

Unit 2: The Human Centered Design Process

February 8 - February 27

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Primary Deliverable Links

[Research: Google Document](#)

[Synthesis: FigJam Affinity Board](#)

[Brainstorming: Google Document](#)

[Creating: Google Document](#)

[Creating: Figma Prototype \(Low-Fi and High-Fi\)](#)

[Testing: Google Document](#)

[Presentation](#)

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Overview

- Learning interactive process of how to **begin forming ideas for a design**
- Related topics searching + looking at pitfalls
 - Creating solution from pitfalls
- Deciding to focus on **people who don't know much about our topic**
(Cryptocurrency)
- Making/ideating/iterating a guide for **new users**
- Designing an app for beginners to become **more knowledgeable** in Crypto
 - Usage/investment and information/research available to users
- Hearing +/- **response** from users
 - Reflecting on how the product can be improved if we had longer time as an afterthought

Pre-Assignment Discussion

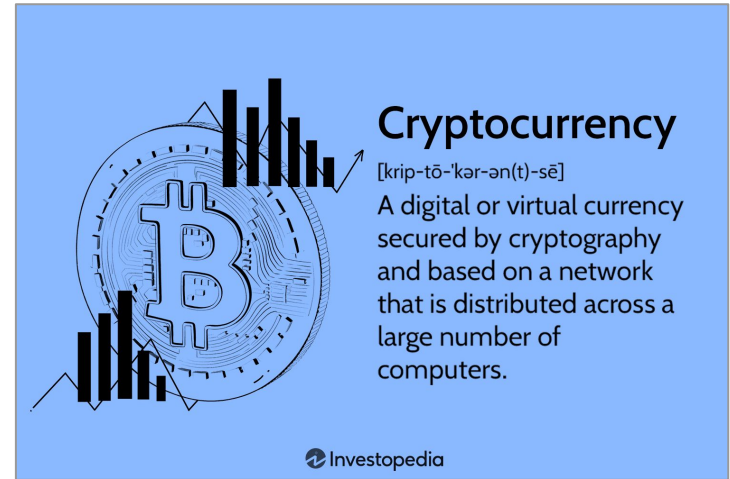
Feb. 8

Basic Topic Exploration

- The topic we were assigned was “**Overly Confusing Complex System**”
- Then, we did a summarized, quick version of the full length of project
- This helped prepare the group to think about the unit project as a whole instead of diving in head first
- **Goal:** *Ideating with a broad mindset with low expectations of how to simplify a product*
- Some **questions** we asked:
 - How can we make a product more approachable?
 - How can we appeal to new users?
 - How can we continue usage of the product?
 - What are some general thoughts that we can address?

Focusing the Topic

- We then decided to use **Cryptocurrency** as our topic, since it seemed like an interesting topic to explore
- We then went towards the research portion of our project in order to be knowledgeable
 - Need to know before design → more info = more ideas = better design



*Cryptocurrency definition
by Investopedia*

Research

Feb. 13

Broad/Secondary Research

- We didn't really know “**how to Cryptocurrency (Crypto)**”
- So, we researched on what it was along with **pros and cons** of Crypto
- Made list of sites based on topics related to **Crypto activity**

*Topic Example:
Desired outcomes*

Desired outcomes

- 5 good outcomes of crypto (like 24/7 hours and transparency of currency access/patterns) [\[Link\]](#)
- Reliable medium of exchange/inflation fighting/tax resistant [\[Link\]](#)
- Faster \$/no middleman (like banks)/blockchains and smart contracts (digital media and products) [\[Link\]](#)
- Easy transactions/short response times/low fees/more privacy/cross-border payments/etc. [\[Link\]](#)

*Topic Example:
Associated activities*

Associated activities

- Research: a critical part of cryptocurrency trading is research before trading. It is vital to learn the complexities of the market. People who do not do enough research are at risk of losing much more. [\[Link\]](#)
- Mining: technological process of validating a transaction on the cryptocurrency blockchain. [\[Link\]](#)
- Trading: the process of buying and selling cryptocurrencies on an exchange. [\[Link\]](#)

