

Exploring UI & UX of Mobile Cryptocurrency Wallet in the Philippines

Conceptual Project (Affinity Chain)

ASSESSMENT 3 | Final Project Work
Part B : Final Written Report

DSGN 6033 : Design the Major Project (Advanced)
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OVERVIEW

User experience (UX) is key to the wide adoption of blockchain. Innovative tools like cryptocurrency can be tricky to understand for novice users (Fröhlich et al., 2021; Moniruzzaman et al., 2020), and UX overcomes that difficulty. While most research has focused on technological implications, the psycho-social aspects of trust and user experience should not be overlooked. This gap in demand and supply creates an opportunity and competitive advantage for cryptocurrency brands that will address this need for better UX. Despite the technological possibilities, the key challenge is delivering the mobile cryptocurrency wallet app experience in a clear and user-friendly way.

Therefore, the project aimed to explore the design for trust in cryptocurrency through a prototype to identify interaction design patterns and user experience design. Also, evaluate how people expect to engage or interact with traditional and digital currency in a single digital experience that fosters genuine trust affinities for building better relationships with users.

To address this aim, the project's research objectives were:

- To uncover Filipino users' pain points and needs and address them in the customer-centric UX/UI design.
- To identify the cryptocurrency usage patterns and competitors in the market.
- To develop a minimum viable product and to design a prototype that enhances users' ease of use in cryptocurrency transfer.
- To collaborate with project stakeholders.
- Reflection on assimilating new learning and translating thought into action.

Research Question

There was a lack of research on the impact of frustration in adopting mobile cryptocurrency wallets in the Philippines, which motivates this research and framing of the question: how might the UI and UX design of cryptocurrency wallets support Filipino to foster trust in digital currency, and how they expect a cryptocurrency to be integrated into their existing banking applications.

Target Users

The core audience for crypto is mainly drawn from these two generations Gen Z and Millennials: who are curious and inexperienced new adopters who have no background in blockchain technology and are adept in the industry.

WHAT IS CRYPTOCURRENCY DIGITAL WALLET?

A cryptocurrency is a token on a distributed consensus ledger representing a medium of exchange and a unit of account (Mattke et al., 2020). A cryptocurrency can be stored and accessed by use of a mobile wallet. Moreover, it is also defined as a cryptocurrency payment that allows users to purchase from their smartphones and through a peer-to-peer computer network (Smutny et al., 2021).

Wallets are a measure to store cryptocurrencies securely. There are two main types of wallets, custodial and non-custodial (Voskoboynikov et al., 2021). Custodial wallets are hosted by a third party like cryptocurrency exchanges that stores keys for the users. In comparison, non-custodial wallets allow the end users to manage the keys themselves. In this project, the focus is on a non-custodial mobile wallet in the Android user interface.

BENEFITS OF CRYPTOCURRENCY

Cryptocurrencies will certainly benefit market participants. Some benefits include being fast and immediate and allowing direct transactions with no third-party processors. The cryptocurrency will be available immediately for consumers and businesses to spend without waiting. Moreover, cryptocurrency transactions can be tracked and simultaneously ensure that the users' information remains protected (Mahmoud et al., 2019). Likewise, compared to traditional point-of-sale systems, by accepting cryptocurrency as a payment method, cryptocurrencies offer benefits to businesses such as lower transaction fees, increased sales, merchant for excessive chargebacks, expanded market and convenience for customers (Uzialko, 2022). For instance, cryptocurrency can be less risky than cash issued by certain countries. (Kliber & Świerczyńska, 2019) determined that Bitcoin may be a haven for investors in times of crisis in Venezuela, where their local currency gets devalued by the high inflation rate. Consequently, some reasons for the emerging popularity of cryptocurrencies include ease of use, minimal usage fees, potential profits, no involvement of government, and security.

Although they can offer benefits to customers and investors, they can pose technical, operational, regulatory and economic risks (Osmani et al., 2021). Technological barriers are an information-dense field with a relatively steep learning curve, which can be a significant obstacle. Moreover, the highest risk of cryptocurrency is price volatility, which makes its value unpredictable. Furthermore, (Giudici et al., 2020) studies conclude that crypto mining can require enormous amounts of electricity, which has led to concerns about its environmental effects. Therefore, the cryptocurrency payment system is forbidden in some countries, limiting its usability.

DESIGNING FOR TRUST MATTER

For the purposes of this project, the definition of 'trust' devised by social psychologist Julian Rotter is used. (Rotter, 1980) defines trust as "...an expectancy held by an individual or group that the word, promise, verbal or written statement of another individual or group can be relied upon...". In fundamental nature, trust is relational, and that will be tested in the usability test. A relational experience with an app means that it does what it says it will do and delivers adequately on that promise. Although the Bitcoin system is considered to be safe, there are threats that may tremble the trust of users.

Despite cryptocurrency wallets' advantages, users face UX problems that impact the usage rate. (Voskoboynikov et al., 2021) the study pinpointed UX problems of crypto wallets and identified issues related to typography, colour schemes in the wallet interface, or inconsistent use of icons. Moreover, (Fröhlich et al., 2020) reveal shortcomings of custodial wallet user experience for novice users that might lead to dangerous errors and monetary losses. These issues are prominent among younger NFT gamers who are highly enthusiastic about cryptocurrency.

USER EXPERIENCE

The term User Experience was popularised by Don Norman; this concept was related to the experience as a consequence of the interaction between humans and systems (Berni & Borgianni, 2021). The Nielsen Norman Group (Norman & Nielsen, n.d.) defines a great user experience as one that "meets the exact needs of the customer, without fuss or bother." UX design is such a vast field. It is a combination of UX, visual, and Gestalt principles, along with various laws that the user experience discipline inherited from Human-Computer Interaction research and psychology. Conversely, also UX is impacted by users' trust in a system.

DESIGN CRITERIA

The affinity chain should be as inclusive and accessible as possible. Users should feel reassured when using Affinity Chain that they are able to trust the product with their cryptocurrency. Fundamental design criteria, adopted from (Martin & Hanington, 2012) Design principles such as simple & intuitive to use, low physical effort & tolerance of error.

Simple and Intuitive Use - "Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level."

Low Physical Effort - "Use efficiently and comfortably with minimum fatigue."

Tolerance of Error - "minimizes hazards and the adverse consequences of accidental or unintended actions."

Based on research findings, Affinity Chain app values are: Useful, usability and delight.

Usefulness

It was found that perceived usefulness was shown to be the most important factor in adoption (Reiting et al., 2020). And identified an easier-to-use product would increase its usefulness but that an easy-to-use technology with little use would be difficult for mainstream adoption.

Usability

It must be designed in such a way that it is as user-friendly as possible. It refers to the quality of a person's experience when using a product and from function to learning curve. Research suggests that the user interfaces of cryptocurrency tools should have options to switch between different levels of complexity, so users can only obtain detailed information if desired. (Mai et al., 2020)

Delight

Accessibility, usability, and inclusiveness are an integrated set of design strategies essential to a delightful user experience. Designing for delight is all about establishing an emotional connection with the users. (Kreitzberg, 2009) recommends engaging the user with stimulating visuals. Although aesthetics has much to do with desirability, it shouldn't be the only consideration. A reward-based system can help generate trust and build a relationship. Similarly, a gesture or animation can also keep users interested (Fessenden, 2017). The most abstract of three elements, delight, is the hardest to apply, but the rewards make figuring out how well worth it.

METHODOLOGY

A sequential explanatory mixed-method research approach based on (Creswell & Piano Clark, 2017) was chosen for this study. This research is based on qualitative and quantitative methods, and the subject is based on the researcher's assumptions and experiences. In Capstone Project, two primary data collection methods are used: surveys and interviews. All participants were asked to complete an online survey with open-ended questions using Typeform to get a lot of feedback at once and a video call interview using Discord. And in this Major project, the continuation of the project that was implemented in Capstone with additional usability testing and refinement of the product named Affinity Chain.

ONLINE SURVEY

The purpose was to create awareness of cryptocurrency among the study participants. Online survey is used to obtain a large amount of information in a relatively short amount of time with minimal resources required.

