

Piggy Bank



WNM 606: User Experience Design
Summer 2021

Tianqi Huo

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Research Plan

Background

According to the Clever's COVID-19 Financial Impact Series, 61% of Americans will run out of emergency savings by the end of 2021. Many people have faced major financial struggles. It's time to review finances and make a goal for saving money. Reducing expenses is key to building an emergency fund, and the first step is deciding the amount of money that can be reasonably afforded to save every month. Saving from now in order to have a secured financial future is vitally important.

Goals

Let individuals realize the importance of saving money, learn the difficulties which hinder them to stay on budget and help them to reach their goals of saving money.

Research Questions

- ❖ Why do people think it is important to save money?
- ❖ What are the benefits to have emergency fund?
- ❖ Do people usually spend on things they don't really need?
- ❖ What disturbs people to save money?
- ❖ What are the good ways to control the desire of spending unnecessary money?
- ❖ What do people find enjoyable and frustrated when they control the spend?

Methodology

- ❖ Customer Interviews
- ❖ User Survey

Participants

I'm going to interview the individuals between 18-40 years old, who aware the importance of saving money, willing to take action to change their habit of using money. Desiring to stay on budget and reach their goal of saving money step by step, as well as having plan of rebuilding their fund and wish to set themselves up for long term financial success.

Script

Beginning:

Thank you for your time to have a meeting with me. Today we will talk about the habit of staying on budget and saving money. It will help me to have a deeper understanding of if people are willing to save money and stay on budget. This meeting will last for half an hour to one hour. If you want to leave, please let me know we can end it anytime you want. Your answer is really important to me, so I want to ask your permission to record today's meeting and I promise I won't use it for any purpose other than my web design class assignment. Please feel free to explain your thinking anytime you want and take it easy to answer my questions. Are there any questions before we start? Let's start.

Questions:

1. Please simply introduce yourself. (Age, marriage, occupation, income, hobbies)
2. How do you manage your money? Do you think it's hard? Why?
3. Have you ever overspent? How does it affect your life?
4. Do you buy things you don't really need? Do you want to make change on it?
5. Have you tried to control the desire to spend unnecessary money? Does it work?
6. When do you notice that you have to save money? What does it mean to you?
7. Do you have a specific plan or goal to stay on budget and save money?
8. What are the enjoyable things to stay on budget?
9. What encourages you to keep doing it and what are benefits to stay on budgets?
10. What are the hardest things to stay on budget and what most discourages you to insist on it?
11. Have you ever or are you using an app to help you to persist on stay on budgets? How often do you use it?
12. Do you want to start using one? If no, why do you think you don't need it?
13. What do you like about the app you are using? What makes you feel convenient?
14. What do you dislike about the app? What annoys you most?
15. Does the app help you to achieve your target? If yes what's the crucial factor do you think?
16. What do you think it lack of about the app you are using and what function do you want it to contain to make you feel easier?
17. Do you want the warning or alert function of the app? How often do you want it to happen?

Conclusion:

Thank you so much for conducting this meeting with me! Your answers were great, and they helped a lot. I will use the answer you provided to continue researching on the Piggy Bank App project. Before we finish, do you have any other questions or anything you want to add? Contact me any time if you have questions. Have a good day!

Schedule

The Interviews will be conducted at each time list below via in person and video call.

Keita Katsumi.....Jun. 25th at 7:00 pm. (In Person)
Yuki Zhang.....Jun. 26th at 9:30 am. (Video Call)
Zoe Zhao.....Jun. 26th at 8:00 pm. (Video Call)
Mandy ConteJun. 27th at 2:30 pm. (Video Call)

Empathy Research

User Interview Quotes

The participants below answered the 18 user interview questions. Some of their thought exceeded and even subverted my expectations, which were quite helpful for this project. I picked 4 most explanatory quotes from the each participant.



Keita Katsumi

Overspending give me pressure mentally since I have to be independent and manage my money well. The enjoyable thing of staying on budget is the satisfaction of reach my goal.



Mandy Conte

The benefit of staying on budget is first, I will have a plan on my money. Second, if the unexpected emergency happens, this is kind of a bump or help me to survive without getting in trouble or being in an awkward situation.



Yuki Zhang

We have to have something like a secure. If something happens, we shall have saving which makes us can still survive.



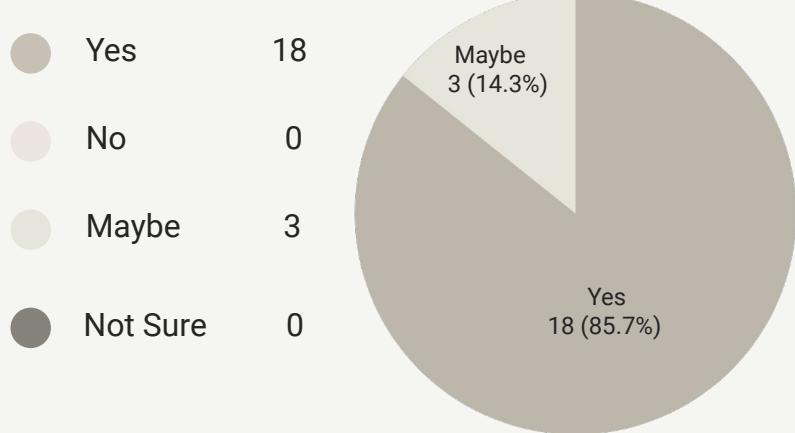
Zoe Zhao

I think recording expense is a good way to control the eager of buying unnecessary things. Once you clear about what you spend on most then you will notice, and you don't overbuy things.

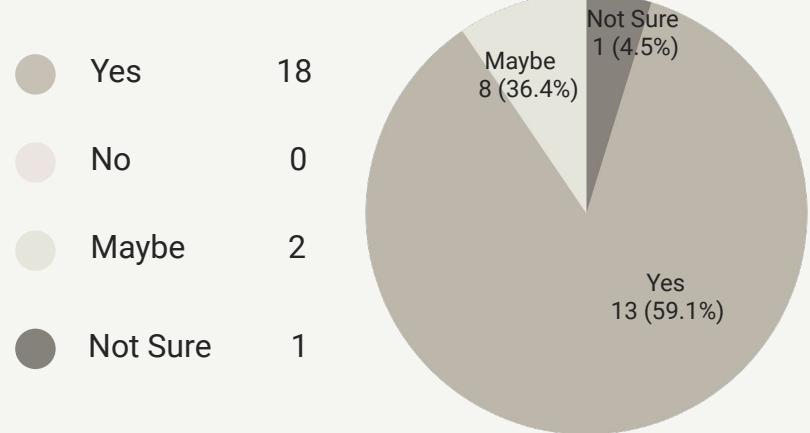
User Survey Results

I created a 9 questions survey about understanding how people think of staying on budget and saving money. There were 21 people took this survey. I pulled out 4 most revealing questions with data below.

- ❖ Do you think recording expense can help you to stay on budget?



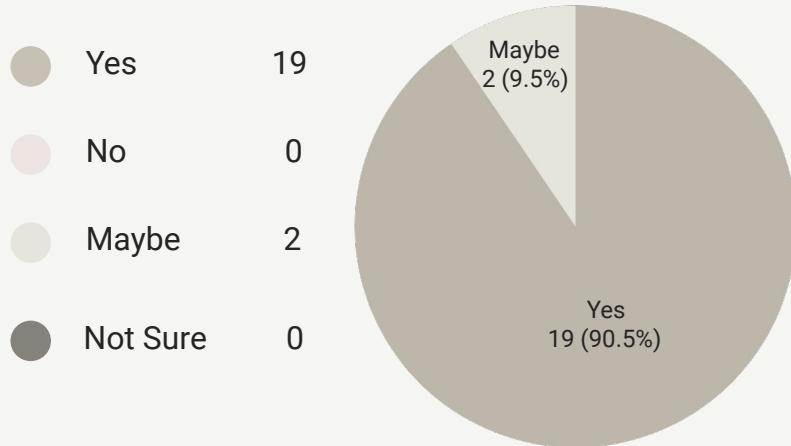
- ❖ Do you think knowing how much you spend every month/year on different living expenses is important?



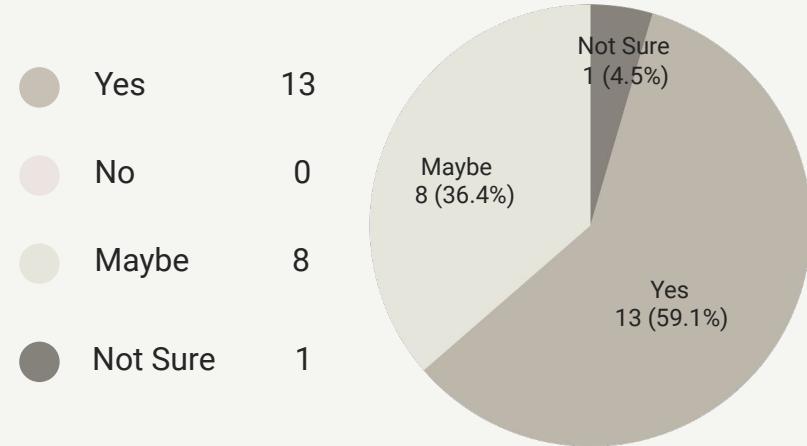
User Survey Results

The result of this survey is quite positive. According to the data, most of people think that it is important to have savings, and recording expense & income as well as make a budget plan will help them to save money.

