VERTICAL INSTITUTE

Digital Payment

Designing A Way Simply.Easy.Fast.Secure For Digital Payment Mobile App

Elaine Siou Hui Li

UX Design Bootcamp Capstone Project

February 12, 2022 Project

OVERVIEW
CONTENT

01 Current Situation
02 The UX Process
03 Market & User Research
- Interviews
- Online Survey
- User Personas (UX Pressia)

04 STRATEGY
- HMW (Trello)
- User Stories & Prioritisation
- Crazy 8
- (MoSCoW)
- User Flows

05 Design & Development Stage
Building The Prototype
- Low-Fidelity (Sketch)
- Mid-Fidelity (Wireframe)
- Usability Testing
- MoodBoard Design
- High-Fidelity

06 Reflection

Elaine Siou • Feb 2022

01 CURRENT SITUATION

CHALLENGE

Digital payments was growing before COVID-19, but the pandemic has accelerated the shift, driving dramatic increases in contactless and online payments. It also can help you expand your business or personal expenses to reach more global audiences. To help improve customer experience since transactions are more convenient online.

But, accepting online payments can also facing some issue problems for you and many users.

- Technical Issues
- Security Problems
- Disputed Processes and Transactions
- Privacy Not Safe
- Chargeback

More detail information can check on those articles link on internet.

https://yhoo.it/3HInsvt

https://bit.ly/34Mx89o

https://bit.ly/3oA7tbm

GOAL

The goal for this project is to create an app that is use easily and enjoy on ever-evolving technology that helps users biggest motivator to use, even for new users on Digital Platform.

To create app should also be able to motivate new users or non tech-savvy users to switch digitally on app. Help user feel more comfortable to get protection & secured when use digital on app for they online expenses or transactions & more. It's also a easier spending option to make daily life more Simply, Easy, Fast & Secure.

Type of Singapore Mobile Payment Methods Apps

DBS PayLah!
UOB TMRW SG
OCBC PAY ANYONE
G Pay
GrabPay
Apple Pay
fave PAY
Shopee Pay
SAMSUNG pay
mastercard
PAYNOW
VISA
UnionPay 银联
AMERICAN EXPRESS
PayPal

Drawbacks

The Disadvantages of online payments :

- **Service feesPayment gateways and third-party payment processors charge service fees.**
- **Inconvenient for offline salesOnline payment methods are inconvenient for offline sales.**
- **Digital cash systems pose some unique risks. Since cash is digital, it is likely that hackers might break into the system.**
- **A safe needs to be on-site or frequent trips to the bank for deposits must be made, which takes time and money.**

The advantages of digital payment :

One of the most significant advantages of digital payment is the seamless experience they provide to customers. Reduced dependency on cash, fast transfer speed, and the ease of transacting make online payments a preferred option.

02 THE UX PROCESS

DESIGN THINKING 101 & HOW TO PROCESS

The design-thinking framework follows an overall flow of 1) understand, 2) explore, and 3) materialize. Within these larger buckets fall the 6 phases: empathize, define, ideate, prototype, test, and implement.

As the product is made with the users in mind, I have consistently kept them in mind as I worked on my product.

More detail information can check on this articles Design Thinking 101 & Design Process link on internet.

https://www.nngroup.com/articles/design-thinking/

https://www.nngroup.com/topic/ux-design-process/

03 MARKET & USER RESEARCH

UNDERSTANDING USERS' NEEDS AND WANTS

USER INTERVIEWS

were conducted with people aged 21-50 of various occupations, gender and marital status.

ONLINE SURVEY

were conducted with people aged 25-34, all users of which were working adults and various gender and all single. They were asked on what they think.

INTERVIEWS

I conducted user interviews with 5 users living in Singapore.

Interviews were conducted remotely over Zoom and involved the users talking about their experiences, behaviours, problem and the benefits when it come to making E-Commerce / Digital Payment platform system.

Some of the interview topic/question were:

- Do you only use digital payments? or a hybrid between cash and digital?
- Would you consider yourself tech-savvy?
- How often do you use digital payments?
- When did you switch to digital payment methods?
- Do you face any challenges/problems using digital payment?
- Since there are many type of digital applications out there, what do you look out or value for in digital apps in order for you to keep using it?
- What would be your ideal digital payment app be like?
- What are some new features you would like to see when making digital payments?

USER INSIGHTS

What I Heard

"Convenient and fast, so that you don't need to go Bank or ATM for withdraw money"

"To get cash back rewards"

"To skip the queue at the ATM"

"Everybody uses it, so I use it too"

Spoilt for choice - PayLah, PayNow, Grabpay, *Favepay, Apple Wallet, Google Pay. *Favepay has best rewards"

“Prefer Digital payments as it is easier to track my expenses, like compared to cash - where a lump sum is withdrawn then spent mindlessly“

"Need more values to security when using digital payment apps"

"If I lose my phone/hack by scammer there is a risk someone can access my payment accounts"

What I Saw

Pay Now/Pay Lah : " I have to keep checking the phone number to make sure I transfer to the right shop"

"High Convenience"
Eg. Instant tap of a card, pushes a few button to complete payment"

"Sometimes logging into certain apps during payment can be a hassle - still need to key in Password, Face ID/Fingerprint ID are isn't available"

"Sometimes shops only allow certain apps, so I will just use cash"

USER INSIGHTS

What I Saw

"Younger users are more comfortable with going cashless"

"Just Tap Or Scan To Pay With NETS"

"Users tend to use less ATM services/going to bank"

"Growing reliance on digital applications payments > cash"

"Supportive on board for digital payments no hesitation."

With multiple options and choices, some users are overwhelmed to keep up

"Cash is mainly used for small-amount payments"

"Still reliant on cash, has not totally moved on to digital payments only"

"1-click "Pay Now" button for pay anywhere, not need to get any account number / ATM / queuing at bank to pay"

What I Conlude

"Well versed and familiar in making transactions with different Digital Payment Platforms"

"On go digital, customers can self-service and pay invoices from anywhere at any time"

"No need bring too many money out"

"Using Digital Apps to shopping, get rewards, payment or transaction in daliy life"

USER INSIGHTS

What I Conlude

"Overwhelmed by multiple choices"

"Fear of digital payment security still remains a big factor"

"Users value rewards/points/ cashback - influences their choice when deciding which platform to use"

"Most still practice a hybrid mode of payment"

"Digital Payments or application needs more assurance on security of the authentication matters"

"Less users use and frequent the ATM due to the advancement of Digital Payments"

"Overall satisfaction with the basic functions of digital payment or application"

"Users value contactless payments especially in times of Covid"

"Accepted that Digital Payments will be the most widely used mode of payment in the future"

"The need for convenience and efficiency"

"Users value being able to complete payments at the touch of a button/wave of a card"

ONLINE SURVEY

As part of my user research, I conducted a survey from a sample of 10 people in Singapore between the ages of 20 to 50 in order to discover insights regarding their experiences with Digital platform system.

85% Prefer Both Cash and Digital

85% Use Digital Payment

90% Concern Of Security

15% Cash On Hand

In conclusion, 3 takeaways from the survey:

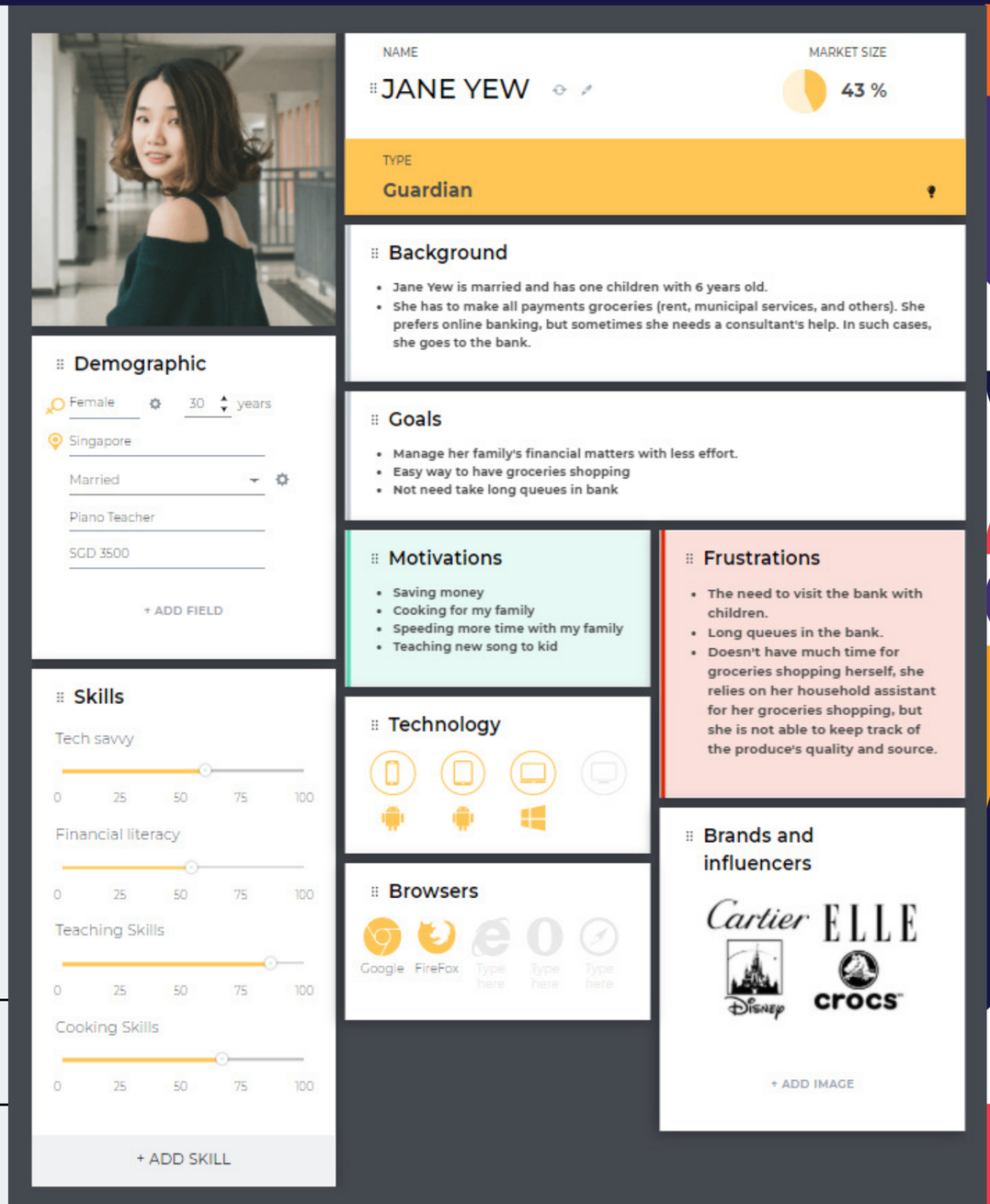
- **Lose privacy when you pay all in digitally or with a seamless transaction.**
- **Need to be more secured and safe from cyber hacks.**
- **All in one app for user are more better to use.**

USER PERSONA 01

Jane Yew is a mother of 1 children with 6 years old. She has been working as Piano Teacher at her current job for 8 years.

In her daily life every month she has to make all payments groceries (rent, municipal services, and others). She prefers online banking, but sometimes she needs a consultant's help. In such cases, she goes to the bank.

TARGET AUDIENCE PERSONAS

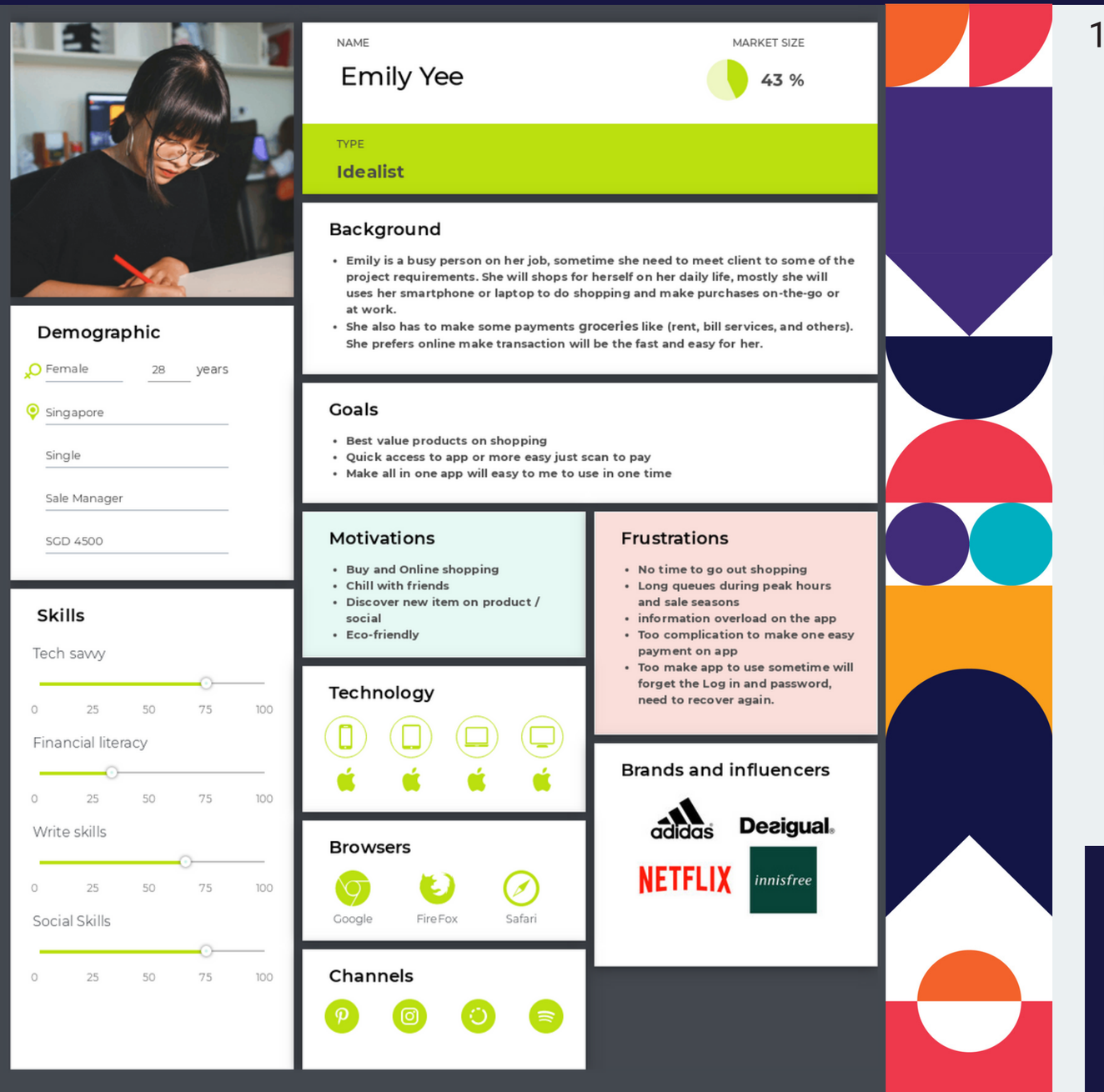


USER PERSONA 02

Emily is a busy person on her job, sometime she need to meet client to some of the project requirements. She will shops for herself on her daily life, mostly she will uses her smartphone or laptop to do shopping and make purchases on-the-go or at work.

