

# Digital wallet

≡ Role	Designing a cross-platform mobile app for payments and trading
≡ Skills	Discovery & Research Facilitation UX/UI
≡ Team	1 UI designer, 1 Product manager, Business analyst, 5 developers
≡ Project type	Client project

## How might we simplify access to digital assets and empower everyone to build wealth?

Our team faced this challenge when we partnered with a major ETF provider and asset manager in the US, looking to expand their traditional offerings to include tokenised securities.

They needed a user-friendly solution that could address current gaps in the financial system, including restricted access to wealth-building assets and slow, costly transactions.

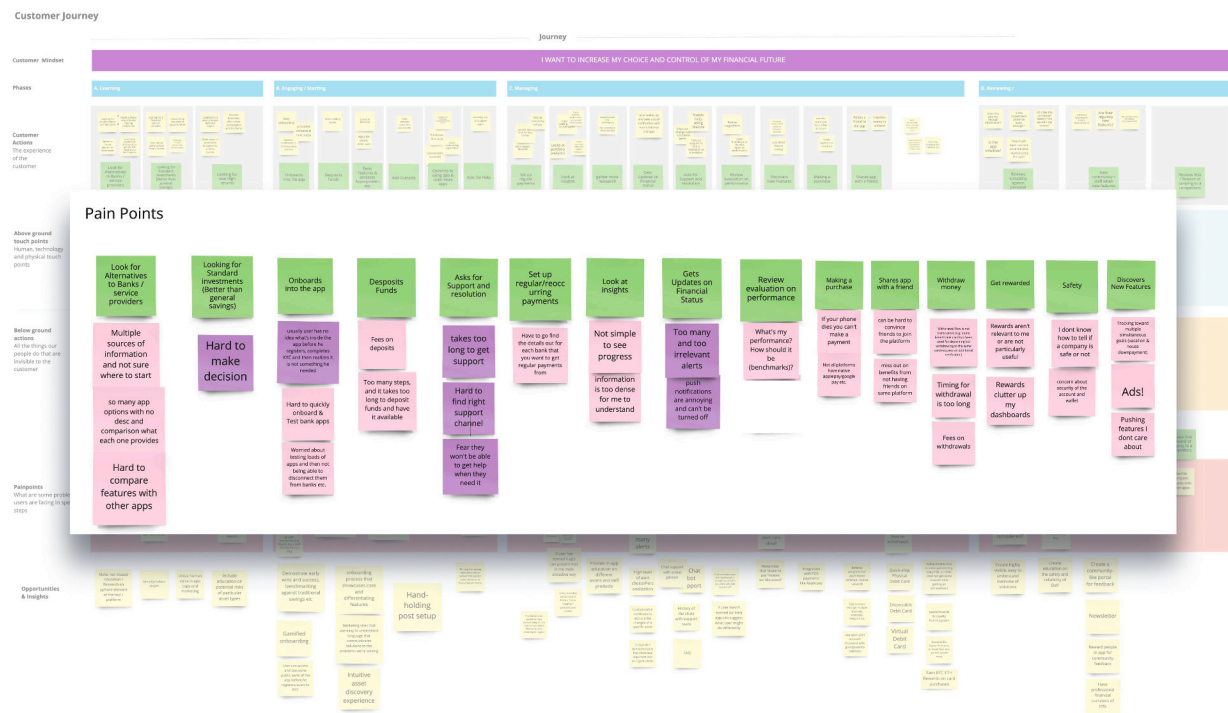
The mission was clear for us: build a digital wallet that empowers individuals to effortlessly trade, exchange, and make payments with digital assets.

In this case study, I'll take you on a journey through our design process, highlighting key insights from problem discovery to usability testing of the MVP version, with subsequent UX/UI enhancements.

*Disclaimer: To comply with my non-disclosure agreement, I have omitted and obfuscated confidential information in this case study*

## What are the current user challenges?

The project began with a discovery workshop where we worked with the client to understand their requirements and identify the needs and motivations of potential users. To achieve that, I run team thought series of interactive exercises, such as: persona analyse, customer journey mapping (CJM), “How Might We’s” and idea prioritisation.