More Secondary Research

- Lots of **articles** to look through
 - Organized into tables by different topics
- Organizing **topics that came up** rather than solutions
- **Goal:** *find information based off of topic focus (Crypto)*
- Found a lot of **critique and future hopes** about pros/cons of Crypto

Section Example:
Design Challenges
and Principles

Design Challenges and Principles	Axup, Jeff. (2018). UX for Cryptocurrencies — The Revolution Won't Happen Without It (Part 1 of 3). Medium: NYC Design Axup, Jeff. (2018). UX for Cryptocurrencies — The Revolution Won't Happen Without It (Part 2 of 3). Medium: NYC Design Axup, Jeff. (2018). UX for Cryptocurrencies — The Revolution Won't Happen Without It (Part 3 of 3). Medium: NYC Design Myre, Maria. (2022). Why is Crypto So Popular, and What Does it Mean for UX Designers?. Designlab Stamatiou, Paul. (2021). Crypto design challenges. Paulstamatiou Grochowski, Alexandra. (2022). 5 Design principles for crypto. Medium: UX Collective
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Primary Research

- Each group member surveyed one person with a set of group-made (flexible) questions
- Tried to find out **what they felt and knew about Crypto**
- 2 who have experience with Crypto and 1 who doesn't have experience
 - General distrust for Crypto, but high hopes
 - Huge hands-on gap between experienced users and non-experienced users

Survey Responses to Security/Trust of Crypto

Do you trust cryptocurrency? Why/Why not?	<ul style="list-style-type: none">• No• There are a lot of exchanges that are not trustworthy and falsely advertise security.• There is not enough regulation in cryptocurrency. This means that fraudulent actors are able to get away with too much.
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What do you dislike about cryptocurrency?	<ul style="list-style-type: none">• With all investments, it's an easy way to lose out on a lot of money• It's not secure, because it isn't a real item/property so it doesn't feel safe
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What are some things that you like/dislike about cryptocurrency? Why do you feel that way?	<ul style="list-style-type: none">• Since 2021, Crypto cannot be used as investment instrument anymore due to its fluctuation• Become like "gambling"• Controlled by some people, can be significantly rise or fall• No ARA/ARB like stock, making it fluctuated in just an hour or minute
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Synthesis

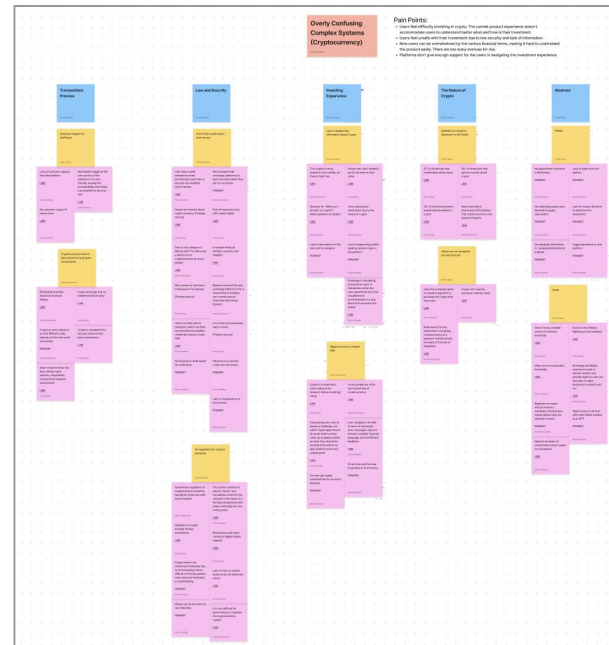
Feb. 15

Synthesis Definition (Feb. 13 Lecture)

- Synthesis happens **AFTER** research data collection and **BEFORE** brainstorming
- Methods for capturing research
 - Secondary: summarize, evaluate, interpret data during secondary research
 - Primary: analyze raw data, summarize, evaluate, interpret primary research data
- Example of how to synthesize
 - Affinity diagramming
 - Journey mapping
 - Group cause analysis
 - Strategy canvas
- Seven steps to **Affinity Diagramming**
 - (1) Setup, (2) Group observations, (3) Cluster similar observations into affinities, (4) Label clusters, (5) Agree on cluster topic, (6) Organize from top to down/left to right, (7) Identify pain points/opportunities

