Managing Finances

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Project overview

The product:

We are creating a personal finance management app for young professionals looking to manage and keep track of their finances in an easy way.
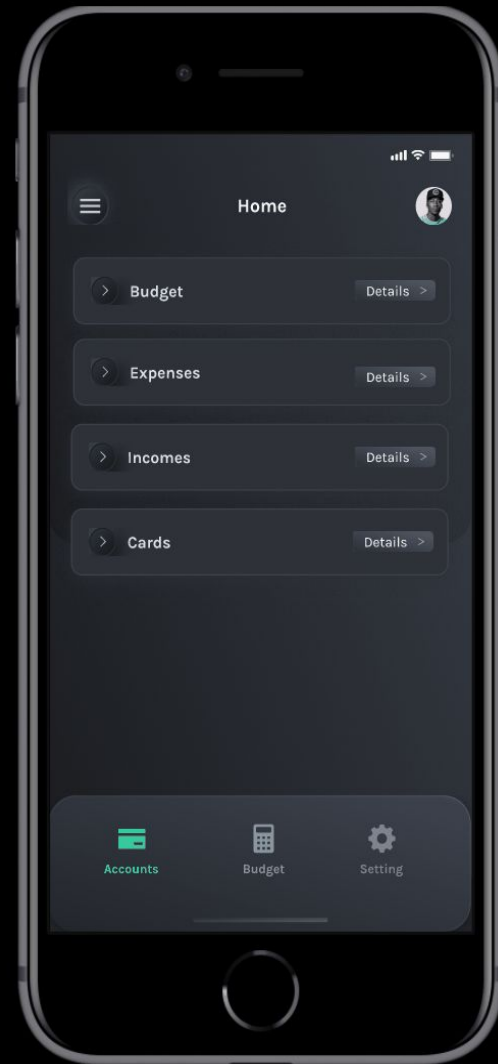
Problems we try to solve:

Track expenses and income automatically

Separate and manage finances from different aspects of life

Keep finance on track

Project overview

Track expenses and income automatically

Users can link their bank card with their sub-account.

Expenses and income will load into app from their bank transactions automatically.

They can still manual add expense or income when they need to.

Separate and manage finances from different aspects of life

Users can setup multiple sub-accounts under one profile.

If a user is flatting with others, he/she can set up two sub accounts, one is for his/her personal finance, the other is for flat finance.

Keep finance on track

Users can set up budget weekly or monthly. When they spend over their budget, they will receive overspending notification.

They can also set up saving goals. Saving notifications and progress bar give users instant feedback to help them work towards their financial goals.

Description

- Personas
- Essential use cases
- User journey map

Persona 1: **Sophie**

"I love trying new things with my friends, but I also notice that I spend too much when doing so"

Goals

- To have a better understanding of my finances
- To save enough money for an overseas trip next year
- Have enough money to fund my lifestyle

Frustrations

- "If I keep living paycheck to paycheck, I will never have enough money to travel"
- "I don't know how my money is gone"
- " I hope someone can remind me when I make impulsive purchases."

Sophie

Age: 24
Education: bachelor
Hometown: Wellington
Family: Single, lives alone
Occupation: Lawyer

Sophie is a young lawyer with a busy social life. She likes sports and hanging out with her friends. She doesn't think money is the most important thing but wants more control of her spending. She notices that she makes unnecessary purchases under the influence of her friends and social media. Sophie wants to have more control of her spending and thinks notification of her spending can help keep her focused on saving.

Persona 2: **Tyler**

"I like to plan and organise my finances. It gives me a feeling of control of my life"

Goals

- Save to buy a house
- Financial security
- Want to have extra money to Invest
- "Live within my means"
- Plan and organise my finance

Frustrations

- "I don't want to manually record my expenses everytime"
- "I want to have a tool to visualise my finances and store my data"

Tyler

Age: 29
Education: Bachelor
Hometown: Auckland
Family: Live with partner
Occupation: Software engineer

Tyler has been working as a software engineer for couple years. He likes reading and learning about personal finance. For now he uses spreadsheets to track his expenses and income but thinks manual recording is not efficient. He wants to have a tool to categorise expenses from bank transactions and generate reports/graphs based on it so he can analyse his finances.

Persona 3: **Sarah**

"As head tenant, I want to manage flat related expenses in an easy and transparent way"

Goals
- Share flat related expenses with other roommates

Frustrations
- "Sometimes when we need to pay for bills, our roommate account doesn't have enough fund because one of roommates forgets to contribute."

Sarah

Age: 28
Education: Bachelor
Hometown: Palmerston North
Family: Flats with others
Occupation: Business analyst

Sarah is a young professional who moved to Wellington and flats with a small group. In her previous flat, one of her flatmates used his own account to handle flat expenses and Sarah wanted to know the numbers but didn't want to bother her flatmate too often. She is head of tenant of her current flat and wants to share the expenses with 2 other flatmates each month.