- ❖ Do you think setting a budget plan and stay on it will help you to save money?



- ❖ Do you think using an application to record expense & income would be convenient?



Persona



Being organized, staying on budget and saving money in a regular basis make life secure and vivid.

—Jamie Lau

PERSONALITY



Optimistic



Passionate



Detailed

ABOUT

Jamie Lau is a graduate student, majoring in statistics at California State of University, who loves organize her life and manage the money. In her spares she loves clean up her apartment to see if there are anything she doesn't use so that she can sell online or donate. She wishes that she can get a well paid job after graduate and have a good amount of saving to be independent.

AGE	26
OCCUPATION	Student
INCOME	20K
STATUS	Single
LOCATION	Los Angeles

FRUSTRATIONS

- ❖ She always overspends but doesn't know why it happens .
- ❖ She has to buy a new computer but doesn't have enough saving.
- ❖ She has no idea how to make budget plan to save money.

NEEDS

- ❖ She needs to know how much she spend and what she overspends on every month.
- ❖ She needs to set budget plan and stay on it every month.
- ❖ She needs to buy a new computer.

CURRENT FEELINGS

Stressed

Concerned

Busy

SOCIAL MEDIA ACTIVITY



Feature Matrix

VALUE TO USERS

● Money Note

● Pennyworth

● Shark pioneer

HIGH

EASY WINS

Do these things!

- ● ● Compare and view in one page
- ● Reminder and alerts
- ● Set goals
- Repeat same amount every month
- ● Report Chart
- ● ● View expense in calendar form
- ● Check accomplished goals
- Color choice
- Camera function

EXPENSIVE, HIGH VALUE

Margin is costly. If you only have features here, MVP it.

- ● ● Paid premium upgrade option
- ● Paid ad remove option
- ● ● Output data
- ● Search data
- Connect with bank account
- ● ● Icloud backup
- ● Connect with Dropbox

LOW COST, LOW VALUE

Foundations go here:
user management,
etc.

- ● ● Search bar
- ● ● Navigation list
- ● ● Input new expense and income
- ● Notes and detail section
- ● ● Edit function
- Sign in with email or facebook
- ● Add category

EXPENSIVE, LOW VALUE

Avoid this sector.

- ● Decorated Design
- Inside game
- Voice record
- ● Advertisement

LOW

LOW

HIGH

DIFFICULTY / COST TO IMPLEMENT

Heuristic Review

Pennyworth

The image shows the Pennyworth app page on the App Store. The top section features the app's logo (an orange square with a white money bag icon), the title "Pennyworth Expense Tracker...", a subtitle "Budget and track spending", a "OPEN" button, and a download count of "48K RATINGS". Below this are user statistics: "4.5" stars, "4+" years old, "#107" in the Finance category, and developer "Jac". The "What's New" section indicates "Version 3.9.15" released "3w ago" with "* Minor bug fixes". The "Version History" section is partially visible.

The main interface consists of two side-by-side screens. The left screen displays a pie chart showing spending distribution by category: House (44.9%), Food (21.09%), Daily ne (7.6%), Clothes (7.29%), and Car (6.25%). Below the chart are summary statistics: "Total: 1,920" and "Average: 62". The right screen shows a calendar for January 2020 with a yellow dot on the 14th labeled "Today". Below the calendar is a transaction history table:

#	Category	Amount	Ratio
1	House	862	44.9%
2	Food	405	21.09%
3	Daily ne	146	7.6%
4	Clothes	140	7.29%
5	Car	120	6.25%

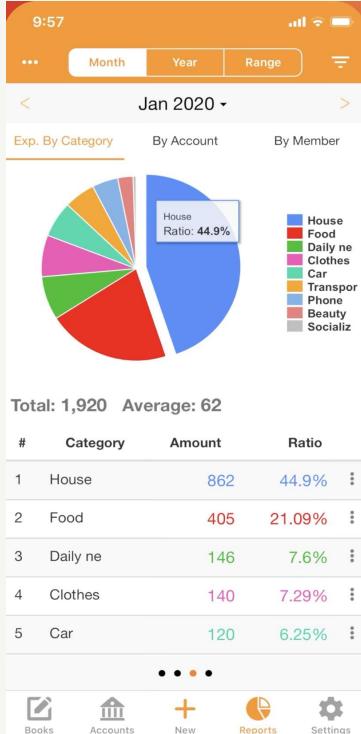
At the bottom of the right screen are navigation icons for Books, Accounts, New, Reports, and Settings.

About Pennyworth

Penny worth designed for the users who want to track their expense and stay on budget. It is free to download, and it has 4.5 stars and 48K of ratings on App Store.

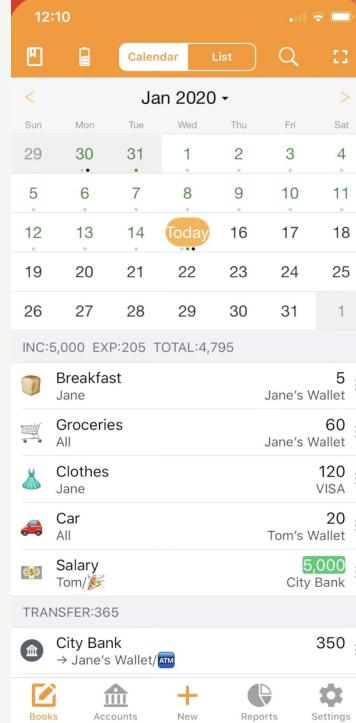
It presents a simple but powerful personal finance app design to help the users keep control of their spending and budget money.

Pennyworth



Visibility of system status

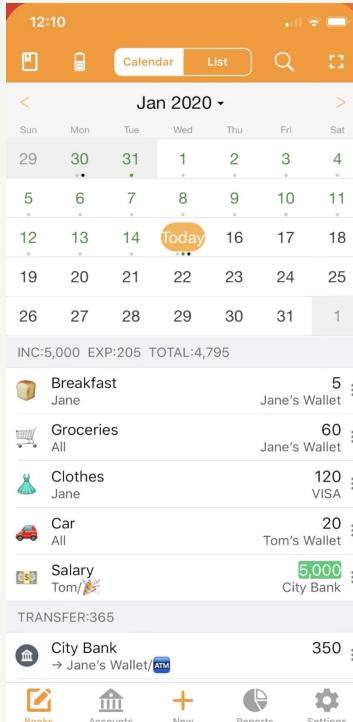
It has a simple and intuitive user interface which allow users to see the reports visually. It make users really clear on what's going on and they know their expense on different categories at a glance.



Recognition rather than recall

The home screen is kind of crowd. But the menu laids at the bottom which is easy to navigate. And the small coordinating illustrates are simple and easy to understand, which make users to find what they want to access efficiently.

Pennyworth



User control and freedom

User can record expenses, take notes, and take photos. It allows users to search the expense and income. Also users can choose the icons and pick colors they like, as well as their favourite theme.

The screenshot shows the theme selection screen. The title is "Theme". It displays eight color swatches arranged in two columns:

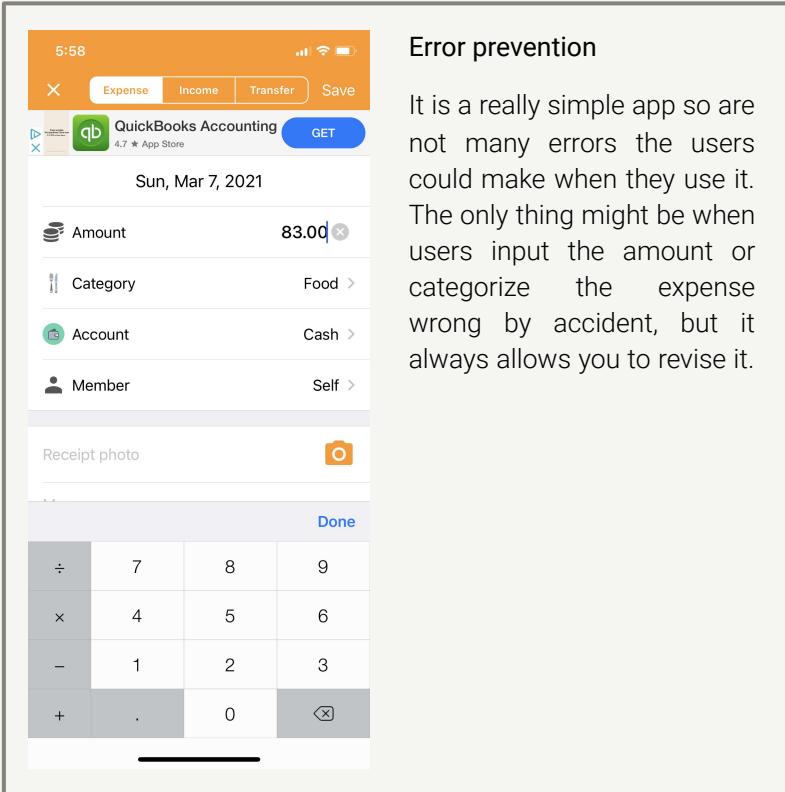
Color Name	Color Swatch
Default	Orange
Lime	Light Green
Green	Medium Green
Mint	Teal
Sky Blue	Light Blue
Blue	Dark Blue
Navy Blue	Dark Grey
Pink	Light Pink
Red Pink	Dark Red
Black	Black

At the bottom, there's a decorative footer with a green background featuring small flowers and butterflies, and five icons: AccountBook, Receipts, Accounts, Reports, and Setting.

