R&D Part 1 Project Log

Date	Task	Hours	Notes
28/06/21 Pre-semester	First dev team meeting.	3 hours	First dev team meeting before the semester started. Discussed upcoming meeting, revealed each member's individual research into finappster. Made a list of bugs found, early analysis on how we as a team could potentially provide value to finappster. Questions on the purpose behind the quiz and the functionality of shares and displaying the ethics of this information were the big, identified topics to discuss.
12/07/21 Week 1	Team name, Trello/GitHub setup.	2 hours	Decided upon finappster Sigma as the team's name. Sent Barry and Leeanna Trello and GitHub IDs, first official meeting between dev team and client/mentor set on Friday morning. Dev team meeting to discuss the upcoming meeting and be prepared set for Wednesday morning. Dev team decided to do research on finappster, explore the web app, record problems, and try and understand what we are working with.
16/07/21 Week 1	Pre-client meeting	1 hour	Pre-client meeting to refresh on what we discussed on the 28th before the semester started. Prepared ourselves to discuss the main points (bugs found, possible ways we could help

			finappster such as quiz and dashboard metric improvements) that were researched.
16/07/21 Week 1	First client meeting	2 hours	Official introduction to client Leeanna and mentor Barry. Leeanna discussed finappster, the other teams that have worked on it and the one currently working on it. She also sought feedback on our experiences with using finappster. Discussed with her that we had grasped what finappster currently aims to do, but also identifies bugs and missing functionality (account creation workaround from emailing Leeanna as intended, shares functionality not working). Also covered that one of the primary purposes of finappster, to view how sustainable the metrics of your shares are, does not currently function. Also discussed KiwiSaver – the dev team (myself included) did not know much about our schemes. Overall came out of this meeting feeling like we were making progress in some way, and came away with Leeanna getting us to look into our KiwiSaver schemes and also to focus on the gaps we can find in finappster to work on as a project, continuing on from our identification of the quiz/sunburst chart analysis.
17/07/21 Week 1	Team discussion on Discord	0.5 hours	Not over call, just a text conversation on Discord. We confirmed regular availability of each member and have established that in-person meetings will generally happen on Mondays, Tuesdays or

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			Fridays (both client and dev team meetings). Talked to team about getting in touch with your KiwiSaver providers and getting your scheme information before a dev team meeting organised for Tuesday, so we can discuss what we found out about our investments.
19/07/21 Week 2	Research my KiwiSaver	3 hours	Did not know my KiwiSaver scheme. IRD says I am with Westpac, but not which scheme. Did provide a number to call though. Called the number on the IRD website that was a Westpac KiwiSaver provider. Spoke to a KiwiSaver specialist from Westpac, gave me my scheme (default scheme) and also showed me where the investments of my scheme were printed (hidden away on their website). Additionally, he set me up with an online account to switch KiwiSaver schemes at a click of a button, handy. Looked into some of the investments my KiwiSaver scheme took part in. At first, I tried going through manually. Most of the investments I looked at (by googling their name or figuring it out from the name) were just currency or stocks in well known local companies. I also encountered some names that did not return conclusive results. Then I decided to try and find something else that could help analyse my KiwiSaver's investments for me. I found the website mindfulmoney.nz, which had a

			lot of similiarties to what finappster aspires to be, except strictly for KiwiSaver schemes and investments funds, not people's portfolios of investments. Putting my scheme into the KiwiSaver fund comparison on this website shows its return and red flags when it comes to investments (fossil fuels, animal testing, human rights and environment violations, etc.) for my fund.
			Mine only invested in 3% of unethical companies based on this system, whereas some I compared to up to 12-14%. At this point it occurred to me that higher returns came at a cost – the companies invested in that give these higher returns are generally less ethical, or at least the bar for what is appropriate to invest in for a KiwiSaver scheme is dropped.
			Sent the website link to the dev team chat last night so they could benefit. John made use of it; the others were asleep at that point I think.
20/07/21 Week 2	Dev team meeting	2 hours	Met with my team for our scheduled meeting on Tuesday. The topics to be discussed in this meeting were based off the email Leeanna sent us after our first client meeting with her the previous Friday.

John and I had managed to get our KiwiSaver schemes and could discuss it. John's scheme with ANZ was a bit higher growth but higher risk, but more importantly had a whopping 14% of its funds invested in the negative categories in mindfulmoney. Discussed this a bit, but also had to address that |

| | | | Peter and Jose had not had luck with finding their schemes at this point.

Advised they should try calling if they could not find them online, and that we would postpone talking about our KiwiSavers until our pre-client meeting on Friday.

Following that, we discussed the big topic of the day, finappster Sigma's scope – something we touched upon briefly in our first meeting with Leeanna. Cutting a long story short, overall we felt that potentially one of the best ways we could contribute to the project was implementing the sunburst chart that displays the ethics/sustainability of one's portfolio/individual shares as per the sunburst chart on the finappster main page that is not implemented yet. This, plus redesigning the quiz so that it might accurately suggest or at least display to a user what values are important to them (based off the UN sustainability goals data behind the scenes) could be a good scope for us. |
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| 20/07/21 Week 2 | Meeting minutes/agenda template | 1 hour | John had done the minutes for our last meeting, but they were draft only. I took the time to find a solid template and to rewrite them and post them on Trello.

Also decided to do a proper agenda (this idea was later scrapped because of the changing direction of both dev team and client meetings making them inaccurate. A draft template to remember what to not to forget to discuss at each meeting is being kept though). |
| 23/07/21 Week 2 | Pre-client meeting | 1 hour | Pre-client meeting where we discussed our KiwiSaver |

			schemes. I had already covered mine from before, so this focused on Jose/Peter. Outside of that, this was primarily a refresher to remember what we had discussed in our previous meeting.
23/07/21 Week 2	Client meeting 2	2 hours	Meeting with Leeanna/Barry. Discussed with Leeanna our KiwiSaver schemes. I mentioned in my case how it does not seem to matter the scheme, none are perfectly ethical, but the more conservative, the less involved in unethical investments.
			I brought up after this our plans for our scope, but I think we had jumped the gun a bit – after Barry's wheel analogy, it became clear that we needed more input from the expert behind finappster, Leeanna, before coming to our own conclusions on how to improve the application.
			Following this, we went into some detail on the user journey of KiwiSaver (not finappster) which I believe serves as a starting point to understanding the typical finappster user journey (as we feel it should go). This was done (to my understanding at least) rather than finappster because it is something more familiar to the dev team than finappster, which we do not quite have the full understanding of yet, but still serves as a useful teaching tool because there is a lot of overlap.
			The meeting ended after that, and now we have to look into this user journey in a bit more

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			detail to help us understand what KiwiSaver (and eventually finappster) really needs.
23/07/21 Week 2	R&D workshop	1.5 hours	Went to R&D workshop (missed the one in the previous week due to one-off commitment). Ramesh explained to us about proposal expectations and to start booking meetings with your client. To be honest, it was not that useful, but it did serve as a reminder to start looking into doing the proposal and did prompt me to arrange a meeting on Monday with the dev team and our first official meeting with our mentor alone without the client.
26/07/21 Week 3	Mentor meeting 1 (first half) dev team meeting (second half)	2 hours	Meeting with Barry – started off with just him and I as the others were running a little late, and we discussed proposal expectations. Barry had already sent through examples to help guide us last night, so that helped a lot. Went through those a bit, then the others arrived. We asked him some questions, one if we were handling interactions with the client properly. He said we were doing good on that front. He also refreshed the others on what he had covered with me a bit, explaining that for the upcoming draft proposal in week 6, we are only expected to do the basic draft version he showed us, not the final week 13 product he showed an example of. Barry left following that, and the dev team discussed the proposal and KiwiSaver user journey a bit.

27/07/21 Week 3		1 hour	Discussion of research into KiwiSaver user journey with peers, other websites. Improve user journey, some basic wireframes.
30/07/21 Week 3	Pre-client meeting	1 hour	Met dev team in the meeting room near the WZ café an hour before meeting with Barry/Leeanna. Discussed our KiwiSaver user journeys, clarified with dev team how we would discuss these user journeys using the wire frames with Leeanna/Barry.
30/07/21 Week 3	Client meeting 3	1.5 hours	Discussed KiwiSaver user journey with Leeanna/Barry, with reference to the wire frames that Jose had drawn up with our input. User journey boiled down to google KiwiSaver → go to website → click on the IRD button on the right to view information on how to get your KiwiSaver then select your scheme from dropdown OR select dropdown and pick your KiwiSaver scheme immediately → get sustainable info via 5 Ps (with expanding info about them possible) about your scheme, get offer to do quiz → do quiz, get personal 5 P rating, have it compared against possible KiwiSaver schemes → List of KiwiSaver schemes displayed that are ranked by most similar to your personal 5 P rating to least similar. After user journey discussion, Leeanna started talking about investment providers. She went into detail about such organizations (KiwiSaver providers, such as banks, are one of these). She covered Asset Managers, Fund Managers, Wealth Managers,

			Brokers, Advisors and Custodians. More research required to understand this better. This leads into the next user that will be part of this project, investment providers (with a selling focus).
			Following that, we explored the user journey of selling a product on an online website, such as trademe. The example we covered briefly was selling a skateboard, and the features/user journey of this concept.
			We touched on how travel websites can detect when you are looking at other websites and adjust price and advertisements of packages accordingly. The ethics and understanding a bit better on how to do this was given as homework.
			Also need to investigate the admin person user journey…how users would get in touch with help.
			Finally, need to put together user story (or closer to sprint goal?) of selling a product and polish that user journey too.
30/07/21 Week 3	Online chat discussion	0.25 hours	Discussed the meeting earlier in the day briefly, booked meeting for Tuesday next week and set homework to do the travel website stuff individually and do some preliminary user journey research into the admin person/selling a product.
02/08/21 Week 4	Dev team meeting	2 hours	Discussed the travel website stuff set as homework amongst ourselves. I was able to get websites to update themselves to prince match the other when

			reloading the one that was more expensive. It was interesting to see. I was unable to see the concept of websites updating their travel packages to advertise ones matching other websites, but I am sure the concept exists.
			Planned out the admin user journey and selling a product, wasn't too difficult. We kind of see some crossover with finappster, but not clear on it just yet.
			After that, we discussed the investment provider and admin user journeys, and how they relate to finappster. We are a still a bit confused on how they relate to finappster…though we're considering that maybe it'll all make sense when they're discussed in our client meeting.
			Overall, I am feeling a little confused still on how this all connects with finappster; the KiwiSaver scheme I can see some crossover, the rest isn't clicking yet though.
06/08/21 Week 4	Client meeting 4	2.5 hours (1 hour pre-meeting with dev team)	Pre-client meeting as the dev team. We were all a little apprehensive about the upcoming meeting. We understood the user journeys as a separate entity, but don't see the big picture and how it all fits into finappster at this point.
			Meeting with Leeanna. We discussed our travel journeys, no big twists there though.
			Onto the topic of user journeys, I went through the user journeys we had put together as a team. A few minor changes were made during this meeting, but

			they were kept the same.
			After a few other things, Leeanna then started using the whiteboard to combine the user stories as one, something that we had considered was the direction it was heading.
			It actually made some sense, and while vague, I could start to see how it all interconnected and with a few substitutions, made sense from a finappster perspective. Only kind of though. Needed some time to go away and think about it, discuss it with my team. Ultimately though, I felt more confident in grasping the scope eventually than I had going into the meeting (and I know the rest of the team felt the same).
			During the meeting we also discussed non-functional requirements, wireframing and things like where to prompt the user to log in so that we can take the data they use from the quiz. Questions about an appropriate payment model for finappster came up too.
			Came away from this meeting with a lot to think about.
09/08/21 Week 5	Mentor meeting 2 (first half) dev team meeting (second half)	2 hours	Meeting with Barry to clear some questions up. We asked about the quiz that Leeanna had mentioned that she wanted for investment providers, not just investors. He said it's a good question to ask her later. He also confirmed that finappster is strictly an information sharing app, the buying and selling of shares won't be part of it (make sense!)
			We're to now focus on preparing