Affinity Diagramming

- Affinity diagramming to help pour out information and then organize
 - Helped find pitfalls of Crypto to narrow design goal
 - **Process:** pour ideas out => group => group again => title and pain points labeling
- **Goal:** *Narrow down and organize pros and cons to find pain points*
- Articles and primary research came to **consensus about pain points**
 - An example is the distrust in Crypto's security is high



Affinity Board

Brainstorming

Feb. 20

Ideating

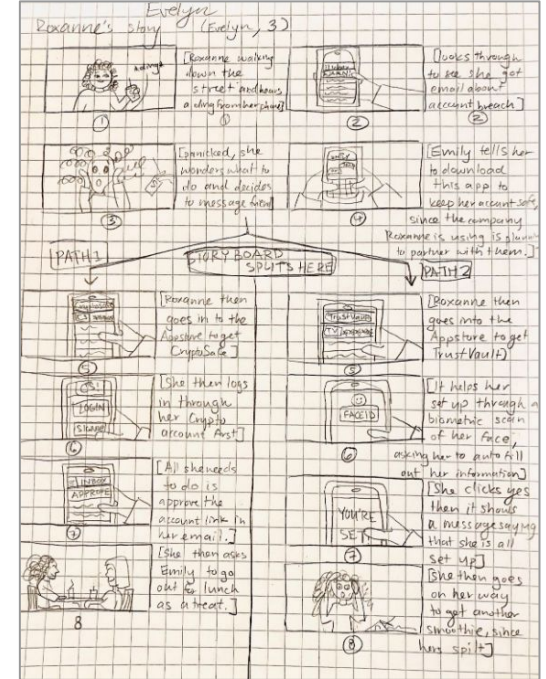
- Looking through pain points to make questions on **how to improve already existing topic/product**
- Then **creating scenarios** of those solution ideas
- Example 1: How to make security higher for Crypto?
- Example 2: How to make newcomers feel more welcomed?

Martin	<ol style="list-style-type: none">1. How might we allow users to understand more about how to invest in cryptocurrency before their first investment?2. How might we make users aware of risk and fraud before investing?3. How might we teach users to research their possible investments effectively?4. How might we provide information about cryptocurrency exchanges and how to find a reputable one?	<ol style="list-style-type: none">1. Jacob has tried investing in the stock market before, but he found it too slow. He has heard that investing in crypto can lead to faster gains than investing in stocks. While watching his favorite YouTuber promote a cryptocurrency, Jacob decides to invest in it with no research. Jacob invests all of his savings in this cryptocurrency and it loses 80% of its value within a week. Due to doing no research before investing and knowing nothing about the crypto market, Jacob has lost most of his money. A couple of months later, Jacob finds out about a very comprehensive guide on how to invest in crypto and uses it to invest safely.2. Marcus has spent the last couple of weeks doing research on different
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Example of listing out scenarios of pain points + scenarios

Storyboarding

- Each member created a hollywood storyboard of **how to use this app on a smartphone**
 - Each chose
- Came to a **consensus** about what improvement product will be after storyboards
 - Decided on a guide for new Crypto users called “CryptoGuide”



Example of a storyboard

Creating

Feb. 22

Starting the Wireframing Process

- In class, we talked about what pages to put into the **CryptoGuide**
- We asked what kind of questions would a new user ask
 - What is Crypto?
 - How do you use it?
 - What direction is it going?
 - What is the state right now?
 - Etc.