*Visualising how users would interact with the product across multiple touchpoints*



### **Key user challenges we come up with:**

- There is no single solution for managing finance in one place: to invest, trade, buy crypto assets, do money remittances users have to switch between several apps, most of them have restriction in place to prevent moving money, user profiles, KYC, and trading permissions.
- Difficult to understand what is trustworthy and how investing in alternative assets works due to the defi/crypto industry-specific language
- There is no trial phases with banks, as the onboarding is often lengthy
- High fees for making deposits and wait up to 3 days to get transaction reflected on the app balance

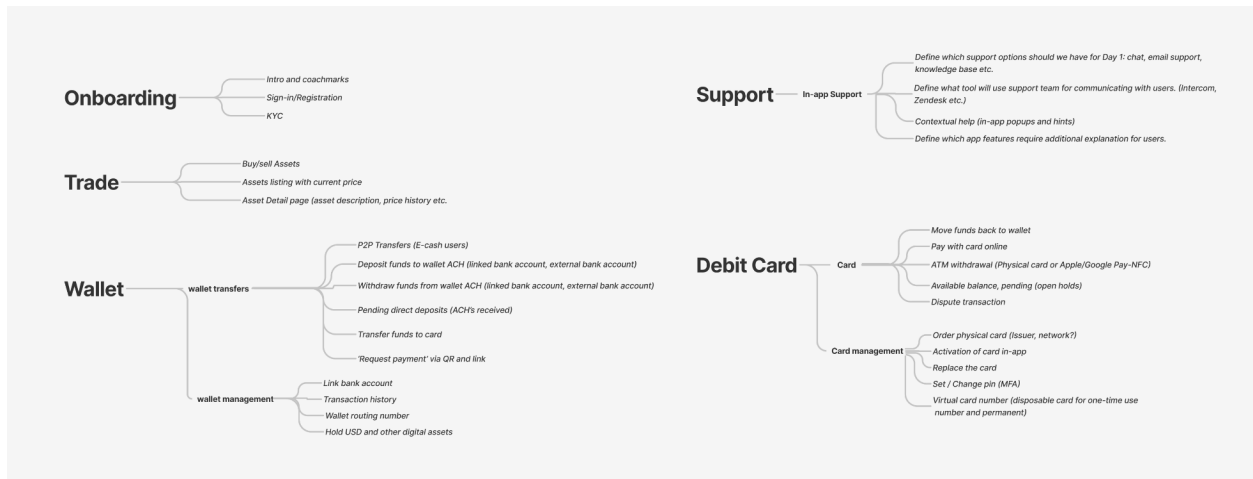
After generating a list of top ideas, we conducted a Value vs Effort exercise to determine which features to deliver in each product release and plan the timeline accordingly.

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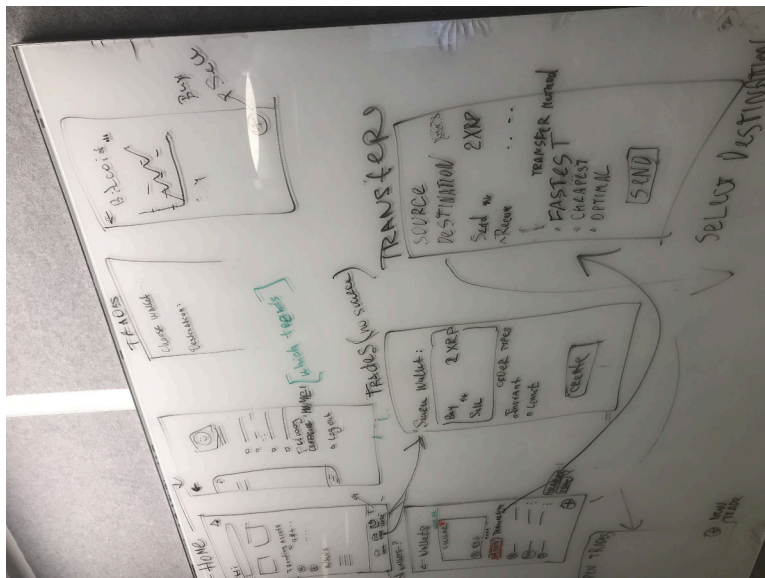
These are core features we prioritised:

- Creating account and passing identity verification
- Topping up wallet with fiat money (US Dollar) and converting it to digital dollar
- Investing in digital Gold
- Peer-to-peer digital asset transfers and QR code payments
- Creating, ordering and topping up prepaid card

