum

Scrum is a methodology that implements the framework laid down by Agile. It works by dividing the work required into a series of sprints, and communication is maintained through the sprints using daily stand-up meetings. Change is expected and encouraged but is restricted to only occur generally between sprints. Completing work in sprints allows for constant feedback on the iterating product

Kanban

Kanban is a popular framework used to implement agile and DevOps software development. It requires real-time communication of capacity and full transparency of work. Each work items are visually posted on the Kanban Board. This methodology focuses on a "just in time" approach and is much more focused around change at any time, rather than Scrum's more fixed focus on changes only occurring between sprints.

Method being employed: Scrumban (Scrum/Kanban mix) STILL BEING CONSIDERED

@Barry – did finappster Delta really use a mixture of waterfall and Scrum? What methodology is finappster tau following? This will be useful in deciding what methodology to finalize when discussing this with Leeanna perhaps?

Reasoning

We are considering Scrumban, a methodology that is a hybrid mix of Scrum and Kanban. This is currently being considered because the development team is more familiar with Scrum but is also interested in employing a few methodology characteristics from Kanban as they seem suitable for this project and the development team's teamwork style.

A typical scrum setup on Trello will be followed, with sprints, a product backlogs, standup meetings, and other such features of Scrum. Where Trello will deviate from Scrum is implementing the triage system of Kanban, having workloads shift to areas that they are most needed if certain areas are falling behind (many user stories being moved to in testing, but not being completed would be such an example).

As for communication and team interaction, elements from both Scrum and Kanban will be employed. Regular status update meetings will occur, but not at the frequency and in the same format as Scrum does (i.e. standup meetings), only when the team feels it is necessary.

As for handling change, because the scope is still under discussion, it is hard to say how stable the priorities of tasks/user stories to be completed will be. For now, the Kanban concept of accepting change at any time will be followed, subject to change once clarification on the scope is obtained

This methodology is subject to change, dependent on information finappster sigma is missing on our client's experience in previous team's methodologies, and further discussion between members of the development team and between the development team as a whole and the client.

We believe the best approach to follow for this project is Scrumban, which is a hybrid of Scrum and Kanban. As our client is already familiar with this methodology, we believe it makes sense to follow it rather than attempt to teach a new methodology.

Commented [PS2]: Changes will still need to be added to the Product Backlog though right? This was mentioned in one of the meetings. I think this is a big part of where the 'scrum' part comes from

I thought the reason that the Kanban method is implemented is because it allows each user story to go through multiple phases, rather than simply Sprint Backlog -> In Progress -> Done.

Instead we can put each story through development, UAT, Leeanna's UAT, completed and then into a merged / deployed column.

Approach

- In Person Meetings
    - Best way where possible
    - Facilitates effective communication and collaboration
- Teams
    - Great way to share documents and work together on them with the team
    - Also effectively allows communication with Leeanna
- Discord
    - Allows for effective communication within the team

Project Management Resources

- Trello
- Discord
- Teams
- Notion
- Weekly Meetings

Upskilling

Upskill MERN stack which is a combination of technology of MongoDB (a NoSQL database), Express (web framework), React, Node.js.

Coding Standards

- Review and test code before pulling a Git Request
- Make your code as modular as possible
- Every change and fix must have their branches on Git Hub
- Variables, functions and components must have proper naming
- Code should have a proper white spacing and easily readable
- Place your components in separate folders
- Arrow functions are preferred to normal functions
- Having folders with containers and Higher Order Components
- Keep components simple and clear
- Import libraries in order

Project Plan

N/A at this point, still fleshing out the scope at this stage so can’t answer this properly yet.

Skills Analysis

Group	Skill	Chris	John	Jose	Pete	Total
		Score (1-5)				
Databasing	MYSQL/OracleSQL	3	3	3	4	13
	PostGRES	1	4	3	2	10
	MongoDB	3	4	3	3	13
	Firebase FireStore	4	2	2	1	9
Web Technology	JavaScript	3	4	4	2	13
	Node,js	3	4	3	2	12
	React	3	3	4	2	12
	Azure	1	3	3	1	8
	Heroku	3	4	3	3	13
	GitHub / Git	5	5	4	5	19
	HTML/CSS	2	2	4	2	10
Programming Languages	Java	4	4	5	4	17
	C#	1	3	1	2	7
	Python	1	1	2	4	8
	C / C++	2	1	2	2	7
Project Management Tools	Microsoft Project	1	1	2	3	7
	Trello	5	3	5	5	18
	Asana	1	1	1	1	4
Personal Skills	Verbal Communication	5	3	3	5	16
	Written Communication	5	3	3	5	16
	Leadership	5	1	2	5	13
	Change Management	4	2	2	5	13
	Learning and Development	4	4	4	4	16
	Project Management	5	2	3	5	15
	Time Management	4	3	3	4	14
Finappster Related	Financial Knowledge	2	2	1	3	8

Estimated Costs

N/A

Appendix

Auckland University of Technology

Bachelor of Computer & Information Sciences

Research & Development Project

Disclaimer:

Clients should note the general basis upon which the Auckland University of Technology undertakes its student projects on behalf of external sponsors:

While all due care and diligence will be expected to be taken by the students, (acting in software development, research or other IT professional capacities), and the Auckland University of Technology, and student efforts will be supervised by experienced AUT lecturers, it must be recognised that these projects are undertaken in the course of student instruction. There is therefore no guarantee that students will succeed in their efforts.

This inherently means that the client assumes a degree of risk. This is part of an arrangement, which is intended to be of mutual benefit. On completion of the project it is hoped that the client will receive a professionally documented and soundly constructed working software application, some part thereof, or other appropriate set of IT artefacts, while the students are exposed to live external environments and problems, in a realistic project and customer context.

In consequence of the above, the students, acting in their assigned professional capacities and the Auckland University of Technology, disclaim responsibility and offer no warranty in respect of the "technology solution" or services delivered, (e.g. a "software application" and its associated documentation),both in relation to their use and results from their use.