She also has to make some payments groceries like (rent, bill services, and others). She prefers online make transaction will be the fast and easy for her.

TARGET AUDIENCE PERSONAS



USER PERSONA 03

Jane Yew is a mother of 1 children with 6 years old. She has been working as Piano Teacher at her current job for 8 years.

In her daily life every month she has to make all payments groceries (rent, municipal services, and others). She prefers online banking, but sometimes she needs a consultant's help. In such cases, she goes to the bank.

TARGET AUDIENCE PERSONAS

NAME

Wilson Yong

MARKET SIZE

43 %

TYPE

Rational

Background

Wilson is a systems software developer, a "data junkie" and for the past couple years, has been very interested in tracking aspects of his banking health and performance. Clark wants to track his speeding, saving, and shopping and payment to know how affects his well process. Although he also want to find a good or strong secure to trust on the app when he use it. He don't want to use to many app to save or transaction in his daily life

Demographic

Male 30 years

Singapore

Single

Software Developer

SGD 5000

Goals

- Save money for a house
- Create and monitor daily expense
- Need to make more secure on app

Motivations

- Save money
- Eco-friendly
- Personal growth

Frustrations

- Not being able to get a answer when is have problem
- The secure not strong to I want to use it to save money or payment
- Sometime cannot tracking the expense or complication to find the history.

Skills

Tech savvy

0 25 50 75 100

Financial literacy

0 25 50 75 100

Software Skill

0 25 50 75 100

Mobile Apps

0 25 50 75 100

Technology

Brands and influencers

FUJIFILM IKEA logitech VISA

Browsers

Google FireFox Safari

Channels

04 STRATEGY

"HOW MIGHT WE" STATEMENT

USER PROBLEM STATEMRNT, DESIGN & CHALLENGE

DIGITAL PAYMENT IMPROVEMENTS

HMW motivate digital payment platform so that for the not tech-savvy to get feel safe to use?

USERS MOTIVATE

How might we create a fun way for young adults to track their expenses daily?

CREATING SOLUTIONS

HMW reward and encourage current users for using digital payment?

"HOW MIGHT WE" STATEMENT

USER PROBLEM STATEMRNT, DESIGN & CHALLENGE

DIGITAL PAYMENT IMPROVEMENTS

HMW simplify the usage of digital payments for the less tech-savvy to also enjoy the benefits of using digital payments?

USERS MOTIVATE

HMW assure the users of digital payments that their transactions are safe and secure?

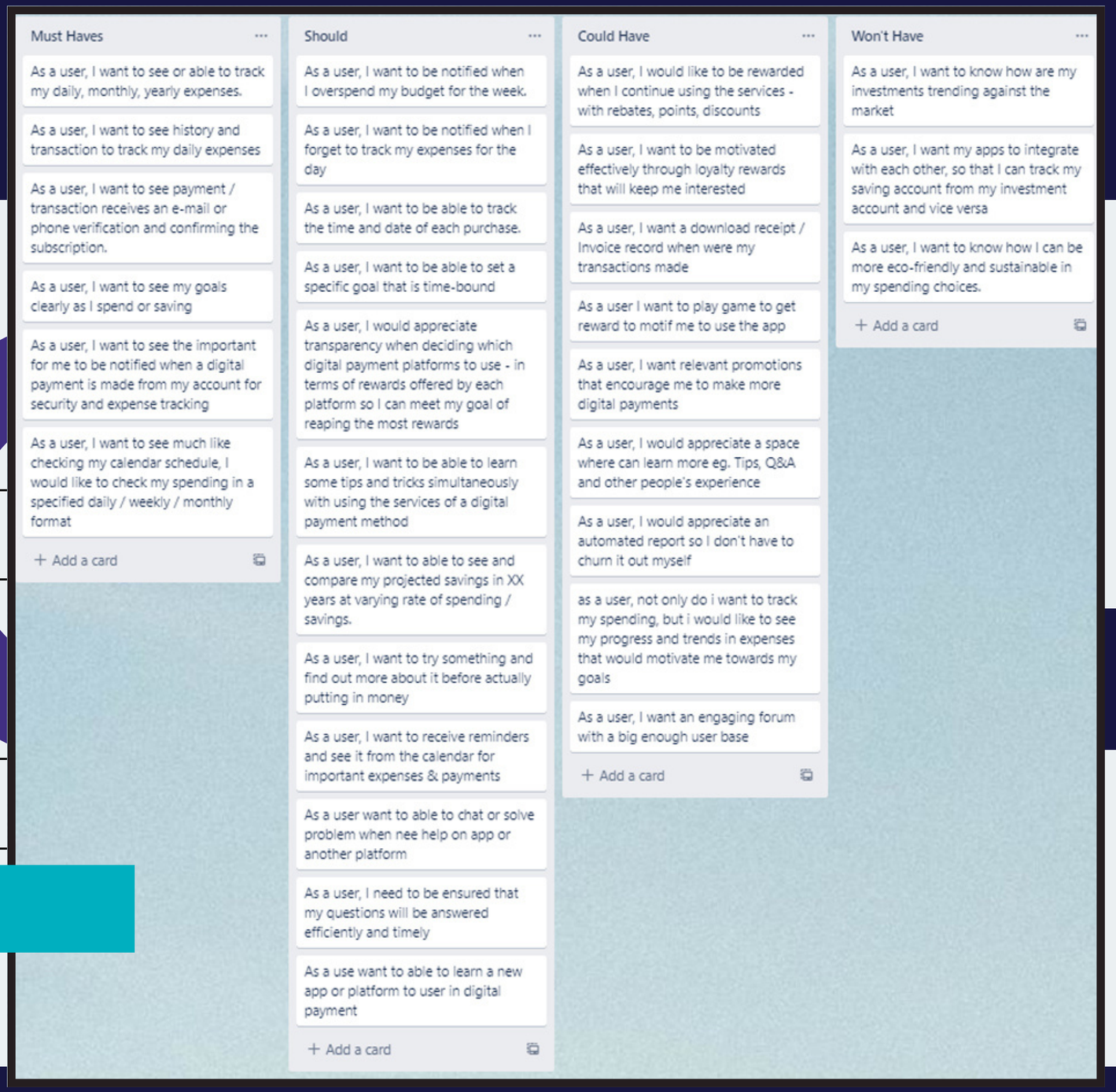
CREATING SOLUTIONS

How might we help to raise awareness and knowledge of digital payments for hybrid users to increase their sense of security so that they can rely on digital payment methods?

USER STORIES

INFORMATION ARCHITECTURE [TRELLO CARD SORTING]

STRATEGY



Must Haves

- As a user, I want to see or able to track my daily, monthly, yearly expenses.
- As a user, I want to see history and transaction to track my daily expenses
- As a user, I want to see payment / transaction receives an e-mail or phone verification and confirming the subscription.
- As a user, I want to see my goals clearly as I spend or saving
- As a user, I want to see the important for me to be notified when a digital payment is made from my account for security and expense tracking
- As a user, I want to see much like checking my calendar schedule, I would like to check my spending in a specified daily / weekly / monthly format

+ Add a card

Should

- As a user, I want to be notified when I overspend my budget for the week.
- As a user, I want to be notified when I forget to track my expenses for the day
- As a user, I want to be able to track the time and date of each purchase.
- As a user, I want to be able to set a specific goal that is time-bound
- As a user, I would appreciate transparency when deciding which digital payment platforms to use - in terms of rewards offered by each platform so I can meet my goal of reaping the most rewards
- As a user, I want to be able to learn some tips and tricks simultaneously with using the services of a digital payment method
- As a user, I want to able to see and compare my projected savings in XX years at varying rate of spending / savings.
- As a user, I want to try something and find out more about it before actually putting in money
- As a user, I want to receive reminders and see it from the calendar for important expenses & payments
- As a user want to able to chat or solve problem when nee help on app or another platform
- As a user, I need to be ensured that my questions will be answered efficiently and timely
- As a use want to able to learn a new app or platform to user in digital payment

+ Add a card

Could Have

- As a user, I would like to be rewarded when I continue using the services - with rebates, points, discounts
- As a user, I want to be motivated effectively through loyalty rewards that will keep me interested
- As a user, I want a download receipt / Invoice record when were my transactions made
- As a user I want to play game to get reward to motif me to use the app
- As a user, I want relevant promotions that encourage me to make more digital payments
- As a user, I would appreciate a space where can learn more eg. Tips, Q&A and other people's experience
- As a user, I would appreciate an automated report so I don't have to churn it out myself
- as a user, not only do i want to track my spending, but i would like to see my progress and trends in expenses that would motivate me towards my goals
- As a user, I want an engaging forum with a big enough user base

+ Add a card

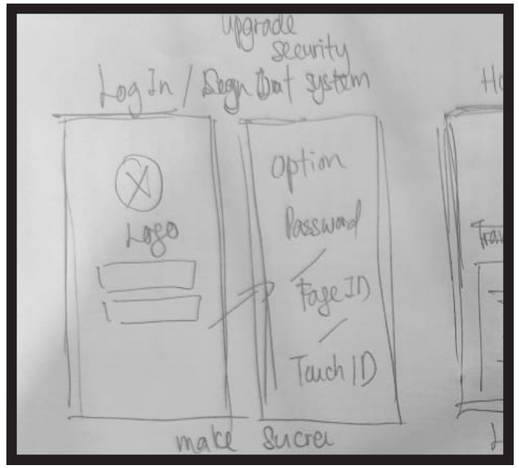
Won't Have

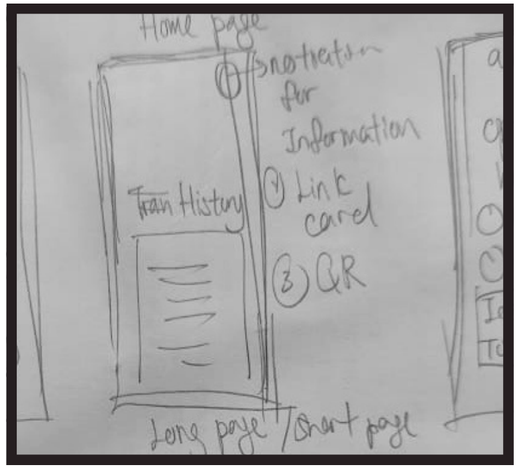
- As a user, I want to know how are my investments trending against the market
- As a user, I want my apps to integrate with each other, so that I can track my saving account from my investment account and vice versa
- As a user, I want to know how I can be more eco-friendly and sustainable in my spending choices.

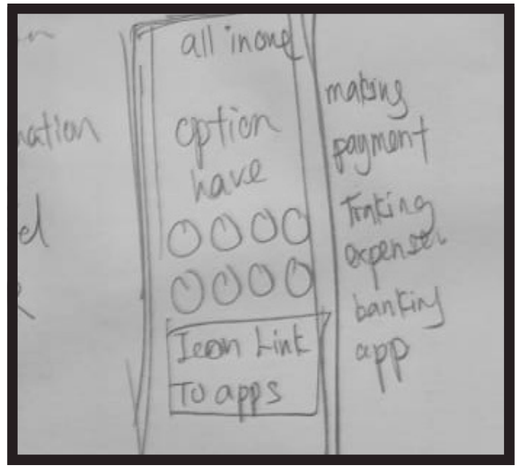
+ Add a card

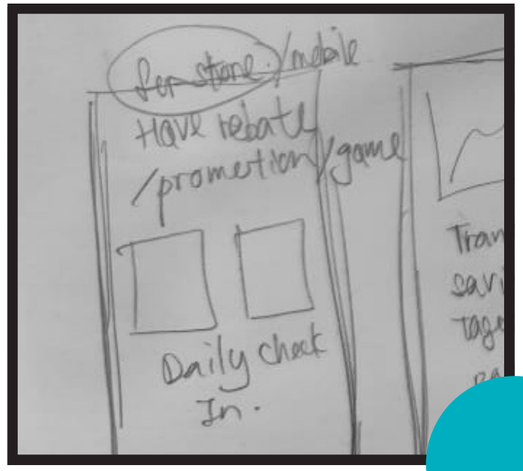
CRAZY 8'S SKETCHES

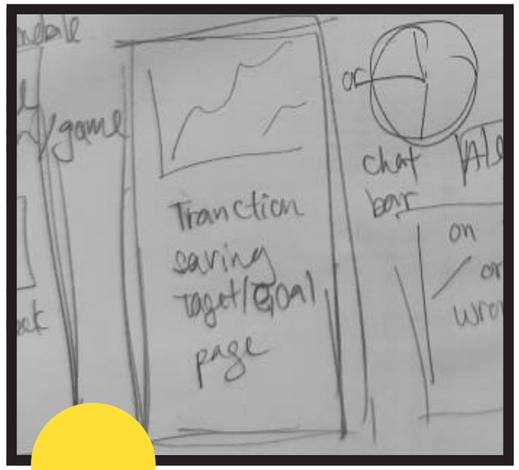
WITH THE PROBLEM STATEMENTS IN MIND, I CREATED 8 SKETCHES OF IDEAS WITHIN 8 MINUTES TO CONSIDER FEATURES NEEDED AS A MINIMUM VIABLE PRODUCT.