Persona 4: **Mike**

"Now that I have a young daughter and more disposable income, I need to take control of my future savings and spending."

Goals
- Save for his daughters future
- Learn how to setup a long term saving plan

Frustrations
- Has little experience with saving and financial literacy, so feels overwhelmed planning so far ahead.

Mike

Age: 24
Education: Apprenticeship
Hometown: Hamilton
Family: Young Family
Occupation: Builder

Mike has recently completed his building apprenticeship and for the first time in his life, is earning enough disposable income to begin thinking about saving. With a young daughter to think about, he needs to ensure that he has a clear saving plan moving forward to give her the future that she deserves. He has relatively little financial literacy, so is looking for something simple to setup his long terms savings plan and report on his family's progress each month.

Use case: link bank account & add new expense

Scenario: Link bank account 😃

User intention	System responsibility
Enter card info	
	Verify and show account info
Choose account	
	Confirm the account
	Attach account to user

Scenario: Input actual expenses 😃

User intention	System responsibility
Create an expense entry	
	Show blank expense entry page
Fill expense info	
Select category	
Save expense entry	
	Update expense page

Use case: setup budget & setup saving goal

▼ Scenario: Setup budgeting information😀

User intention	System responsibility
Click budget button	
	Display budget entries
Create or update the entry	
	Open blank or existing entry
Fill the entry with income and expense info	
Save	
	Update and save the entry

▼ Scenario: Setup saving goal😀

User intention	System responsibility
Create new goal	
	Display goal page
Enter saving goal info	
Save	
	Update and save the goal

Use case: setup sub-account & receive purchase notification

▼ Scenario: Setup subaccount😃

User intention	System responsibility
Create or update subaccount	
	Display subaccount page
Fill account info	
	Display account info
Save	
	Attach account to the user

▼ Scenario: Receive purchase notification

User intention	System responsibility
Make a purchase using card	
	Fetch transaction info
	Push notification to the phone
Read notification	

User journey map - Receive purchase notification

	Journey Step	Feeling	Thought	Internal ownership

Journey Step	Make a purchase using personal bank card	Receive transaction notification on mobile phone	Read transaction notification
Feeling	Excited	Anxious	Dissapointed
Thought	*"I can't wait to try this new product. Let's just ignore the cost - you only live once!"*	*"Oh, I guess I can't just spend and forget about my purchases anymore. Now i get constant reminders."*	*"I spent how much?! I'm supposed to be saving, I should be more careful with my spending from now on!"*
Internal ownership *What measures should be taken in this step from the service side?*	Ensure that the app is able to auto refresh once data has been added to any of the linked bank accounts/cards.	Will need to make sure that the app has asked the user to allow push notifications, or that the user is already aware of how to setup transaction notifications before this stage occurs.	Ensure that notifications are in a digestable format and customisable. I.e. if the user wishes to see the updated progress of their weekly budget along with the transaction cost, this should be allowed.

Prototype

- Digital wireframe
- Prototype
- Demo

Wireframes, Prototype and Demo

Wireframes: [Figma link](#)

Prototype: [Figma link](#)

App demo: [Notion link](#)

Testing

- Usability studies
- Improvement
- Accessibility

Study Details

Testing tasks

1. Ask user to set up a sub-account
2. Ask user to set up new budget
3. Ask user to set up new goal
4. Ask user to add new expense

Testing plan can be viewed [here](#)

Participants

2 participants

Participants between the ages of 20-30 who are young professionals, interested in managing personal finance.

Methodology

Moderated usability study

Users were asked to do testing tasks on our prototype

Use Heuristic Evaluation to categorize and analyse users' feedback and comments

Testing results can be viewed [here](#)

People want to have more clear app navigation

Supporting evidence from the usability study.

- It is not currently clear that the home page is supposed to be a summary page. Tester 1 thought that the home page merely contained navigation buttons to other parts of the app.

- When entering the budget amount, the tester did not know how to move to the next screen.

- When asked to add a new expense, the tester can't find add button because it's at the bottom of the screen and tester didn't realize he can scroll down.

"The setup of the menu button, profile icon and settings button was not clear. It was hard to know which options would be found within each sub-menu"

"A scroll bar should be visible on all screens to indicate that further information can be found below"

"Was a little bit confusing to figure out how to go back or cancel out of certain screens. Could make these buttons more obvious"

People want customization options for data visualization

Supporting evidence from the usability study.

- Both participants said they wanted to have more options for data display or ability to customize how to display data

"I like the goal feature, but there's only a progress bar to display data. What if I want to see how much I save each month, a line graph might be helpful."

"Bar graph on the expenses page should avoid having timelines on the x-axis. At least allow it to be customised to make more sense for the user."