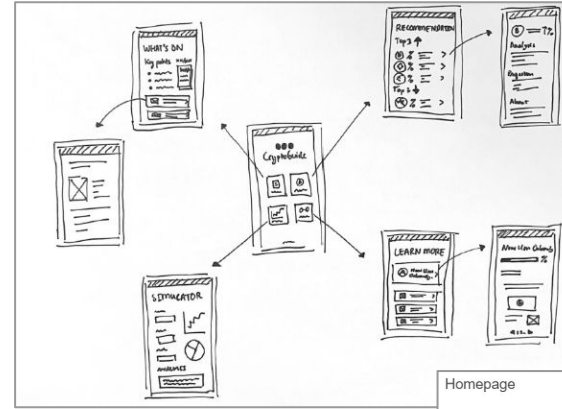
CryptoGuide

- **WHAT'S ON TODAY:** Provide summary of what happen in crypto world in a day/week → necessary for financial analysis
- **RECOMMENDATION:** Contain summary of crypto product's trend in a day/week → recommend what to invest in or to take out your investment
- **SIMULATOR:** Present a simulator (dynamic to crypto's condition) for user
- **LEARN MORE:** Provide a new investor guide that explains how to invest safely in crypto. It contains information about how to invest and about potential fraud sources. → learning module in crypto

5:01 PM

Different Wireframe Versions

- We then each made **a wireframe storyboard** on how to navigate CryptoGuide
- After that, we switched over to Figma in order to produce **a low-fi version**
 - No fleshed out pictures in boxes
 - Laying out locations rather than focusing on functions
 - Get down ideas only
- Added on **the idea for personalization** from paper to figma



Paper Wireframe Example



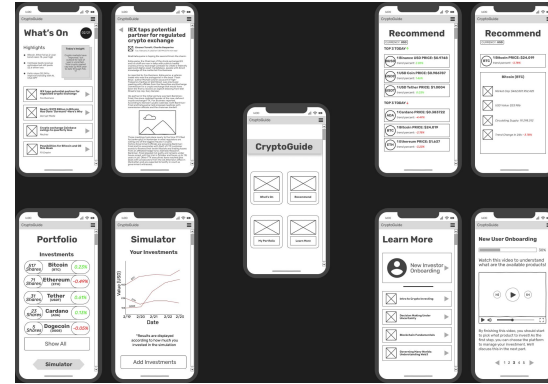
Homepage of App in Figma

Creating & Testing

Feb. 27

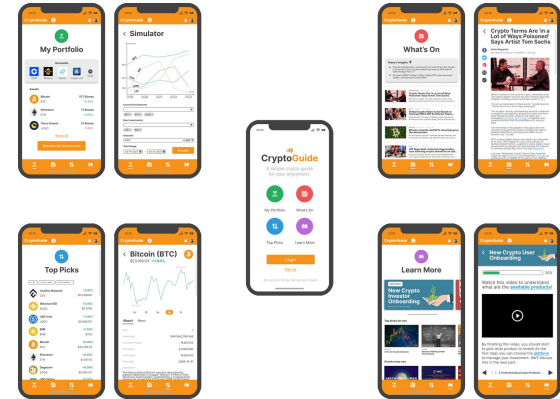
High-Fi Prototype Pt. 1: Summary

- Stepping up from the low-fi prototype, we:
 - Put in colors and images
 - Reorganization
 - Made images easier on the eyes through rounder design (no rigid/rectangular/X's)
 - Made going back to a previous/main page easier
 - Main icon (left top)
 - Bar (bottom)
 - Put in continuity within color and icons for each page
- **Goal:** *easy navigation for beginners with good information and personalization*