			for our proposal draft that is due next week. Fortunately, it should be more of a formality, rather than an actual moderation session, as we're still sorting out the scope. Still, will need to give some serious thought to our scope so that we can at least talk about it when we do have it. The rest isn't too important.
10/08/21-12/08/21 Week 5	Working on proposal at home, occasional chats with dev team on Discord, email from Barry.	6 hours	Ok, found out from Barry that our moderator is new to finappster, so he will want everything done by the books, how it is done for most R&D teams, not just a quick check to see if we are on the right track like some of the other potential moderators would have done. We were all a little annoyed by that, because it meant having to put in a lot of extra work the coming week to make sure the proposal was up to date, and not only spending time defining the scope to the best of our knowledge for this point in time either. Together (over discord chat here and there) we discussed what needed to be done, and our understanding of the scope. By this point, I feel I have a pretty good understanding of our scope, barring the discussions we hadn't had yet that will inevitably change it. I worked on the scope and developed some questions in there too. The other members of my team are working on various other sections throughout the proposal. We have also arranged a meeting with Barry on Friday to get some feedback. Feeling a little wary of the upcoming moderation session,

			but still much more confident than I had been just before the last client meeting, where the scope felt so confusing.
13/08/21-15/08/21 Week 5	Changing proposal up based on mentor feedback at home, collaboration with team over Discord	8 hours	Was sick the morning of the meeting with Barry as I had side effects from my 2nd vaccine shot. Didn't attend, but heard how it went from Peter & John, as well as seeing the PDF of our proposal draft marked by him. Overall, it looks like I was a little off in not only what our scope was exactly, but also a little overly dismissive of what previous teams had accomplished. Barry's feedback pointed out that we were a too negative about the state of finappster, which I acknowledge. As for the scope, at this point it became much clearer what our purpose really was. It was mentioned before a couple of times but wasn't really hammered home until now. We are to have primarily have a design focus, helping Leeanna plan out and shape not only our development next semester, but also the next team's (or more) development of finappster to accomplish one of finappster's main purposes, the ability for users to align their financial investments to their personal values. A lot of the puzzle pieces to accomplish there already exist, but the functionality isn't there. So, we will plan this out, and then get the development for it started off (and future finappster teams will finish what we started). Peter and John, with the help of Barry, had cut out scope down a

			little as it was also too large. So, the dev team discussed this feedback amongst us, then we allocated work. I focused on fixing up the scope and the project objective. I also implemented a section in the introduction for the questions that I had in the scope and broke them down into simple questions rather than huge paragraphs for each. Peter got to work on the methodology section, John on the requirements and Jose on the upskilling and current situation sections. At first, I made a scope statement that consisted of features that each user that is part of our scope will probably need developed with the current information but realized when looking at other proposal documentation by previous teams that it was probably not the right way to go. We did agree though it was probably best to leave in for context on direction our scope will go in development potentially for moderator convenience though. Following that, the scope was converted into a bulleted list, and the project objective was changed to be a more general overview of what we'll be doing over this year. On Sunday, after everyone was done with their parts, and we had thought of all the questions we could to add on top of the ones I had added, we went through the proposal as a group.

			Sent through to Barry (got some feedback shortly before final submission to him that it was moving in a better direction now), and the dev team will meet Monday to sort out the presentation side of things. Overall felt it was OK for a week 5/6 draft, but I feel there is definite room for improvement on formatting and quality of content, even putting aside the scope that we still need to uncover with our client. It'll do for now though. I know I have said it before as well, but even more so now, I feel more confident than ever about our team being capable of delivering the scope and achieving the project objective.
16/08/21 Week 6	Dev team in person meeting – pre-presentation meeting	6 hours	Worked on proposal and presentation PowerPoint. We will need to present the idea that we're on track to our moderator, and hopefully Alan our moderator is understanding of why our scope isn't clearly defined at this point as we're still developing it with our client. Adding some more documentation and designing slides for our presentation took a while, but we feel that we know enough that we should be OK tomorrow.
17/08/21 Week 6	Proposal presentation	3 hours	Well…this meeting was a bit of a shock. We were expected by Ramesh the paper leader (who attended) & our moderator Alan to have finished our proposal at this point, rather than only supply a draft. The expectation is that we would be starting development following this meeting.

			This was a rather big shock, as we came in with the understanding that it would just be a friendly chat…but it seems by missing some of the documentation workshops, this change in the paper direction from previous semesters was missed by the team. Overall we handled ourselves pretty well despite this, still getting across to our moderator that we had a plan, we just need it in writing. That being said though, the team and I were all rather unhappy that we're being forced to finish the proposal so early, as at this point, we still don't have a full scope of what our client expects of us – this would probably take a couple more weeks. Looks like we'll have to move things up a bit.
17/08/21 Week 6	Mentor meeting 3 – post proposal presentation	1 hour	We met with Barry and discussed what happened in the presentation. Coming out of the meeting, the expectation that we'd finish the proposal in the coming week (assuming we don't go into lockdown, new COVID community case today) and we'd develop some part of the development scope this semester, rather than waiting till next semester.
18/08/21 Week 6	Dev team meeting – online	2 hours	The project proposal presentation meeting was a wake-up call to the dev team. We planned out the documentation expected for the proposal, which wasn't super clear. On one hand, you have several documents in the first week workshop of this paper as the expected documentation. On another, you have what the assessment brief lists, which is

			different to the lecture slides documentation list. Then there's the generic ITPM documentation folder that includes far more documents than were done in both ITPM and this paper. After going through the list and seeing what we were missing and putting every document that we thought might matter into a list, we sought to trim it down, because some of it is just so unnecessary. The team and I all resolved to also discuss with Leeanna the need to narrow our scope sooner rather than later as AUT wants us to finish documentation soon.
20/08/21 Week 6	Client meeting (online)	1.5 hours	Discussed with Leeanna the outcome of our proposal presentation. Was hard to spin it in a positive light but we tried. Discussed some questions we had related to the scope. and was expecting to go over some of the last financial upskilling like previous client meetings, but unlike previous meetings it was less about Leeanna leading the meetings now but more about us needing to bring designs/ideas to the table and discuss them. Overall, this meeting could have gotten better, and I think the team and I were still reeling from the unexpected result of the project proposal meeting and still adjusting to online meetings (we didn't use cameras which didn't help). The team and I resolve to really work on design and bring

			something to the table to discuss next meeting. We know enough at this point; we need to start working through designs so we can move towards development.
21/08/21 Week 6	Dev team meeting	3 hours	The team and I finished what we started with Leeanna before the project proposal presentation & lockdown. Combining the three user journeys representing each of the 3 user types of finappster, into a generalist pseudo sequence diagram. The steps involved in each user was mapped as one big Miro diagram. This helped us also cement that our development focus will indeed be the investor user, and thus most of the user journey (some already implemented in current version of finappster). Plans made to design a more specific version of the overall scope designed today, covering the investor journey in detail. Also made plans to wireframe major parts of this journey, particularly the quiz.
22/08/21 Week 6	Dev team meeting	4 hours	Designed the investor user specific pseudo-sequence diagram. Developed two versions, one that I preferred, with the quiz and other features being available pre-log in, and one of Jose's preferences, that required a user log in/signup before they could do a quiz or look up an investment. The plan is to present both to Leeanna. Team also did some wireframing and developed some questions for finappster tau. Overall we feel much more

			confident in our direction, what we're designing feels like it's what our client is hoping for, we just need to spend a bit more time developing these designs, getting information from tau, and confirming these thoughts with our client.
23/08/21 Week 7	Meeting with finappster tau	2 hours	Met with finappster tau to understand their scope. We know some of what they do, but it isn't super clear…just that they're working with some of the SDG data. The meeting helped a lot. We discovered that the admin support user we designed in our Miro board was partially implemented by tau already. Their scope consists of building off finappster rho's database work, developing a GUI that will allow an admin (Leeanna for instance) to upload both SDG data and investment funds/shares into finappster. Both the SDG data and the fund data we need to make our quiz and recommendation system work. They aren't done, but it looks promising. If they don't make it though, dummy data is still an option.
24/08/21 Week 7	Dev team meeting	1 hour	Wireframe work, preparing quiz designs for our meeting with Leeanna tomorrow.
24/08/21 Week 7	Fixing up Miro designs	3 hours	I fixed up some of the ugly line design of the overall design scope document and edited it a bit to include some missing steps and be more readable. Also made the specific scope design more readable and added a few more steps. Overall feeling pretty prepared for tomorrow's meeting, the

			team and I put in a lot of work this week to get on track.
25/08/21 Week 7	Client meeting	3 hours	Meeting with client. Went through the overall design, outlining our and future team's scope in general, pointing out which parts have been covered by tau and which will be covered by us, leaving the parts that are out of both of our scopes clear. Outside of that, we showed the figma designs, and discussed the quiz in detail. Long story short though, this meeting felt like a massive improvement over our last client meeting. Both the client and dev team feel more in sync with development expectations.
30/08/21 Mid semester break, week 1	Dev team meeting	2 hours	Discussed expectations for the meeting tomorrow, proposal documentation discussions. Team feels there is a lot of redundant documentation and has decided to trim/combine certain documents that were on the to do list into one. Worked on incorporating the 5p values into the finappster dashboard on figma…found it somewhat difficult to find a design I am happy with, went with a basic version that isn't quite what I hope, but gets the point across. Can refine later.
01/09/21 Mid semester break, week 1	Short pre-client meeting and client meeting	4 hours	Short pre client meeting with the dev team, and then a long client meeting. Pre-meeting was primarily about preparing for our meeting with Leeanna, the client meeting's focus was about feedback on figma designs, a decision on quiz design, and the construction of user stories now that we have a pretty good idea on the scope. Overall, this meeting was

			productive. I now feel like we're finally beginning to edge towards development and moving away from theory, what ifs and documentation.
03/09/21 Mid semester break, week 1	Work on proposal	3 hours	Constructed a WBS and project schedule (Gannt chart). The project schedule covers some of the typical phases of a project, Planning, Analysis, Design, Implementation and Deployment phases. The work up till now, and a reasonable prediction (that probably won't be accurate, but perhaps a general guideline) was designed. In truth, I don't think a project schedule/Gannt chart was overly useful. Perhaps to map out our thoughts and a possible trajectory, and to indicate to AUT that we have a plan, but in Software Development Practice, designing user stories and a project/sprint goals seemed to fit that purpose just fine. The more I worked upon it (and most of the documentation in the entire proposal) the more I felt this was an outdated way of approaching software development. As one of the previous teams in finappster put in their documentation, this paper has too much of a waterfall approach to things, which contradicts the agile way of doing things taught in other papers.
05/09/21 Mid semester break, week 2	Work on proposal, add live finappster data into figma designs	3 hours	Leeanna submitted a raw data sample from an investment of some kind for use in figma design. As discussed in the meeting on Wed, this might give us insight into the best way to display SDG/5P data to users, as random data might be

			causing us to miss something.
			Added to issue log/risk register, started tidying up the proposal now that most of the sections have been inserted. Also sent off the project schedule and WBS to our mentor for feedback.

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Discussed with her that we had grasped what finappster currently aims to do, but also identifies bugs and missing functionality (account creation workaround from emailing Leeanna as intended, shares functionality not working). Also covered that one of the primary purposes of finappster, to view how sustainable the metrics of your shares are, does not currently function. Also discussed KiwiSaver – the dev team (myself included) did not know much about our schemes.