People want to link their bank account

Supporting evidence from the usability study.

- ● When linking the bank card, the tester asked what if they want to link the account that doesn't have card.

"The app should link to bank accounts rather than cards. Many accounts (and all savings accounts) do not have a bank card and on top of that, bank cards in general are becoming obsolete."

Research insights

Clear Navigation

Users need a clear way to navigate between each page and the whole app.

Customization options

Users need better customization options when displaying their saving goals and budget data.

Bank account option

Users need a way to link their bank account without card.

Recommendations

- Set home page to show basic summary and hamburger menu to navigate

- Change color for "go back" and "cancel" buttons to make them more obvious.

- Add a scroll bar.

- Add tabs on Goal and Budget summary page to offer different data graphs.

- Add a bank account setup option in the sub-account setup process so users can add bank account without cards

Accessibility considerations

1

Current design only has dark mode, and the font size and font colour is difficult to read at times

Future design will offer other colour themes (includes high-contrast) to choose from. Users can change the font size and font color.

2

Future design will offer the Screen Reader options for people who are visually impaired.

The Screen Reader has "whisper" option(only user can hear the screen reader sound) for people who want to use the app in the public and keep their finance private.

3

Future design will offer finance tips and tutorials on how to manage finance digitally for people who don't have much finance education before or who are new to digital finance management .

Reflection

- Insights
- Learning

Takeaways from building personas

What we did:

We built personas based on people we know(including ourselves) and problems they(we) meet in life.

What I learned:

Personas are key to the design process because they reflect the user's lifestyle and give an idea of how to meet user's needs. They are created by identifying common pain points users have. These pain points are issues that frustrate and block the user from getting what they want. For example, I personally use spreadsheet to track my income and expense. I feel the whole manual input process is tedious and always look for an app that can link with my bank account and load transactions into expense and income automatically.
Empathize with users is important to building personas. In our project, we only discussed people we know and our observations of their life. It's okay to do this for study, but I realize making assumptions on users and their problems from my own experience is extremely limited. If i really want to understand users' needs and their problems, i need to talk to users directly and listen to their thoughts.

Takeaways from building use cases

What we did:

We brainstormed ideas on app features that tackle users' problems and then breakdown them into step-by-step tasks.

What I learned:

Outlining use cases helps me translate from feature ideas to the specific steps users take to interact with our app. To picture how users move through our app, I find these three questions are useful:

- What actions will users take in the app?
- What decisions will users make?
- What screens will users experience after taking action or making decisions?

During this process, I need to consider the entire journey that users take in order to get what they need from our app. For example, If I as a user want to get automatic expense and income records from my bank, what I need to do is to set up a sub-account in the app and link my bank card with it. To set up a sub-account, I need to go to account page, add a new account entry and fill account info and save. I find the thinking process above is similar to divide and conquer.

Takeaways from building wireframes and prototyping

What we did:

We created IA first, then made wireframes on paper. After that we made low-fidelity prototypes in Figma and made sure we are happy about the flow between each screen. Finally we started to make high-fidelity prototypes.

What I learned:

The step of outlining information architecture, making paper wireframes, making digital wireframes, making low-fidelity prototypes and then high-fidelity prototypes worked well for us. I noticed when some groups already started high-fidelity prototypes using design kit, we were still making the low-fidelity prototype with basic shapes. However, by using our way, we try to reduce the possibility of spending a lot of effort on design only to learn that the user flow or information architecture has to change and that we need to rework the design. But later I realize the UX design is an iterative process and will involves a lot of changes.

Takeaways from testing

What we did:

We asked our friend and roommates to do tasks from our testing plan and observed how they use our app. They gave us feedback and comments during and after each task.

What I learned:

Think what users will do is very different from what they actually do. Seeing someone who doesn't know our app as well as I do interact with it disproves many of my preconceptions about user experience. For example, if there is no indicator instructing users to scroll down, they will not do so. If people can't do what they want using our app, they won't waste time trying figure it out. They will not use the app again if the experience is poor, no matter how much effort we put into making this app. As a result, it is critical to prioritise users and strive to provide the best possible experience. It may seem cliche, but it is true.

Takeaways from the project

What we did:

We went through all five steps of UX design: Empathize - Define - Ideate - Prototype - Test and learned many useful tools(Miro, Figma) and frameworks(Personas, Usability study etc) of each step.

What I learned:

This project provided me with an opportunity to learn about the designer's role in software development. Some UX design procedures, I've discovered, can also be applied to software development. For example, prior to real design, we create information architecture and wireframes. Before we can begin coding, we need to first design the software architecture and create UML diagrams.

Another takeaway is that testing is important. We have bias for our app because we work hard on it and are familiar with it. However, testing with real users helps us to notice things that we think clear enough for us but can cause problems for our users like scroll down or cancel button.