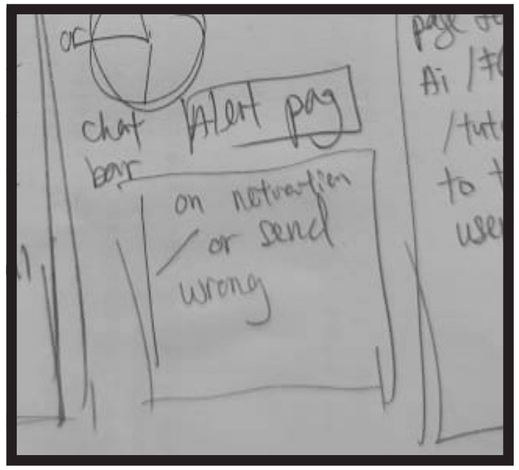


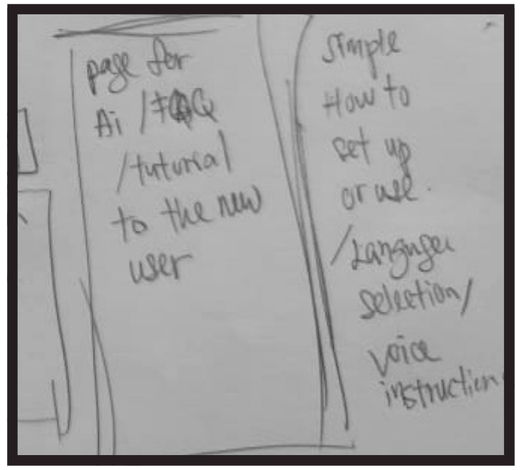






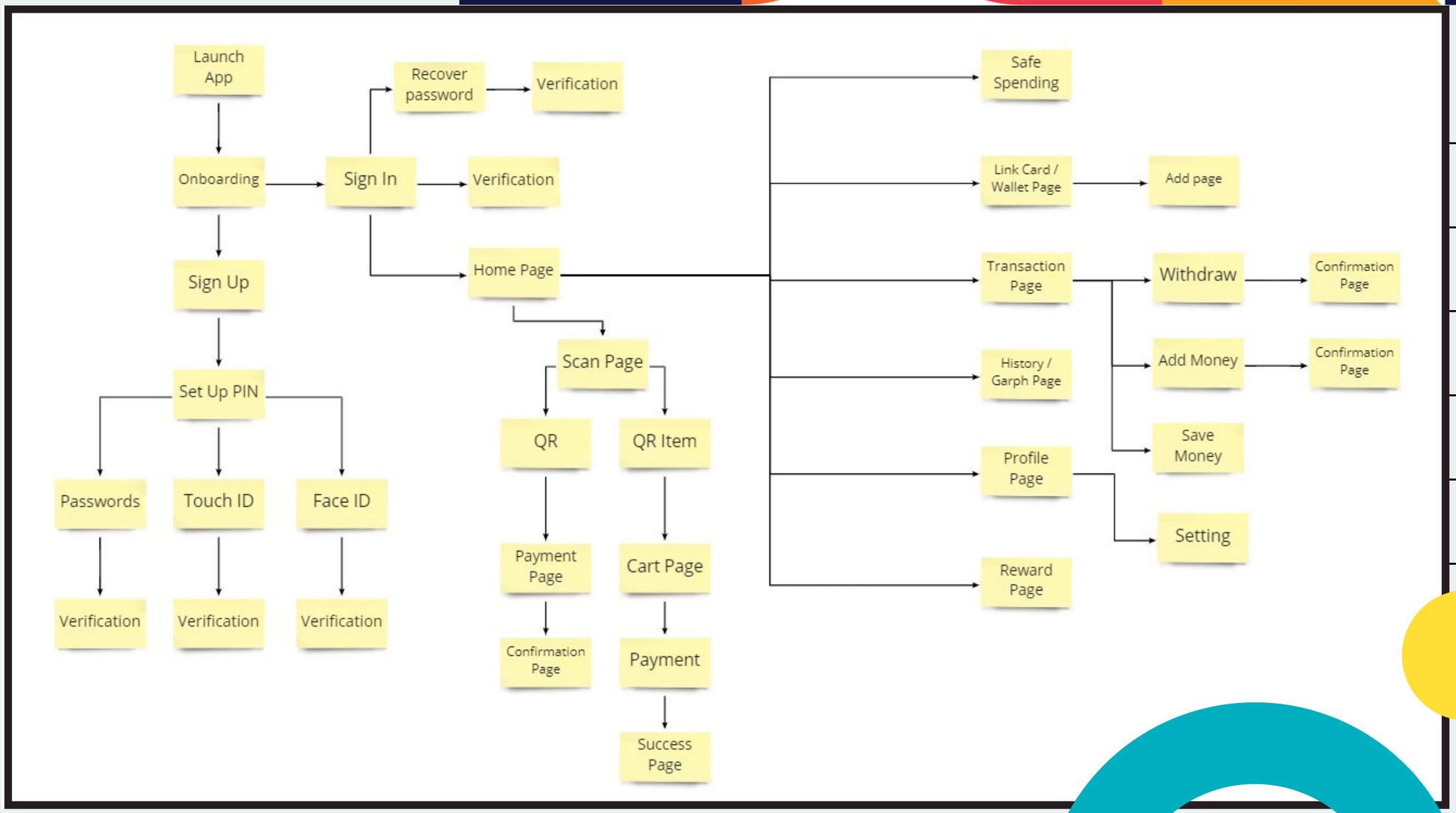






IDEAS WITHIN
8 MINUTES

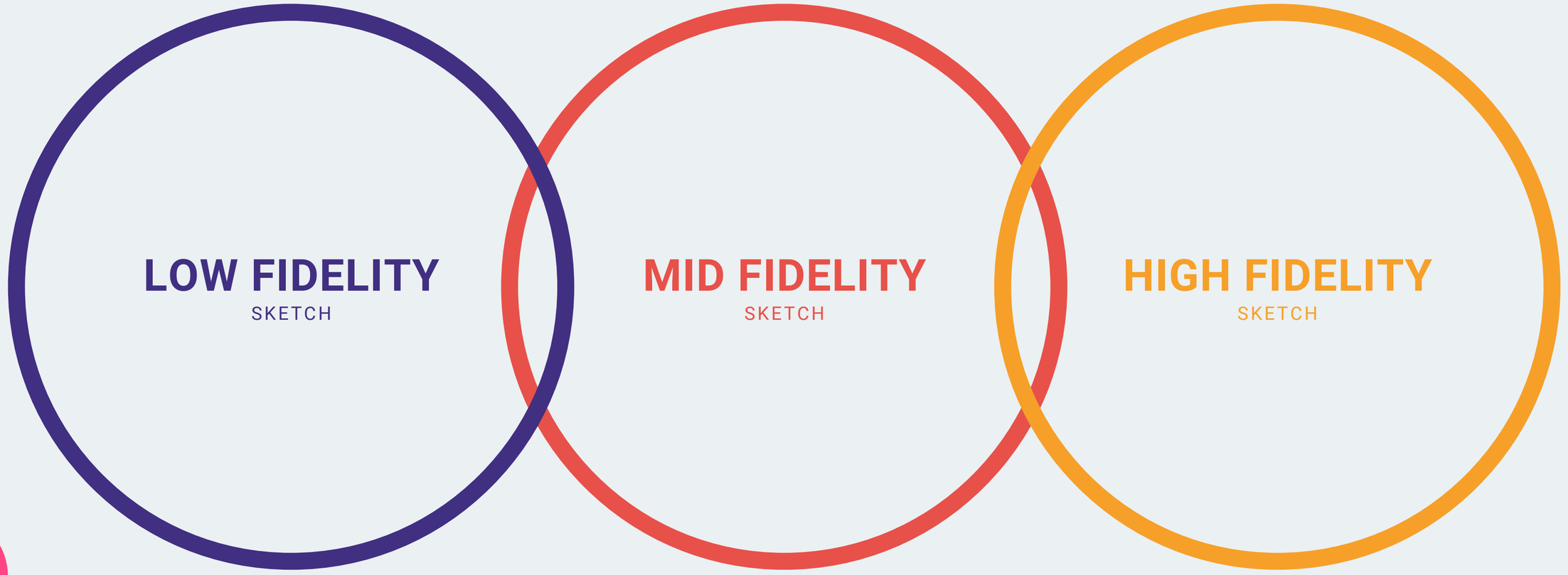
User Flows


Launch App
Onboarding
Sign Up
Set Up PIN
Passwords
Touch ID
Face ID
Verification
Verification
Verification
Recover password
Verification
Sign In
Verification
Home Page
Scan Page
QR
QR Item
Payment Page
Confirmation Page
Cart Page
Payment
Success Page
Safe Spending
Link Card / Wallet Page
Add page
Transaction Page
Withdraw
Confirmation Page
Add Money
Confirmation Page
Save Money
History / Garph Page
Profile Page
Setting
Reward Page

05 DESIGN & DEVELOPMENT STAGE

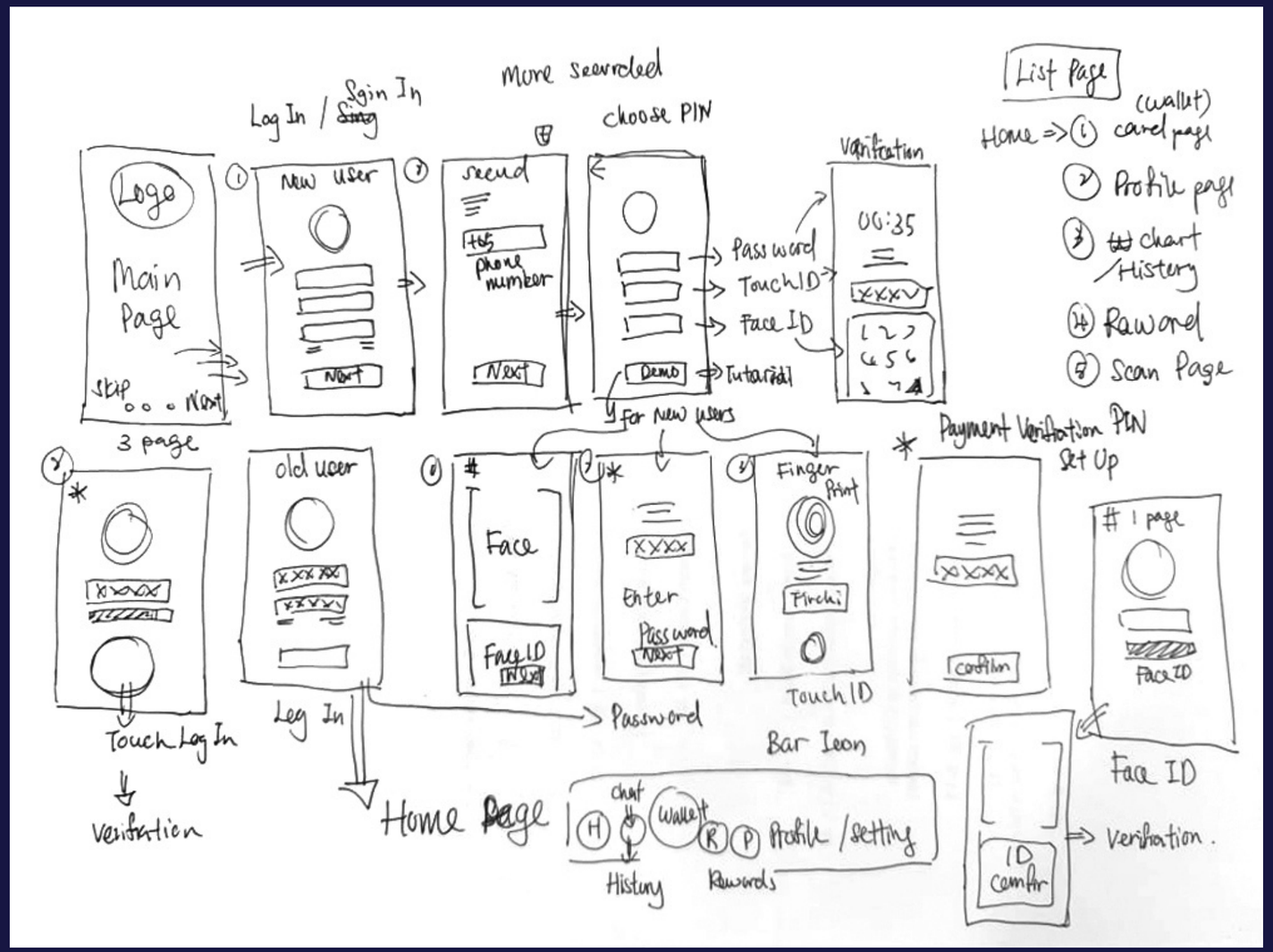
BUILDING THE PROTOTYPE

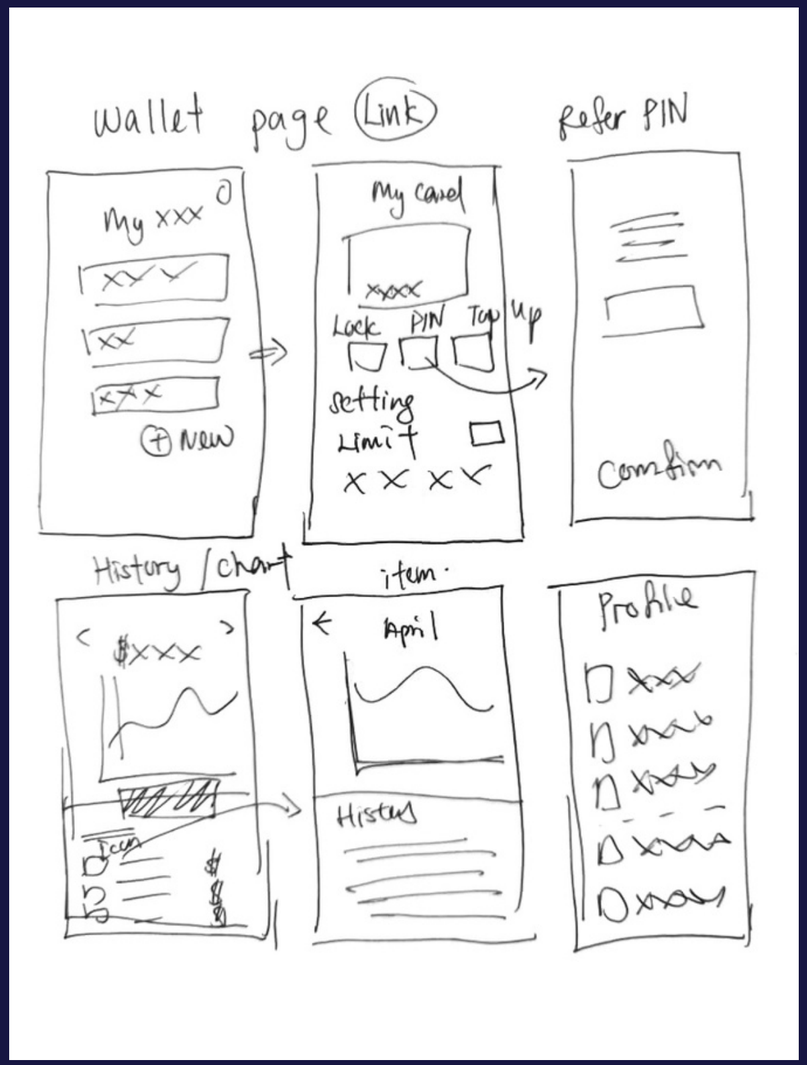
BUILDING THE PROTOTYPE



LOW FIDELITY PROTOTYPE

SKETCH DESIGN





MID FIDELITY PROTOTYPE

BASED ON THE INSIGHTS FROM THE LOW FIDELITY PROTOTYPE, I WENT ON TO CREATE A MID FIDELITY PROTOTYPE USING FIGMA.