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Following that, we discussed the big topic of the day, finappster Sigma's scope – something we touched upon briefly in our first meeting with Leeanna. Cutting a long story short, overall we felt that potentially one of the best ways we could contribute to the project was implementing the sunburst chart that displays the ethics/sustainability of one's portfolio/individual shares as per the sunburst chart on the finappster main page that is not implemented yet. This, plus redesigning the quiz so that it might accurately suggest or at least display to a user what values are important to them (based off the UN sustainability goals data behind the scenes) could be a good scope for us. |
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| 20/07/21 Week 2 | Meeting minutes/agenda template | 1 hour | John had done the minutes for our last meeting, but they were draft only. I took the time to find a solid template and to rewrite them and post them on Trello.

Also decided to do a proper agenda (this idea was later scrapped because of the changing direction of both dev team and client meetings making them inaccurate. A draft template to remember what to not to forget to discuss at each meeting is being kept though). |
| 23/07/21 Week 2 | Pre-client meeting | 1 hour | Pre-client meeting where we discussed our KiwiSaver |

			schemes. I had already covered mine from before, so this focused on Jose/Peter. Outside of that, this was primarily a refresher to remember what we had discussed in our previous meeting.
23/07/21 Week 2	Client meeting 2	2 hours	Meeting with Leeanna/Barry. Discussed with Leeanna our KiwiSaver schemes. I mentioned in my case how it does not seem to matter the scheme, none are perfectly ethical, but the more conservative, the less involved in unethical investments. I brought up after this our plans for our scope, but I think we had jumped the gun a bit – after Barry's wheel analogy, it became clear that we needed more input from the expert behind finappster, Leeanna, before coming to our own conclusions on how to improve the application. Following this, we went into some detail on the user journey of KiwiSaver (not finappster) which I believe serves as a starting point to understanding the typical finappster user journey (as we feel it should go). This was done (to my understanding at least) rather than finappster because it is something more familiar to the dev team than finappster, which we do not quite have the full understanding of yet, but still serves as a useful teaching tool because there is a lot of overlap. The meeting ended after that, and now we have to look into this user journey in a bit more

Date	Activity	Time	Notes
			detail to help us understand what KiwiSaver (and eventually finappster) really needs.
23/07/21 Week 2	R&D workshop	1.5 hours	Went to R&D workshop (missed the one in the previous week due to one-off commitment). Ramesh explained to us about proposal expectations and to start booking meetings with your client. To be honest, it was not that useful, but it did serve as a reminder to start looking into doing the proposal and did prompt me to arrange a meeting on Monday with the dev team and our first official meeting with our mentor alone without the client.
26/07/21 Week 3	Mentor meeting 1 (first half) dev team meeting (second half)	2 hours	Meeting with Barry – started off with just him and I as the others were running a little late, and we discussed proposal expectations. Barry had already sent through examples to help guide us last night, so that helped a lot. Went through those a bit, then the others arrived. We asked him some questions, one if we were handling interactions with the client properly. He said we were doing good on that front. He also refreshed the others on what he had covered with me a bit, explaining that for the upcoming draft proposal in week 6, we are only expected to do the basic draft version he showed us, not the final week 13 product he showed an example of. Barry left following that, and the dev team discussed the proposal and KiwiSaver user journey a bit.

Date	Event	Duration	Notes
27/07/21 Week 3		1 hour	Discussion of research into KiwiSaver user journey with peers, other websites. Improve user journey, some basic wireframes.
30/07/21 Week 3	Pre-client meeting	1 hour	Met dev team in the meeting room near the WZ café an hour before meeting with Barry/Leeanna. Discussed our KiwiSaver user journeys, clarified with dev team how we would discuss these user journeys using the wire frames with Leeanna/Barry.
30/07/21 Week 3	Client meeting 3	1.5 hours	Discussed KiwiSaver user journey with Leeanna/Barry, with reference to the wire frames that Jose had drawn up with our input. User journey boiled down to google KiwiSaver → go to website → click on the IRD button on the right to view information on how to get your KiwiSaver then select your scheme from dropdown OR select dropdown and pick your KiwiSaver scheme immediately → get sustainable info via 5 Ps (with expanding info about them possible) about your scheme, get offer to do quiz → do quiz, get personal 5 P rating, have it compared against possible KiwiSaver schemes → List of KiwiSaver schemes displayed that are ranked by most similar to your personal 5 P rating to least similar. After user journey discussion, Leeanna started talking about investment providers. She went into detail about such organizations (KiwiSaver providers, such as banks, are one of these). She covered Asset Managers, Fund Managers, Wealth Managers,

| | | | Brokers, Advisors and Custodians. More research required to understand this better. This leads into the next user that will be part of this project, investment providers (with a selling focus).

Following that, we explored the user journey of selling a product on an online website, such as trademe. The example we covered briefly was selling a skateboard, and the features/user journey of this concept.

We touched on how travel websites can detect when you are looking at other websites and adjust price and advertisements of packages accordingly. The ethics and understanding a bit better on how to do this was given as homework.

Also need to investigate the admin person user journey…how users would get in touch with help.

Finally, need to put together user story (or closer to sprint goal?) of selling a product and polish that user journey too. |
|---|---|---|---|
| 30/07/21 Week 3 | Online chat discussion | 0.25 hours | Discussed the meeting earlier in the day briefly, booked meeting for Tuesday next week and set homework to do the travel website stuff individually and do some preliminary user journey research into the admin person/selling a product. |
| 02/08/21 Week 4 | Dev team meeting | 2 hours | Discussed the travel website stuff set as homework amongst ourselves. I was able to get websites to update themselves to prince match the other when |

			reloading the one that was more expensive. It was interesting to see. I was unable to see the concept of websites updating their travel packages to advertise ones matching other websites, but I am sure the concept exists.
			Planned out the admin user journey and selling a product, wasn't too difficult. We kind of see some crossover with finappster, but not clear on it just yet.
			After that, we discussed the investment provider and admin user journeys, and how they relate to finappster. We are a still a bit confused on how they relate to finappster…though we're considering that maybe it'll all make sense when they're discussed in our client meeting.
			Overall, I am feeling a little confused still on how this all connects with finappster; the KiwiSaver scheme I can see some crossover, the rest isn't clicking yet though.
06/08/21 Week 4	Client meeting 4	2.5 hours (1 hour pre-meeting with dev team)	Pre-client meeting as the dev team. We were all a little apprehensive about the upcoming meeting. We understood the user journeys as a separate entity, but don't see the big picture and how it all fits into finappster at this point.

Meeting with Leeanna. We discussed our travel journeys, no big twists there though.

Onto the topic of user journeys, I went through the user journeys we had put together as a team. A few minor changes were made during this meeting, but |

			they were kept the same.
			After a few other things, Leeanna then started using the whiteboard to combine the user stories as one, something that we had considered was the direction it was heading.
			It actually made some sense, and while vague, I could start to see how it all interconnected and with a few substitutions, made sense from a finappster perspective. Only kind of though. Needed some time to go away and think about it, discuss it with my team. Ultimately though, I felt more confident in grasping the scope eventually than I had going into the meeting (and I know the rest of the team felt the same).
			During the meeting we also discussed non-functional requirements, wireframing and things like where to prompt the user to log in so that we can take the data they use from the quiz. Questions about an appropriate payment model for finappster came up too.
			Came away from this meeting with a lot to think about.
09/08/21 Week 5	Mentor meeting 2 (first half) dev team meeting (second half)	2 hours	Meeting with Barry to clear some questions up. We asked about the quiz that Leeanna had mentioned that she wanted for investment providers, not just investors. He said it's a good question to ask her later. He also confirmed that finappster is strictly an information sharing app, the buying and selling of shares won't be part of it (make sense!)
			We're to now focus on preparing

			for our proposal draft that is due next week. Fortunately, it should be more of a formality, rather than an actual moderation session, as we're still sorting out the scope. Still, will need to give some serious thought to our scope so that we can at least talk about it when we do have it. The rest isn't too important.
10/08/21-12/08/21 Week 5	Working on proposal at home, occasional chats with dev team on Discord, email from Barry.	6 hours	Ok, found out from Barry that our moderator is new to finappster, so he will want everything done by the books, how it is done for most R&D teams, not just a quick check to see if we are on the right track like some of the other potential moderators would have done.

We were all a little annoyed by that, because it meant having to put in a lot of extra work the coming week to make sure the proposal was up to date, and not only spending time defining the scope to the best of our knowledge for this point in time either.

Together (over discord chat here and there) we discussed what needed to be done, and our understanding of the scope. By this point, I feel I have a pretty good understanding of our scope, barring the discussions we hadn't had yet that will inevitably change it.

I worked on the scope and developed some questions in there too. The other members of my team are working on various other sections throughout the proposal. We have also arranged a meeting with Barry on Friday to get some feedback. Feeling a little wary of the upcoming moderation session, |

			but still much more confident than I had been just before the last client meeting, where the scope felt so confusing.
13/08/21-15/08/21 Week 5	Changing proposal up based on mentor feedback at home, collaboration with team over Discord	8 hours	Was sick the morning of the meeting with Barry as I had side effects from my 2nd vaccine shot. Didn't attend, but heard how it went from Peter & John, as well as seeing the PDF of our proposal draft marked by him.

Overall, it looks like I was a little off in not only what our scope was exactly, but also a little overly dismissive of what previous teams had accomplished. Barry's feedback pointed out that we were a too negative about the state of finappster, which I acknowledge.

As for the scope, at this point it became much clearer what our purpose really was. It was mentioned before a couple of times but wasn't really hammered home until now. We are to have primarily have a design focus, helping Leeanna plan out and shape not only our development next semester, but also the next team's (or more) development of finappster to accomplish one of finappster's main purposes, the ability for users to align their financial investments to their personal values. A lot of the puzzle pieces to accomplish there already exist, but the functionality isn't there. So, we will plan this out, and then get the development for it started off (and future finappster teams will finish what we started).

Peter and John, with the help of Barry, had cut out scope down a |

little as it was also too large.

So, the dev team discussed this feedback amongst us, then we allocated work. I focused on fixing up the scope and the project objective. I also implemented a section in the introduction for the questions that I had in the scope and broke them down into simple questions rather than huge paragraphs for each. Peter got to work on the methodology section, John on the requirements and Jose on the upskilling and current situation sections.

At first, I made a scope statement that consisted of features that each user that is part of our scope will probably need developed with the current information but realized when looking at other proposal documentation by previous teams that it was probably not the right way to go. We did agree though it was probably best to leave in for context on direction our scope will go in development potentially for moderator convenience though.

Following that, the scope was converted into a bulleted list, and the project objective was changed to be a more general overview of what we'll be doing over this year.

On Sunday, after everyone was done with their parts, and we had thought of all the questions we could to add on top of the ones I had added, we went through the proposal as a group.

			Sent through to Barry (got some feedback shortly before final submission to him that it was moving in a better direction now), and the dev team will meet Monday to sort out the presentation side of things. Overall felt it was OK for a week 5/6 draft, but I feel there is definite room for improvement on formatting and quality of content, even putting aside the scope that we still need to uncover with our client. It'll do for now though. I know I have said it before as well, but even more so now, I feel more confident than ever about our team being capable of delivering the scope and achieving the project objective.
16/08/21 Week 6	Dev team in person meeting – pre-presentation meeting	6 hours	Worked on proposal and presentation PowerPoint. We will need to present the idea that we're on track to our moderator, and hopefully Alan our moderator is understanding of why our scope isn't clearly defined at this point as we're still developing it with our client. Adding some more documentation and designing slides for our presentation took a while, but we feel that we know enough that we should be OK tomorrow.
17/08/21 Week 6	Proposal presentation	3 hours	Well…this meeting was a bit of a shock. We were expected by Ramesh the paper leader (who attended) & our moderator Alan to have finished our proposal at this point, rather than only supply a draft. The expectation is that we would be starting development following this meeting.