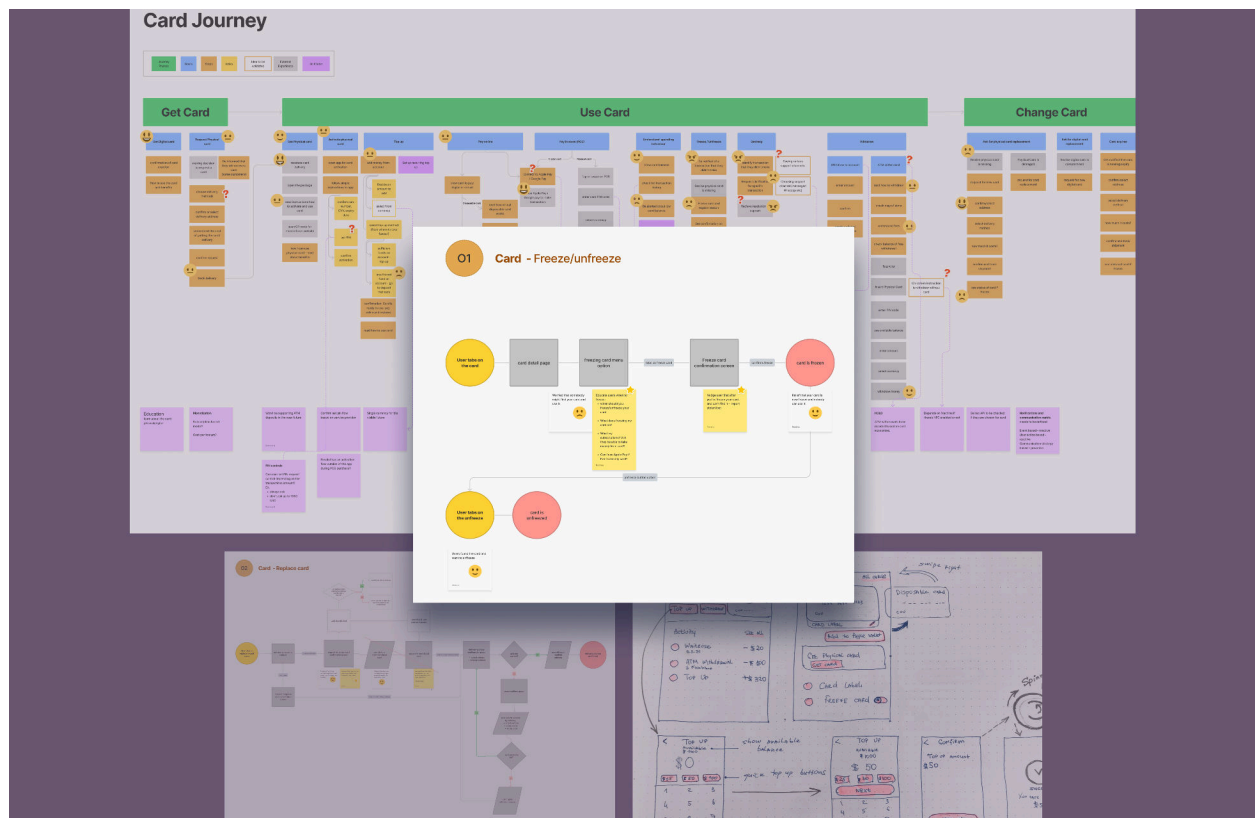
After extensive brainstorming sessions that lasted few weeks, our idea for the app became more tangible. We began sketching potential user flows and considering how to structure the app in terms of both code and mental models.