GOALS

- Validate the assumption that users want to keep their Ethereum in their wallet
- Understand cryptocurrency owners' experiences with and thoughts on cryptocurrencies
- Determine the tools cryptocurrency owners use to store and manage their other cryptocurrencies

METHODS

Participants: 63 blockchain gamers such as investors and players in the Philippines

Recruitment: the online Typeform survey link was distributed in the discord NFT gaming community. Participants were located throughout the Philippines, were a mixed gender (68.3% male & 28.6% female) and varied in age. The initial data were collected on March 12, 2022, in the span of 5 days.

Analysis: Descriptive statistics were utilised to evaluate the survey results.

SEMI-STRUCTURED INTERVIEW

To get a more in-depth understanding of the perspective of an interviewee through open-ended questions

GOALS

- Acquire a more in-depth understanding of cryptocurrency owners' pain points of current mobile apps
- Understand users' motivations and concerns for getting involved with the cryptocurrency market, platforms they currently use, their experience and habits, and their expectations for cryptocurrencies' future values.
- Gather users' overall attitudes towards cryptocurrency in various aspects

METHODS

Participants: 4 blockchain players and an investor

Recruitment: Recruit from the people who answer the online survey, 2 users were interviewed formally last semester and 2 informally this semester.

Analysis: Affinity diagramming was used to uncover insights and themes from the interviews.

KEY INSIGHTS

- Need for flexibility in transferring assets and the way their data is displayed.
- Users find the process of transacting with other people is too complex and lengthy.
- A lack of knowledge and trust barriers to cryptocurrency may be the biggest obstacle to mainstream cryptocurrency adoption.

FEATURES

- Therefore, the scope of the Affinity Chain app comprised the following:
- The dashboard must be easy to navigate, and graphs must be easily digestible
- Aim to have a simple and intuitive user interface that allows users to send a payment, easily and quickly.
- Allow users to easily understand the user interface of cryptocurrency wallets.

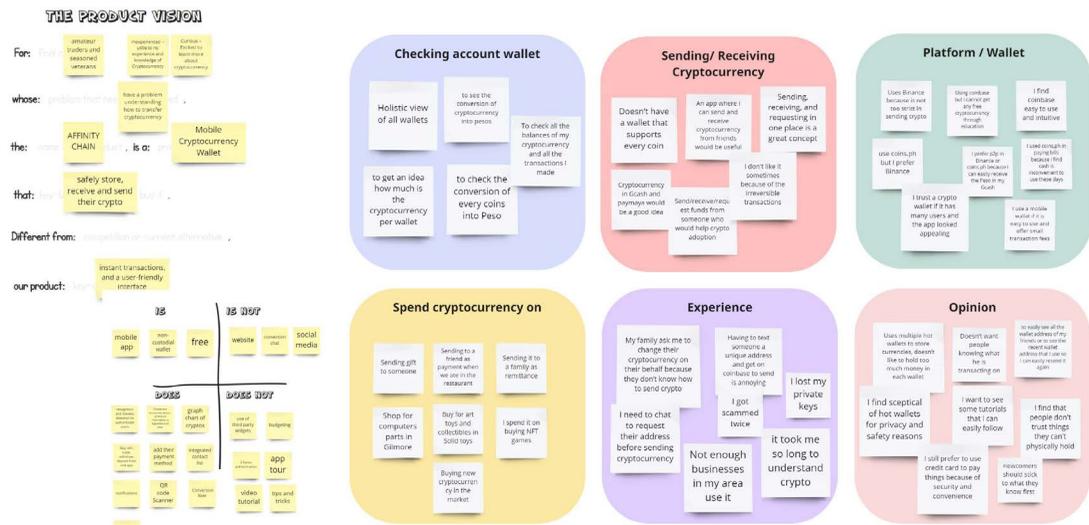
PROJECT REQUIREMENTS

- Onboarding, Dashboard, Buying, Sending, Swap, Receiving

AFFINITY MAPPING

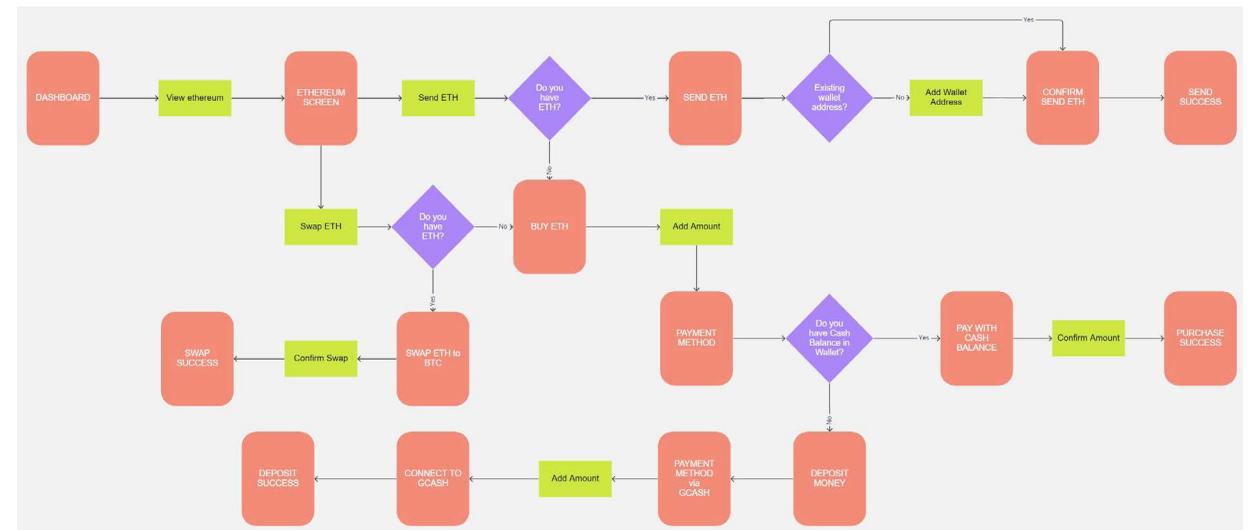
Using secondary research and the notes taken during the user interviews. An affinity map using a virtual post-it method (Miro) is used to sort different pieces of information into groups and themes based on their relationship to one another.

After mapping together similar frustrations and pain points, wants and needs feelings and behaviours, it became more apparent which items were widespread problems. (See Appendix A)



USER FLOWS

To realise the Affinity Chain feature, user flows and prototypes followed by clickable prototypes produced in AdobeXD are created. A continued usability testing at each prototyping stage revealed that user flows needed to re-evaluate for more seamless site architecture. (See Appendix D)



COMPETITOR ANALYSIS

	 4.2 ★ 113K REVIEWS (Google Play) PHILIPPINES	 4.6 ★ 23 REVIEWS (Facebook) PHILIPPINES	 3.9 ★ 4K REVIEWS (Google Play) PHILIPPINES
NUMBER OF INSTALLS	5,000,000+ (Google Play)		100,000+ (Google Play)
PLATFORM	iOS & Android	Website Only	iOS, Android, & Huawei
TAGLINE	Your E-Wallet Upgrade	Trade over 250 cryptocurrencies directly for PHP	Bringing the future of finance closer to every Filipino
PRICING	0% - 5% per transactions	Free deposit ; 40PHP withdrawals	Free (min 200PHP ; max 100k PHP) transactions
BEST FOR	Crypto user, young professional and busy person on the go	Beginner	Crypto newbies and pros alike
VISUAL AID	Quite user-friendly platform for both beginner and seasoned users	So simple and plain, there is not much data	
CRYPTOCURRENCY	User can bill payments, buy some digital currencies, and do transaction through bitcoin	250 cryptocurrencies available to trade with peso	Can move funds or crypto from other wallets and compatible with the Ronin network
PORTFOLIO TRACKING	Does not support	Does not support	Shows only centralized exchange and no way to connect other wallets
USABILITY	Digital wallet that combines support for both Peso and Bitcoin currency	Cryptocurrency trading platform only. But users can directly buy digital assets without converting peso money to US dollars.	Cryptocurrency exchange only
URL	https://coins.ph/	https://bloomx.app/	https://pdax.ph/
PROS	<ul style="list-style-type: none"> Convert cryptocurrencies into PHP that can use for daily purchasing activities User-friendly interface 	<ul style="list-style-type: none"> Low trading fees Gain access to over 250 digital assets Better rates than doing the multiple transfer route (SLP > ETH > USDT > PHP) 	<ul style="list-style-type: none"> Purchase cryptocurrencies through the platform Gain access to over 50 digital assets.
CONS	<ul style="list-style-type: none"> Can be an intimidating platform for those new to trading and cryptocurrencies Users can't shop around for best price on cryptocurrencies Higher fees for sending and receiving cryptocurrencies User does not entrust the assets to the exchange 	<ul style="list-style-type: none"> No dedicated mobile app Lack of in-depth analytics No news feed User does not entrust the assets to the exchange Some buttons are confusing and unclear UI is inconsistent 	<ul style="list-style-type: none"> Requires minimum deposit Lack of in-depth analytics No news feed User does not entrust the assets to the exchange Poor accessibility on some colours Lack of information on some pages