			This was a rather big shock, as we came in with the understanding that it would just be a friendly chat…but it seems by missing some of the documentation workshops, this change in the paper direction from previous semesters was missed by the team.
			Overall we handled ourselves pretty well despite this, still getting across to our moderator that we had a plan, we just need it in writing.
			That being said though, the team and I were all rather unhappy that we're being forced to finish the proposal so early, as at this point, we still don't have a full scope of what our client expects of us – this would probably take a couple more weeks. Looks like we'll have to move things up a bit.
17/08/21 Week 6	Mentor meeting 3 – post proposal presentation	1 hour	We met with Barry and discussed what happened in the presentation. Coming out of the meeting, the expectation that we'd finish the proposal in the coming week (assuming we don't go into lockdown, new COVID community case today) and we'd develop some part of the development scope this semester, rather than waiting till next semester.
18/08/21 Week 6	Dev team meeting – online	2 hours	The project proposal presentation meeting was a wake-up call to the dev team. We planned out the documentation expected for the proposal, which wasn't super clear. On one hand, you have several documents in the first week workshop of this paper as the expected documentation. On another, you have what the assessment brief lists, which is

			different to the lecture slides documentation list. Then there's the generic ITPM documentation folder that includes far more documents than were done in both ITPM and this paper. After going through the list and seeing what we were missing and putting every document that we thought might matter into a list, we sought to trim it down, because some of it is just so unnecessary. The team and I all resolved to also discuss with Leeanna the need to narrow our scope sooner rather than later as AUT wants us to finish documentation soon.
20/08/21 Week 6	Client meeting (online)	1.5 hours	Discussed with Leeanna the outcome of our proposal presentation. Was hard to spin it in a positive light but we tried. Discussed some questions we had related to the scope. and was expecting to go over some of the last financial upskilling like previous client meetings, but unlike previous meetings it was less about Leeanna leading the meetings now but more about us needing to bring designs/ideas to the table and discuss them. Overall, this meeting could have gotten better, and I think the team and I were still reeling from the unexpected result of the project proposal meeting and still adjusting to online meetings (we didn't use cameras which didn't help). The team and I resolve to really work on design and bring

			something to the table to discuss next meeting. We know enough at this point; we need to start working through designs so we can move towards development.
21/08/21 Week 6	Dev team meeting	3 hours	The team and I finished what we started with Leeanna before the project proposal presentation & lockdown. Combining the three user journeys representing each of the 3 user types of finappster, into a generalist pseudo sequence diagram. The steps involved in each user was mapped as one big Miro diagram. This helped us also cement that our development focus will indeed be the investor user, and thus most of the user journey (some already implemented in current version of finappster). Plans made to design a more specific version of the overall scope designed today, covering the investor journey in detail. Also made plans to wireframe major parts of this journey, particularly the quiz.
22/08/21 Week 6	Dev team meeting	4 hours	Designed the investor user specific pseudo-sequence diagram. Developed two versions, one that I preferred, with the quiz and other features being available pre-log in, and one of Jose's preferences, that required a user log in/signup before they could do a quiz or look up an investment. The plan is to present both to Leeanna. Team also did some wireframing and developed some questions for finappster tau. Overall we feel much more

Date	Task	Time	Notes
			confident in our direction, what we're designing feels like it's what our client is hoping for, we just need to spend a bit more time developing these designs, getting information from tau, and confirming these thoughts with our client.
23/08/21 Week 7	Meeting with finappster tau	2 hours	Met with finappster tau to understand their scope. We know some of what they do, but it isn't super clear…just that they're working with some of the SDG data.

The meeting helped a lot. We discovered that the admin support user we designed in our Miro board was partially implemented by tau already. Their scope consists of building off finappster rho's database work, developing a GUI that will allow an admin (Leeanna for instance) to upload both SDG data and investment funds/shares into finappster.

Both the SDG data and the fund data we need to make our quiz and recommendation system work. They aren't done, but it looks promising. If they don't make it though, dummy data is still an option. |
| 24/08/21 Week 7 | Dev team meeting | 1 hour | Wireframe work, preparing quiz designs for our meeting with Leeanna tomorrow. |
| 24/08/21 Week 7 | Fixing up Miro designs | 3 hours | I fixed up some of the ugly line design of the overall design scope document and edited it a bit to include some missing steps and be more readable.

Also made the specific scope design more readable and added a few more steps.

Overall feeling pretty prepared for tomorrow's meeting, the |

			team and I put in a lot of work this week to get on track.
25/08/21 Week 7	Client meeting	3 hours	Meeting with client. Went through the overall design, outlining our and future team's scope in general, pointing out which parts have been covered by tau and which will be covered by us, leaving the parts that are out of both of our scopes clear. Outside of that, we showed the figma designs, and discussed the quiz in detail. Long story short though, this meeting felt like a massive improvement over our last client meeting. Both the client and dev team feel more in sync with development expectations.
30/08/21 Mid semester break, week 1	Dev team meeting	2 hours	Discussed expectations for the meeting tomorrow, proposal documentation discussions. Team feels there is a lot of redundant documentation and has decided to trim/combine certain documents that were on the to do list into one. Worked on incorporating the 5p values into the finappster dashboard on figma…found it somewhat difficult to find a design I am happy with, went with a basic version that isn't quite what I hope, but gets the point across. Can refine later.
01/09/21 Mid semester break, week 1	Short pre-client meeting and client meeting	4 hours	Short pre client meeting with the dev team, and then a long client meeting. Pre-meeting was primarily about preparing for our meeting with Leeanna, the client meeting's focus was about feedback on figma designs, a decision on quiz design, and the construction of user stories now that we have a pretty good idea on the scope. Overall, this meeting was

			productive. I now feel like we're finally beginning to edge towards development and moving away from theory, what ifs and documentation.
03/09/21 Mid semester break, week 1	Work on proposal	3 hours	Constructed a WBS and project schedule (Gannt chart). The project schedule covers some of the typical phases of a project, Planning, Analysis, Design, Implementation and Deployment phases. The work up till now, and a reasonable prediction (that probably won't be accurate, but perhaps a general guideline) was designed. In truth, I don't think a project schedule/Gannt chart was overly useful. Perhaps to map out our thoughts and a possible trajectory, and to indicate to AUT that we have a plan, but in Software Development Practice, designing user stories and a project/sprint goals seemed to fit that purpose just fine. The more I worked upon it (and most of the documentation in the entire proposal) the more I felt this was an outdated way of approaching software development. As one of the previous teams in finappster put in their documentation, this paper has too much of a waterfall approach to things, which contradicts the agile way of doing things taught in other papers.
05/09/21 Mid semester break, week 2	Work on proposal, add live finappster data into figma designs	3 hours	Leeanna submitted a raw data sample from an investment of some kind for use in figma design. As discussed in the meeting on Wed, this might give us insight into the best way to display SDG/5P data to users, as random data might be

			causing us to miss something. Added to issue log/risk register, started tidying up the proposal now that most of the sections have been inserted. Also sent off the project schedule and WBS to our mentor for feedback.
06/09/21 Mid semester break, week 2	Initial sprint 1 backlog and acceptance test development	2 hours	Created sprint 1 backlog with Jose. By no means a final version, but a rough estimate on what we verbally discussed with the client as our goal for sprint 1.
07/09/21 Mid semester break, week 2	Work on sample data + graph discussion with dev team	3 hours	Got a graph example of the sample data going in excel, then converted it to bar format in figma. Something that clicked was that the bars will be somewhat empty when divided amongst 3/5 Ps if the total has to equal 100% of a single bar spread across those categories. Something to think about. Also had a team meeting and worked together on figma designs for graphs for the upcoming meeting tomorrow.
08/09/21 Mid semester break, week 2	Client meeting	2 hours	Discussed SDG/5P bar design for the 'My Values' page. Discussed developed acceptance tests and the expected scope covered for sprint 1 – the long quiz, display of quiz results, and existing investments comparison section on 'My Values' page. Overall, Leeanna seemed happy with this scope for this semester. I am happy that we've managed to reach a consensus and can begin coding soon.
09/09/21 Mid semester break,	Work on proposal	3 hours	Worked on proposal after getting feedback on draft from Barry. Some duplication errors, and other improvements

week 2			needed. This is fine, it was expected that it would need some fixing up. I worked on some formatting. After we allocated roles, I ended up working on the current sprint plan and stretch goals section suggested by Barry. Leeanna ended up mentioning she wanted to push our part of the project live. Not something we thought would be happening, but thinking about it, perhaps we didn't discuss this in detail enough with Leeanna, so there's a disconnect there. I think it'll probably be possible to do that if we're set on it, but we'll set how it goes. Added to stretch goals.
11/09/21 Mid semester break, week 2	Final proposal work	3 hours	Finishing up working on the proposal. Fixed formatting and did some spelling/grammar checking of whole document. Glad to have this part done.
17/09/21 Week 8	Dev environment setup	1 hour	Initial meeting to setup dev environment locally. Only person who has it set up at this point is John. Setting it up (particularly the backend) is a lot of steps but looks to be ok. Time to get started!
20/09/21 Week 9	Breaking down user stories + planning poker	2 hours	Something we probably should have done a bit earlier, but better late than never. Broke down our user stories into tasks. We decided to do this because breaking the user stories down any further would make them seem impractical for a user to complete, but the individual steps involved to complete the user stories require separation of duties.

			Planning poker revealed that we're least sure with how to deal with the backend tasks, as none of us has strong Python experience (except Peter, but he mentions that the work done here is much different to what he's used to). I ended up agreeing to work upon the backend related tasks as I did well on that front last semester in Firestore with react native with no experience, so hopefully I can pick up quickly on this as well. I will work on them primarily with Peter, and with assistance from John if needed. Jose will focus more on the frontend, with some help from John. The existing investments stuff will be worked on by everyone, as all other tasks should be done by then.
22/09/21 Week 9	Development environment setup and backend sigma repo creation	8 hours	This took a long time. Probably longer than 8 hours across the 21st and 22nd, but not less. While delta's backend and frontend had readmes on how to set them up, they were a little outdated on some of the steps as things like Pycharm and some of the dependencies were different versions than what was used by delta back then. Ended up having to reinstall the whole thing several times (though the frontend had no such issues and was straight forward). Poetry, the dependency manager used for this project in particular was frustrating to use. Once its all set up though, you

			don't have to do it again.
24/09/21 to 26/09/21 Week 9	Development – working on setting up post/get/delete/put requests in the backend for the SDG table, the table that stores user's results	16 hours	This process was more of trying to figure out how to understand the existing code more than anything.

Figuring out how to make a table in Django/python wasn't too bad, as most of it came from copying some of the existing code. Understanding how to do something with that table though was harder than just reading the existing code though, because not only is it an unfamiliar language to me, but it would also be hard to understand even if I was familiar, I would think, because of the sheer amount of code written by others in each class.

Ultimately I ended up watching a video that John found that really got me started in understanding how to create post/get/put/delete requests for tables in the Django rest framework. This introduced me to Postman, something I had not used for (useful for backend only testing) and learning pgadmin andgeneral Pycharm, python, Django, and rest api tools. At this point I could make a standalone table and manipulate data using it via post/get/put/delete requests.