THE MID FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3OLOGTL

THE OVERVIEW AND SUMMARY PAGES HAVE

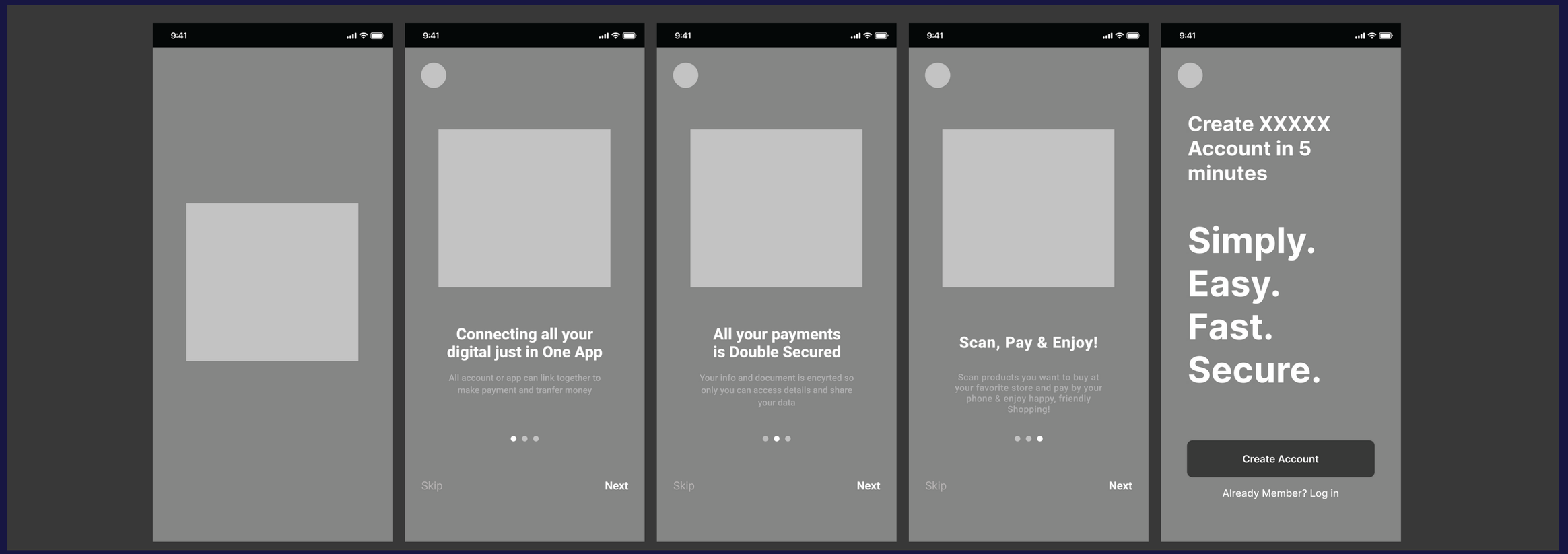
- Landing Page
- Sign Up and Sign In (Secure)
- Wallet Page (Link Account)
- QR SCAN PAGE
- SCAN ITEM PAGE (SHOPPING)
- SAVING GOAL PAGE
- TRANSFER PAGE

MID FIDELITY PROTOTYPE

WIREFRAME DESIGN

THE MID FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3OLOGTL

Landing Page

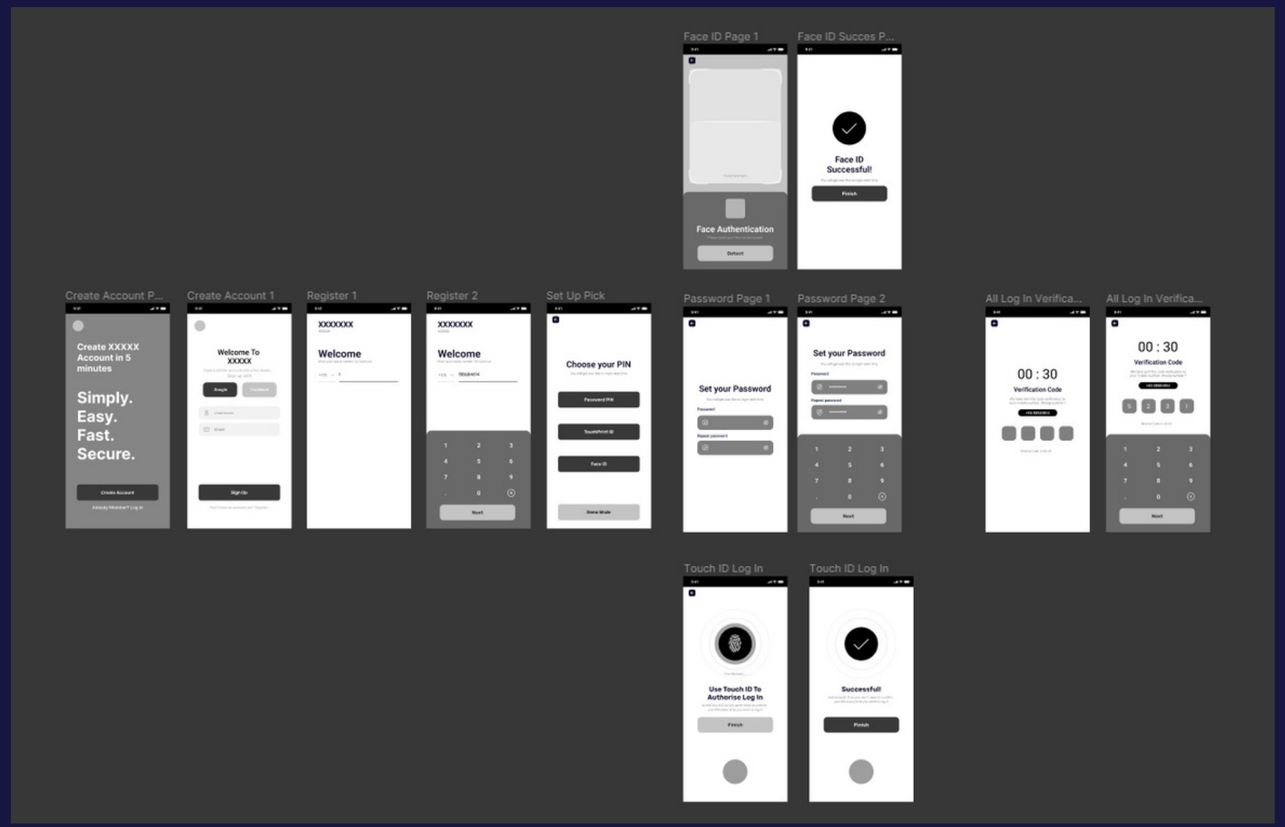


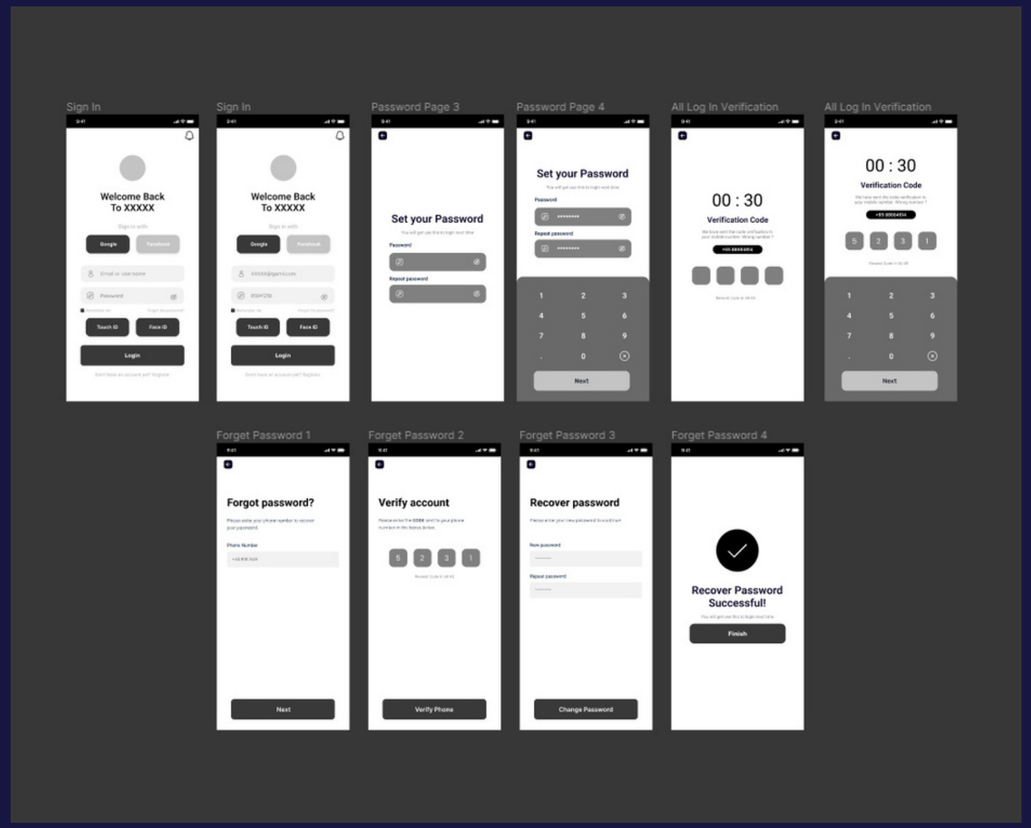
MID FIDELITY PROTOTYPE

WIREFRAME DESIGN

THE MID FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3OLOGTL

Sign Up and Sign In Page (Secure for Password, Face ID, Touch ID, Forgget Password and Verification)



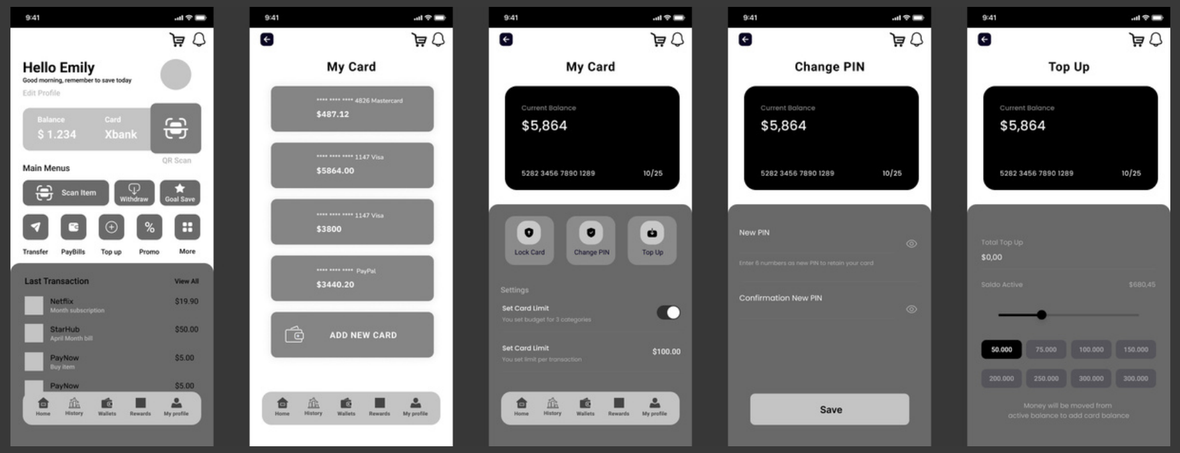


MID FIDELITY PROTOTYPE

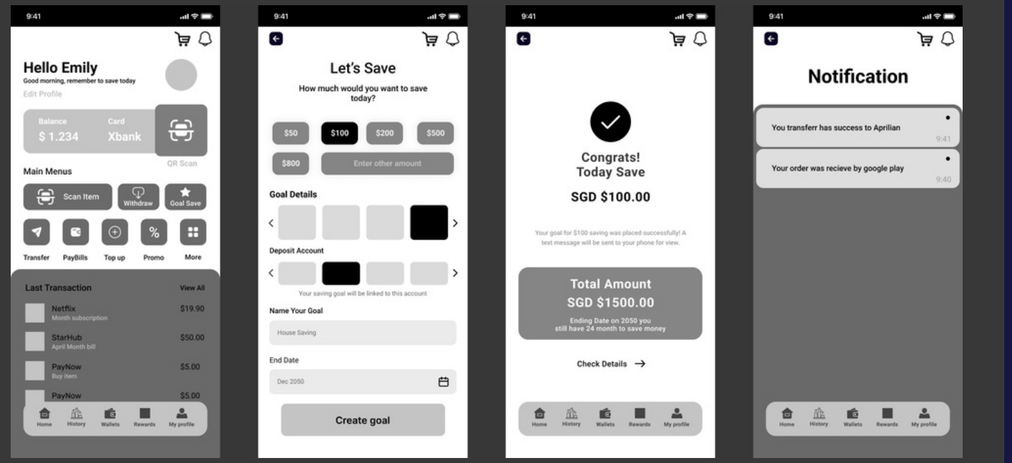
WIREFRAME DESIGN

THE MID FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3OLOGTL

Wallet Page (Link Account / Card / Apps)



Saving Goal Page



MID FIDELITY PROTOTYPE

WIREFRAME DESIGN

THE MID FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3OLOGTL

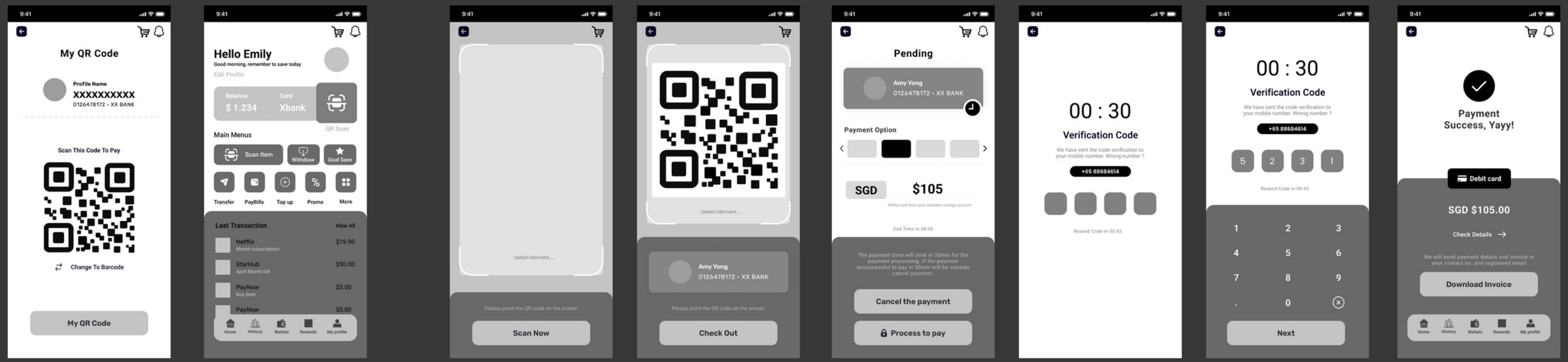
Scan Item Page (Shopping)

MID FIDELITY PROTOTYPE

WIREFRAME DESIGN

THE MID FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3OLOGTL

QR Scan Page

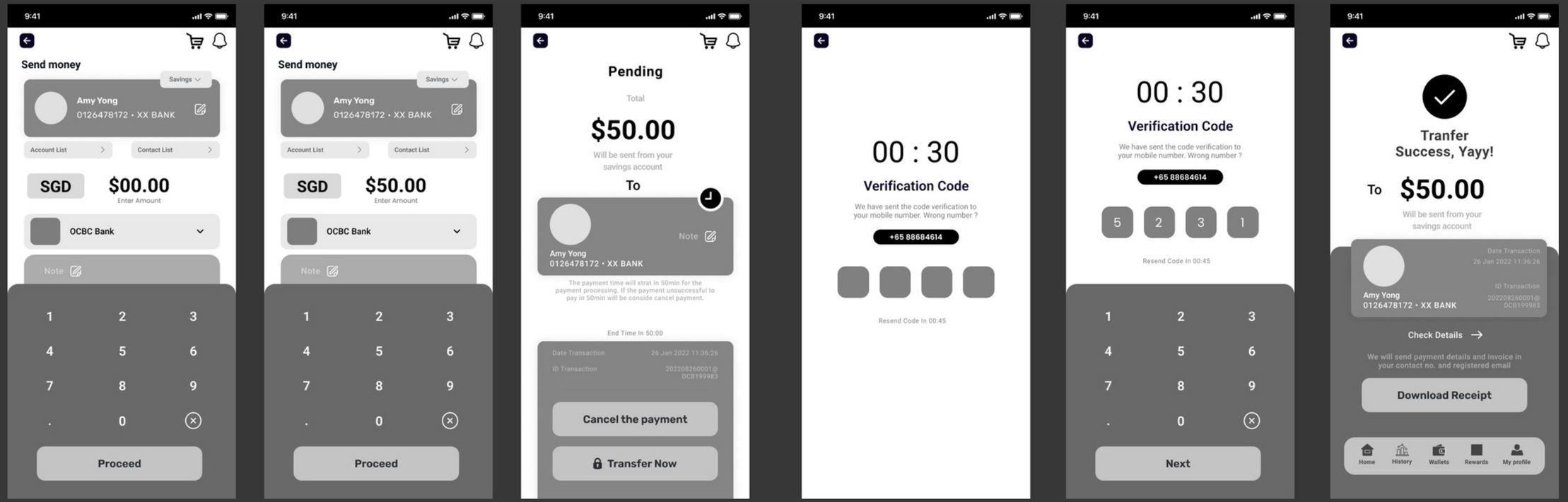


MID FIDELITY PROTOTYPE

WIREFRAME DESIGN

THE MID FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3OLOGTL

Transfer Page



USABILITY TESTING

By connecting my Mid Fidelity Project in Figma to form a basic prototype, I conducted a preliminary round of user testing to gather some first thoughts from 2 users via remote testing on Zoom.
I prepared a script consisting of 5 tasks and questions to gauge the usability and intuitiveness of the prototype’s User Interface.