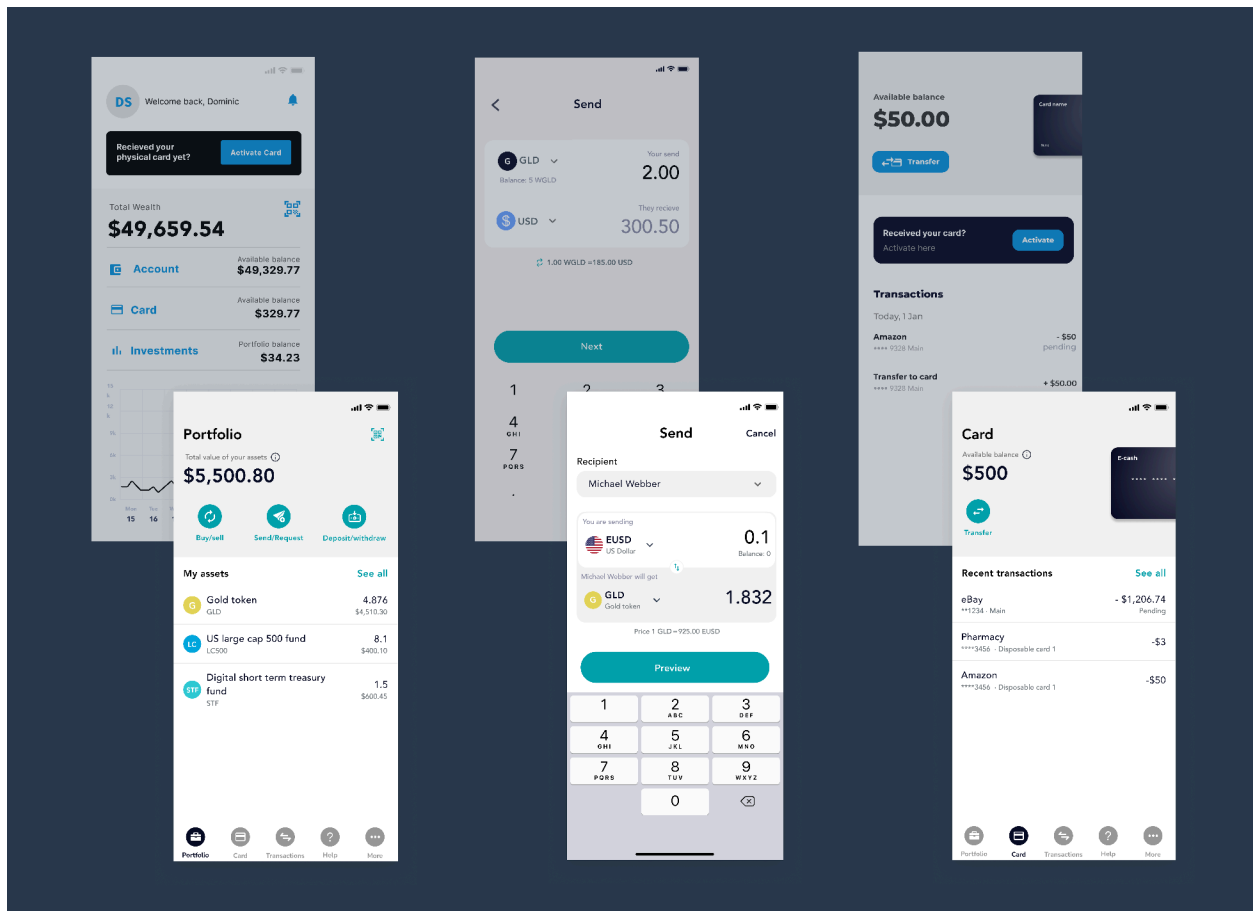
Organizing the core features into clear and logical categories



Wireframes for Home, Profile, Trade and Send pages



Once sketches got approved by the client, my UI process was iterative and quick.



*Different iterations of the visual design*

## User testing

As soon as MVP was released on TestFlight, I was eager to test my initial assumptions and get feedback. I run 10 tests (with users on the client side) where I gave them the following tasks:

- Create a new account (Sign Up)
- Pass Identity verification (KYC)
- Send money to another E-cash user (P2P transfers)
- Add new contact by scanning QR code (My contacts list)