That was a good start but linking the table to an existing user_id (because we want the SDG table to be linked to a user) was easier said than done. By the 26th, I had, for now, just made it so that the 17 SDGs lived within the existing user table. Terrible database design to do it that way, but it meant that we had |

			met the criteria for accomplishing this task, even if not in an ideal way. John would work with me from this point to try and figure out how to link a table to the user table.
			Jose continues to work on the quiz frontend at this point and Peter is upskilling.
27/09/21 to 28/09/21 Week 10	Development – linking a table to a user/to the user table	12 hours	With the help of stack overflow and some trial and error, managed to connect the SDG table, a table with 17 columns for each SDG to the relevant logged in user.
			Learning how to deal with authenticated users via postman for testing purposes took a little while, but then I realized that the CURL commands on the readme were designed for that purpose. Using those, getting an auth token made it possible to test tables linked to specific users.
			Following that, playing around with some of the methods in some somewhat similar methods from other tables in the existing code, plus some helpful methods and tools from stack overflow, led to successfully making a test table that linked to a logged in user's table.
			Changed the SDG table to follow the design of the test table that was linked, and it worked. Showed John, he set up the routing for this table on the frontend, and this task is done.
			Meanwhile, Jose has made good progress on the quiz design, the grid format is looking good. The next focus at this

			point will be storing the SDG data organized by a user doing the quiz under the appropriate columns in the backend with a POST request.

R&D Part 1 Project Log

Date	Task	Hours	Notes
28/06/21 Pre-semester	First dev team meeting.	3 hours	First dev team meeting before the semester started. Discussed upcoming meeting, revealed each member's individual research into finappster. Made a list of bugs found, early analysis on how we as a team could potentially provide value to finappster. Questions on the purpose behind the quiz and the functionality of shares and displaying the ethics of this information were the big, identified topics to discuss.
12/07/21 Week 1	Team name, Trello/GitHub setup.	2 hours	Decided upon finappster Sigma as the team's name. Sent Barry and Leeanna Trello and GitHub IDs, first official meeting between dev team and client/mentor set on Friday morning. Dev team meeting to discuss the upcoming meeting and be prepared set for Wednesday morning. Dev team decided to do research on finappster, explore the web app, record problems, and try and understand what we are working with.
16/07/21 Week 1	Pre-client meeting	1 hour	Pre-client meeting to refresh on what we discussed on the 28th before the semester started. Prepared ourselves to discuss the main points (bugs found, possible ways we could help

Date			
			finappster such as quiz and dashboard metric improvements) that were researched.
16/07/21 Week 1	First client meeting	2 hours	Official introduction to client Leeanna and mentor Barry. Leeanna discussed finappster, the other teams that have worked on it and the one currently working on it. She also sought feedback on our experiences with using finappster. Discussed with her that we had grasped what finappster currently aims to do, but also identifies bugs and missing functionality (account creation workaround from emailing Leeanna as intended, shares functionality not working). Also covered that one of the primary purposes of finappster, to view how sustainable the metrics of your shares are, does not currently function. Also discussed KiwiSaver – the dev team (myself included) did not know much about our schemes. Overall came out of this meeting feeling like we were making progress in some way, and came away with Leeanna getting us to look into our KiwiSaver schemes and also to focus on the gaps we can find in finappster to work on as a project, continuing on from our identification of the quiz/sunburst chart analysis.
17/07/21 Week 1	Team discussion on Discord	0.5 hours	Not over call, just a text conversation on Discord. We confirmed regular availability of each member and have established that in-person meetings will generally happen on Mondays, Tuesdays or

			Fridays (both client and dev team meetings).
			Talked to team about getting in touch with your KiwiSaver providers and getting your scheme information before a dev team meeting organised for Tuesday, so we can discuss what we found out about our investments.
19/07/21 Week 2	Research my KiwiSaver	3 hours	Did not know my KiwiSaver scheme. IRD says I am with Westpac, but not which scheme. Did provide a number to call though.

Called the number on the IRD website that was a Westpac KiwiSaver provider. Spoke to a KiwiSaver specialist from Westpac, gave me my scheme (default scheme) and also showed me where the investments of my scheme were printed (hidden away on their website). Additionally, he set me up with an online account to switch KiwiSaver schemes at a click of a button, handy.

Looked into some of the investments my KiwiSaver scheme took part in. At first, I tried going through manually. Most of the investments I looked at (by googling their name or figuring it out from the name) were just currency or stocks in well known local companies. I also encountered some names that did not return conclusive results. Then I decided to try and find something else that could help analyse my KiwiSaver's investments for me.

I found the website mindfulmoney.nz, which had a |

			lot of similiarties to what finappster aspires to be, except strictly for KiwiSaver schemes and investments funds, not people's portfolios of investments. Putting my scheme into the KiwiSaver fund comparison on this website shows its return and red flags when it comes to investments (fossil fuels, animal testing, human rights and environment violations, etc.) for my fund.
			Mine only invested in 3% of unethical companies based on this system, whereas some I compared to up to 12-14%. At this point it occurred to me that higher returns came at a cost – the companies invested in that give these higher returns are generally less ethical, or at least the bar for what is appropriate to invest in for a KiwiSaver scheme is dropped.
			Sent the website link to the dev team chat last night so they could benefit. John made use of it; the others were asleep at that point I think.
20/07/21 Week 2	Dev team meeting	2 hours	Met with my team for our scheduled meeting on Tuesday. The topics to be discussed in this meeting were based off the email Leeanna sent us after our first client meeting with her the previous Friday.
			John and I had managed to get our KiwiSaver schemes and could discuss it. John's scheme with ANZ was a bit higher growth but higher risk, but more importantly had a whopping 14% of its funds invested in the negative categories in mindfulmoney. Discussed this a bit, but also had to address that

Date	Task	Time	Notes
			Peter and Jose had not had luck with finding their schemes at this point.

Advised they should try calling if they could not find them online, and that we would postpone talking about our KiwiSavers until our pre-client meeting on Friday.

Following that, we discussed the big topic of the day, finappster Sigma's scope – something we touched upon briefly in our first meeting with Leeanna. Cutting a long story short, overall we felt that potentially one of the best ways we could contribute to the project was implementing the sunburst chart that displays the ethics/sustainability of one's portfolio/individual shares as per the sunburst chart on the finappster main page that is not implemented yet. This, plus redesigning the quiz so that it might accurately suggest or at least display to a user what values are important to them (based off the UN sustainability goals data behind the scenes) could be a good scope for us. |
| 20/07/21 Week 2 | Meeting minutes/agenda template | 1 hour | John had done the minutes for our last meeting, but they were draft only. I took the time to find a solid template and to rewrite them and post them on Trello.

Also decided to do a proper agenda (this idea was later scrapped because of the changing direction of both dev team and client meetings making them inaccurate. A draft template to remember what to not to forget to discuss at each meeting is being kept though). |
| 23/07/21 Week 2 | Pre-client meeting | 1 hour | Pre-client meeting where we discussed our KiwiSaver |

			schemes. I had already covered mine from before, so this focused on Jose/Peter. Outside of that, this was primarily a refresher to remember what we had discussed in our previous meeting.
23/07/21 Week 2	Client meeting 2	2 hours	Meeting with Leeanna/Barry. Discussed with Leeanna our KiwiSaver schemes. I mentioned in my case how it does not seem to matter the scheme, none are perfectly ethical, but the more conservative, the less involved in unethical investments. I brought up after this our plans for our scope, but I think we had jumped the gun a bit – after Barry's wheel analogy, it became clear that we needed more input from the expert behind finappster, Leeanna, before coming to our own conclusions on how to improve the application. Following this, we went into some detail on the user journey of KiwiSaver (not finappster) which I believe serves as a starting point to understanding the typical finappster user journey (as we feel it should go). This was done (to my understanding at least) rather than finappster because it is something more familiar to the dev team than finappster, which we do not quite have the full understanding of yet, but still serves as a useful teaching tool because there is a lot of overlap. The meeting ended after that, and now we have to look into this user journey in a bit more

Date	Activity	Duration	Notes
			detail to help us understand what KiwiSaver (and eventually finappster) really needs.
23/07/21 Week 2	R&D workshop	1.5 hours	Went to R&D workshop (missed the one in the previous week due to one-off commitment). Ramesh explained to us about proposal expectations and to start booking meetings with your client. To be honest, it was not that useful, but it did serve as a reminder to start looking into doing the proposal and did prompt me to arrange a meeting on Monday with the dev team and our first official meeting with our mentor alone without the client.
26/07/21 Week 3	Mentor meeting 1 (first half) dev team meeting (second half)	2 hours	Meeting with Barry – started off with just him and I as the others were running a little late, and we discussed proposal expectations. Barry had already sent through examples to help guide us last night, so that helped a lot. Went through those a bit, then the others arrived. We asked him some questions, one if we were handling interactions with the client properly. He said we were doing good on that front. He also refreshed the others on what he had covered with me a bit, explaining that for the upcoming draft proposal in week 6, we are only expected to do the basic draft version he showed us, not the final week 13 product he showed an example of. Barry left following that, and the dev team discussed the proposal and KiwiSaver user journey a bit.

Date		Duration	Description
27/07/21 Week 3		1 hour	Discussion of research into KiwiSaver user journey with peers, other websites. Improve user journey, some basic wireframes.
30/07/21 Week 3	Pre-client meeting	1 hour	Met dev team in the meeting room near the WZ café an hour before meeting with Barry/Leeanna. Discussed our KiwiSaver user journeys, clarified with dev team how we would discuss these user journeys using the wire frames with Leeanna/Barry.
30/07/21 Week 3	Client meeting 3	1.5 hours	Discussed KiwiSaver user journey with Leeanna/Barry, with reference to the wire frames that Jose had drawn up with our input.

User journey boiled down to google KiwiSaver → go to website → click on the IRD button on the right to view information on how to get your KiwiSaver then select your scheme from dropdown OR select dropdown and pick your KiwiSaver scheme immediately → get sustainable info via 5 Ps (with expanding info about them possible) about your scheme, get offer to do quiz → do quiz, get personal 5 P rating, have it compared against possible KiwiSaver schemes → List of KiwiSaver schemes displayed that are ranked by most similar to your personal 5 P rating to least similar.

After user journey discussion, Leeanna started talking about investment providers. She went into detail about such organizations (KiwiSaver providers, such as banks, are one of these). She covered Asset Managers, Fund Managers, Wealth Managers, |

			Brokers, Advisors and Custodians. More research required to understand this better. This leads into the next user that will be part of this project, investment providers (with a selling focus). Following that, we explored the user journey of selling a product on an online website, such as trademe. The example we covered briefly was selling a skateboard, and the features/user journey of this concept. We touched on how travel websites can detect when you are looking at other websites and adjust price and advertisements of packages accordingly. The ethics and understanding a bit better on how to do this was given as homework. Also need to investigate the admin person user journey…how users would get in touch with help. Finally, need to put together user story (or closer to sprint goal?) of selling a product and polish that user journey too.
30/07/21 Week 3	Online chat discussion	0.25 hours	Discussed the meeting earlier in the day briefly, booked meeting for Tuesday next week and set homework to do the travel website stuff individually and do some preliminary user journey research into the admin person/selling a product.
02/08/21 Week 4	Dev team meeting	2 hours	Discussed the travel website stuff set as homework amongst ourselves. I was able to get websites to update themselves to prince match the other when

			reloading the one that was more expensive. It was interesting to see. I was unable to see the concept of websites updating their travel packages to advertise ones matching other websites, but I am sure the concept exists. Planned out the admin user journey and selling a product, wasn't too difficult. We kind of see some crossover with finappster, but not clear on it just yet. After that, we discussed the investment provider and admin user journeys, and how they relate to finappster. We are a still a bit confused on how they relate to finappster…though we're considering that maybe it'll all make sense when they're discussed in our client meeting. Overall, I am feeling a little confused still on how this all connects with finappster; the KiwiSaver scheme I can see some crossover, the rest isn't clicking yet though.
06/08/21 Week 4	Client meeting 4	2.5 hours (1 hour pre-meeting with dev team)	Pre-client meeting as the dev team. We were all a little apprehensive about the upcoming meeting. We understood the user journeys as a separate entity, but don't see the big picture and how it all fits into finappster at this point. Meeting with Leeanna. We discussed our travel journeys, no big twists there though. Onto the topic of user journeys, I went through the user journeys we had put together as a team. A few minor changes were made during this meeting, but

			they were kept the same.
			After a few other things, Leeanna then started using the whiteboard to combine the user stories as one, something that we had considered was the direction it was heading. It actually made some sense, and while vague, I could start to see how it all interconnected and with a few substitutions, made sense from a finappster perspective. Only kind of though. Needed some time to go away and think about it, discuss it with my team. Ultimately though, I felt more confident in grasping the scope eventually than I had going into the meeting (and I know the rest of the team felt the same). During the meeting we also discussed non-functional requirements, wireframing and things like where to prompt the user to log in so that we can take the data they use from the quiz. Questions about an appropriate payment model for finappster came up too. Came away from this meeting with a lot to think about.
09/08/21 Week 5	Mentor meeting 2 (first half) dev team meeting (second half)	2 hours	Meeting with Barry to clear some questions up. We asked about the quiz that Leeanna had mentioned that she wanted for investment providers, not just investors. He said it's a good question to ask her later. He also confirmed that finappster is strictly an information sharing app, the buying and selling of shares won't be part of it (make sense!) We're to now focus on preparing

			for our proposal draft that is due next week. Fortunately, it should be more of a formality, rather than an actual moderation session, as we're still sorting out the scope. Still, will need to give some serious thought to our scope so that we can at least talk about it when we do have it. The rest isn't too important.
10/08/21- 12/08/21 Week 5	Working on proposal at home, occasional chats with dev team on Discord, email from Barry.	6 hours	Ok, found out from Barry that our moderator is new to finappster, so he will want everything done by the books, how it is done for most R&D teams, not just a quick check to see if we are on the right track like some of the other potential moderators would have done.