USABILITY TESTING

To further understand the perspectives of the users and observe user behaviour patterns, a remote usability inquiry using a mobile cryptocurrency app prototype is implemented. (Bleecker & Okoroji, 2018) Remote moderated usability testing was performed on both the desktop and mobile versions of the web app with 6 participants via maze.co.

Research Goal

The key aims of the usability tests were to observe how easy it is for the user to navigate through the app and to discover friction points for users as they attempt to complete seven key tasks.

To get an understanding of the users are able to navigate and operate key features such as:

- Onboarding
- Depositing and Buying Cryptocurrency
- Sending and receiving Cryptocurrency
- Understand the purpose
- To get feedback on the visual look and feel of a cryptocurrency wallet

DIRECT TASKS AND SCENARIO TASKS

Scenario Task 1:

You already have ₦ 50,000.00 in your cash balance wallet, and you want to buy an Ethereum worth ₦ 10,000.00. How would you do that?

Direct Task: Use the Affinity Chain app to buy 0.1106 of Ethereum, worth ₦ 10,000.00.

Scenario Task 2:

You had lunch with your workmate Christine and talked about cryptocurrency. She pays for your lunch, but you'd like to transfer ETH as payment for your lunch. Assume that you haven't added Christine's wallet address to the contact list. How would you do that?

Direct Task: Add Christine's wallet address in your contact list

Scenario Task 3:

After adding Christine's wallet address, how would you transfer 0.01 ETH to her?

Direct Task: Send Christine's 0.01 ETH.

Scenario Task 4: Your friend asks you to buy an NFT collectible. And he asks for your QR code so he can pay you 10 USDT, so how would you generate your wallet address in ETH in the app?

Direct Task: Use the Affinity Chain app to request a 10 USDT

DIRECT TASKS AND SCENARIO TASKS

Scenario Task 5: You want to deposit ₱20,000.00 in your wallet. Could you show me how you would do this?

Direct Task: Go to Account and Deposit ₱ 20,000.00 via Gcash

Scenario Task 6: You have decided to swap ETH to USDT

Direct Task: Go to the ETH screen and Swap ETH to USDT

Scenario Task 7: Look around on the onboarding and sign-in process up to the dashboard.

Direct Task: Take a look at the onboarding process. What is your initial impression?

DIRECT TASKS AND SCENARIO TASKS

According to the Nielsen Norman Group (Nielsen, 2012), usability is defined by five quality components of a usable product: Learnability, Efficiency, Memorability, Error and satisfaction. The tasks are evaluated based on usability criteria adopted from (Nielsen, 2012)

Learnability– The key to intuitive design is to use what people already know or create something new that is easy to learn, so it needs to be a priority while making design decisions.

Efficiency – To make it easier for a user to perform his tasks quickly and effectively.

Memorability refers to how well users can do the basic action when they return to the application after a lengthy period of time without using it.

Error Tolerance - This attribute tracks how many errors new users are likely to make.

Satisfaction - How users feel while using it. This component requires to provide a pleasant and satisfactory user experience.

DATA CONSOLIDATION

Based on the findings and insights from the usability tests, there were a number of refinements and improvements made to the design solutions. The results highlighted some usability issues which were addressed.

Key Issue 1 - Most users were confused by the arrangement of navigation and buttons on the wallet screen

Key Issue 2 - Some fonts and buttons aren't large enough.

Key Issue 3 - The spacing is too narrow and needs more spacing, so some text is not readable.

Key Issue 4 - Most users prefer options with icons to be more transparent. Some screens need instructions for the user to understand.

Key Issue 5 - Some users got problems with colour contrast, so I decided to create a dark and white theme to improve the readability of the user.

Key Issue 6 - Participants express confusion while trying to choose between the two transfer options

RESULT LINKS

<https://app.maze.co/report/Affinity-Chain-Project/c4xbil6htxgo6/intro>

<https://app.maze.co/report/Questionnaire/4zr72jl6htyjhi/intro>

RECOMMENDATION

- Redesign the navigation
- Display an error notification for the appropriate field
- Increase the buttons and fonts for readability, make button more bold
- Use bright colour accents for building a strong visual hierarchy
- The design had to use the minimum possible number of additional colours and images.
- Present two opposite colour themes dark and light theme.
- Ensure navigation is consistent through the app with repeated components occurring in the same order
- To help users with limited short-term memory, low vision or having difficulty in reading text, a descriptive and informative titles and labels should be used.
- Eludes a tone of professionalism to build trust with users



The home dashboard of the Affinity Chain app. At the top, there's a notification bell, the 'AFFINITY CHAIN' logo, and a user profile icon. The main balance is shown as '₱104,653.61' with a 'Change -1.30%' indicator. Below this are four action buttons: 'RECEIVE', 'SEND', 'BUY', and 'SWAP'. A price chart shows fluctuations from April 20 to May 5. A section below the chart shows '0.5 ETH' and '₱52311.00 VALUE'. There are tabs for 'Activities', 'News', and 'About'. The 'Activities' tab shows two transaction entries for April 12, 2022, each showing 'Sent 12:00 AM' and '0.0143 ₱993.50'. At the bottom, there's a navigation bar with icons for 'HOME', 'PRICE', 'BUY & SELL', 'ACCOUNT', and 'SETTINGS'.

The 'SEND ETH' screen. It features a back arrow, the title 'SEND ETH', and a diamond icon. The 'Amount to Send' is set to '0.01 ETH', with a '₱ 1000.00' value below it. There's an 'ADD NOTE' section with a text input field containing 'Payment for food'. Below this is a 'Quick Transfer' section with circular profile pictures for 'Nila', 'Christine', 'Sonny', and 'Hilary', plus a plus sign. An 'OR' separator is between the quick transfer and the address input. The address input field contains '0xdh332rwejk6583j23fehth35s33' and a QR code icon. A large purple 'SEND' button is at the bottom.

The 'SUCCESS' screen. It features a large green checkmark icon, the text 'Purchase Successful', and '0.1106 ETH'. Below this, there are colorful confetti graphics. The 'CURRENT BALANCE' is shown as '₱50,000'. At the bottom, there are two buttons: 'View Transaction History' and 'Go To Wallet'.

SEE APPENDIX F

PROTOTYPE LINK: <https://xd.adobe.com/view/bb69c327-4c81-4295-a144-2cd7811f0560-ee3a/?fullscreen>

I have learned is designing solutions for complex problems requires a proper knowledge base of the problem so primary and secondary research should not be overlooked. Aside from weekly journaling and using Miro my reflective practice includes mapping my learnings. Through this, I could easily remember information spatially and maintain this loop of thinking and doing.

Moreover, using notion, I catalogue learnings from books, articles, and tools I've used in my practice. I typically reference my record of understanding before an event, especially when looking for inspiration or reminders of some successes and failures in my work. This process helps me a lot in my project as I can form space for personal accountability and test my mental thinking, which pushes my practice to grow.

WHAT I LEARNED & WHAT I WOULD DO DIFFERENTLY

My research says that trust is the secret ingredient to any successful product. Thus, designing for it cannot be an afterthought. It's not an easy task, but it will make a product stand out, and users might engage with the product or leave it after a few seconds.