How was your experience signing up for an account?	How easy was it to sign up for an account? (5 is easiest)	What would you change about the sign up process?	How was your experience verifying your identity?	How easy was the process to verify your identity? (5 is the easiest)	What would you change about the ID verification process?	How was your experience adding a new contact?	How easy was the process to add a new contact? (5 is the easiest)
Pretty good. A couple quibbles about the fields in the UI, also the KYC took a while -- I signed up at 9:03 AM on Friday the 19th and had to shut down the app 15 min later and restart for the KYC to actually take hold inside the app. If I hadn't checked with the Digital Asset team, I would have been sitting there with the spinning "in process" logo within the app.	5	the only thing is that in the State/Country fields, if you opted to start typing instead of scrolling down, the UI didn't always match. For example, when I started typing New York and got thru "New" all the single word "N" states showed up (Nebraska, Nevada) showed up but not "New York / New Jersey / New Hampshire"	Standard & as expected	5	Nothing	Easy	
Experience was seamless! I didn't run into any issues.	5	N/A	Easy and comparable to how I've entered my identity on other apps/exchanges.	5	N/A	I initially had to toggle around to find where my contacts were but makes sense that it would be under "my" and was super easy once I found out where to locate it.	
3. Somewhat seamless, but the instructions for setting up two-factor authentication using Microsoft Authenticator was a bit clunky (I know that the process of setup of Microsoft Authenticator is outside the scope of this alpha test).	4	Most of my issues were with the two-factor authentication- not our app.	Intuitive. Had the same feeling of other apps that asked to confirm identity.	5	I used my driver's license to verify my identity. However, technically my license is issued by New York State, but was asked to select the issuing country...	Somewhat easy but had to click around to find spot on where to add a contact.	
2. After setting up my account & password, I received an error messages that my "account is locked". I reset my password and logged in again, and received the same error message. I tried again, and then got in... Could have been user error.							
Felt like many steps from getting the email to being setup in WT Pay. The most difficult part for me was using the authenticator because it required you to hop between apps. I also didn't realize at first that the rotating numbers (in the Microsoft option) were in fact the code to use.	3	Make it all based in one place if possible. Remove the need to hop between email / WT app / authenticator app. I am curious though what is required for this process for security concerns, etc.	Easy. The only blip was that once I had been verified the app still had me review the information again. Once I did and went to submit, I received an error that I was already verified.	4	n/a	Okay. Had to click around the WT Pay app to find.	
Overall okay. Easy to use and a clean format.	4	The authentication options (needing to use Google Authenticator or another app) are not ideal (and for me, not the most user-friendly), and toggling between apps over and over (when needing to be authenticated for multiple log-ins) was a bit annoying. I do prefer to authenticate via text to phone number or email code.	Easy enough to add the information requested, but given most (if not all prior) experience in opening new accounts for other applications, including with banks for online banking, it felt invasive with the requirement of a photo ID (back and front), rather than only the issuing state and ID number on the actual license, and also requirement for a photo as a supplement to that.	4	See notes in Q4 above. Not sure if there is a requirement to provide both a photo ID (rather than information included in the ID itself) AND a separate photo, but that process felt somewhat uncomfortable from the perspective of sharing "too" much information (SSN, actual photo, etc.). If there are other options to provide KYC, you may want to provide them. If this is required given the type of account and set-up itself, I think you should describe somewhere "why do we need this information" to answer basic questions that someone, who may be if you select passport maybe get rid of 'back of document' screenshot as it still appears like a requirement	It was okay. It wasn't overly difficult to find because there are limited options in the main menu at the bottom portion of the application (and you're bound to hit a dead end on the other options). .	
Didn't work due to issues with verification of ID process last week.	3	Perhaps adding more information about why you need an authenticator app?	First time it didn't work. Second time after update it was very quick	4		Easy - scanned QR code and added Michael	
I have since been able to create my account and it was a lot quicker and easier second time round.		I can see people getting put off by having to install additional apps, so it might be worth adding detail why this is needed.					
Pretty smooth. No particular issues	4	When setting up the 2 steps authorisation process, having to copy a list of codes for safekeeping is quite	Very straightforward	5	Nothing really	simple using a QR code	

## Documenting user's insights

We have not found any big issues. However, some users were struggling with passing identity verification, understanding what Secret keys are and sending money to a new contact.

I took a first strike at addressing the user feedback by listing down all possible solutions, which later were prioritised based severity score, UX and engineering effort.

Below are the top 5 key solutions presented to the team.

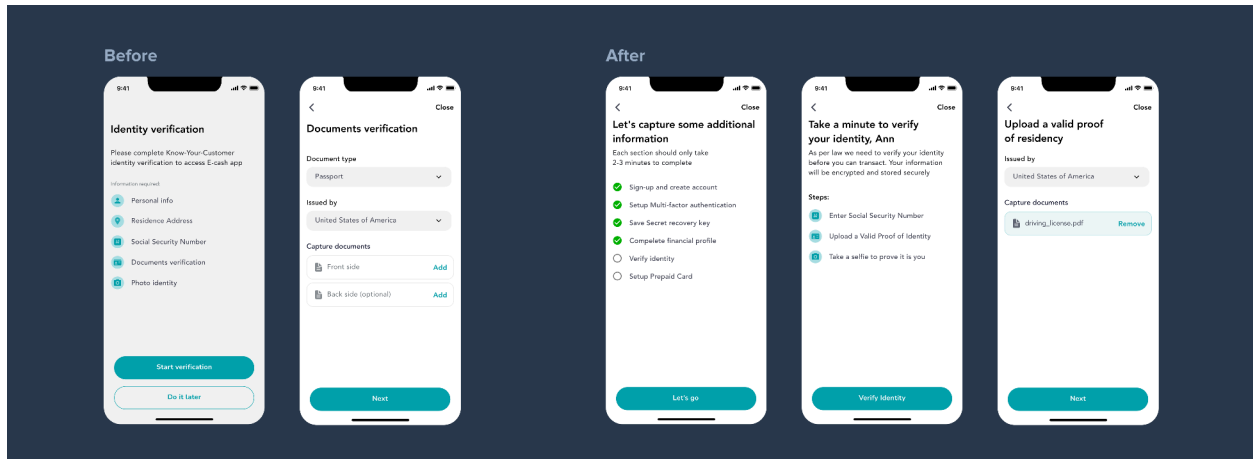
## Issue #1 - 49% of users found the Identity verification process arduous