We were all a little annoyed by that, because it meant having to put in a lot of extra work the coming week to make sure the proposal was up to date, and not only spending time defining the scope to the best of our knowledge for this point in time either.

Together (over discord chat here and there) we discussed what needed to be done, and our understanding of the scope. By this point, I feel I have a pretty good understanding of our scope, barring the discussions we hadn't had yet that will inevitably change it.

I worked on the scope and developed some questions in there too. The other members of my team are working on various other sections throughout the proposal. We have also arranged a meeting with Barry on Friday to get some feedback. Feeling a little wary of the upcoming moderation session, |

			but still much more confident than I had been just before the last client meeting, where the scope felt so confusing.
13/08/21-15/08/21 Week 5	Changing proposal up based on mentor feedback at home, collaboration with team over Discord	8 hours	Was sick the morning of the meeting with Barry as I had side effects from my 2nd vaccine shot. Didn't attend, but heard how it went from Peter & John, as well as seeing the PDF of our proposal draft marked by him.

Overall, it looks like I was a little off in not only what our scope was exactly, but also a little overly dismissive of what previous teams had accomplished. Barry's feedback pointed out that we were a too negative about the state of finappster, which I acknowledge.

As for the scope, at this point it became much clearer what our purpose really was. It was mentioned before a couple of times but wasn't really hammered home until now. We are to have primarily have a design focus, helping Leeanna plan out and shape not only our development next semester, but also the next team's (or more) development of finappster to accomplish one of finappster's main purposes, the ability for users to align their financial investments to their personal values. A lot of the puzzle pieces to accomplish there already exist, but the functionality isn't there. So, we will plan this out, and then get the development for it started off (and future finappster teams will finish what we started).

Peter and John, with the help of Barry, had cut out scope down a |

little as it was also too large.

So, the dev team discussed this feedback amongst us, then we allocated work. I focused on fixing up the scope and the project objective. I also implemented a section in the introduction for the questions that I had in the scope and broke them down into simple questions rather than huge paragraphs for each. Peter got to work on the methodology section, John on the requirements and Jose on the upskilling and current situation sections.

At first, I made a scope statement that consisted of features that each user that is part of our scope will probably need developed with the current information but realized when looking at other proposal documentation by previous teams that it was probably not the right way to go. We did agree though it was probably best to leave in for context on direction our scope will go in development potentially for moderator convenience though.

Following that, the scope was converted into a bulleted list, and the project objective was changed to be a more general overview of what we'll be doing over this year.

On Sunday, after everyone was done with their parts, and we had thought of all the questions we could to add on top of the ones I had added, we went through the proposal as a group.

			Sent through to Barry (got some feedback shortly before final submission to him that it was moving in a better direction now), and the dev team will meet Monday to sort out the presentation side of things. Overall felt it was OK for a week 5/6 draft, but I feel there is definite room for improvement on formatting and quality of content, even putting aside the scope that we still need to uncover with our client. It'll do for now though. I know I have said it before as well, but even more so now, I feel more confident than ever about our team being capable of delivering the scope and achieving the project objective.
16/08/21 Week 6	Dev team in person meeting – pre-presentation meeting	6 hours	Worked on proposal and presentation PowerPoint. We will need to present the idea that we're on track to our moderator, and hopefully Alan our moderator is understanding of why our scope isn't clearly defined at this point as we're still developing it with our client. Adding some more documentation and designing slides for our presentation took a while, but we feel that we know enough that we should be OK tomorrow.
17/08/21 Week 6	Proposal presentation	3 hours	Well…this meeting was a bit of a shock. We were expected by Ramesh the paper leader (who attended) & our moderator Alan to have finished our proposal at this point, rather than only supply a draft. The expectation is that we would be starting development following this meeting.

			This was a rather big shock, as we came in with the understanding that it would just be a friendly chat…but it seems by missing some of the documentation workshops, this change in the paper direction from previous semesters was missed by the team. Overall we handled ourselves pretty well despite this, still getting across to our moderator that we had a plan, we just need it in writing. That being said though, the team and I were all rather unhappy that we're being forced to finish the proposal so early, as at this point, we still don't have a full scope of what our client expects of us – this would probably take a couple more weeks. Looks like we'll have to move things up a bit.
17/08/21 Week 6	Mentor meeting 3 – post proposal presentation	1 hour	We met with Barry and discussed what happened in the presentation. Coming out of the meeting, the expectation that we'd finish the proposal in the coming week (assuming we don't go into lockdown, new COVID community case today) and we'd develop some part of the development scope this semester, rather than waiting till next semester.
18/08/21 Week 6	Dev team meeting – online	2 hours	The project proposal presentation meeting was a wake-up call to the dev team. We planned out the documentation expected for the proposal, which wasn't super clear. On one hand, you have several documents in the first week workshop of this paper as the expected documentation. On another, you have what the assessment brief lists, which is

			different to the lecture slides documentation list. Then there's the generic ITPM documentation folder that includes far more documents than were done in both ITPM and this paper. After going through the list and seeing what we were missing and putting every document that we thought might matter into a list, we sought to trim it down, because some of it is just so unnecessary. The team and I all resolved to also discuss with Leeanna the need to narrow our scope sooner rather than later as AUT wants us to finish documentation soon.
20/08/21 Week 6	Client meeting 5 (online)	1.5 hours	Discussed with Leeanna the outcome of our proposal presentation. Was hard to spin it in a positive light but we tried. Discussed some questions we had related to the scope. and was expecting to go over some of the last financial upskilling like previous client meetings, but unlike previous meetings it was less about Leeanna leading the meetings now but more about us needing to bring designs/ideas to the table and discuss them. Overall, this meeting could have gotten better, and I think the team and I were still reeling from the unexpected result of the project proposal meeting and still adjusting to online meetings (we didn't use cameras which didn't help). The team and I resolve to really work on design and bring

			something to the table to discuss next meeting. We know enough at this point; we need to start working through designs so we can move towards development.
21/08/21 Week 6	Dev team meeting	3 hours	The team and I finished what we started with Leeanna before the project proposal presentation & lockdown. Combining the three user journeys representing each of the 3 user types of finappster, into a generalist pseudo sequence diagram. The steps involved in each user was mapped as one big Miro diagram. This helped us also cement that our development focus will indeed be the investor user, and thus most of the user journey (some already implemented in current version of finappster).

Plans made to design a more specific version of the overall scope designed today, covering the investor journey in detail. Also made plans to wireframe major parts of this journey, particularly the quiz. |
| 22/08/21 Week 6 | Dev team meeting | 4 hours | Designed the investor user specific pseudo-sequence diagram. Developed two versions, one that I preferred, with the quiz and other features being available pre-log in, and one of Jose's preferences, that required a user log in/signup before they could do a quiz or look up an investment. The plan is to present both to Leeanna.

Team also did some wireframing and developed some questions for finappster tau.

Overall we feel much more |

Date	Task	Time	Notes
			confident in our direction, what we're designing feels like it's what our client is hoping for, we just need to spend a bit more time developing these designs, getting information from tau, and confirming these thoughts with our client.
23/08/21 Week 7	Meeting with finappster tau	2 hours	Met with finappster tau to understand their scope. We know some of what they do, but it isn't super clear…just that they're working with some of the SDG data. The meeting helped a lot. We discovered that the admin support user we designed in our Miro board was partially implemented by tau already. Their scope consists of building off finappster rho's database work, developing a GUI that will allow an admin (Leeanna for instance) to upload both SDG data and investment funds/shares into finappster. Both the SDG data and the fund data we need to make our quiz and recommendation system work. They aren't done, but it looks promising. If they don't make it though, dummy data is still an option.
24/08/21 Week 7	Dev team meeting	1 hour	Wireframe work, preparing quiz designs for our meeting with Leeanna tomorrow.
24/08/21 Week 7	Fixing up Miro designs	3 hours	I fixed up some of the ugly line design of the overall design scope document and edited it a bit to include some missing steps and be more readable. Also made the specific scope design more readable and added a few more steps. Overall feeling pretty prepared for tomorrow's meeting, the

			team and I put in a lot of work this week to get on track.
25/08/21 Week 7	Client meeting 6	3 hours	Meeting with client. Went through the overall design, outlining our and future team's scope in general, pointing out which parts have been covered by tau and which will be covered by us, leaving the parts that are out of both of our scopes clear. Outside of that, we showed the figma designs, and discussed the quiz in detail. Long story short though, this meeting felt like a massive improvement over our last client meeting. Both the client and dev team feel more in sync with development expectations.
30/08/21 Mid semester break, week 1	Dev team meeting	2 hours	Discussed expectations for the meeting tomorrow, proposal documentation discussions. Team feels there is a lot of redundant documentation and has decided to trim/combine certain documents that were on the to do list into one. Worked on incorporating the 5p values into the finappster dashboard on figma…found it somewhat difficult to find a design I am happy with, went with a basic version that isn't quite what I hope, but gets the point across. Can refine later.
01/09/21 Mid semester break, week 1	Short pre-client meeting and client meeting 7	4 hours	Short pre client meeting with the dev team, and then a long client meeting. Pre-meeting was primarily about preparing for our meeting with Leeanna, the client meeting's focus was about feedback on figma designs, a decision on quiz design, and the construction of user stories now that we have a pretty good idea on the scope. Overall, this meeting was

			productive. I now feel like we're finally beginning to edge towards development and moving away from theory, what ifs and documentation.
03/09/21 Mid semester break, week 1	Work on proposal	3 hours	Constructed a WBS and project schedule (Gannt chart). The project schedule covers some of the typical phases of a project, Planning, Analysis, Design, Implementation and Deployment phases. The work up till now, and a reasonable prediction (that probably won't be accurate, but perhaps a general guideline) was designed. In truth, I don't think a project schedule/Gannt chart was overly useful. Perhaps to map out our thoughts and a possible trajectory, and to indicate to AUT that we have a plan, but in Software Development Practice, designing user stories and a project/sprint goals seemed to fit that purpose just fine. The more I worked upon it (and most of the documentation in the entire proposal) the more I felt this was an outdated way of approaching software development. As one of the previous teams in finappster put in their documentation, this paper has too much of a waterfall approach to things, which contradicts the agile way of doing things taught in other papers.
05/09/21 Mid semester break, week 2	Work on proposal, add live finappster data into figma designs	3 hours	Leeanna submitted a raw data sample from an investment of some kind for use in figma design. As discussed in the meeting on Wed, this might give us insight into the best way to display SDG/5P data to users, as random data might be