The results of the remote activity were somehow successful, and there were several lessons I learned in terms of participatory design. First, building solid connections with participants, especially those in more diverse communities, is crucial. I would have been able to recruit other ethnicities than Filipinos as participants; I just got hesitant to do so because of the language barrier that it might cause. I find it easy to get feedback using my language for giving straightforward instructions and results; I could have benefited from more clarity. Secondly, prototyping makes a design or layout easy to understand and leads a user to navigate a screen page without too much indecision or doubts. However, my process missed early testing due to time constraints. Therefore, I learned to iterate early and not lose time getting bogged down in details.

Lastly, having a structure to the conversation is important. I learned to come to each meeting prepared with questions, or opportunities I want to discuss with my mentor. Because without it, the conversations can struggle to go deep, and this hinders the growth and progress of the project.

MOBILE DEVELOPMENT COST

The preliminary cost for developing a simple blockchain wallet based on the Android platform will be approx. \$20,000- \$45,000. So the starting point the app will only be available on Android since most users are using android.

The average per hour mobile app development cost varies from East to West. In South Eastern nations like the Philippines, the cost would be somewhere around \$25 to \$50 an hour. So wallet app development costs will range to \$80k more or less. Integration with third-party services: third-party services that are relatable to the app. This will expand the usability, functionality and audience of the app simultaneously.

	Annual Estimates (AUD Currency)
Backend Development <ul style="list-style-type: none"> Back end developer 	\$20,000
Android <ul style="list-style-type: none"> Mobile Developer Maintenance 	\$25,000
Web/Desktop <ul style="list-style-type: none"> Website Development Maintenance 	\$7,000
Design <ul style="list-style-type: none"> UI and UX Designer 	\$7,000
QA/PM <ul style="list-style-type: none"> Quality Assurance Engineer Project Manager 	\$5,000
Additional Features: <ul style="list-style-type: none"> API Integration Third-party apps integration 	\$10,000
Sales & Marketing	\$2000
Insurance	\$500
Regulations	\$2000
Integration	\$1000
Others	\$2000
TOTAL OPERATING COSTS	81,500 ±

Susan is excellent at putting together a plan and assisting me during a period of mentorship consultations. Some of the key insights I gleaned from my feedback included good advice on scoping my project. She suggested narrowing down my topic. And recommend not to deliver complex features in the first phase of creating a project. After careful consideration, I checked my topic by defining the MVP of blockchain-based cryptocurrency mobile wallets.

She highlighted the potential of decision-making in this project and focused on the deliverables. And suggested that I need to justify what will be in the MVP of the product. Hence, her feedback guided the direction of my research and the development of my design significantly. Even though we only met in a few meetings, she gave me new insights into how I worked and encouraged me to deliver a project success regardless of the outcome.

A holistic design approach must be ethical and diverse, and most of all, people-first. Therefore, I start with design thinking in the first phase of this project. Understanding user pain points, problems, and challenges in using a cryptocurrency wallet. Some universal design principles are adopted (Martin & Hanington, 2012). Such as simple & intuitive to use, low physical effort and tolerance for error. Simple & intuitive to use to eliminate unnecessary complexities, the application of consistency throughout the interface, assembling elements with a visual hierarchy that considers their significance. Also, it is accessible and has low physical effort. Having to copy a Bitcoin address by hand causes some physical stress that all users can. Therefore, the option to copy/paste and read the QR code and add a quick transfer option to the wallet in the app is a great advantage. Accidentally sending crypto to the wrong wallet address is a common mistake. Hence, users didn't trust the instantaneous approval, so imposing a friction and confirmation screen twice before sending the cryptocurrency as slowing down can help users feel confident that a product is secure.

This project helped me realise many things I could bring to my profession. My point of view as a UX designer and researcher changed a lot, and my previous confused knowledge about this topic is now much more precise, clear and deep: now, I know how I want to approach something that I have to analyse, so in a very practical and direct way and with qualitative methods. While this project mainly focuses on buying, selling, and receiving cryptos on a mobile app, I also want to make another design revision soon as my personal project and additional for my portfolio.

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APPENDIX

A. Affinity Mapping

B. User Persona

C. User Journey

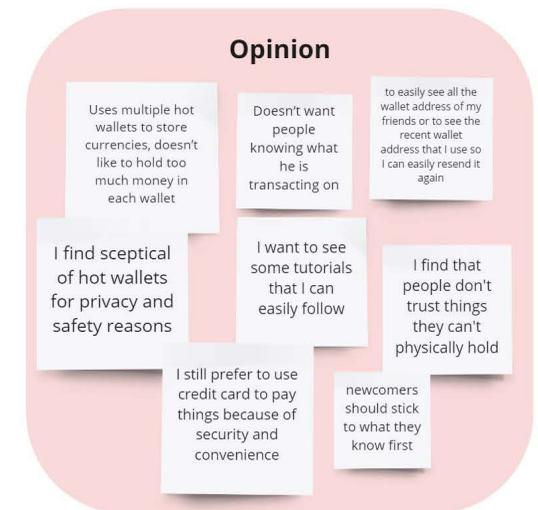
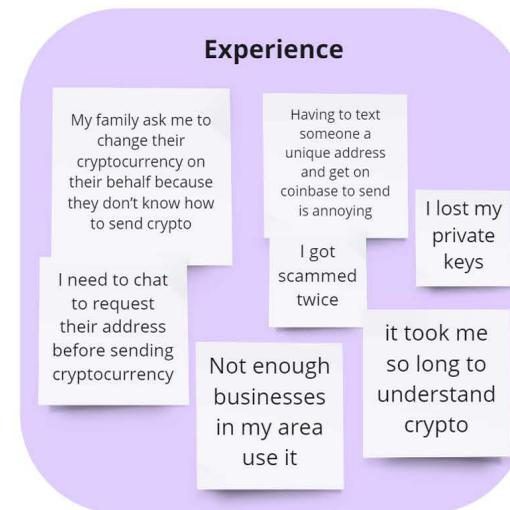
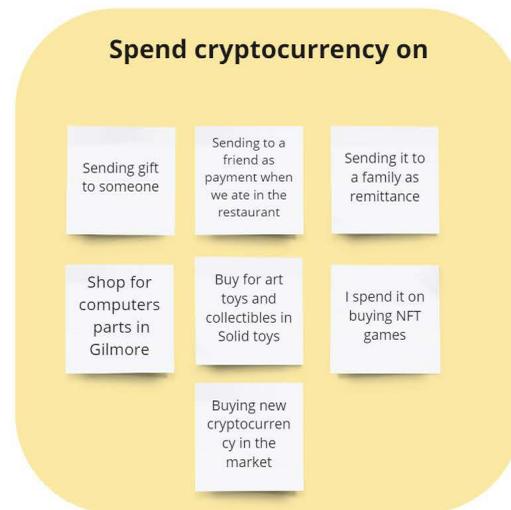
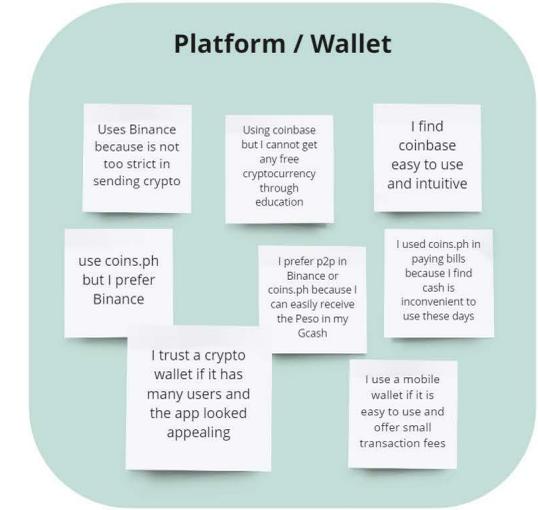
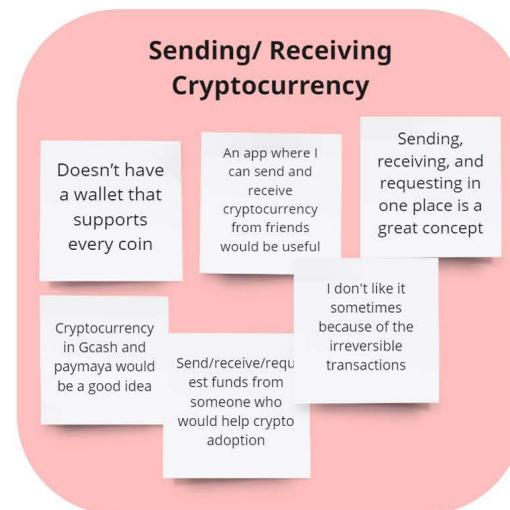
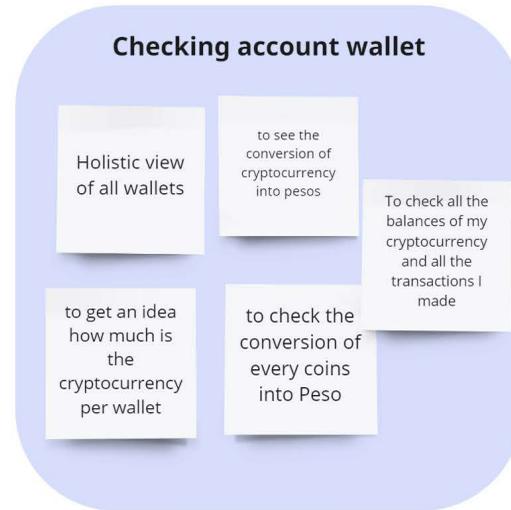
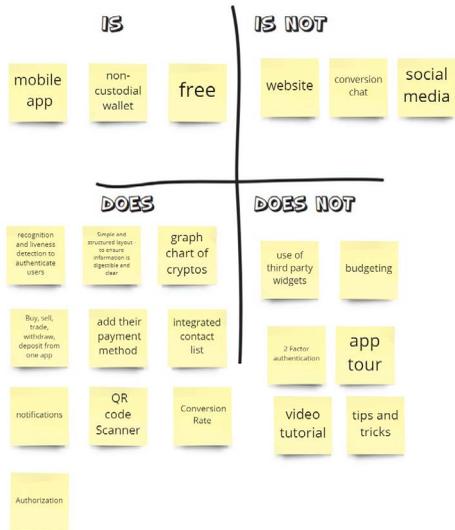
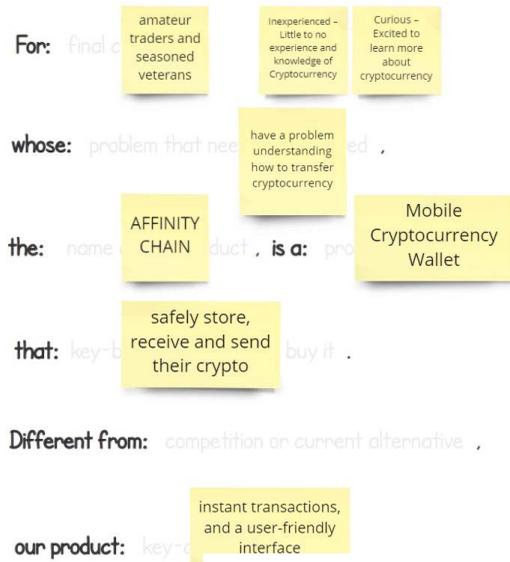
D. User FLOws