To simplify the user onboarding, I decided to use progressive disclose pattern by splitting the task into small chunks and adding content to explain why we ask for this information from the user.

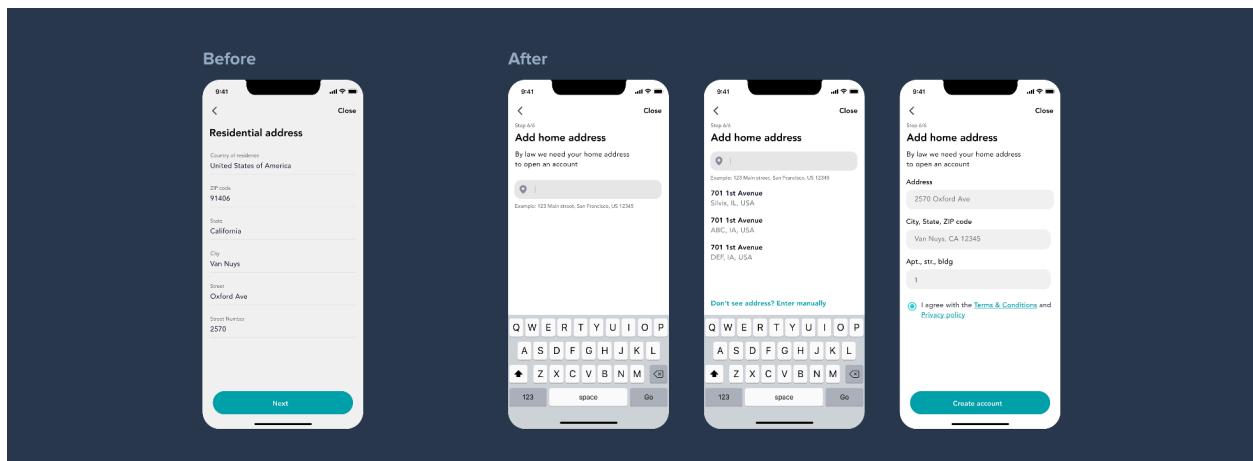
To speed up the process of filling out the address field, I proposed to implement address lookup services for autocompletion.



This updates potentially could reduce the number of Identity verification steps from 19 to 10 and result in a faster onboarding process for users, enabling them to explore the app more quickly.