			causing us to miss something. Added to issue log/risk register, started tidying up the proposal now that most of the sections have been inserted. Also sent off the project schedule and WBS to our mentor for feedback.
06/09/21 Mid semester break, week 2	Initial sprint 1 backlog and acceptance test development	2 hours	Created sprint 1 backlog with Jose. By no means a final version, but a rough estimate on what we verbally discussed with the client as our goal for sprint 1.
07/09/21 Mid semester break, week 2	Work on sample data + graph discussion with dev team	3 hours	Got a graph example of the sample data going in excel, then converted it to bar format in figma. Something that clicked was that the bars will be somewhat empty when divided amongst 3/5 Ps if the total has to equal 100% of a single bar spread across those categories. Something to think about. Also had a team meeting and worked together on figma designs for graphs for the upcoming meeting tomorrow.
08/09/21 Mid semester break, week 2	Client meeting 8	2 hours	Discussed SDG/5P bar design for the 'My Values' page. Discussed developed acceptance tests and the expected scope covered for sprint 1 – the long quiz, display of quiz results, and existing investments comparison section on 'My Values' page. Overall, Leeanna seemed happy with this scope for this semester. I am happy that we've managed to reach a consensus and can begin coding soon.
09/09/21 Mid semester break,	Work on proposal	3 hours	Worked on proposal after getting feedback on draft from Barry. Some duplication errors, and other improvements

week 2			needed. This is fine, it was expected that it would need some fixing up. I worked on some formatting. After we allocated roles, I ended up working on the current sprint plan and stretch goals section suggested by Barry. Leeanna ended up mentioning she wanted to push our part of the project live. Not something we thought would be happening, but thinking about it, perhaps we didn't discuss this in detail enough with Leeanna, so there's a disconnect there. I think it'll probably be possible to do that if we're set on it, but we'll set how it goes. Added to stretch goals.
11/09/21 Mid semester break, week 2	Final proposal work	3 hours	Finishing up working on the proposal. Fixed formatting and did some spelling/grammar checking of whole document. Glad to have this part done.
17/09/21 Week 8	Dev environment setup	1 hour	Initial meeting to setup dev environment locally. Only person who has it set up at this point is John. Setting it up (particularly the backend) is a lot of steps but looks to be ok. Time to get started!
20/09/21 Week 9	Breaking down user stories + planning poker	2 hours	Something we probably should have done a bit earlier, but better late than never. Broke down our user stories into tasks. We decided to do this because breaking the user stories down any further would make them seem impractical for a user to complete, but the individual steps involved to complete the user stories require separation of duties.

| | | | Planning poker revealed that we're least sure with how to deal with the backend tasks, as none of us has strong Python experience (except Peter, but he mentions that the work done here is much different to what he's used to).

I ended up agreeing to work upon the backend related tasks as I did well on that front last semester in Firestore with react native with no experience, so hopefully I can pick up quickly on this as well. I will work on them primarily with Peter, and with assistance from John if needed.

Jose will focus more on the frontend, with some help from John. The existing investments stuff will be worked on by everyone, as all other tasks should be done by then. |
| 22/09/21
Week 9 | Development environment setup and backend sigma repo creation | 8 hours | This took a long time. Probably longer than 8 hours across the 21st and 22nd, but not less.

While delta's backend and frontend had readmes on how to set them up, they were a little outdated on some of the steps as things like Pycharm and some of the dependencies were different versions than what was used by delta back then.

Ended up having to reinstall the whole thing several times (though the frontend had no such issues and was straight forward). Poetry, the dependency manager used for this project in particular was frustrating to use.

Once its all set up though, you |

			don't have to do it again.
24/09/21 to 26/09/21 Week 9	Development – working on setting up post/get/delete/put requests in the backend for the SDG table, the table that stores user's results	16 hours	This process was more of trying to figure out how to understand the existing code more than anything.

Figuring out how to make a table in Django/python wasn't too bad, as most of it came from copying some of the existing code. Understanding how to do something with that table though was harder than just reading the existing code though, because not only is it an unfamiliar language to me, but it would also be hard to understand even if I was familiar, I would think, because of the sheer amount of code written by others in each class.

Ultimately I ended up watching a video that John found that really got me started in understanding how to create post/get/put/delete requests for tables in the Django rest framework. This introduced me to Postman, something I had not used for (useful for backend only testing) and learning pgadmin andgeneral Pycharm, python, Django, and rest api tools. At this point I could make a standalone table and manipulate data using it via post/get/put/delete requests.

That was a good start but linking the table to an existing user_id (because we want the SDG table to be linked to a user) was easier said than done. By the 26th, I had, for now, just made it so that the 17 SDGs lived within the existing user table. Terrible database design to do it that way, but it meant that we had |

			met the criteria for accomplishing this task, even if not in an ideal way. John would work with me from this point to try and figure out how to link a table to the user table. Jose continues to work on the quiz frontend at this point and Peter is upskilling.
27/09/21 to 28/09/21 Week 10	Development – linking a table to a user/to the user table	12 hours	With the help of stack overflow and some trial and error, managed to connect the SDG table, a table with 17 columns for each SDG to the relevant logged in user. Learning how to deal with authenticated users via postman for testing purposes took a little while, but then I realized that the CURL commands on the readme were designed for that purpose. Using those, getting an auth token made it possible to test tables linked to specific users. Following that, playing around with some of the methods in some somewhat similar methods from other tables in the existing code, plus some helpful methods and tools from stack overflow, led to successfully making a test table that linked to a logged in user's table. Changed the SDG table to follow the design of the test table that was linked, and it worked. Showed John, he set up the routing for this table on the frontend, and this task is done. Meanwhile, Jose has made good progress on the quiz design, the grid format is looking good. The next focus at this

			point will be storing the SDG data organized by a user doing the quiz under the appropriate columns in the backend with a POST request.
01/10/21 Week 10	R&D part 1 final workshop & team meeting with Ashley Thew, team member of finappster Delta	3.5 hours	R&D part 1 final workshop brought up expectations for the status report/presentation due end of this semester. The general gist is we'll need to show our moderator and mentor what progress we've made since the submission of our final proposal, and how we'll deal with the rest of the project. Throw in some documentation to show this progress/updated plan and we're good. Meeting with Ashley scheduled shortly after, this was done to get some clarification on backend related things that we may be unsure of.
02/10/21 To 07/10/21 Week 11	Working on backend tasks	16 hours	Spent a long time figuring out how to set up POST/GET/PUT/DELETE requests up for the newly developed SDG table. It was very easy to set these requests up for a standalone table, but because the SDG table had to make requests under a specific user, that meant needing a deeper understanding on how to reference the logged in user and access the foreign key. This was much more difficult than it would seem because the existing models that made these requests were hard to replicate, particularly because guides on how to do this online were much different to how it was set up by the previous teams. Having no experience in Django Rest Framework didn't help either. After trawling the Stack Overflow forums for awhile and

			trying a few things, managed to get it working, but with a different method than the existing code, which is not ideal. Will need to learn how to do it the same way as the existing code over the break.
			John tested and completed my pull request, no issues!
			During this week it was discovered as well that we had missed a task – setting up the Heroku development environment. Added it in, but the time it took to figure out how to use the backend in the first place (even if only locally using localhost:8000) meant that we had no time to set this up. Heroku deployment to be pushed to next sprint…not ideal.
07/10/21 To 09/10/21 Week 11	Working on frontend task	6 hours	Working on displaying the 5P values saved to the SDGtable when a user submits their quiz. This task is far easier for me because I have some experience with React. Used some bars that a teammate found from a library and formatted them and used the get routing set up by another team member to get the data. Peter tested and completed my pull request, no issues.
11/10/21 Week 12	Sprint ending, prep	2 hours	Quiz was finished in full at this time by Jose/John. They ran into some trouble with a library for a long time but swapping it out proved to be the way to go as the problem was solved quickly then. At this point we're tidying up the Trello board, testing and then merging branches/features. No issues on that front and the quiz

			frontend and the associated backend works, as does the displaying of the 5P data on the quiz results page.
			Didn't quite get around to the existing investments or Heroku deployment to allow client testing, but considering the sprint occurred during the busiest time of the semester and involved a good amount of upskilling and interpreting of existing code, we're not too upset.
13/10/21 Week 12	Client meeting 9/Sprint review, retrospective	2 hours	Sprint review for Sprint one. We showed Leeanna our completed work by screensharing it over Microsoft Teams. She seemed happy with what we'd produced so far, despite not having the Heroku deployment set up yet and falling a little short of all features developed, which was nice. She seemed particularly interested in the math behind determining the 5P values, which Jose explained to her (and she seemed satisfied with).
			Following meeting, team met and reaffirmed that we're all committed to working over the break. Sprint 2 has been scheduled for November 15, which our client was advised of.
			Also had a sprint retrospective after. We reflected on what we did good and bad…overall we're pretty happy though.
16/10/21 To 17/10/21 Week 12	Mid project review documentation work	6 hours	Worked on mid project review, isn't too bad. The team and I are all in crunch time with other assessments though, so there's a bit of a vibe of wanting to get this out of the way (which is understandable, and I am feeling too!).

			Needs some proof reading on Monday and some editing but is ready now.

R&D Part 2 Project Log

Date	Task	Hours	Notes
20/10/21 Week 12	Mid project review presentation	1 hour	Went much better than proposal presentation with Alan and Ramesh did. No Ramesh this time but Alan was happy that we'd improved on some of his criticisms significantly since the proposal presentation. That being said, there is still some things to work on. - How will we design the algorithm for recommendation? - What will the data contain? - Can we use tau's data? We don't know if it will work with the recommendation system we will build - Also, a lot of other stuff (on notion for reference later). Team to investigate these things over the break, with a particular focus on recommendation design and if tau's db will work with what we choose to design.
14/11/21 Summer-break	Pre-meeting notes	1 hour	Wrote down some of what was covered above to formulate what to discuss with dev team tomorrow.
15/11/21 Summer-break	First meeting over break (online)	2 hours	Discussed our next plans, mainly a focus on what we learned from our mid project review. Focus on the data and understanding if we can use tau's work was outlined as priority. Plans to meet with some tau

			members booked.
19/11/21	Pre-meeting notes	1 hour	Put together some questions to ask tau. (Missing data, pos/neg sdg related)
20/11/21 Summer-break	Handover meeting (online)	1 hour	Online meeting with two members of tau. Asked about shape of tau's data, why pos and neg values for each sdg? Apparently, client's decision. Hmm. Apparently, Rho's final work had some input on this matter. Also learned some important stuff about some things in their db (e.g. offers are funds of funds).
22/11/21 Summer-break	Pre-meeting notes	2 hours	Put together some questions that I need to ask client tomorrow. Mostly SDG related.
23/11/21 Summer-break	Client meeting (online)	1.5 hours	Meeting with client. Sought clarification on the tau sdg situation, as well as getting some idea on how much SDG data she had, rather than just the samples she provided earlier in the year. Long story short, there is pretty much no real SDG data, not in a usable state at least. Tau's database doesn't have any data either, other than some test data in a different format to what sigma is used to… I suggested the idea of using fake data and perhaps we could put it in tau's database, but that we might need to go away and think on things before committing to anything.
23/11/21-12/4/21	Post-meeting notes	3 hours	Put together some notes (and got dev team to assist) over a period of time to formulate discussions and outcomes with client. Sent through to mentor on 12/4 to get his opinion, discussion to be had on topic

			with mentor on 12/12.
12/12/21	Mentor meeting	1 hour	Meeting with mentor to get feedback on notes that were sent through to him that are based off conclusions from client meeting. Overall we're a little confused on our next step, but some conclusions we are reaching is that we won't be able to use tau's work or maybe even client's real data (or lack thereof) for our part in finappster.
15/12/21	Dev team meeting	1.5 hours	Meeting to confirm our general direction moving forward. Team has properly decided we won't be using client's incomplete data and will instead make dummy data in our own database. Whether we will eventually migrate this dummy data across to tau's database is still being considered.
21/12/21	Research recommendation algorithms	2 hours	Did some research on possible recommendation algorithms. Personally I am not as experienced with algorithmic data structures as the rest of the team so probably will find a cruder solution… Couldn't find anything worthwhile this session 🙁
05/01/22	Research recommendation algorithms	2 hours	More research. One possibility that I am sure is probably not the best way to do this is to compare the combined 5p value of the user's results against a share's 5p combined value, and get the absolute difference… Hmm..