E. Wireframing

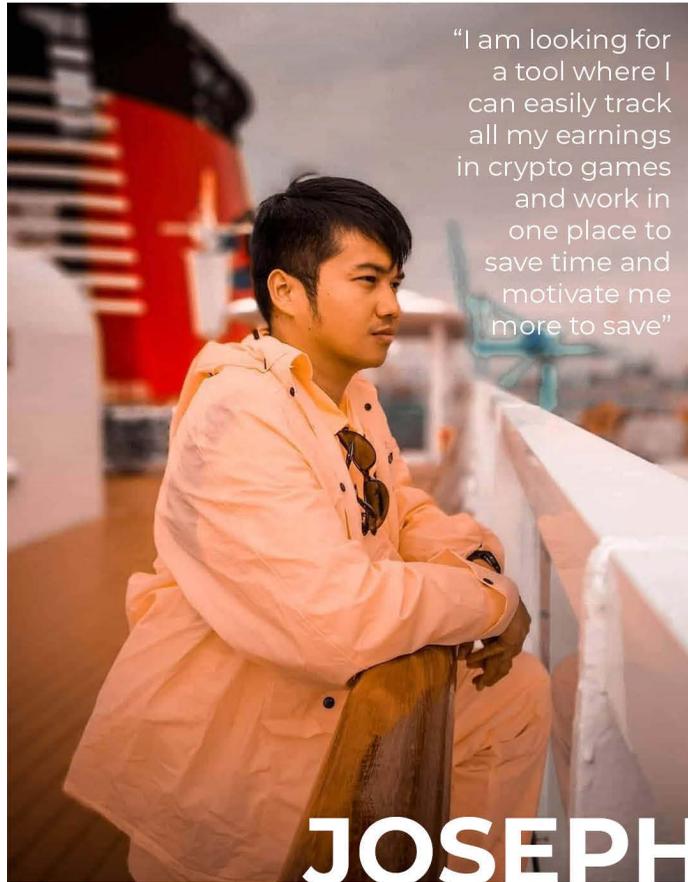
F. Prototype

A. Affinity Mapping

THE PRODUCT VISION



B. User Persona



“I am looking for a tool where I can easily track all my earnings in crypto games and work in one place to save time and motivate me more to save”

JOSEPH

28, PHILIPPINES

SEAFARER

Most of the time spend on mobile as it's more convenient and always on

ABOUT

Joseph is a very organized person and travels most of the time. He plays a lot of blockchain games whilst also trading in the volatile cryptocurrency market. Currently, he is using different cryptocurrency wallets where he stores all his earnings in other games he is playing and trading.

Joseph is most interested in quickly seeing snapshots of how his portfolios perform for the day and the historical performance as he has minimal time to focus on his finances. Even though he is focused on trading and playing games, he is still actively helping other charities or people in need using his cryptocurrency. While he is not a spender, he does find himself in situations where he spends cryptocurrency when he really shouldn't.

BEHAVIOUR

- He likes to manage and keep track of his multiple crypto and accounts to ensure his portfolio is on track
- He like a quick and easy way to view his account balance and transactions.
- He use spreadsheet to manage his crypto finances

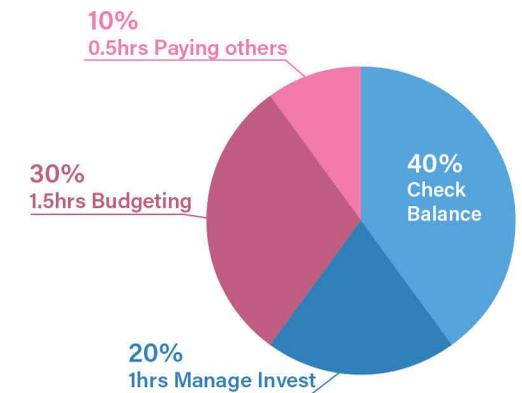
NEEDS & GOALS

- Ability to alternate between Ethereum and his traditional currency when buying goods and services
- A way to quickly and easily transfer his crypto to his friends
- Ability to track all his curent assets on the platform
- A dashboard tailored to his needs and not cluttered with too much information

FRUSTRATIONS

- Constantly needing to check all his accounts and manually move crypto around when bills are coming up
- Logging in separately to all his wallets to know how much is in each and then collate the data in an excel spreadsheet
- Dashboard has confusing charts that are difficult for the user to analyze