FEEDBACK

WHAT THEY LIKE

Some of the feedback I received when on Zoom Class and some for the ordina as follows:

- They like the QR and the Scan Item page is great and useful when it just scan and pay it.
- The Register area is good and detail for the new use. It also have different type for login not just for 1 option to do it.

WHAT CAN BE IMPROVED

- Users would like to be able to set multiple goal on one page or can make scroll down page more easy to see different goal saving.
- Can make some promo / reward daily / fun mini game for the app

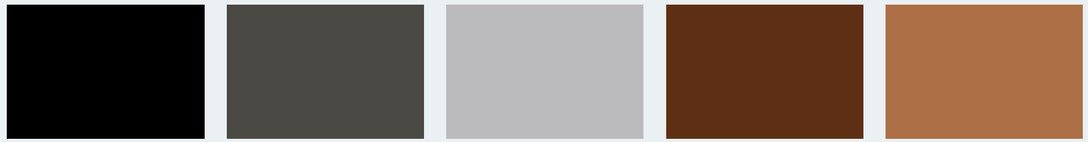
MOOD BOARD DESIGN

SELECTED

OPTION 01
PASTEL MOODBOARD

OPTION 02
GEOMETRIC MOODBOARD

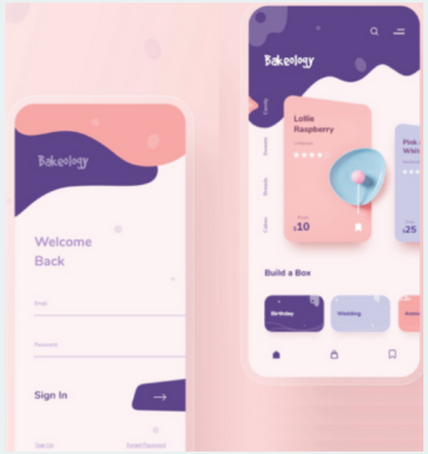
OPTION 03
DARKER MOODBOARD



01

PASTEL MOOD BOARD

The style guide on the right are the 1st Option to choose which suitable of the UI Design in my High Fidelity Prototype Project.

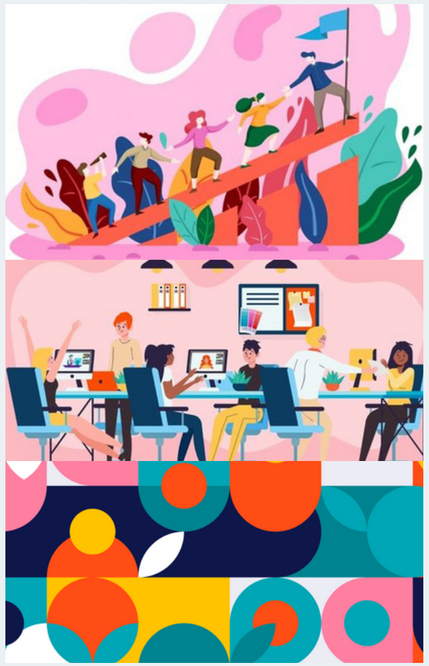


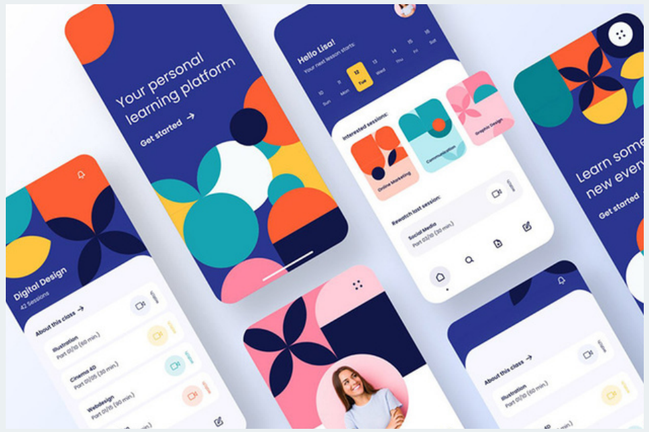
SELECTED

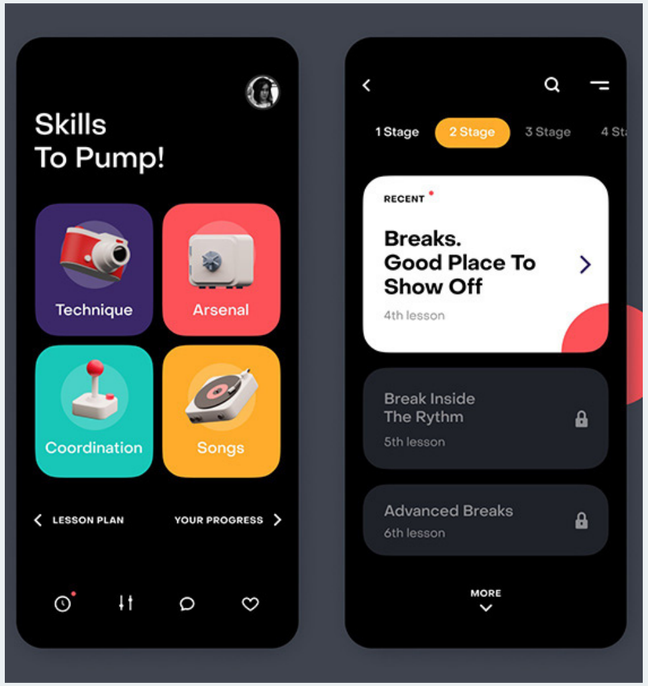
02

GEOMETRIC MOOD BOARD

The style guide on the right are the 2nd Option to choose which suitable of the UI Design in my High Fidelity Prototype Project.



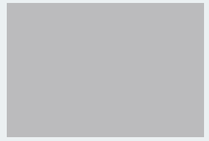




03

DARKER MOOD BOARD

The style guide on the right are the 3rd Option to choose which suitable of the UI Design in my High Fidelity Prototype Project.



USER INTERFACE DESIGN

MINI STYLE GUIDE

Logo Design

Logo Name

- SMARTCONNECT
- EDIGITAL
- WELLET-E
- GODIGITAL
- GOCONNECT SELECTED
- PAYSMART

Logos Alternative

GOCONNECT → GO.CONNECT DIGITAL SMART PAY

Final Version

Landscape Version

Portrait Version

USER INTERFACE DESIGN

MINI STYLE GUIDE

Typeface

Design & Colours

Typeface

Ag

Roboto Family

ABCDEFGHIJKLMNOPQ
RSTUVWXYZ

abcdefghijklmnopqrstuv
wxyz

1234567890

Regular - Medium - Bold - SemiBold - ExtraBold

Ag

Rubik SemiBold

ABCDEFGHIJKLMNOP
QRSTUVWXYZ

abcdefghijklmnopqrst
uvwxyz

1234567890

Colour

#171642

#e7514a

#f6a029

#00afbf

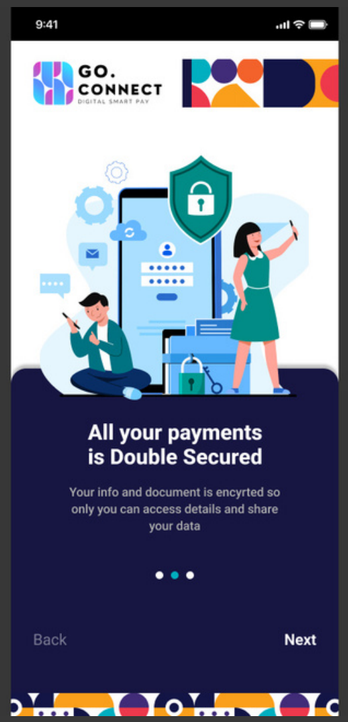
#412f82

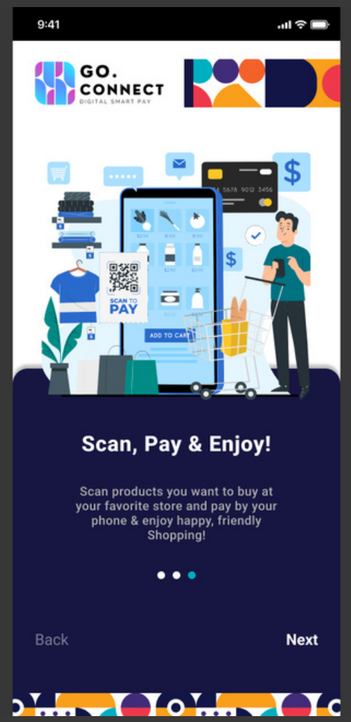
HIGH FIDELITY PROTOTYPE

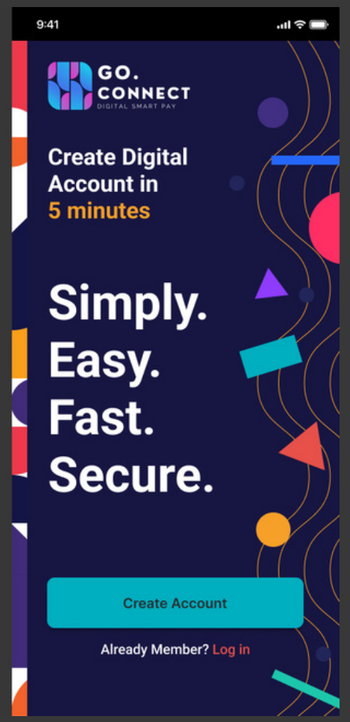
FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Landing Page





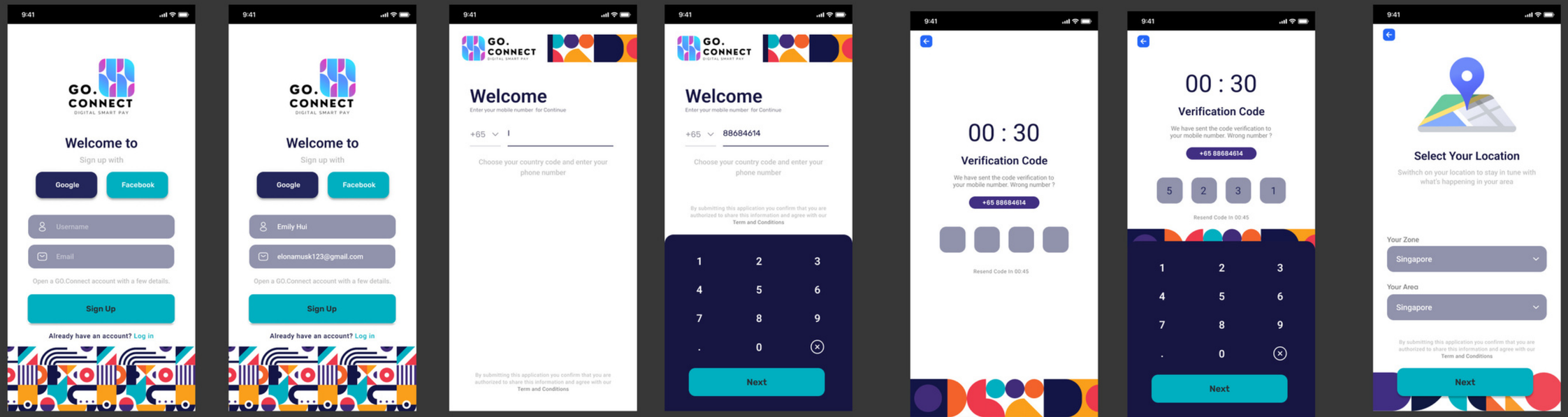


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Sign Up and Sign In Page 1 (Secure for Password, Face ID, Touch ID, Forgget Password and Verification)

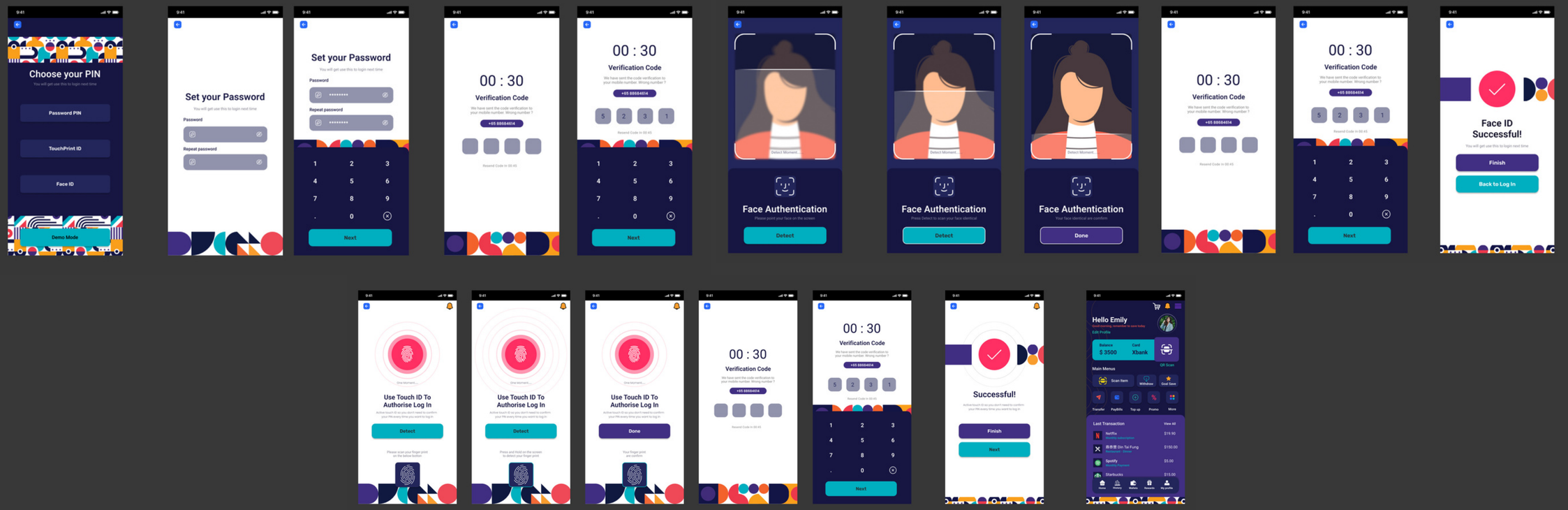


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Sign Up and Sign In Page 2 (Secure for Password, Face ID, Touch ID, Forgget Password and Verification)