Low-Fi Figma Pages

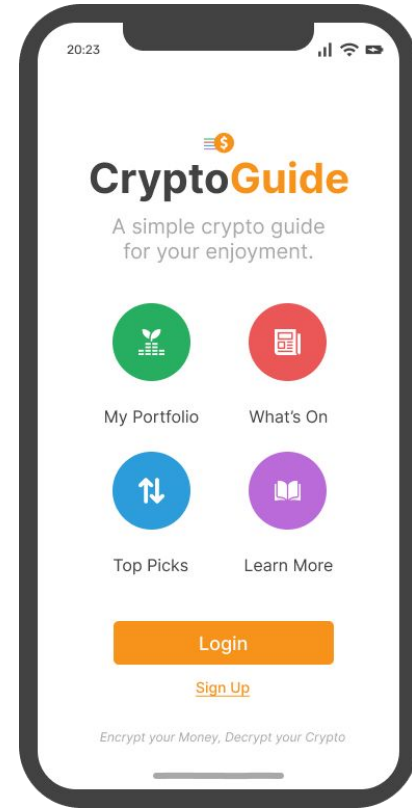
High-Fi Figma Pages



High-Fi Prototype Pt. 2: Main Page

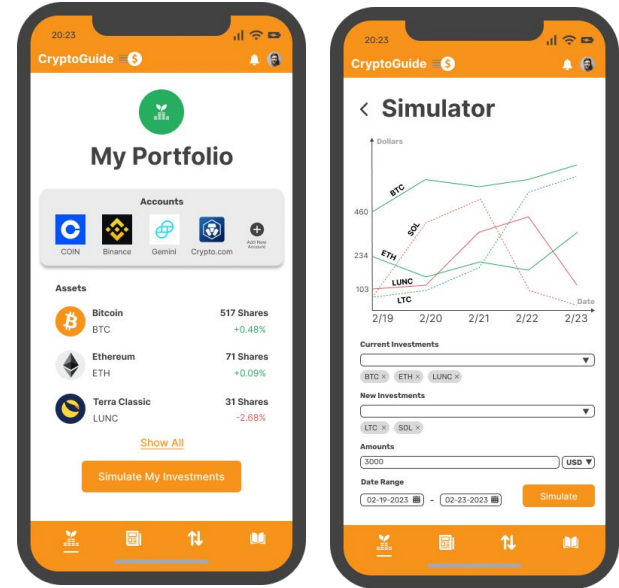
- Finalized main page to have **circle icons**
 - Tried to make things intuitive so people don't need to look up a tutorial (generally) to search through the app
- Users can also have **personalization access** here with “Login” and “Sign Up” buttons
- This is where the app opens up to when starting it up
- There is a **summary/motto** of what the app does for the user

Main Page



High-Fi Prototype Pt. 3: My Portfolio

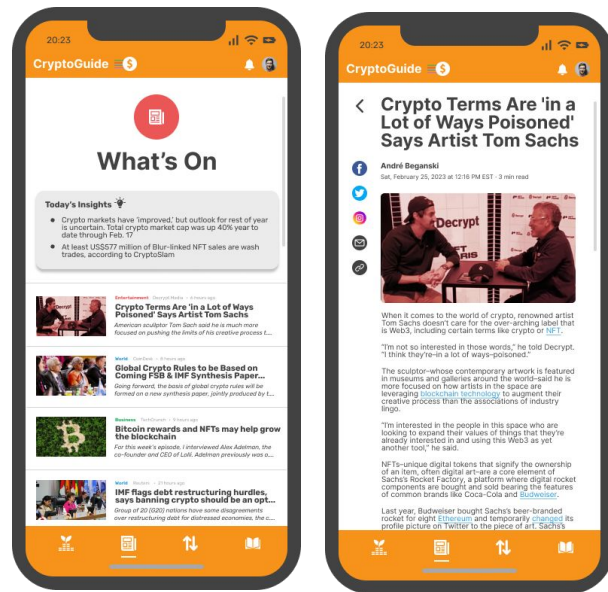
- Finalized look for **personalized portfolio**
 - Can login through main page
- The login process in the main page uses **third party websites** to track personal Crypto shares and trends
- Showed icon on the top of screen to make **a continuous pattern**
- Simulating function to **see potential investing options** as well as show current shares



Personalization in
"My Portfolio" Page

High-Fi Prototype Pt. 4: What's On

- This page is showing information about **today's Crypto**
- Wanting users to inform themselves about **what people think/do about Crypto**
- Showing **highlights** of today/past week