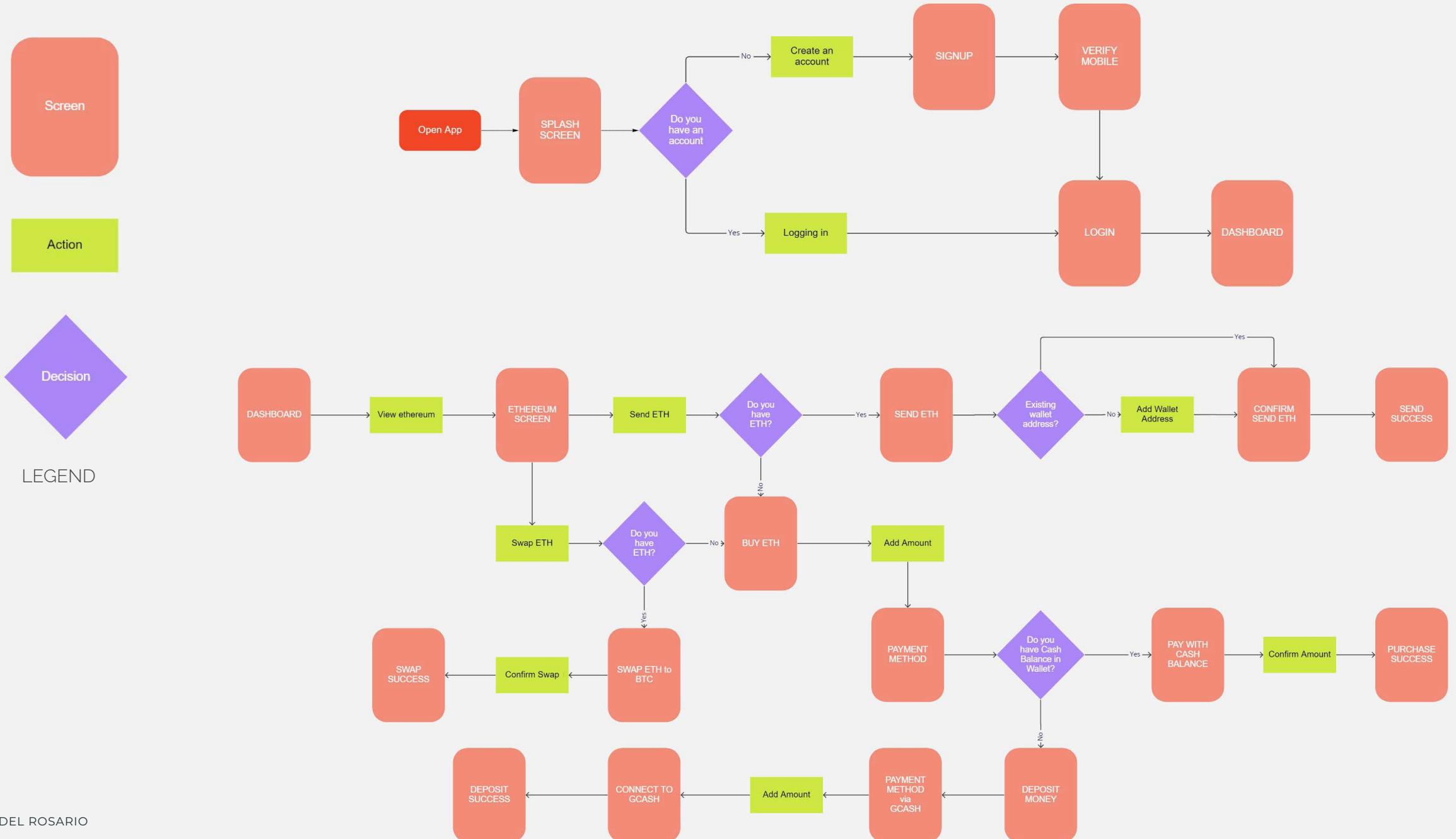
Typical Financial Tasks



C. User Journey

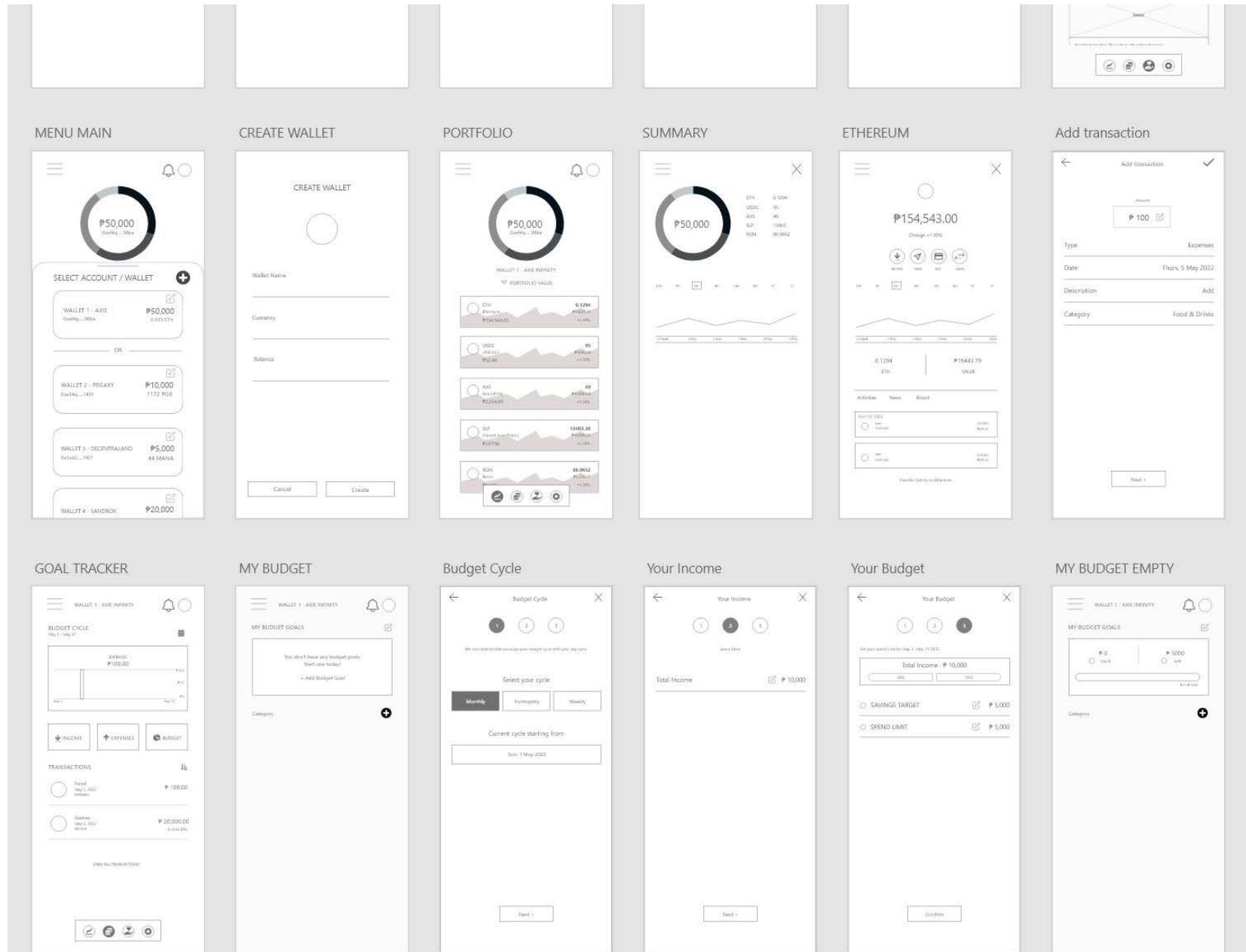
	DRIVERS	AWARENESS	CONSIDERATION	OPEN WALLET	TRANSACTION
GOALS & ACTIONS	<ul style="list-style-type: none"> • He wants to track all the incoming and outgoing of his finances especially his cryptocurrencies • He wants to see all the balances of his other crypto wallets • He needs all his cryptocurrency to be converted to peso • He needs to find a good charities that accepts cryptocurrencies & microdonations • He needs to use crypto as a payment 	<ul style="list-style-type: none"> • Find transaction history for each crypto wallet • Locate which wallet need to review • Find a cryptocurrency converter and calculator tool. • Research different ways to start personal finance management • Initial exposure and opinon about the charity 	<ul style="list-style-type: none"> • Refine options discovered in the app store • Consider creating an excel spreadsheet but it will be more time consuming and demanding process • Deliberation on charities and consideration of other charities 	<ul style="list-style-type: none"> • Login in all different wallets • Check the account need to be reviewed • Find transaction history in each wallet • Receive cryptocurrency 	<ul style="list-style-type: none"> • Review transaction list • Buy and swap cryptocurrency • Send cryptocurrency to a friend
EMPATHY MAP	<ul style="list-style-type: none"> Annoyed to logging in multiple crypto wallet everytime Worried remembering all the recovery phrase and passwords Confused to convert all the cryptos into third-party apps 	<ul style="list-style-type: none"> Frustrated to convert all the cryptocurrencies in third party apps Unsure seems like many finance apps require learning curves Unmotivated as I don't know any charities accepting cryptocurrency 	<ul style="list-style-type: none"> Worry what apps suits his needs & how much it will cost Lazy to go through all the effort to create a spreadsheet Motivated as charity help meet my tax deduction goal 	<ul style="list-style-type: none"> Lazy to open all accounts Curious to see all the transactions 	<ul style="list-style-type: none"> Worried to send the cryptocurrency to the wrong address Determined to manage all his cryptocurrency
OPPORTUNITIES	<ul style="list-style-type: none"> • Allowing users to view transaction in each wallet • Show all list of separate crypto wallets • Securely logging in through social media • Effortless sending cryptocurrency on contact lists • Dashboard must be easy to navigate and graphs must be easily digestable 	<ul style="list-style-type: none"> • Automatic conversion into peso of every cryptocurrency shown • Provide cryptocurrency conversion • Provide general guide to get started 	<ul style="list-style-type: none"> • Provide user with a crypto asset management tool to eliminate using of spreadsheet and other tools • Free to use with low fees of transactions • Provide user-friendly, accessible interface with 3 core functions pay, receive, and swap 	<ul style="list-style-type: none"> • Integrate all the game cryptocurrency earnings from different wallets • Dashboard to show all the cryptocurrency from blockchain-games • To sync all the balances in different crypto wallets 	<ul style="list-style-type: none"> • Show a visual graph of cryptocurrency list • Create a simple and intuitive user interface that allows users to send a payment, easily and quickly • Show quick transfer