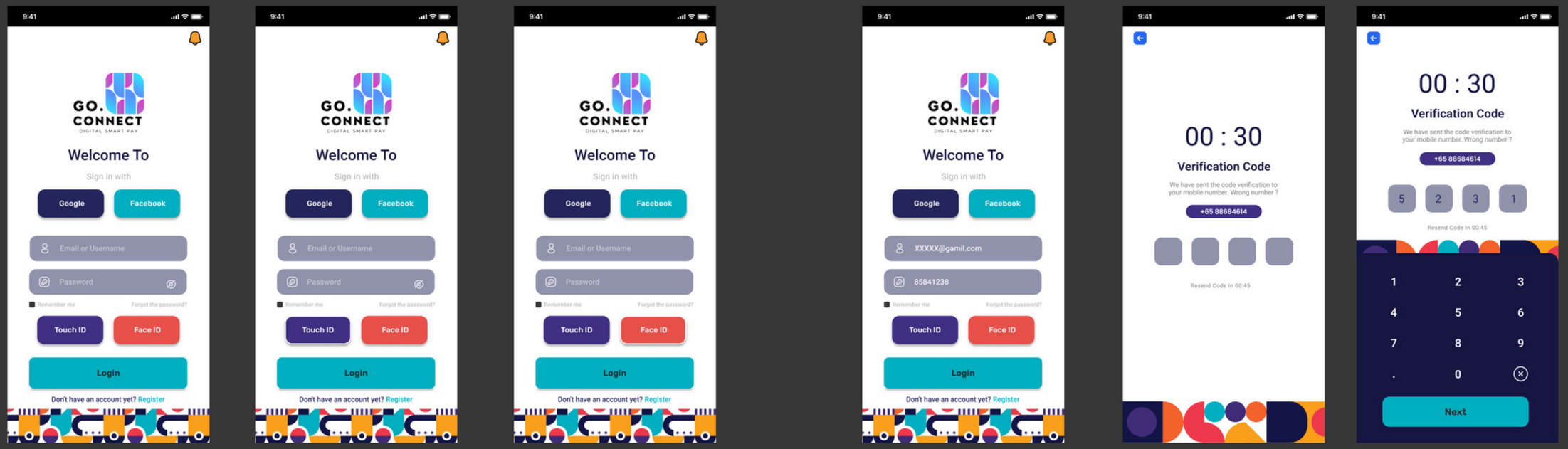


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Sign Up and Sign In Page 3 (Secure for Password, Face ID, Touch ID, Forgget Password and Verification)

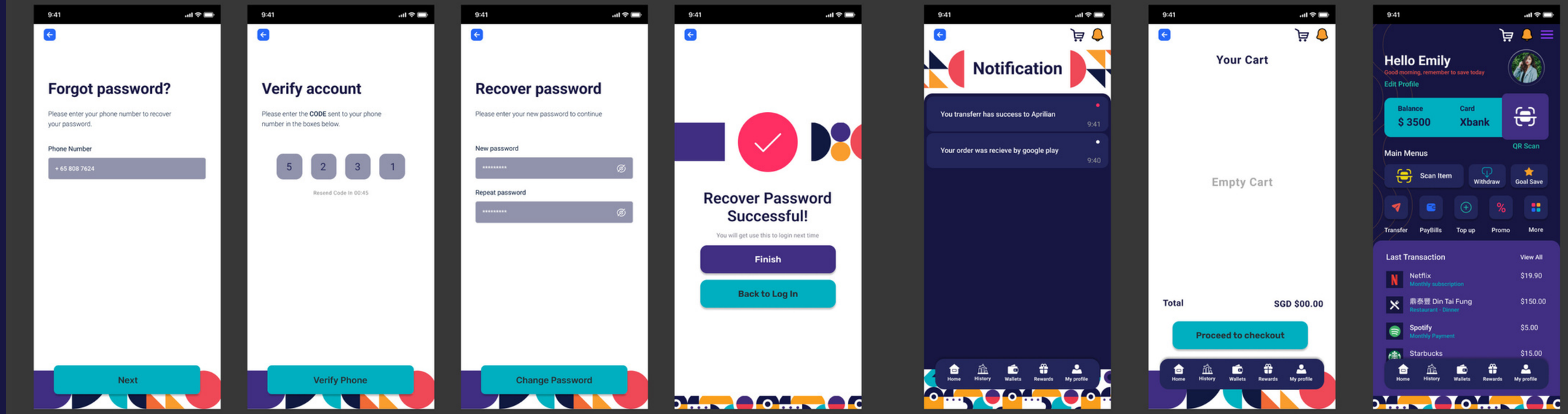


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Sign Up and Sign In Page 4 (Secure for Password, Face ID, Touch ID, Forgget Password and Verification)

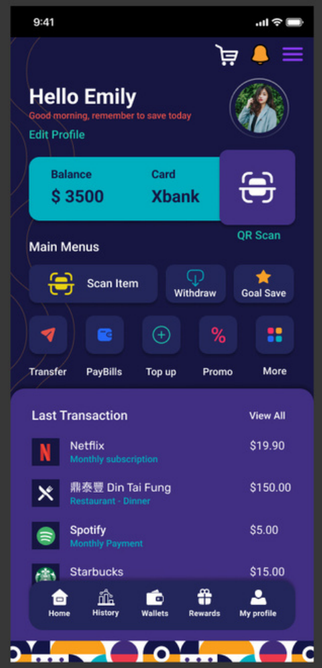


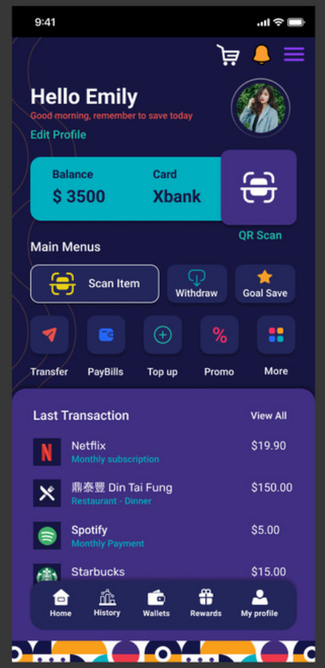
HIGH FIDELITY PROTOTYPE

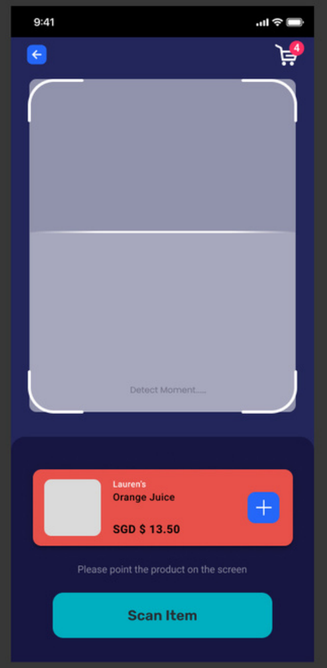
FINAL DESIGN

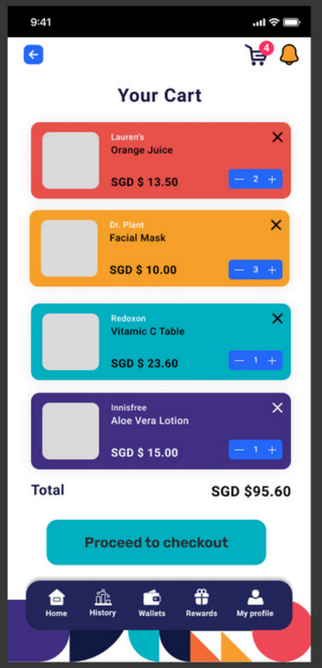
THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Scan Item Page 1 (Shopping)







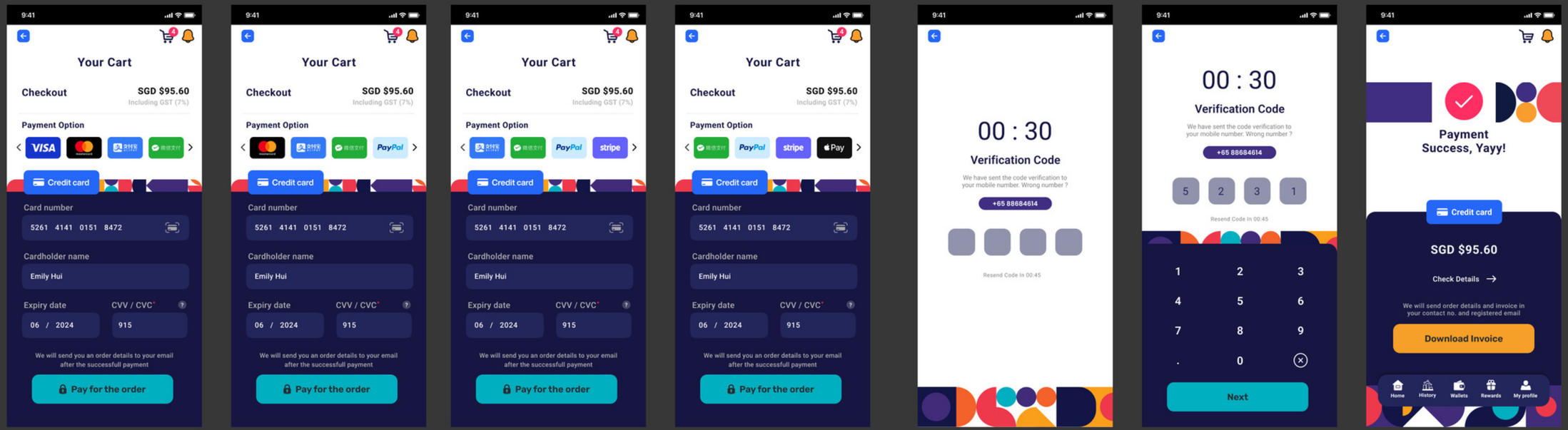


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Scan Item Page 2 (Shopping)

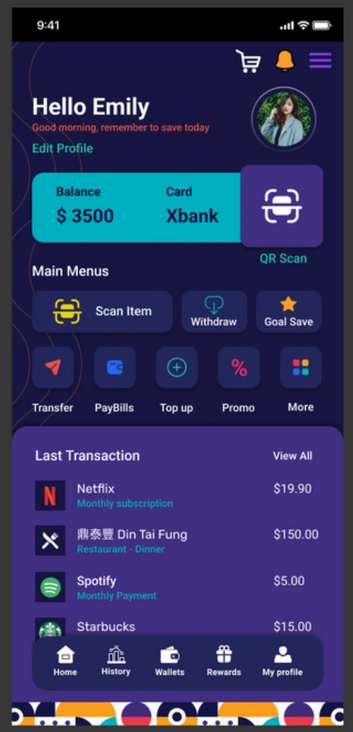


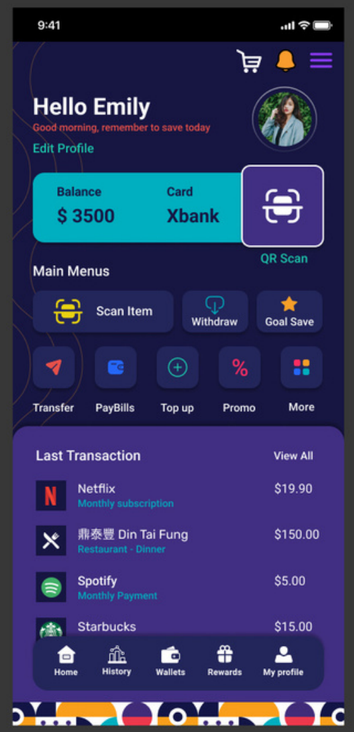
HIGH FIDELITY PROTOTYPE

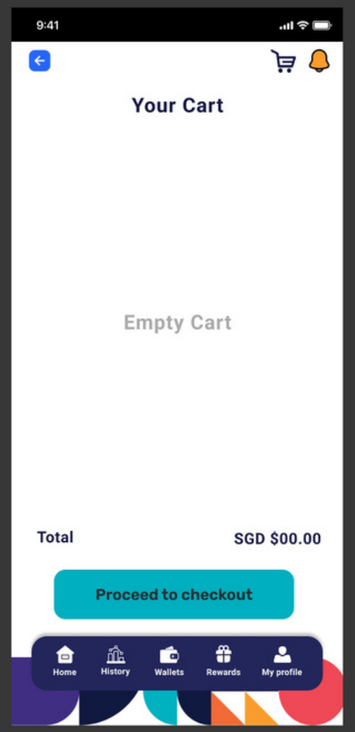
FINAL DESIGN

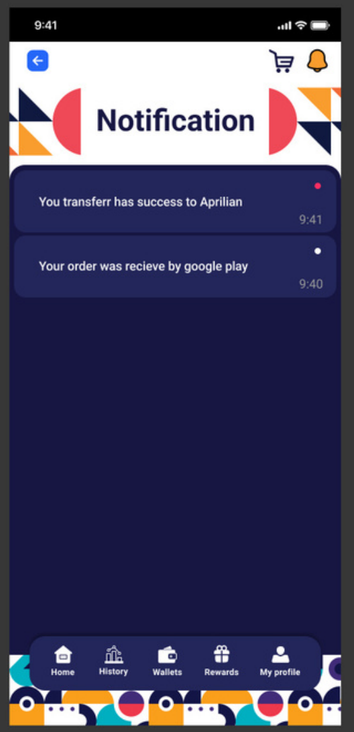
THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