Aesthetic and minimalist design

This app is showing the idea of minimalist design. The base color is only one color, but users still can choose the theme they prefer. The icons are simple grey, which doesn't make users feel busy and tired.

Pennyworth



Error prevention

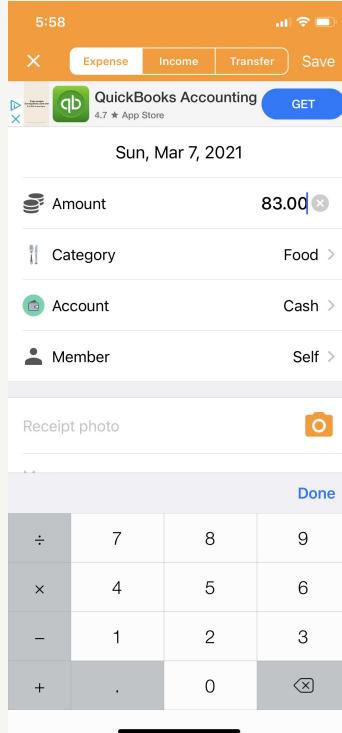
It is a really simple app so are not many errors the users could make when they use it. The only thing might be when users input the amount or categorize the expense wrong by accident, but it always allows you to revise it.



Help and documentation

The help button located in settings which provides Feedback, FAQ and About. I don't think the users want to see it all the time because it is a quite simple and user friendly app.

Pennyworth

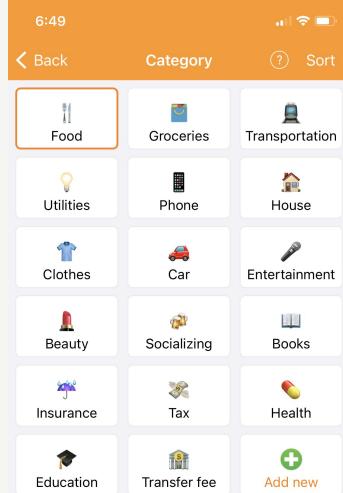


Error prevention

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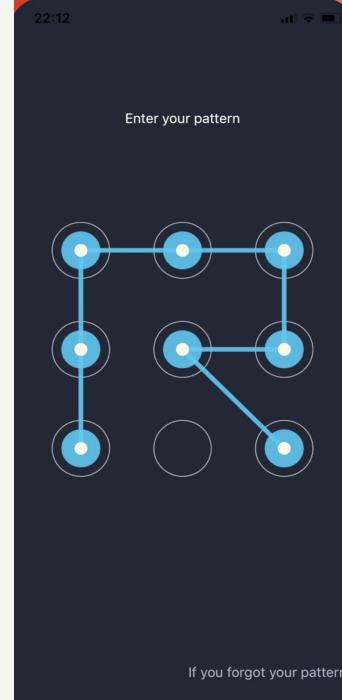
The screenshot shows the Pennyworth settings menu. The title 'Settings' is at the top. The menu includes options like 'Amount Keyboard', 'Language', 'Siri Shortcuts', 'DATA', 'iCloud Backup', 'Export CSV', 'Reset', 'Send Data To Developer', 'SHARE', 'Rate App', 'Share', 'HELP', 'Feedback', 'FAQ', and 'About'. At the bottom, there are five icons: 'Books' (document), 'Accounts' (bank), 'New' (plus sign), 'Reports' (chart), and 'Settings' (gear). A note on the right side of the screen states: 'The help button located in settings which provides Feedback, FAQ and About. I don't think the users want to see it all the time because it is a quite simple and user friendly app.'

Pennyworth



Consistency and standards

The platform in this app is consistent. We can find the coherence by looking at the icons and they make sense. Furthermore, users can customize the different categories by clicking Add new.



Help users recognize, diagnose, and recover from errors

This app provides Enter your pattern to make user's information safe. And even the users forget the pattern, there is a "If you forgot your pattern" to help us and recover from errors.

Brainstorming

Input Record 1

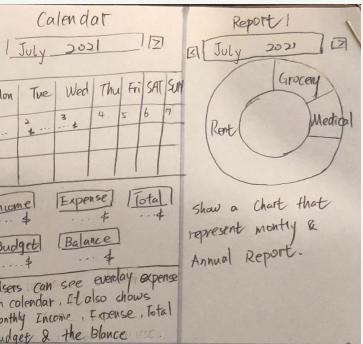
Expense	<input type="checkbox"/>
Date	<input type="text"/> [Date]
Note	<input type="text"/> Note
Expense:	<input type="text"/> \$
Account - Debit Card	<input type="checkbox"/>
Category:	<input type="checkbox"/> Foodon <input type="checkbox"/> clothes <input type="checkbox"/> Rent

Allow users to input daily expense, date, notes and categorize them detailly.

Input Record 2

Income	<input type="checkbox"/>
Date	<input type="text"/> [Date]
Note	<input type="text"/> Note
Income	<input type="text"/> \$
Account - Credit Card	<input type="checkbox"/>
Category:	<input type="checkbox"/> Salary <input type="checkbox"/> Side job <input type="checkbox"/> Investment

Allow Users to input daily Income, date, notes & Categorize them in different source.



Edit Category 1

Allow users to set their favorite color & icons for different categories of Income & Expense

Edit Category 2

Bank: <input type="text"/> BOA <input type="checkbox"/> Delete
<input type="text"/> Wells Fargo <input type="checkbox"/> Delete
Cash:
Platform: <input type="text"/> Venmo <input type="checkbox"/> Delete
<input type="text"/> Zelle <input type="checkbox"/> Delete
<input type="text"/> PayPal <input type="checkbox"/>
<input type="checkbox"/> Add <input type="checkbox"/> New...

Allow Users to categorize the Expense & Income by cash, card or platforms

Budget Set

13 July 2021 [2/3]

Bud: 2000	\$
Exp: 1800	\$
Left: 200	\$

Allow Users to check all category or uncheck categories they don't want to be calculated.

Alert! You still have \$200 left This month! Encourage users to set monthly budget. Provide chart & alert.

Receipt photo

List

<input checked="" type="checkbox"/> Egg	4.00\$
<input checked="" type="checkbox"/> milk	3.00\$
<input type="checkbox"/> lemon	1.00\$
<input type="checkbox"/> banana	0.50\$

Provide a shop list to allow users to memorize what they brought & will buy more detailly.

Share

<input checked="" type="checkbox"/> Husband
<input checked="" type="checkbox"/> Son
<input type="checkbox"/> Daughter

Users can share their record with family members

Report 2

Congratulations!
You Stared on Budget!

Praise users if they stay on budget.

Report 3

Expense Rank

Rent	40%	\$
food	30%	\$
clothes	10%	\$
Entertainments	10%	\$

Total Badge = 4

You get a Badge! Congratulations!
Well Done This Year!

Users gain a badge if they stay on budget.

Award 1

You got a upgrade Badge!

Award 2

You got a badge!

Currency

Base Currency: US Dollar

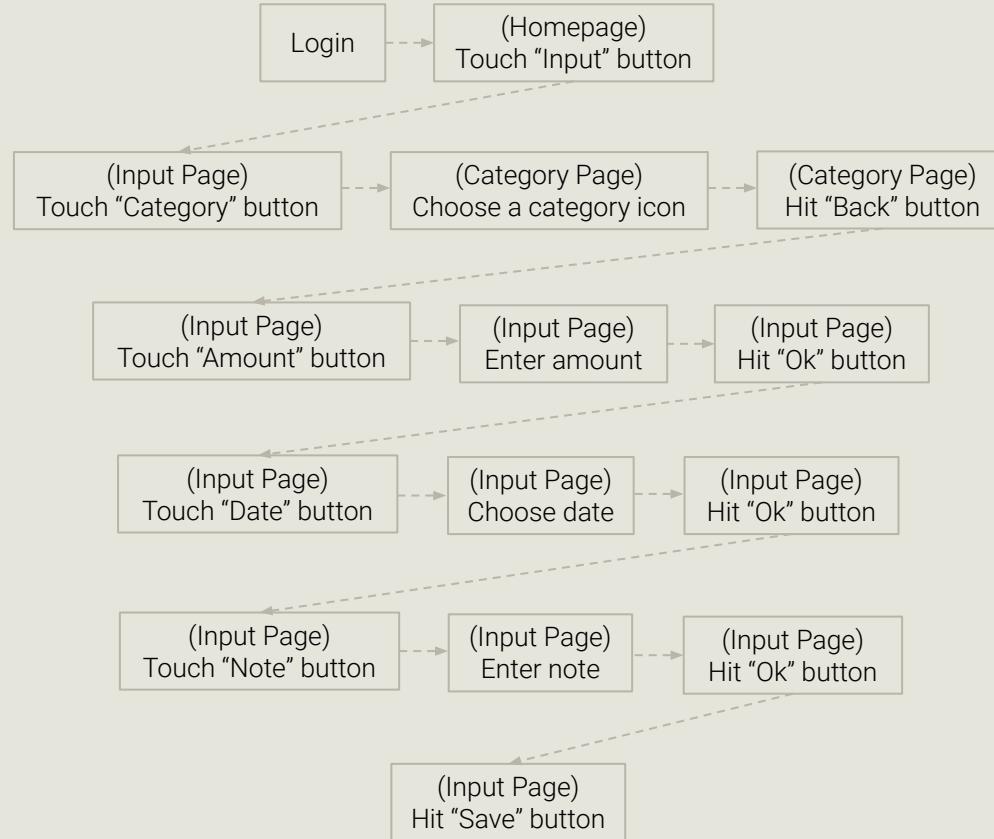
Change

<input type="checkbox"/> Canada Dollar
<input type="checkbox"/> Chinese Yuan
<input type="checkbox"/> Japanese Yen