*Progressively disclosing steps to complete for identity verification*

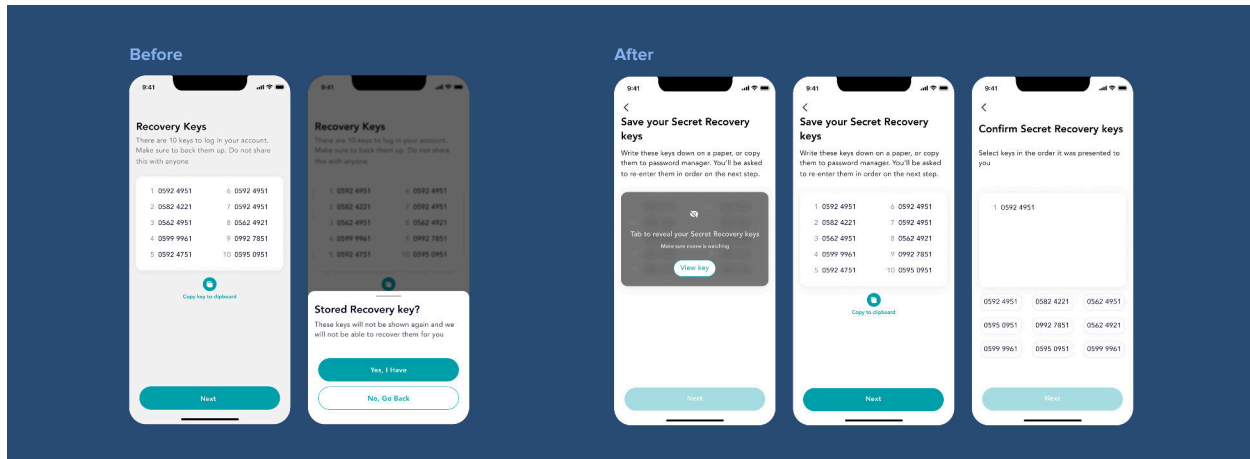


*Simplifying process of filling out the address field*

## Issue #2 - 32% faced a barrier in understanding how to use Secret keys

The most obvious solution was simply reiterate copy that clearly communicates the importance of Secret keys in accessing user accounts.

As most of the people (I know it myself) never read what's on the screen, I proposed to implement task-based confirmation to ensure that users saved their keys. With a single dialog we had, most of them clicked “Next” ignoring written instructions.

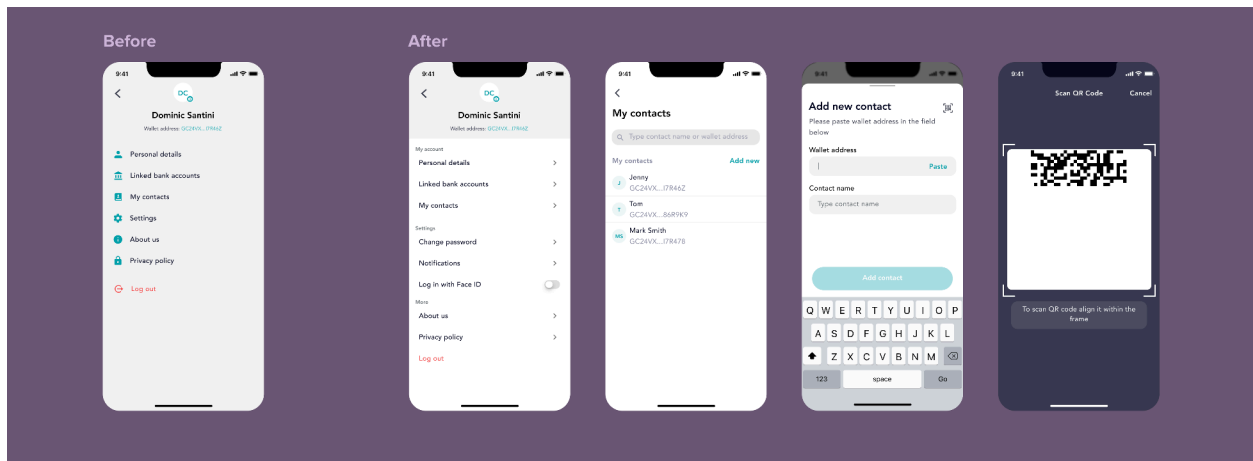


*Including educational content and task based confirmation of storing user recovery keys*

### **Issue #3 - 65% of users did not anticipate finding the "Add Contact" button while in the process of sending assets**

This could be potentially fixed by creating "My Contacts" page in the user's profile section to enable users to quickly add new contacts for future payments by pasting wallet addresses or scanning QR codes.

Another usability tweak was grouping all menu options into clear subsections. This could improve the overall navigation experience with a more intuitive and visually organized hierarchy.