QR Scan Page 1







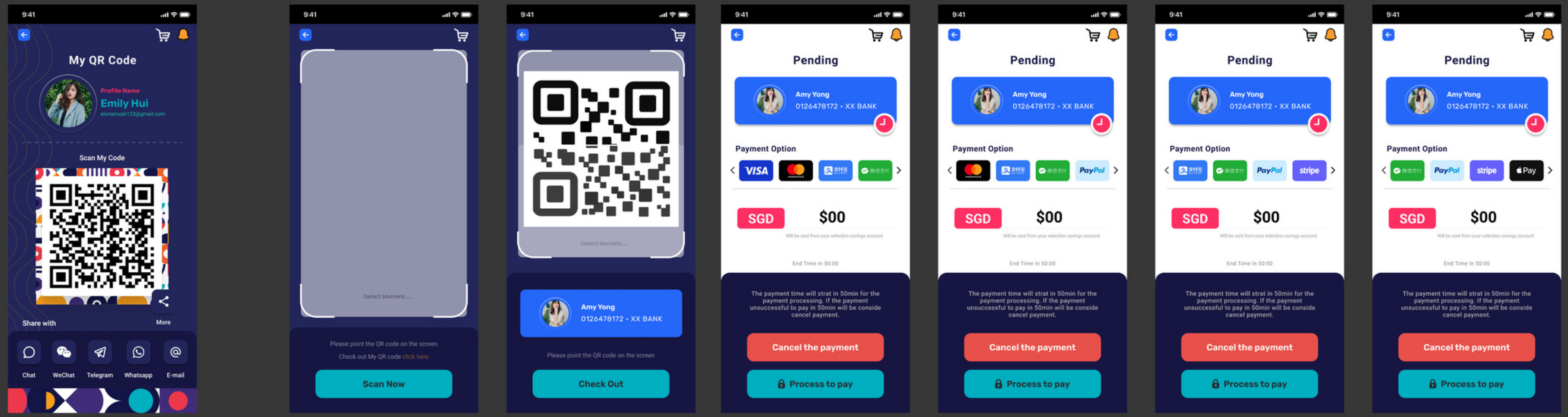


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

QR Scan Page 2

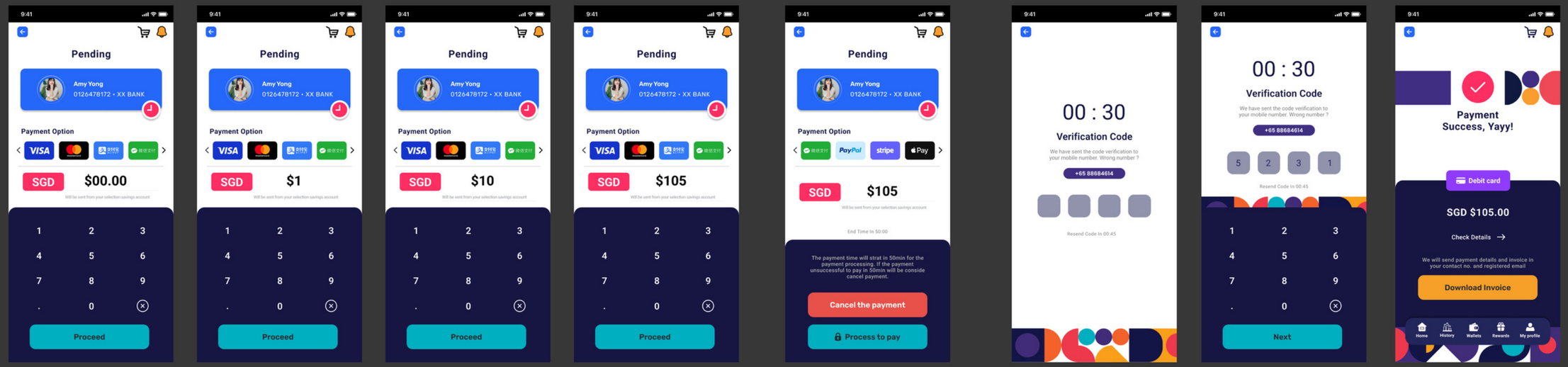


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

QR Scan Page 3

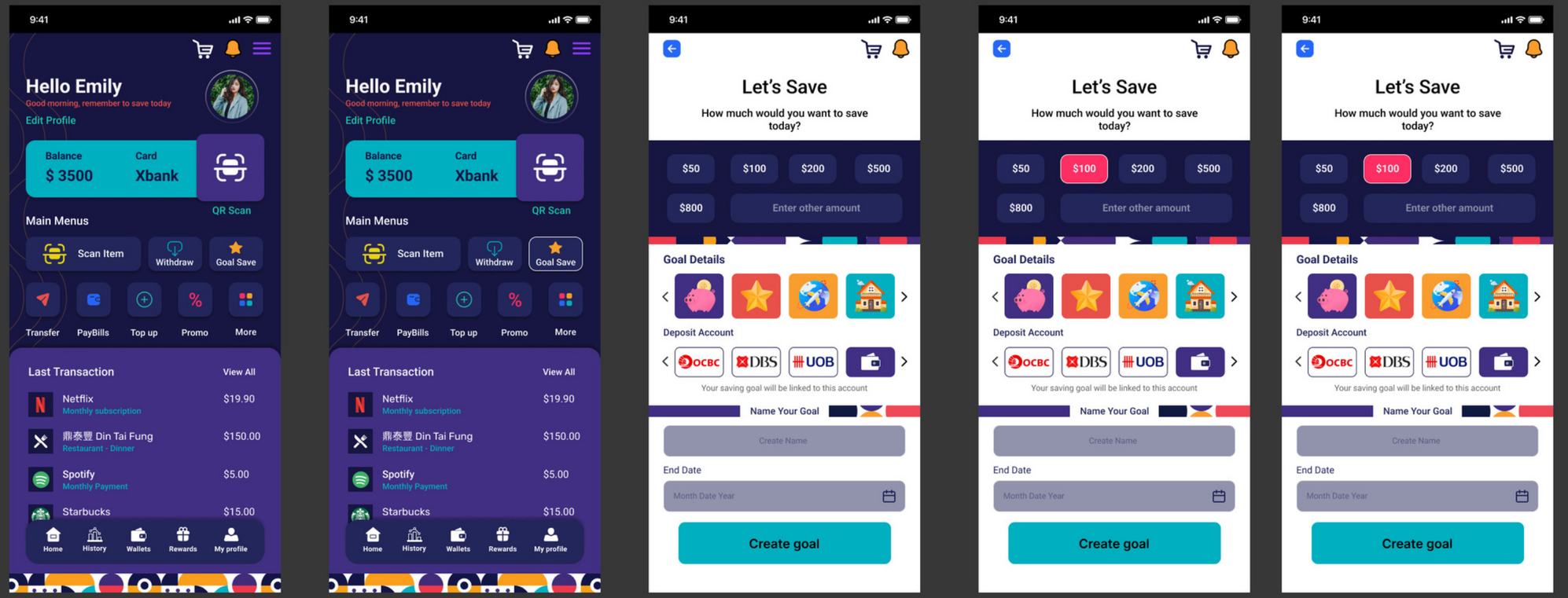


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Saving Goal Page 1

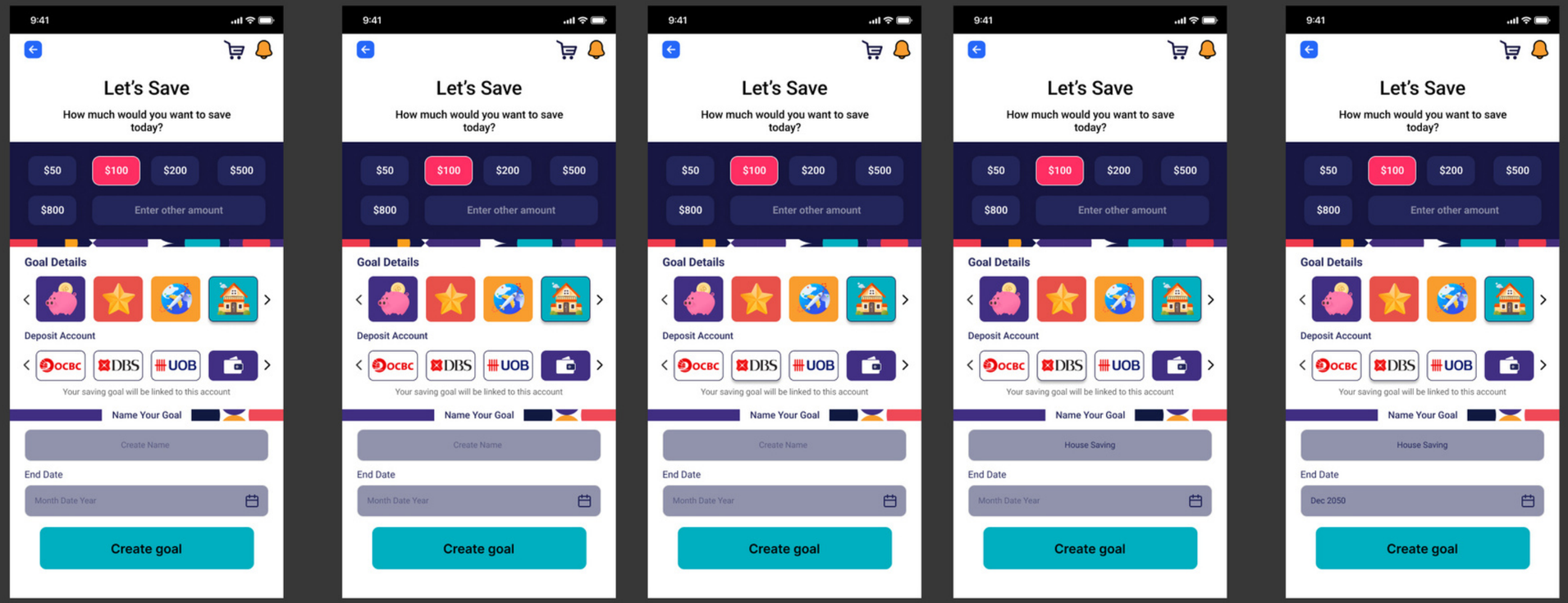


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Saving Goal Page 2

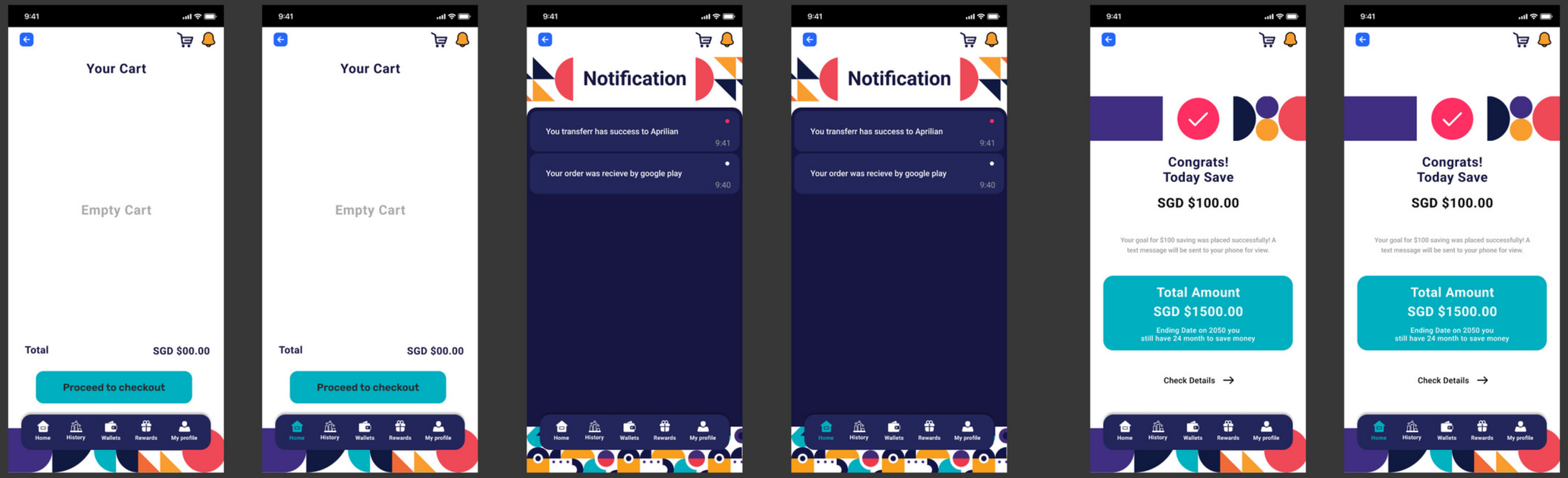


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Saving Goal Page 3

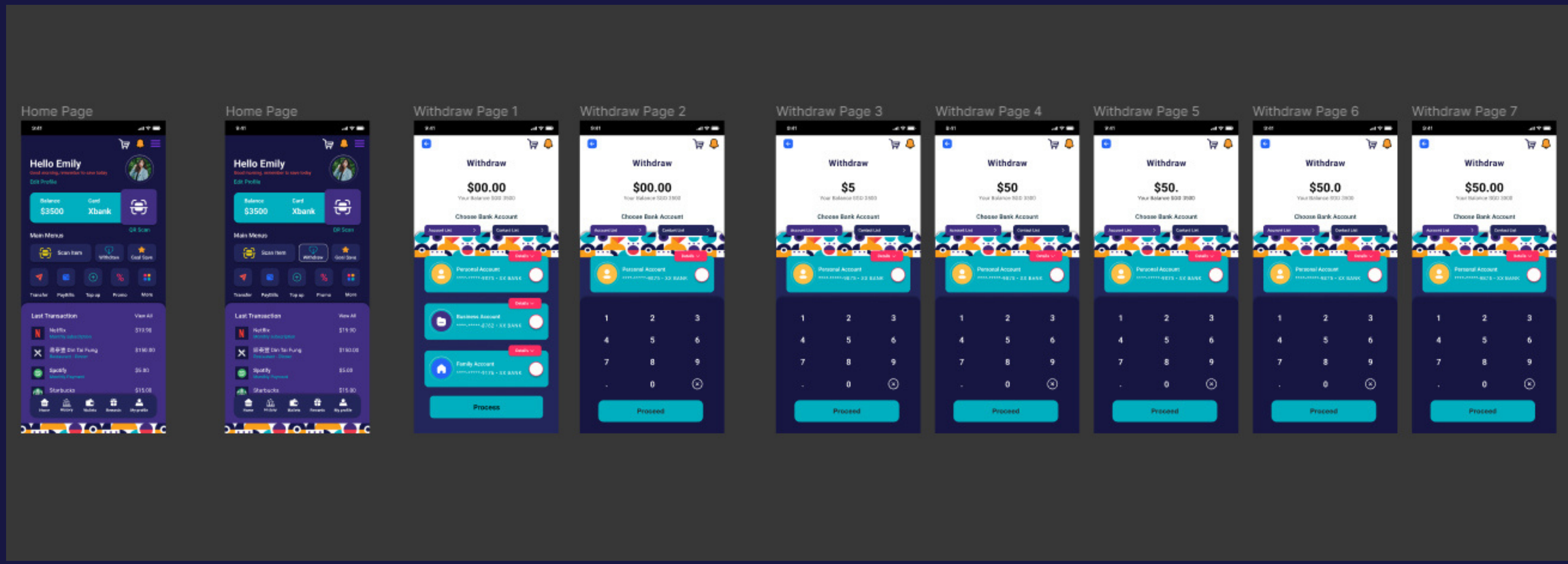


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Withdraw Page 1

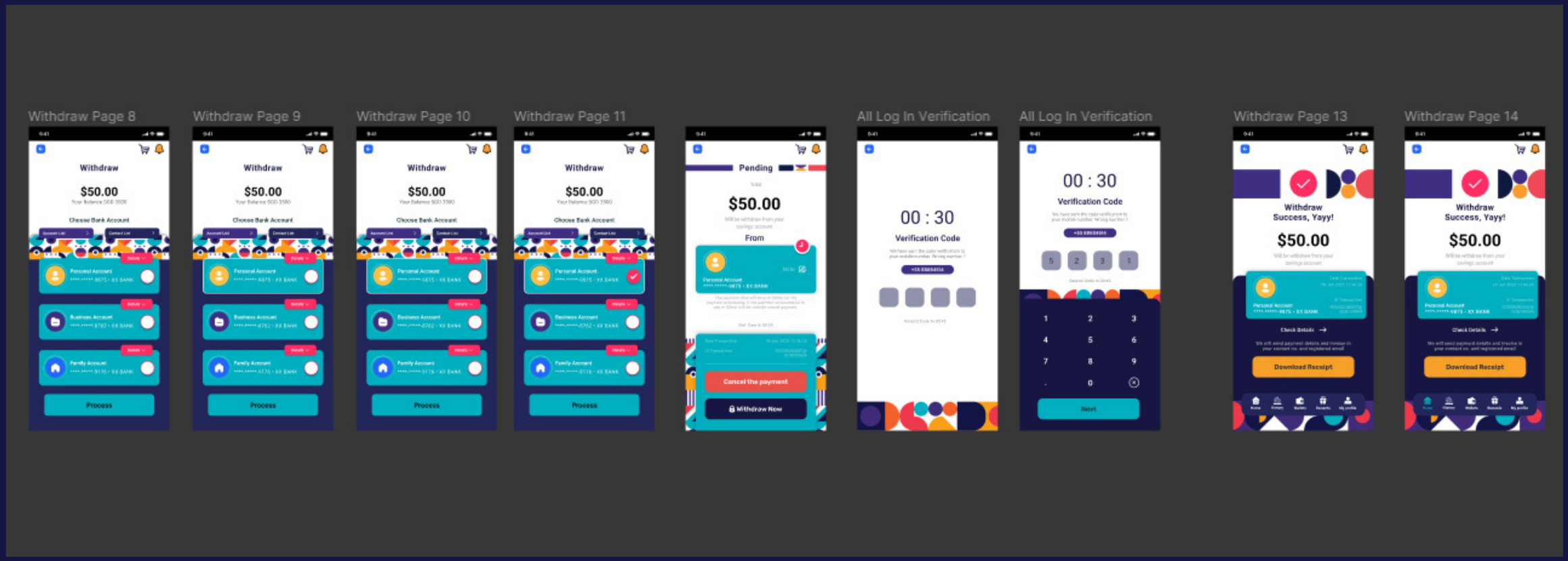


HIGH FIDELITY PROTOTYPE

FINAL DESIGN

THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Withdraw Page 1



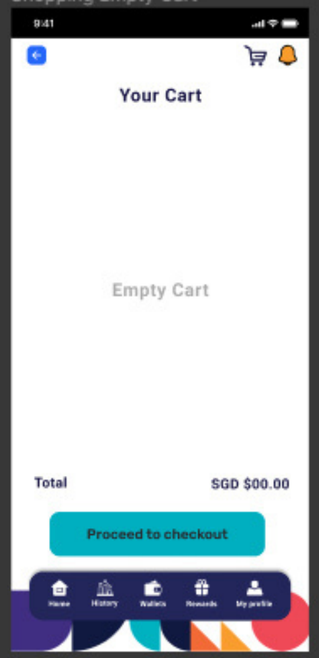
HIGH FIDELITY PROTOTYPE

FINAL DESIGN

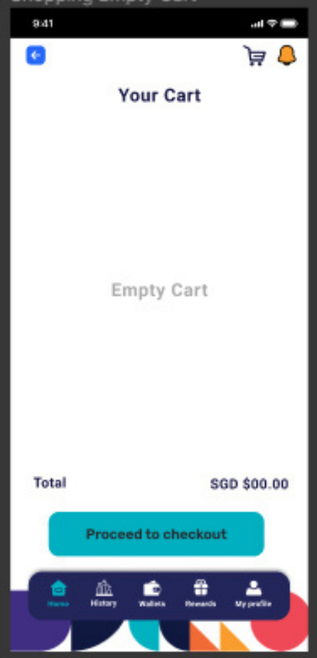
THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Withdraw Page 1

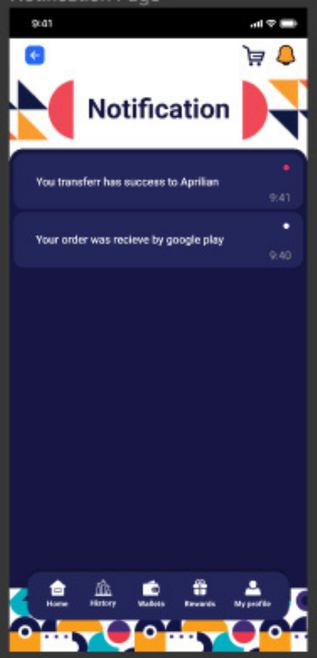
Shopping Empty Cart



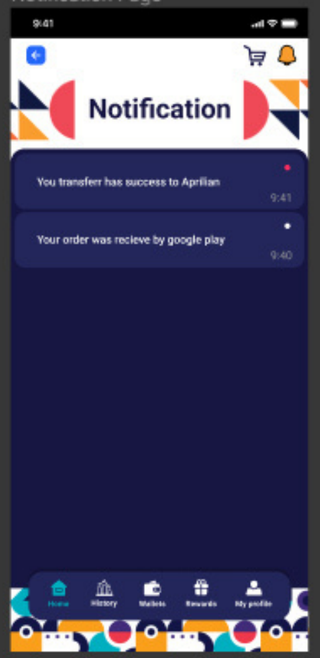
Shopping Empty Cart



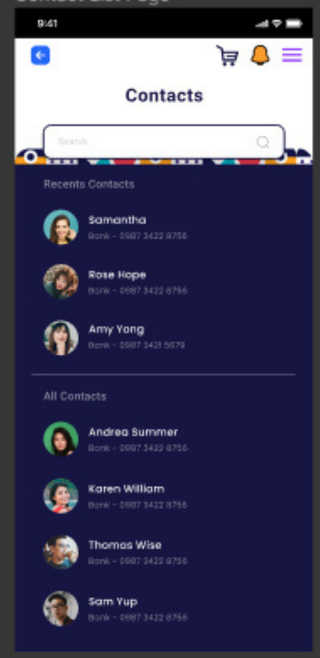
Notification Page



Notification Page



Contact List Page



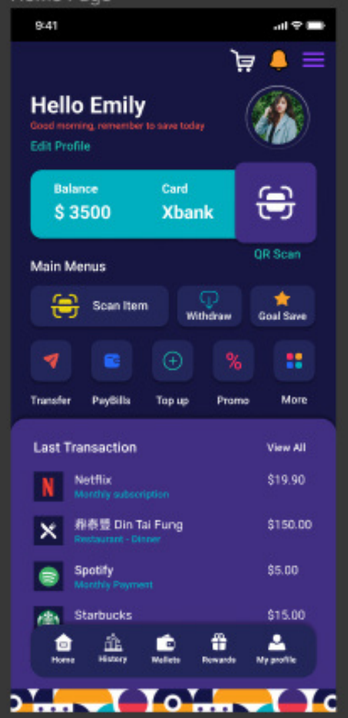
HIGH FIDELITY PROTOTYPE

FINAL DESIGN

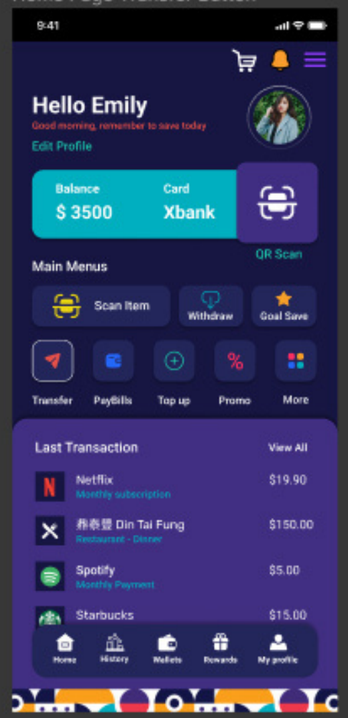
THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Transfer Page 1

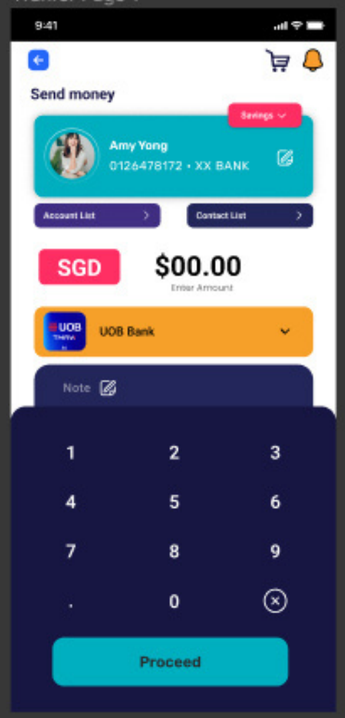
Home Page



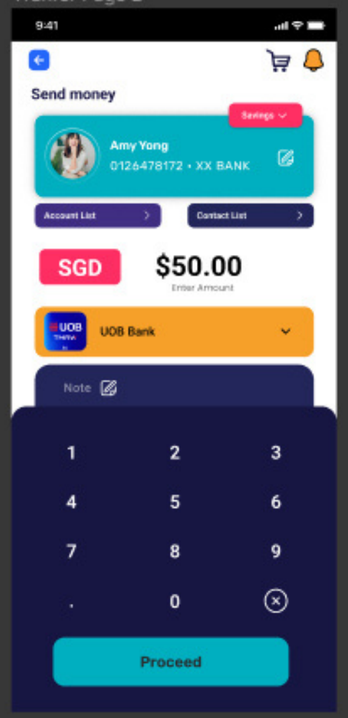
Home Page Transfer Button



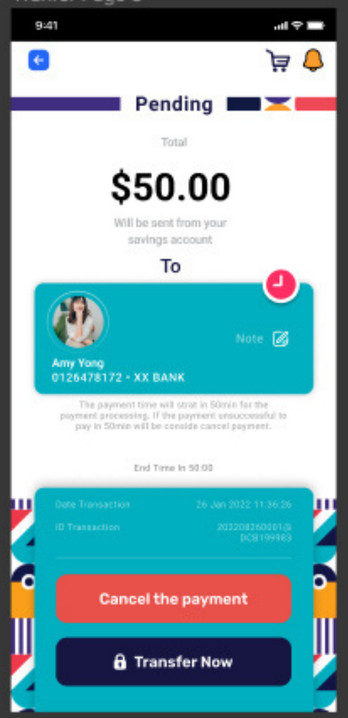
Tranfer Page 1



Tranfer Page 2



Tranfer Page 3



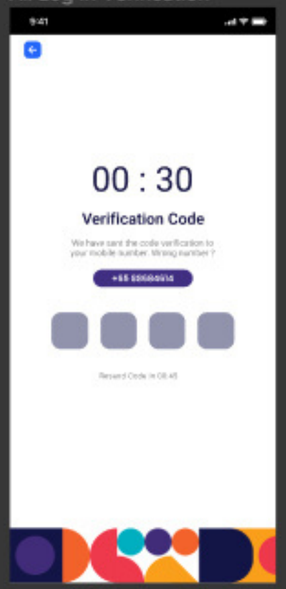
HIGH FIDELITY PROTOTYPE

FINAL DESIGN

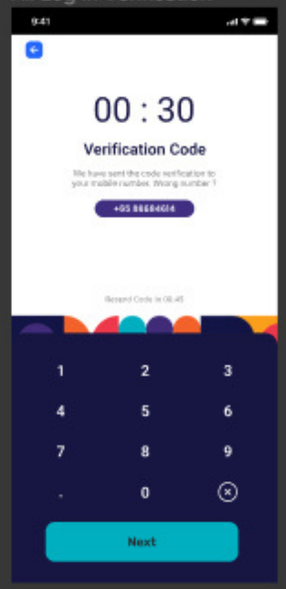
THE HIGH FIDELITY PROTOTYPE LINK : HTTPS://BIT.LY/3P8PR55

Transfer Page 2

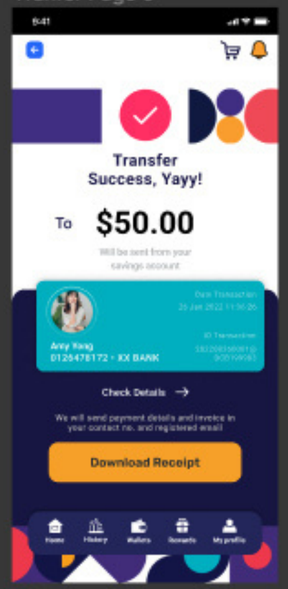
All Log In Verification



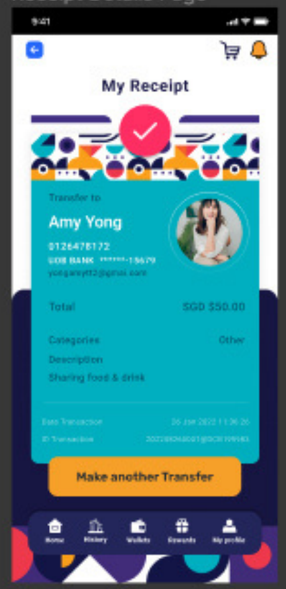
All Log In Verification



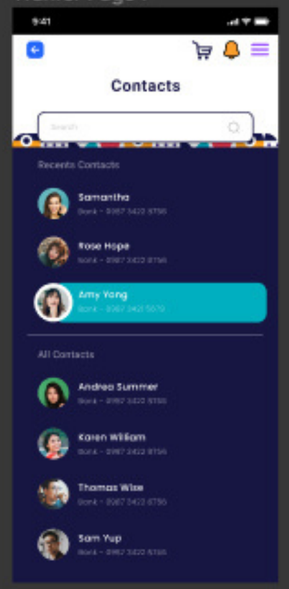
Tranfer Page 6



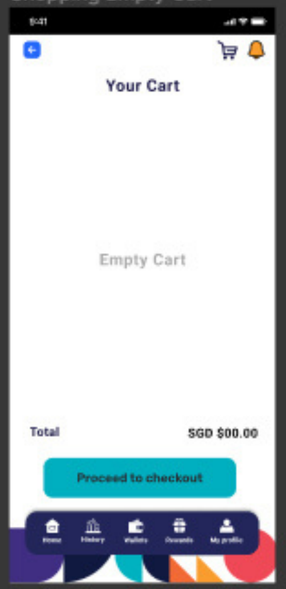