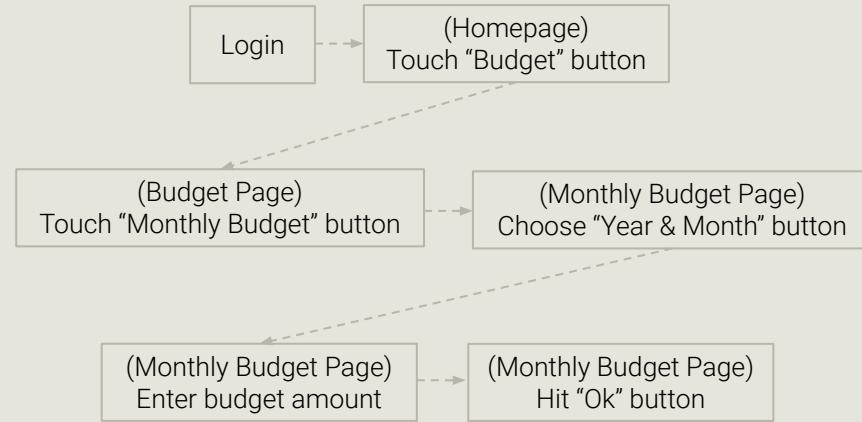
Provide Base Currency & allow users to change currency in different countries.

Task Flows

Task #1: User inputs expense



Task #1: User sets up monthly budget



Task #3: User shares monthly report to family member



Content & Feature Requirements

Task #1

Primary User Task :

User Records Grocery Expense

Pages to Design:

Login > Homepage >

Input > Category

Page 1: Login

Page Requirement: Users can login their accounts with a valid username and password.

How to achieve this requirement: Should provide a simple and clear view on screen, have logo of the app, ID and password input functions.

Page Features, Actions and Content: “Login” and “New Registration” features. “Username” and “Password” input, as well as password retrieval function if users forget the username or password.

Page 2: Homepage

Page Requirement: Homepage of this application should be simple with white space. It should has buttons to navigate users to the “Input”, “Budget”, “Report” and “Other” pages.

How to achieve this requirement: Keep a simple and clear page with icons and words that contain major functions of the application.

Page Features, Actions and Content: “Input”, “Budget”, “Report” and “Other” buttons are provided clearly with icon and words which navigate users to sub-pages.

Page 3: Input

Page Requirement: have input boxes scroll bars and navigations to other pages.

How to achieve this requirement: Use simple icons with words and keep a clear page.

Page Features, Actions and Content: Date, Note, Expense, Category input features. Action sheets such as calculator, date choose, keyboard features. When users hit Save button, HUD shows to let users know data has been saved.

Page 4: Category

Page Requirement: Category page of this application provides variety of different categories that allow user to choose. Also have scroll bar and navigations to other pages.

How to achieve this requirement: Use simple icons with words and keep a clear page.

Page Features, Actions and Content: Variety of icons with different color and name below one by one that displayed and organized nicely on the page. Also has "Back" button and "Edit" button which navigate users to access to other pages.

Task #2

Primary User Task :

User Sets Monthly Budget of August

Pages to Design:

Login > Homepage > Budget >

Total Budget > Budget By Category

Page 3: Budget

Page Requirement: Main page of budget feature, has navigations of “Total Budget” and “Budget by Category”. Allow users to head to the subpages

How to achieve this requirement: Keep a simple and clear page with buttons.

Page Features, Actions and Content: “Total Budget” and “Budget by Category” features. “Back” button provided to back to previous page.

Page 4: Total Budget

Page Requirement: Allow users to set total budget. Chart has to be provided to show percentage.

How to achieve this requirement: Keep a simple and clear page, calculator and date choose window appears from bottom while users touch the budget button.

Page Features, Actions and Content: Ring chart indicates auto calculating result and percentage. Date choose feature, “Budget Input” function, expense amount shows, and left amount is calculated automatically after budget has been setted.

Page 5: Budget By Category

Page Requirement: Allow users to set budget by category. Detailed informations of each category should arranged nicely.

How to achieve this requirement: Keep a clean page with simple icons and organized words.

Page Features, Actions and Content: Date, Expense by category are provided for users to set and edit datas. "Save" feature provided. Buttons of different icons line up which represent different categories that allow users to check or edit.

Task #3

Primary User Task :

User Shares Monthly Report to Family Member

Pages to Design:

Login > Homepage > Report >

Monthly Report > Share > Send to Chat

Page 3: Report

Page Requirement: Allow users to check monthly and annual report.

How to achieve this requirement: Keep a simple and clear navigation of monthly and annual report.

Page Features, Actions and Content: Month and Annual switch button, chart, Category offers below chart Expense and Income button.

Page 4: Monthly Report

Page Requirement: Allow users to check monthly and annual report. Have chart to show different expense clearly.

How to achieve this requirement: Keep a simple and clear chart that use different colors to indicate expense/ income in different categories. Let users to clearly overview the expense/income and how much savings in the month. Have comparison with last month, and ranking the most spending on categories. Categories are provided below chart that allow users to view exact amount on each categories. ">" button offers for users to go to detail page.

Page Features, Actions and Content: Pie chart, year & month choose features. Category details. Share feature included, has window pops out from bottom. Icons of apps such as Messages, Mail, WhatsApp, Line, Facebook, Instagram, etc. provided.

Page 5: Share

Page Requirement: Allow users to share monthly/annual report photo by accessing other apps.

How to achieve this requirement: Should have simple page with preview of report photo. Allow users to send to chat or share on moments. Clear icons of actions that navigate user easily access to next page.

Page Features, Actions and Content: Simple Icons with actions such as send to chat, share on moments and save to favourite features.

Page 6: Send to Chat

Page Requirement: Should have simple page with list of all the friends in the chatting app.

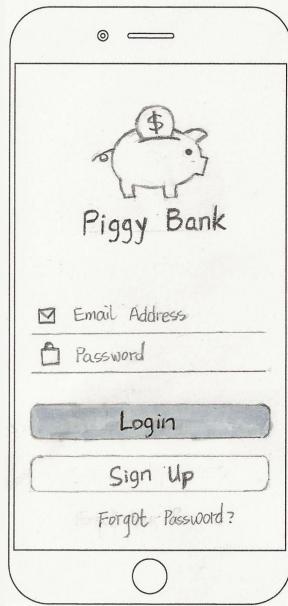
How to achieve this requirement: Clear page provides profile pictures with name of every friend. Scroll bar provided to scroll down.

Page Features, Actions and Content: Scroll bar, list of friends buttons feature. When user touch a friend there should pop out alert window contains Yes/No to confirm.

Wireframe Sketches

Task #1: User Records Grocery Expense on July

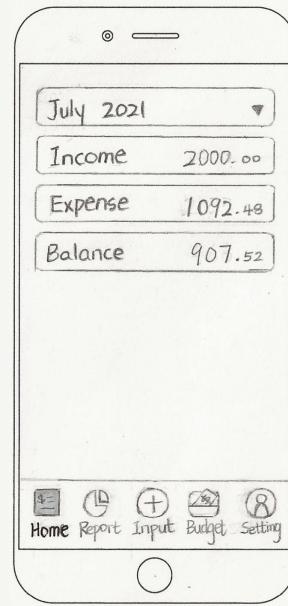
STEP # 1



NOTES

Login page. User can also sign up with email. "Forgot Password" helps user to find / reset password.

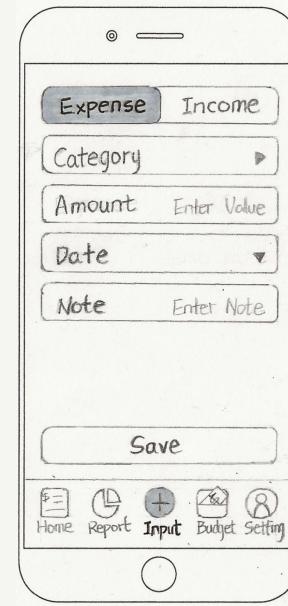
STEP # 2



NOTES

Home Page. Shows main finance data of user. Provide buttons to navigate user to other pages.

STEP # 3



NOTES

Input Page. Provide expense & income feature. ▶ have guide user to category page.

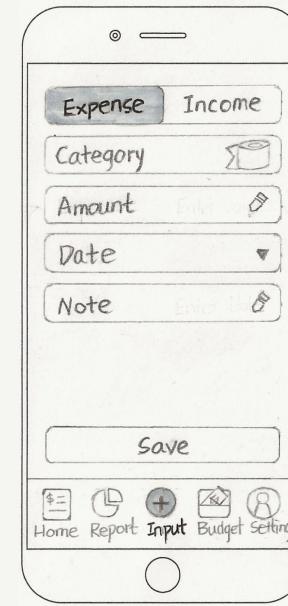
STEP # 4



NOTES

Category Page. Has plenty of categories. User can also scroll down to bottom to choose "Edit" button to add/ delete/ edit categories. <" lead user to go back previous page.