D. User Flows



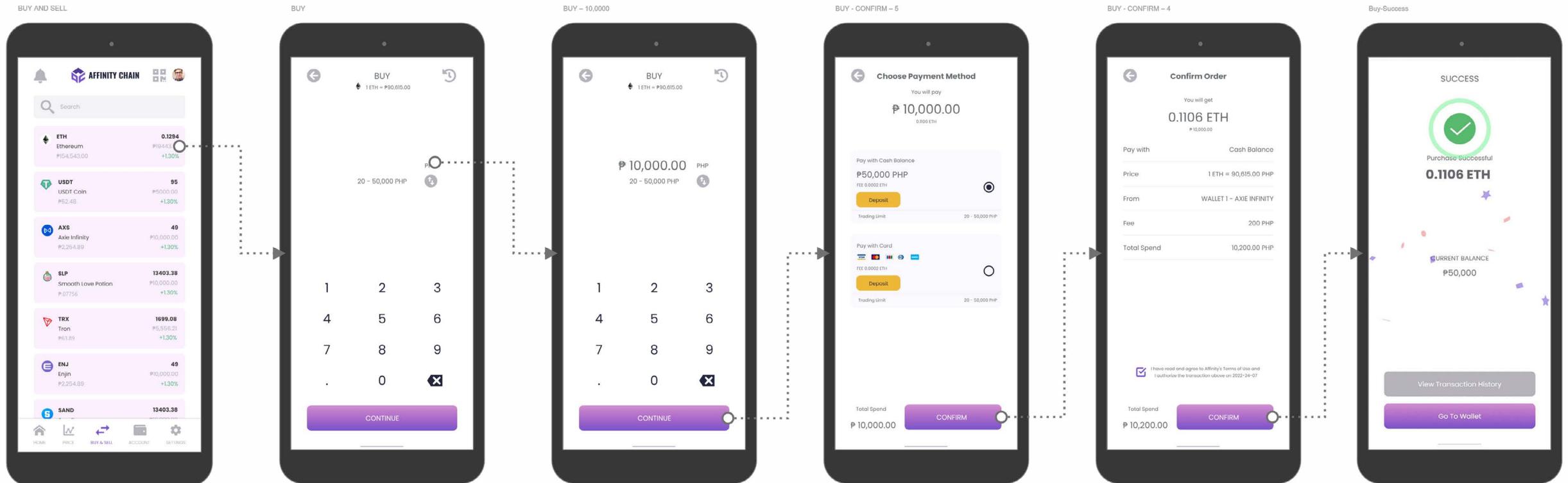
LEGEND

E. Wireframing



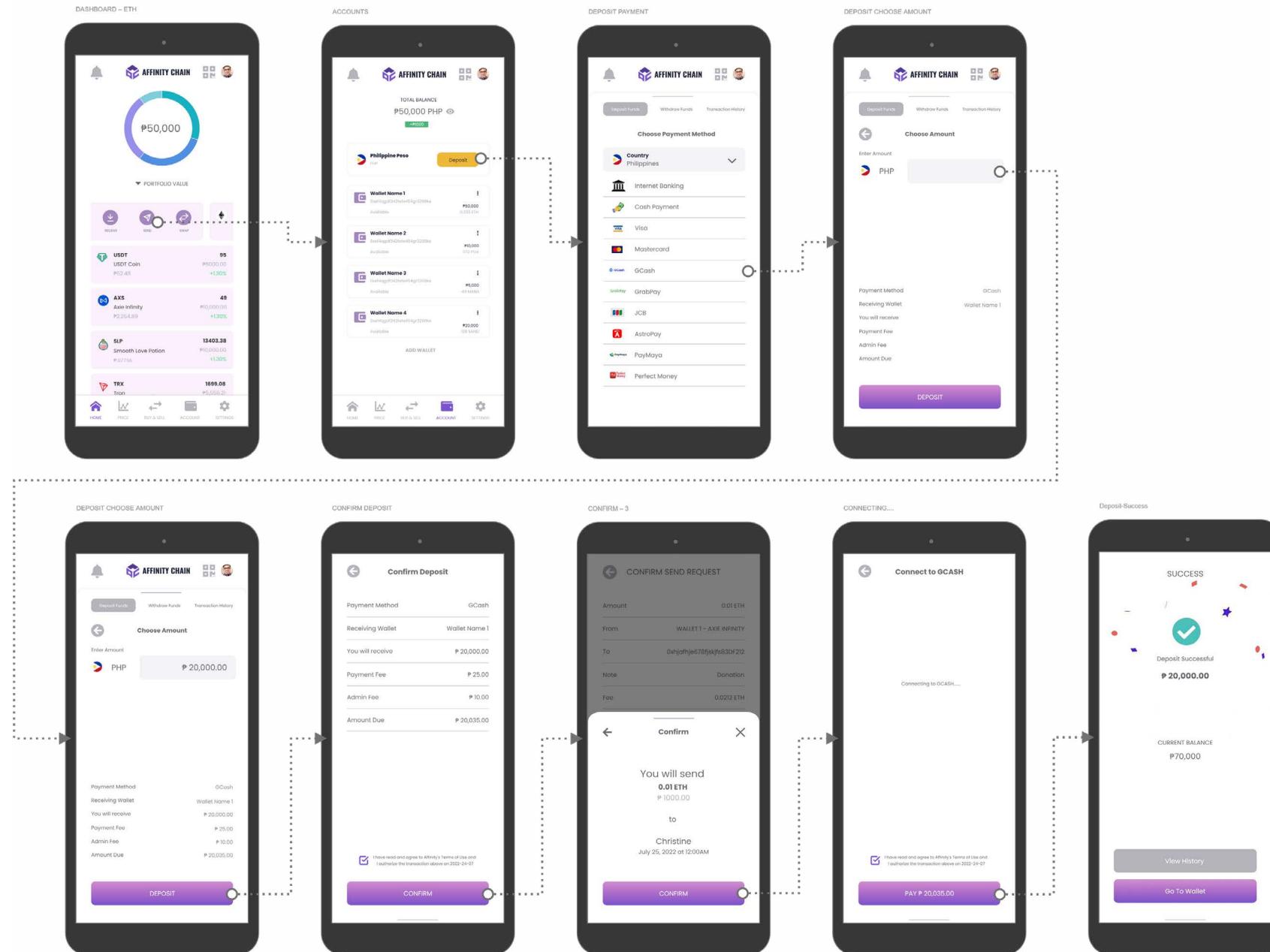
F. Prototype

BUY BOARD



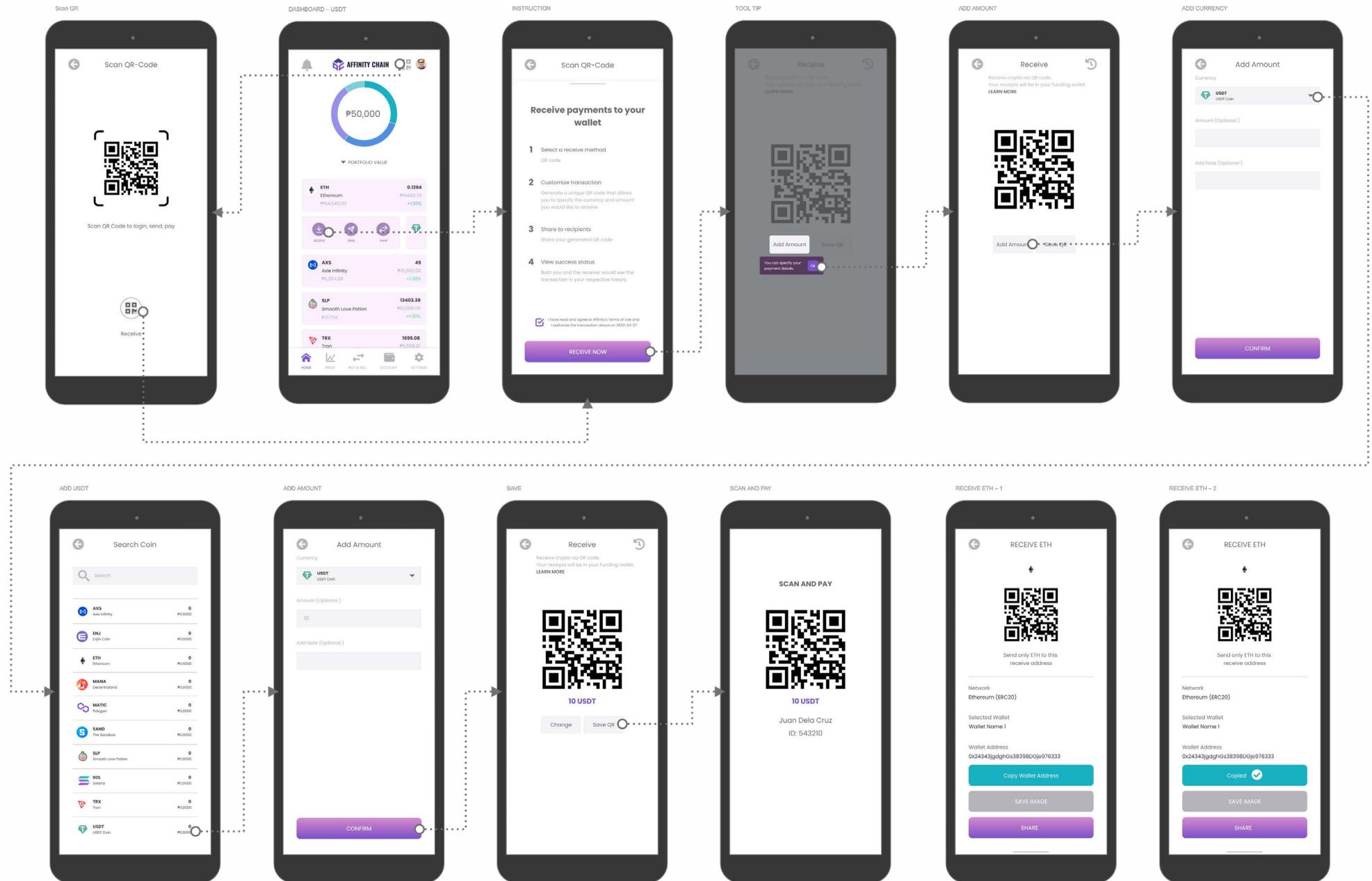