Receipt Details Page



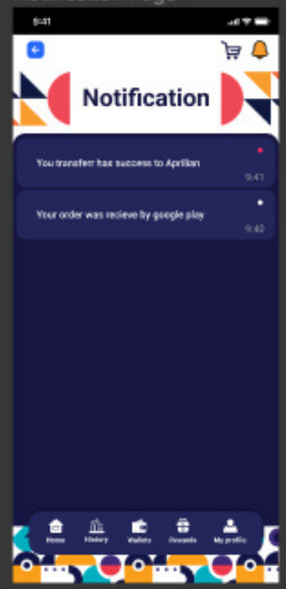
Tranfer Page 7



Shopping Empty Cart



Notification Page



05 REFLECTION

KEY TAKEAWAYS

1. CLEAR MOSCOW DEFINITION

Defining what are the main features is important to address the needs first before adding on the good to haves and want.

2. USERABILITY TESTING

Collecting feedback in the final stages while designing the prototype would be great to fine or tune the product for the last the final prototype stage

3. BUILDING PROTOTYPE IN FIGMA

Important to build sketch/wireframe with all the layers on Figma to understand users needed for product design. However, I do think it provides an accurate user flow and look & feel of the tool.

Interesting & Improved
Using Mira, HWM and User Flow

KEY TAKEAWAYS

PERSONAL REFLECTIONS FOR THE PROJECT

In this course I have learnt and explore about the UX part, define, ideate and how to make a prototype for a viable product. I also have learned some UI/UX tools such as Miro, Trello, UXPressia and Figma. These skills are extremely useful to work for my future UX/UI Project.

The whole process learning from ideation to creation went well, as it was something I truly enjoyed. It allowed me to get a lot of feedback that helped with improving my prototype.

My challenges is on interview part, it hard to me need to interview someone to get information for users or a product. Another issue resulted from my lacking part of research and financial knowledge, which caused me to take a while to start do my topic/my project. Some time need focus on to understand the working process, will leading me to a slow start in the project. Hope can improve and exploring more on my interview techniques for both research and testing in the project.

Interesting & Improved

Using Figma and Prototype Design

THANKS YOU!

ANY QUESTIONS?

You can find me at

hello@goconnectdigital.com

CREDITS

TOOLS & RESOURCES

Special thanks to all the people who made and released these awesome resources for free.

Tools

Miro / UXPressia / Figma / AI / PS

Presentation Design

Canva

Resources Images & Vector

Unsplash / Flaticon / Freepik