"What's On" Page

High-Fi Prototype Pt. 5: Top Picks

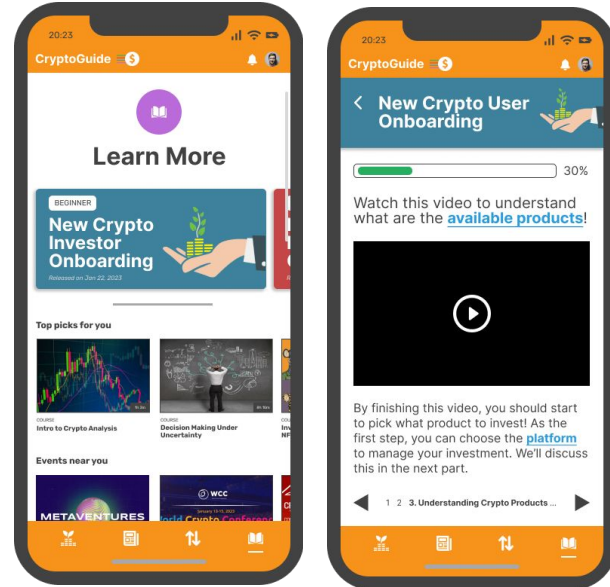
- This page shows a list of **current status of different Crypto types**
- **Filter** option
- Tried to organize it to show only **what the user wants**
 - Instead of showing only top/bottom trends (shown in low-fi version)
 - Showed filtered options to even further personalize app
- **More information** when clicked on the types of Crypto (i.e. Bitcoin)



"Top Picks" Page

High-Fi Prototype Pt. 6: Learn More

- This page shows **general information** about Crypto
- Want to show users narrowed information about **what Crypto is, how it works, what to do with it**
- This is the **continuous learning** that the application offers
 - The “guide” part in CryptoGuide
 - The rest of the app is to show **how to be hands on**



“Learn More” Page

User Testing

- Made a list of **questions and tasks** for the user
- Focusing on **app's functionality and attractiveness/ease of use**
- **Positive** feedback:
 - Easy to look for things/simple to use
- **Negative** feedback:
 - Some words/icons not intuitive
- Team response:
 - Would like to make things more intuitive
 - Can do this by studying a wider range of products outside of crypto to reference UX/UI design choices

Tasks

- 1) Context: you have a couple of cryptocurrency investments, but have not checked how they are doing recently.
Task: determine how your investments have been doing the past week and tell me which investments might be worth dropping.
- 2) Context: you have been investing in a specific branch of crypto, but do not know enough about developments that have been happening in the market as a whole.
Task: use the app to find recent world development that has occurred in the world of crypto.
- 3) Context: you have a couple of investments in cryptocurrency but are looking to expand your portfolio.
Task: what would be a good cryptocurrency investment in the current market?
- 4) Context: you are a new crypto investor, and want to know about some of the basics before investing.
Task: find the introduction video for crypto beginners

*List of Tasks to Set
Up for User Testing*

Reflection

Evelyn Bang

- Going through the whole process of pre-assignment design was **helpful to see the overview** of what we needed to do throughout the project
- I know this is just like in real-life scenarios, but I would have like to have **more time to process/reiterate ideas and designs**
 - The end portion of making the high-fi prototype felt a little rushed
 - Needed more meditating time on designing/redesigning to see what's missing
- Main thing that I learned was that I needed **to always keep checking in with the goal of the project** to keep recentering the process and finding new ideas
 - Trying not to go astray or get distracted

Edvin Handoko

- It's a fast yet compelling process to handle deceptive design around overly confusing complex system, especially cryptocurrency. I personally **learn a lot about the domain knowledge** to come up with the solution.
- I really enjoy the process from translating the brainstorming to the creation process. This is my first time to transform from wireframe to prototype from a brand new idea. It is nice to **apply the design theory** that I got from Unit 1.
- It would be great if **there's a longer time to digest the synthesis-brainstorming results** so we can come up with sharper idea addressing the real problem.
- The Human Centered Design process is an essential process to develop humane technology. I would love to **implement this sequence in my future career** as tech practitioner.

Martin Ackermann

- One major concept that I learned is that **building applications requires working iteratively.**
- I also learned that everyone has a different perspective, so **every interview has to be approached differently.**
- **A final product should consider any user.** In this example, even if the product was made for beginner investors, experienced investors should still be able to use it.
- I learned that it is important to **make a lo-fi wireframe that can be revised easily and changed** for the final product.