STEP # 5

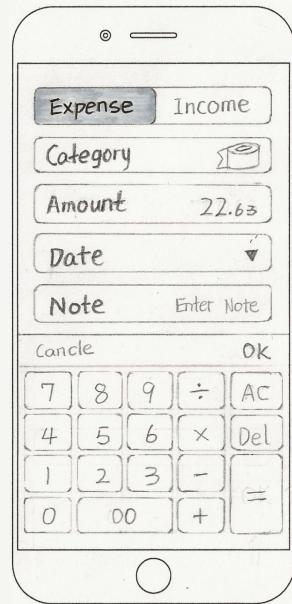


NOTES

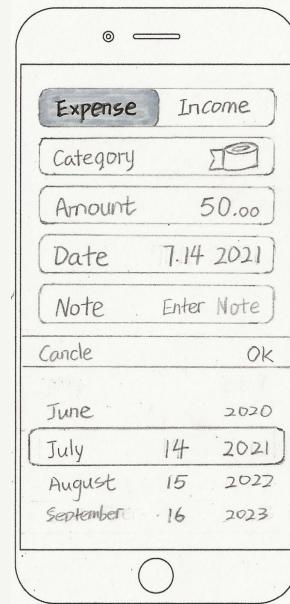
Input page.

Task #1: User Records Grocery Expense on July

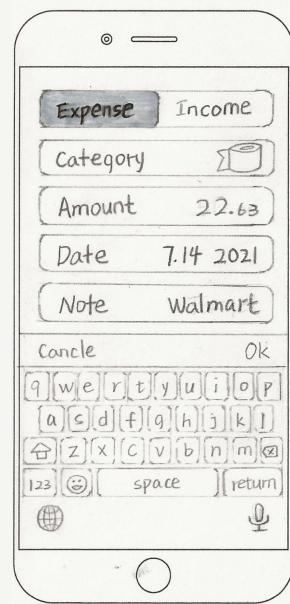
STEP # 6



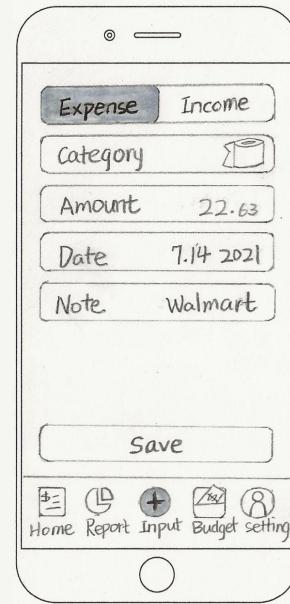
STEP # 8



STEP # 10



STEP # 11



NOTES

Input page. User is entering the amount of grocery.

NOTES

Input page. User is selecting date of shopping the grocery.

NOTES

Input page. User is entering note. This app also support voice message.

NOTES

Input page. After all input task done, user hit "Save" and data will be saved.

Task #2: User Sets Total Monthly Budget & By Category on August

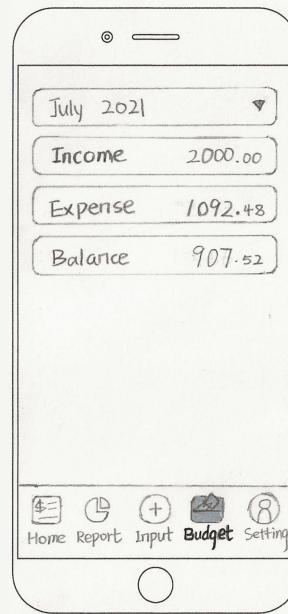
STEP # 1



NOTES

Login page. User can also sign up with email. "Forgot Password" helps user to find / reset password.

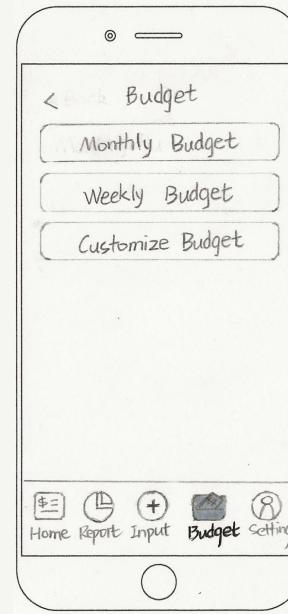
STEP # 2



NOTES

Home page. Default shows current month. Main data shows on this page. "▼" Button provides to change year & month.

STEP # 3

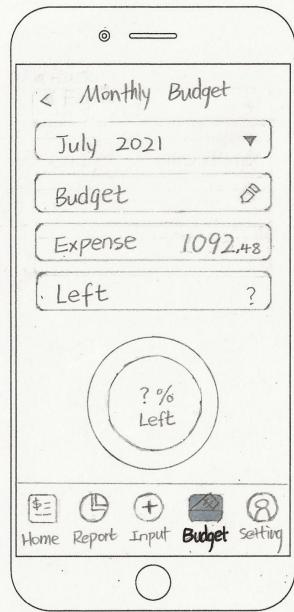


NOTES

Budget page. User can set monthly, weekly or customize budget. User can touch "<" to go back previous page.

Task #2: User Sets Total Monthly Budget & By Category on August

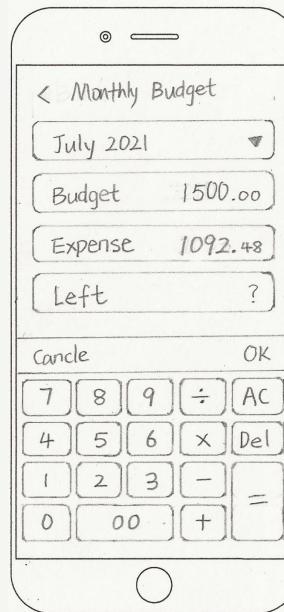
STEP # 4



NOTES

Monthly Budget page. "▼" Button provides to select year & month.
"Expense" shows existing data.
No data shows on "Left" as long as user sets budget.

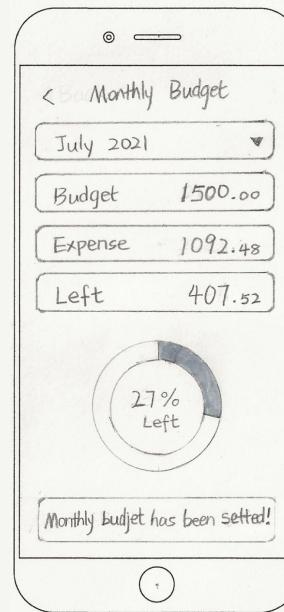
STEP # 5



NOTES

Monthly Budget page.
Calculation can be done by using calculator.

STEP # 6



NOTES

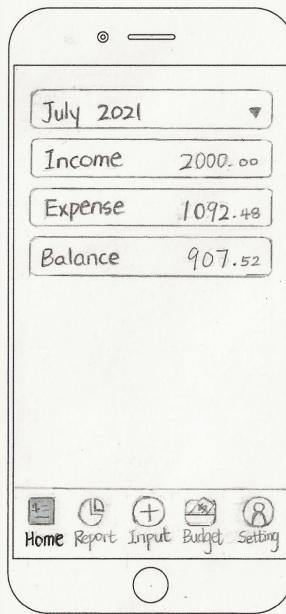
Monthly Budget page. After setting budget, "Left" will be calculated automatically. Ring chart shows percentage of left.

Task #3: User Share Monthly Report of July to Mom Via Facebook

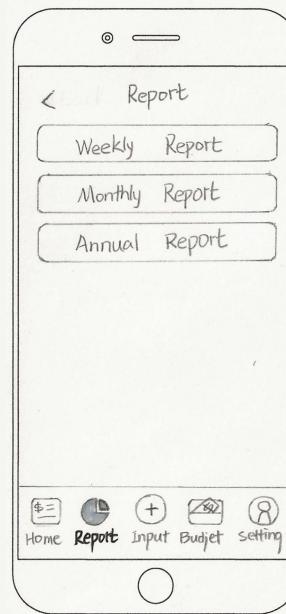
STEP # 1



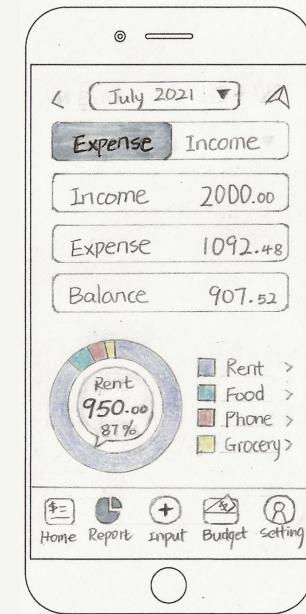
STEP # 2



STEP # 3



STEP # 4



NOTES

Login page. User can also sign up with email. "Forgot Password" helps user to find / reset password.

NOTES

Home Page. Shows main finance data of user. Provide buttons to navigate user to other pages.