Date	Activity	Duration	Notes
09/02/22	First dev meeting of year	1 hour	Shared ideas, we've still researching the recommendation system concept, but we've decided regarding tau's database that it will be a stretch goal. I am unsure of the absolute difference idea at the moment, so don't bring it up yet. If we can complete all tasks with plenty of time, we'll integrate dummy data from sigma's db to tau's db…will prob require some restructuring of their tables.
14/02/22	Second dev meeting of year	1 hour	Team after doing some discussion has decided upon for now to implement an absolute difference recommendation algorithm because no better idea was found (Peter and I came up with it at the same time funnily enough). It's not ideal as the individual P values preference aren't considered, but it's all we have now. Quick sort will be the choice of sorting method for the data following use of algorithm.
15/02/22	First mentor meeting of year	1 hour	Explained idea and how we don' think it's quite right. Mentor supportive of implementing it and if we can think of something better, we can come back to it. Hmm…might have a point, just worried it'll be hard to redesign. Well let's go with it for now.
17/02/22 Summer-break	Team meeting, Trello board pre-semester mini-sprint, beginning of share table task.	3 hours	Had Trello meeting with team earlier in day. Team has finally after a long period of time in the concept phase figured out an appropriate recommendation system model to test. Some user stories based on creating a dummy share table and some front-end algorithm testing of the

| | | | absolute difference formula we discussed has been drawn out into user stories and tasks.

Completion of these and possibly some front-end design if time allows will be the work covered before semester start.

There's a little uncertainty on if the recommendation system we've chosen is the best model, as well as some testing on which sorting algorithm will be the most efficient, but with a concrete idea in mind things are looking good.

Following that meeting, I began some work on implementing the discussed share table that will serve to store all individual shares of companies finappster will provide information on.

A note, we might not get a lot done in this sprint because people moving/still working full time. |
|---|---|---|---|
| 18/02/22-20/02/22 Summer-break | Shares table task | 4 hours | Needed to revise Django rest framework a bit because it was a while since I last used it. Got a dummy data table up and running, put together a postgresql script that randomly creates x number of rows of fake shares with random 17 sdg values and a calculated 5p value off those.

Progress. |
| 01/03/22 Week 1 | Dev team meeting (in person) | 3 hours | First dev meeting of the semester. Overall, we didn't get much coding done in that mini sprint, so the tasks/user stories were moved to a proper sprint 2.

Discussion on our overall plan and proper assignment of tasks to people was done. |

			Decent plan in place, everyone is now available.
02/03/22-06/03/22	Work on my tasks and help and be helped by dev team	7 hours	Heroku deployment task, a little recommendation task testing, some bug fixing and a little peer programming, pull requests and convos with dev team spread out across these days. No real problems at this point, good start to the semester. Worth noting that Jose was assigned to implementing the absolute difference recommendation algorithm, and while working on it, figured out that a 5D Euclidean distance algorithm will be more accurate because it does factor in each P's placing when it comes to similarity to user results. A much better design than using absolute difference. I am much happier with this result as it was obvious that the absolute difference had its flaws.

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08/03/22	Pre-client dev team meeting + client meeting	1.5 hours	First client meeting of year. Pre discussion with dev team before jumping into client meeting. Presented current work – recommendation algorithm for share work using dummy data. Client interested but got the feeling the idea of dummy data didn't go over too well. Client seems primarily concerned with real data. RE: uploading data, we advised client tau db seems to be broken. Client hasn't been able to use since either which seems to confirm it. Fixing tau db or doing a standalone file upload app is now a consideration.

10/03/22	Dev team meeting	2 hours	Discussion regarding tau db vs standalone upload app. Real data vs dummy data – how to get client to understand dummy data importance? Book meeting with mentor regarding file upload decision to weigh in.
11/03/22	Mentor meeting	1 hour	Things discussed: Barry suggests data upload app because he will be maintaining the work after we finish. Push on real enough data. Need to get client to recognise importance of data that is close enough to real for the missing columns. All contingent on client being OK with this though.
15/03/22	finappster Zeta meeting	1 hour	Background given on what we do to Zeta (SDGs/5Ps/quiz/recommendations). Advised of our experience with client and mentor and suggestions on how to handle things. Zeta told us a bit about their expected project.
15/03/22	Client meeting (same day as Zeta)	1 hour	Presented proposal to do standalone app instead of using Tau's work, which isn't functional.
17/03/22	Dev team meeting	1 hour	Discussion on Sprint 3 (but not starting yet)
18/03/22	Dev team meeting	1 hour	Discussion on excel to JSON
22/03/22	Client meeting	0.5 hours	Update on data upload app progress with client
23/03/22	Backend development	6 hours	Needed to switch from single object POST to list POSTing. Spent some time figuring this out. Enabled it for both share and fund tables.

			Also changed frontend and backend to be more precise to larger decimal places.
25/03/22	Dev team meeting	1 hour	I presented three different ways to handle calculations of SDGs between frontend and backend
29/03/22	Client meeting	1 hour	Progress on data upload app shown to client and mentor. SDG to fund SDG confusion.
30/03/22	Dev team meeting	1 hour	Brainstorm – raw data calculations and how to implement
02/04/22	Mentor meeting	1 hour	Development scope discussion. Real enough data discussion. Portfolio discussion.
06/04/22	Dev team meeting	2 hours	Big discussion on issues…. Team believes that raw data can't be the only way to do things, but that means client would have to be mistaken. Plan to get Leeanna to break it down. Real enough vs real data discussion…Leeanna is set on using real data, but there isn't enough of it there. Need to convince her to use 'real enough' data. Edge testing discussion.
08/04/22	Mentor meeting	1 hour	Discussion of difficulty of getting a hold of client, whiteboard session to explain our current issue on best way to get fund SDGs with mentor
11/04/22	Dev team meeting	2 hours	Discussion on how to explain how raw data processing is a bad idea to client. Going over options – partial or full raw data processing? Possibility of putting raw data values in fund table instead?
13/04/22	Client meeting	1 hour	Attempt to confirm final deliverables, though encountered issues on reaching a firm consensus on implementation of fund SDG processing.

30/04/22	Dev team meeting	1 hour	Addressing issue with parsing and uploading large amounts of data. Discussed react libraries and even separate implementation to get around the long wait times.
01/05/22	Manually calculating SDGs and Fund weightings – research	6 hours	Spent a long time doing some SDG calculations manually. Wanted to test if client was right about not being able to use SDG values from Share table to calculate Fund overall SDGs with weighting factored in. After some practice, am pretty certain that you can in fact calculate fund SDG values from the final SDG values from the Share table, contrary to client belief. Designed two pseudo ERD diagrams set out in a user friendly way to help explain my findings with client tomorrow. Got Jose and John to test, confirmed my work and thus a meeting booked with client to explain these.
03/05/22	Client meeting	1 hour	Jose and I had a meeting with Leeanna to show the discovery made that we can, in fact, calculate fund weighted SDGs without using raw data. Took some explaining (the diagrams helped a lot), but got the point across in the end and now our development scope is cemented.
04/05/22	Dev team discussion	1 hour	Debrief on what happened in meeting yesterday. I can now recommence work on fund and share backend tasks.
04/05/22-05/05/22	List update feature work	8 hours	Work on list update…finally got it to work! Implemented for UploadedShares. Fund work to begin later.

			Stack Overflow and some testing helped a lot, the solution ended up being taking in a list of rows sent in a request, iteratively matching them to the relevant columns in the table using key value pairs and saving them as an instance. With list updates working, we solve the issue of sending too many requests at once which uses up all the PCs memory and causes the browser to crash.
04/05/22- 13/05/22	Backend tasks – list post/update/delete functionalities	20 hours	Yes, that number is right. I spent a long time figuring out how to get list updates to work on the fundShare table and ended up having to go the delete + post request route instead because I couldn't figure out using the Django legacy backend on how to do updates as a list for a table with multiple foreign keys as an ORM. With atomic requests enabled, no data loss is risked, but the performance of delete + post *might* be a bit slower than updates (conflicting info on this). Also, significant work required to figure out how to do server-side processing for calculation of SDGs, as it was deemed too taxing to do on the frontend.
14/05/22	Dev team meeting	2 hours	Locally, everything works, albeit taking a long time (2+ minutes for loading shares/funds on MyValues page, 5 minutes to upload 100k shares on data upload app... Everything works in a single request. Began final Heroku deployment – also had to use a workaround as in the last month there was a GitHub data breach and so Git

			CLI is the new way to deploy. Problem: We encountered an unforeseen issue. Heroku is far slower than local deployment. Furthermore, any requests over 30 seconds time out… Possible solutions: batch requests, a heartbeat request alongside the single main request. Batch requests is cleaner, but not sure if it is possible to do get requests like that. John and I to work on solving this.
14/05/22	1 on 1 meeting with Tamati from Zeta about the backend	1.5 hours	Chatted to Zeta's backend person about Sigma backend as I was the backend guy for Sigma. Discussed Django setup, advice given about interaction with client and Sigma's experiences.
14/05/22-18/05/22	Heroku deployment	15 hours	Lot of last-minute work to make our work function when deployed on Heroku. On the frontend, Jose and John changed the requests sent to the backend into batch requests, breaking the large request to shares and funds up into requests that send small amounts of the rows from the excel sheet. On the backend, I enabled the fundShare table to delete matching data sent in each batch request then post the new data that is incoming, or just post it if not already existing. The share and fund table already work as is with batch requests.

			Get requests was a different issue, and one we ran out of time to implement. There doesn't appear to be an easy way to do this, although pagination seems to be the solution for a future team to implement. Even if we had gotten it working however, our client's need to upload hundreds of thousands to millions of rows won't work with the current remote deployment. The plan is not built to handle such large amounts of data. Our final work deployed on Heroku was left in a state where only a few thousand rows of shares or funds was permitted to be uploaded, simply because if too much data was uploaded, it would be impossible to load it in time on the GET request on the My Values page to view recommendations because of Heroku's 30 second timeout.
19/05/22	Mentor meeting (in person)	1 hour	Discussion with mentor. Further work to be completed by the next team, probably on a remote setup that can handle larger amounts of data. Work from here will be on documentation and handover, which will wrap up in the next few weeks.
01/06/22	Dev team meeting discussion	0.5 hours	Discussed over discord work on portfolio and how to finish it off over the next week or so. Meeting booked for Friday to discuss.
02/06/22	Portfolio work	4 hours	Added final project deliverables to portfolio. Work on reflective report. Some admin work to find out what we still need to

			address so tasks can be allocated in meeting tomorrow.
03/06/22	Reflective report work	6 hours	Worked on reflective report,
04/06/22	Reflective report work	3 hours	Finished reflective report.
04/06/22-05/06/22	Portfolio work	6 hours	Work on Research and Development section of portfolio.