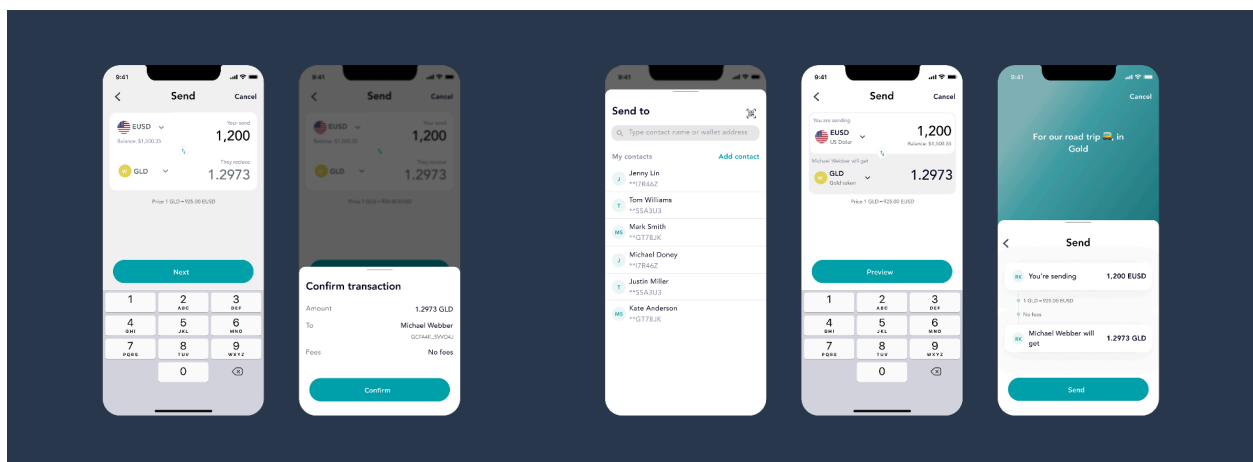


*Users could find "My Contacts" in their account profile section.*

#### Issue #4 - 58% cared more about how much money recipient get vs how much they send

To address user feedback, I added additional text field to confirm the correct contact selection before reaching the confirmation page, and suggested to make the send and receive amounts as editable parameters. Furthermore, UI has been updated to include the "Add Notes" feature, which was valued by 60% of users.

To make sure this ideas work, I tested interactive mock up and was happy with results - users were able to complete payment in 20 sec flat 😊

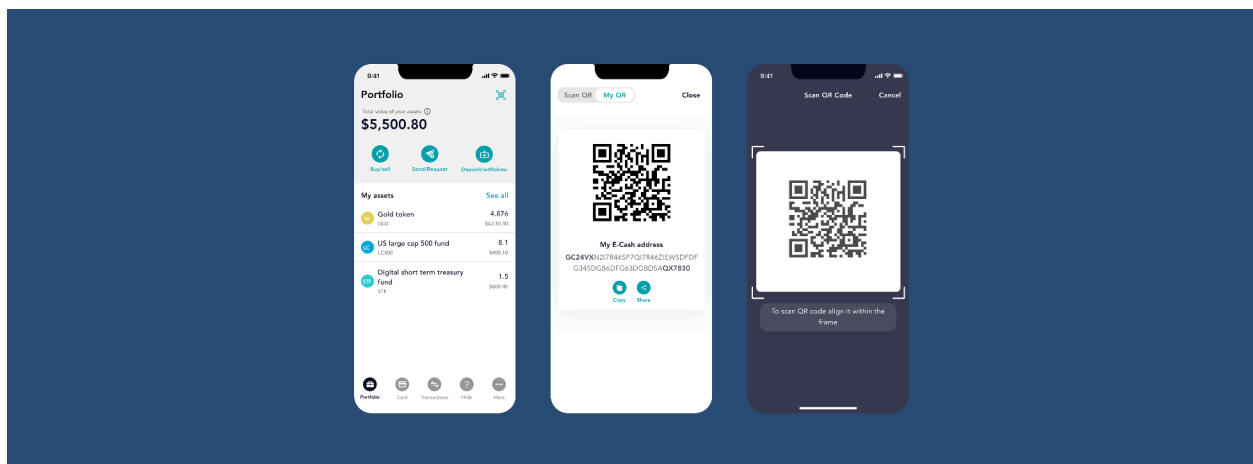


*Updated UX for Send page with "Add notes" feature*

**Issue #5 - 28% of users were spending more than 2 minutes trying to locate their QR code for quick transactions.**

To fix it, I proposed to add shortcut on the Portfolio page that allows users to access their QR code with just one click. It was just simple icon, however it allowed users to quickly access pay with QR code feature. User loved it!

Within the team we called it our “tiny win”: min dev time - max user satisfaction.



*Our “tiny win” - QR code icon for quick access to payments*

## Conclusion

As a company, whose core mission is to bring blockchain technology and its efficiency promises to the world, we were very excited to apply this expertise to a real-world use case. We managed to bring a novel solution to the US market that helped our client to scale in the digital domain.

For me, it was a great opportunity to work on the product that blends traditional banking with digital asset investing worlds. All UX/UI enhancements I described here were well received by our client and agreed to be scoped for dev cycle.

As we go through the next stages of upcoming releases, this case study will be updated with our progress and learnings. This was just a beginning.