NOTES

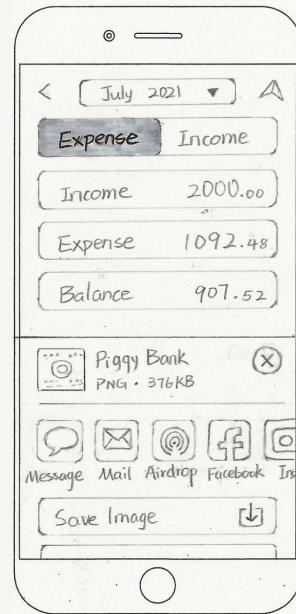
Report Page.
"<" Button provides to back to previous page

NOTES

Monthly Report page. Data shows when user touch different color on ring chart. Can also access to detail page of different categories by touching ">".

Task #3: User Share Monthly Report of July to Mom Via Facebook

STEP # 5

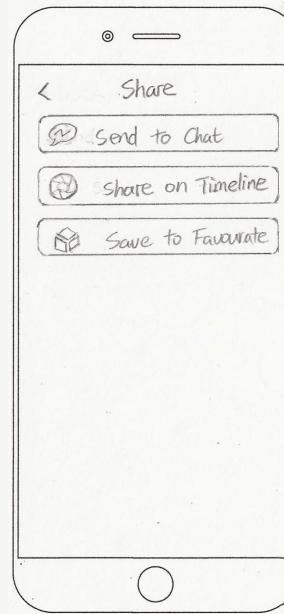


NOTES

Monthly Report page.

"<" Button provides to go back to previous page.

STEP # 6

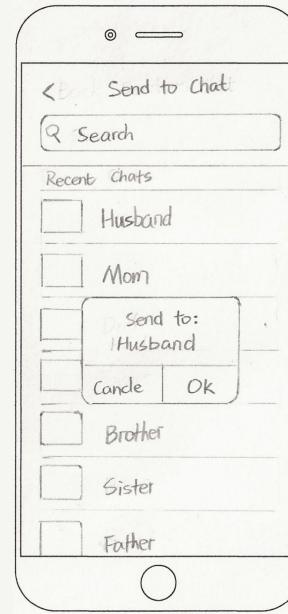


NOTES

Share Page.

"<" allows user go back to previous page.

STEP # 7



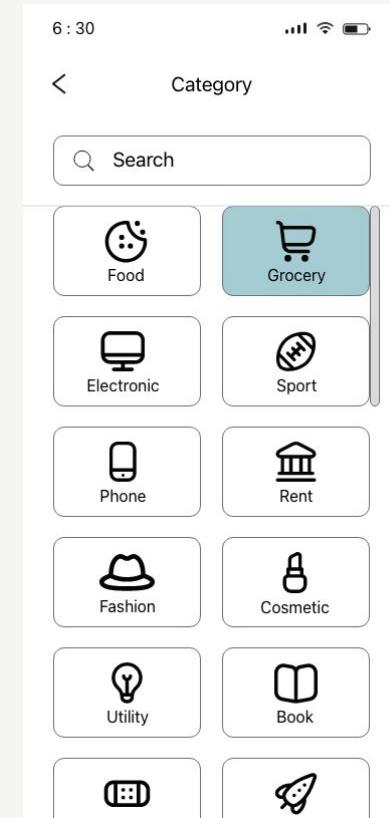
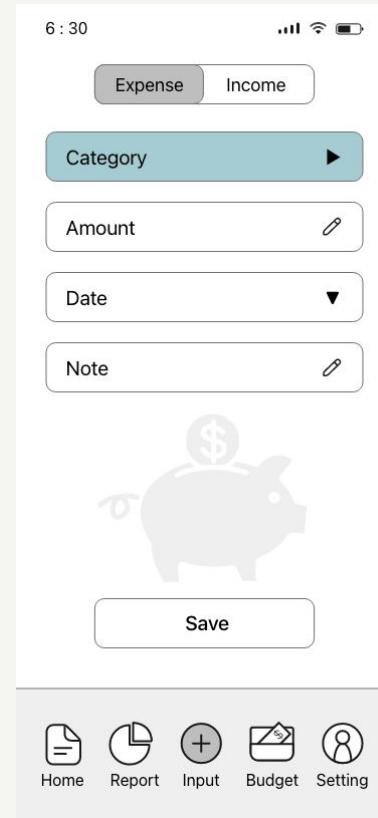
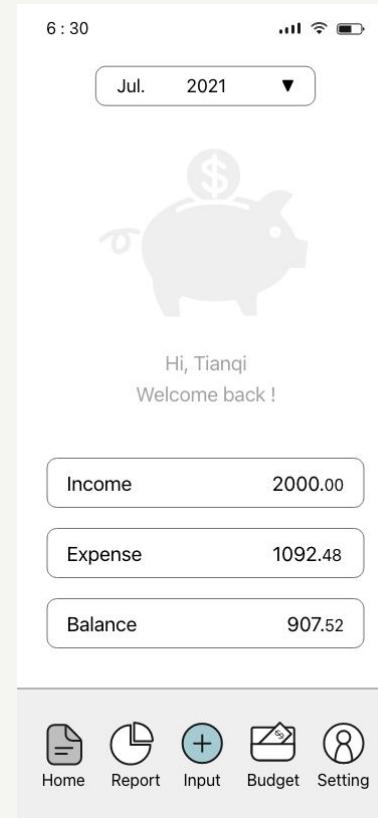
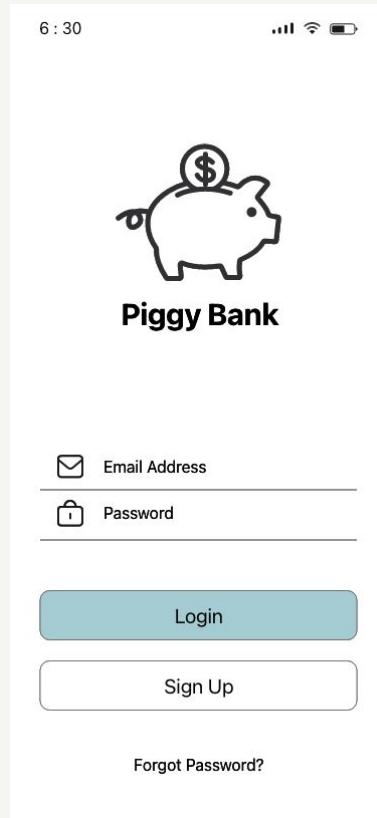
NOTES

Send to Chat page.

After choose a friend, Alert window shows to let user to confirm.

Low-Fidelity Wireframes

Task #1: User Records Grocery Expense on July



Task #1: User Records Grocery Expense on July

6:30

Expense Income

Category	🛒
Amount	22.63
Date	▼
Note	✍

\$

Cancle Ok

7	8	9	÷	AC
4	5	6	×	Del
1	2	3	-	
0	00	+ =		

6:30

Expense Income

Category	🛒
Amount	22.63
Date	Jul. 14 2021
Note	✍

\$

Cancle Ok

April	11	2017
May	12	2018
June	13	2020
July	14	2021
August	15	2022
September	16	2023

6:30

Expense Income

Category	🛒
Amount	22.63
Date	Jul. 14 2021
Note	Walmart

\$

Cancle Ok

"Walmart" | Walk | Walkable

qwertyuiop
asdfghjkl
zxcvbnm ↻
123 ☺ space return

🌐

6:30

Expense Income

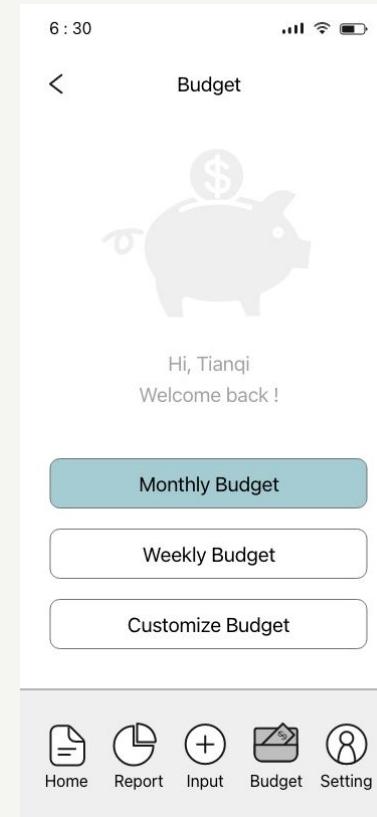
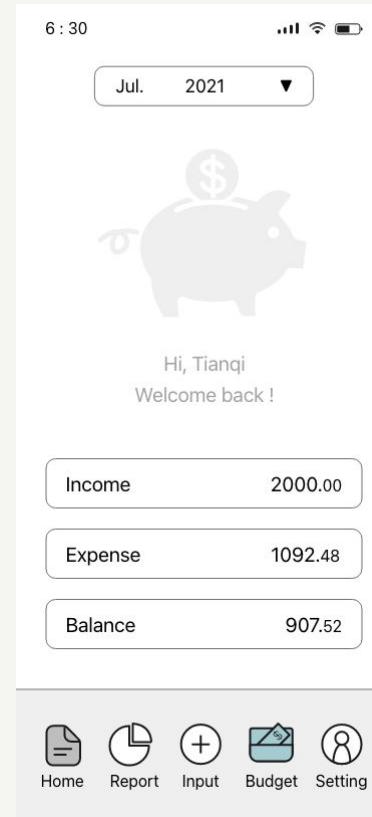
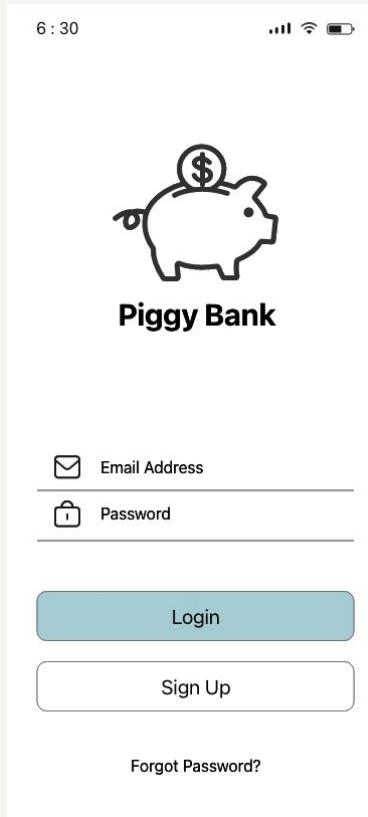
Category	🛒
Amount	22.63
Date	Jul. 14 2021
Note	Walmart

✓ Data has been saved!