F. Prototype

DEPOSIT BOARD



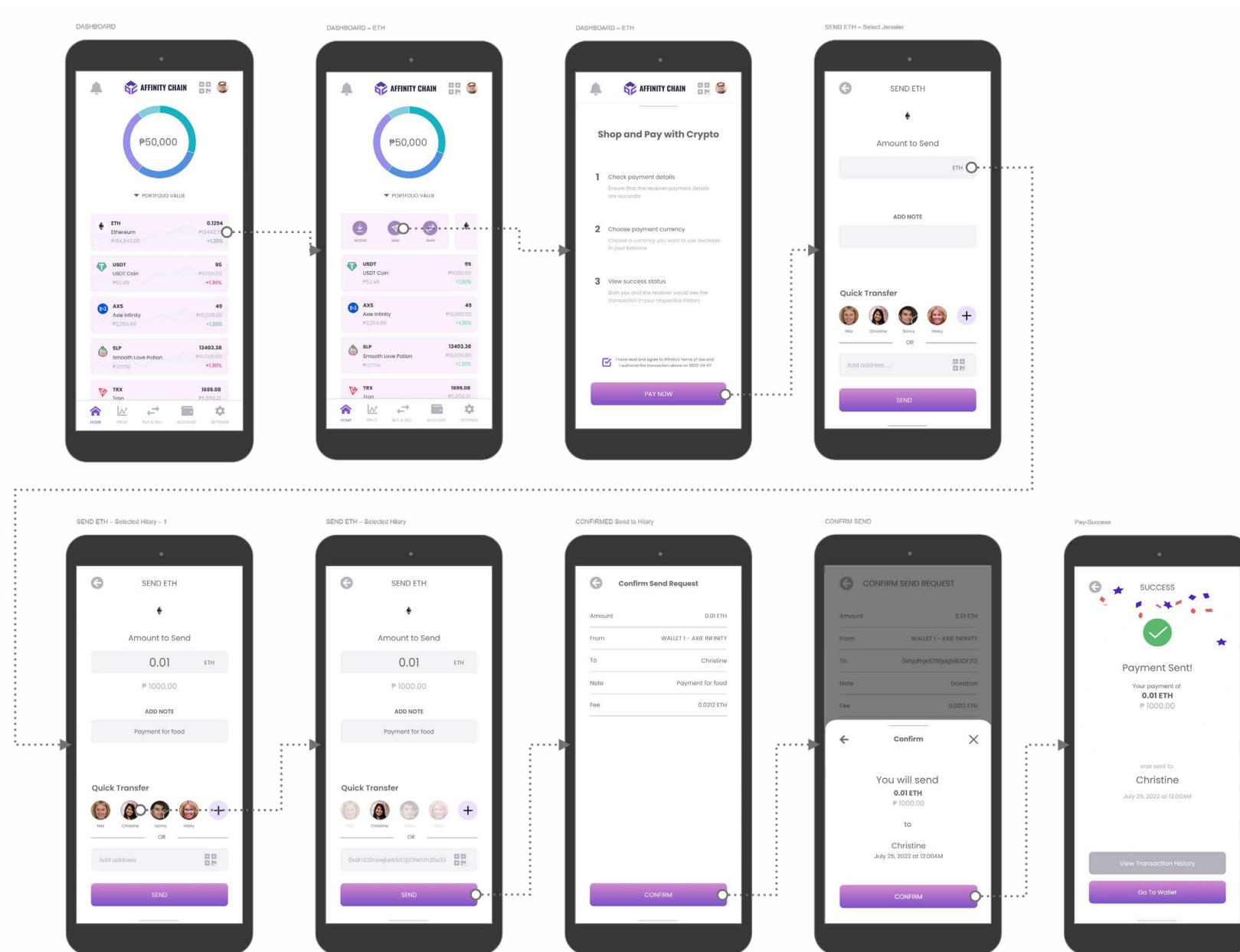
F. Prototype

RECEIVE BOARD



F. Prototype

SEND BOARD



F. Prototype

SWAP BOARD