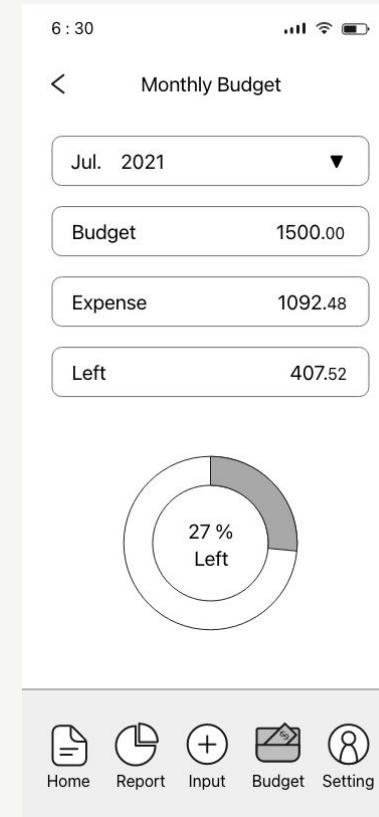
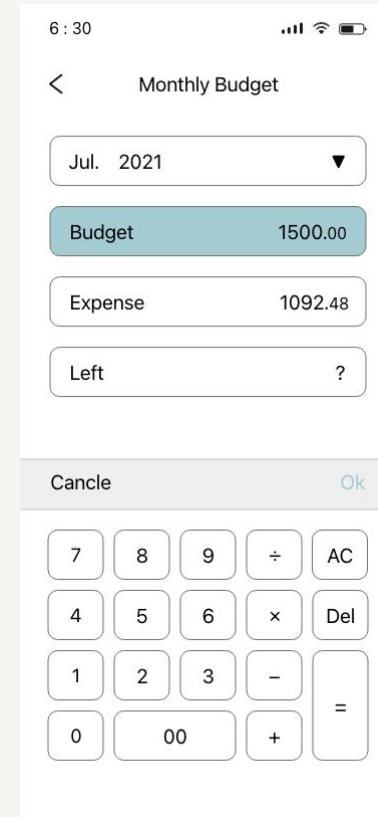
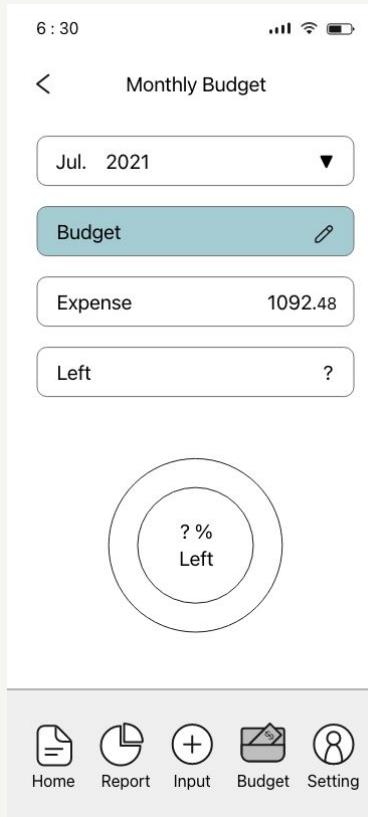
Save

Home Report Input Budget Setting

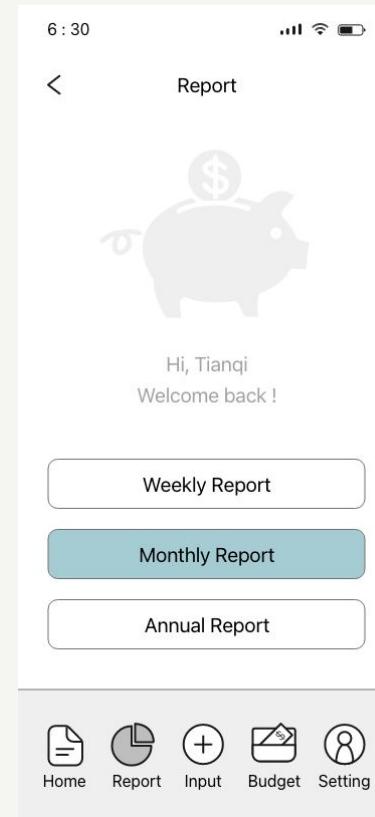
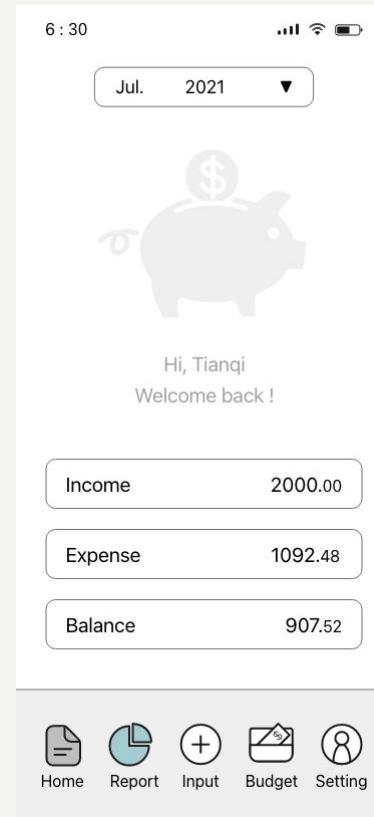
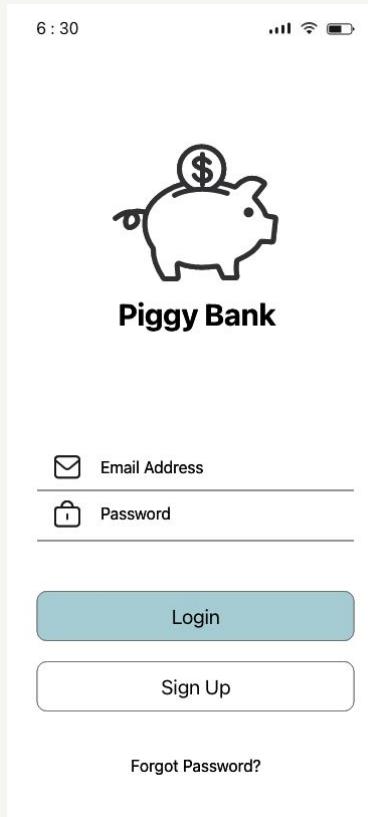
Task #2: User Sets Total Monthly Budget & By Category on August



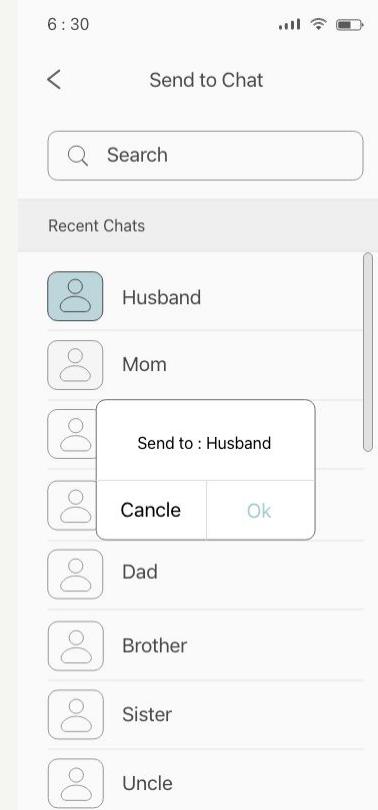
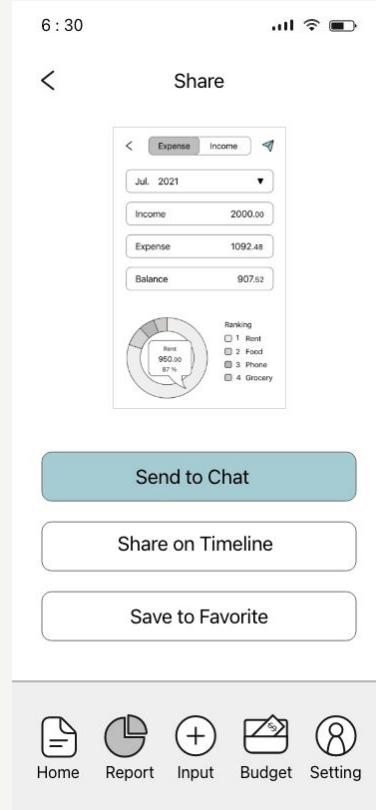
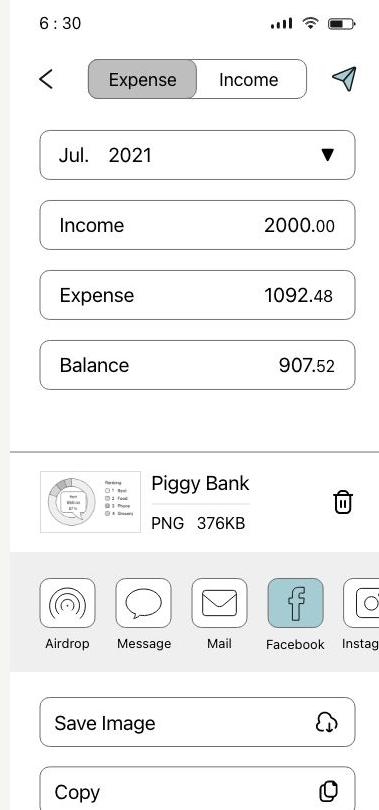
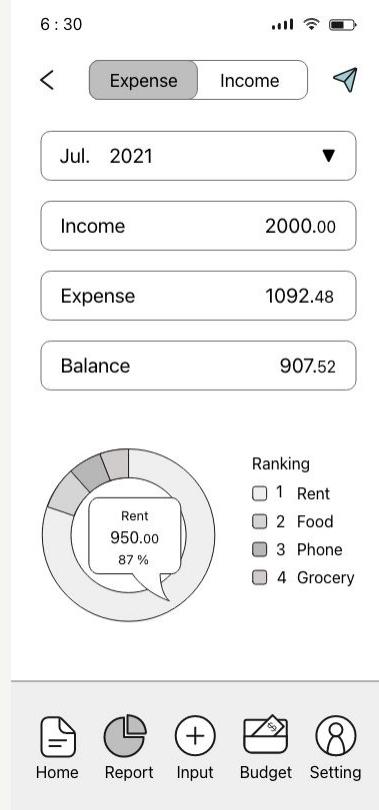
Task #2: User Sets Total Monthly Budget & By Category on August



Task #3: User Share Monthly Report of July to Mom Via Facebook



Task #3: User Share Monthly Report of July to Mom Via Facebook



Testing Screener & Prep

Top 3 User Attributes

❖ Behaviors

- Like using electronic devices such as phone, tablet to take notes.
- Love organized lifestyle.
- Have habit of recording expense.

❖ Contexts

- Need to be more clear on expenses.
- Has to save money.
- Often out of budget.

❖ Motivation

- Stay on budget.
- Increase saving.
- Be efficient on recording expense .

❖ Attitudes

- Willing to use an app to record expense.
- Want to stay on budget and increase saving.
- Want to be clear and organized on finance.

Screener Questions

Options for questions 1-10 are:

- a. Strongly agree
- b. Agree
- c. Neutral/Don't care
- d. Disagree
- e. Strongly disagree

Prototype Testing Schedule:

Keita Katsumi.....Jul. 21 1:00 pm

Zoe Zhao.....Jul. 22 9:00 am

Elimination Questions: 1-4 (Desired Answer: Strongly agree/ Agree)

1. I think recording expense is a good habit.
2. I think recording expense by using an application is more effective than any other ways.
3. I'm not satisfied with the amount of my current saving.
4. I think set budget will help me to save more money.
5. I am familiar with electronic devices.
6. I want to be clear on my expense every month.
7. I want to make organized and detailed expense recording.
8. I have strong willing to save money.
9. I want to set budget and try ro stay on it.
10. I want to have a secure financial condition.

Screener Questions

11. Do you currently want to increase saving by setting up budget?

- Yes
- No
- Maybe
- Not sure

12. Do you feel enjoyable if you stay on budget?

- Yes
- No
- Maybe
- Not sure

Screener Questions

11. Do you want to establish an organized financial lifestyle though recording expense and income?

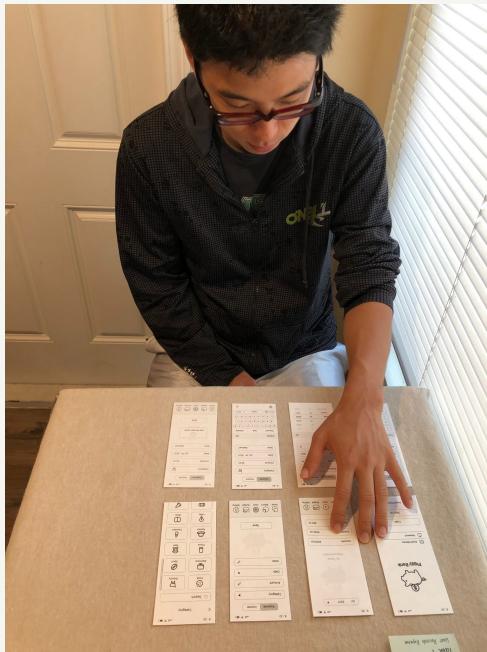
- Yes
- No
- Maybe
- Not sure

12. Are you confident with keeping recording expense and income?

- Yes
- No
- Maybe
- Not sure

Paper Prototype Testing & Results

Test #1



Tester: Keita Katsumi

Date of Testing: Jul. 21 1:00 pm.

Moderator: Tianqi Huo

Observation & Feedbacks

Task #1: User records expense

Home Page: "So this is my monthly report right? What if I want to see more detail on this page? I have go to another page right?"

Category Page: "I like the categories, they are so cute!"

Task #2: User sets monthly budget

Budget Page: "I like the greeting words, it just make me feel good."

Monthly Budget Page: "I see. So I can only set budget of total expense. What if I want to set the budget of food?"

Task #3: User sends monthly report to family member

Report Page: "What if I want to check the detailed report of each expense category?"

Test #1 Conclusions

Keita was quite interested in the test process because he has a desire to stay on budget and saving money. According to his behavior and the question he asked during test and observation, I came up with the revision on the right.

Revision

Task #1: User records expense

Home Page: Add a “Calendar” to provide user a overview of everyday expense & income.

Task #2: User sets monthly budget

Budget Page: Add Budget by Category feature to allow user to set detailed budget.

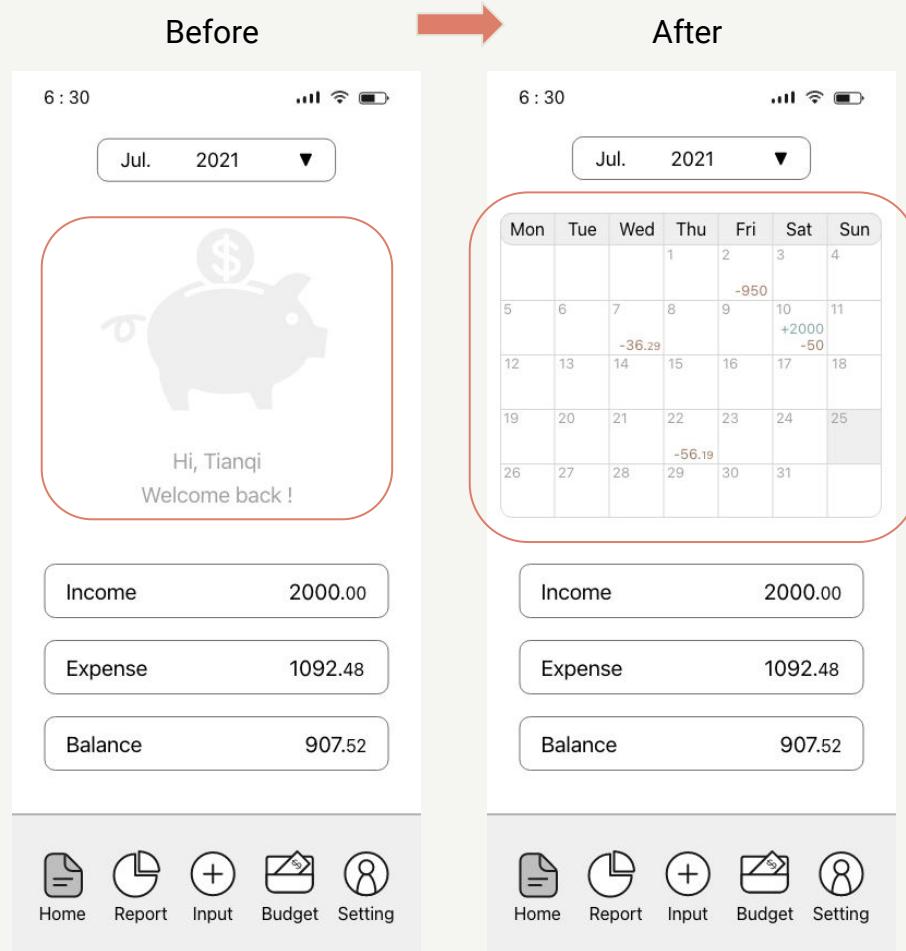
Task #3: User sends monthly report to family member

Monthly Report Page : Add “▶” on the right of “Ranking” to imply detailed expense report can be checked by hitting the “▶” button.

Revision

Task #1: User Records Grocery Expense - Home Page

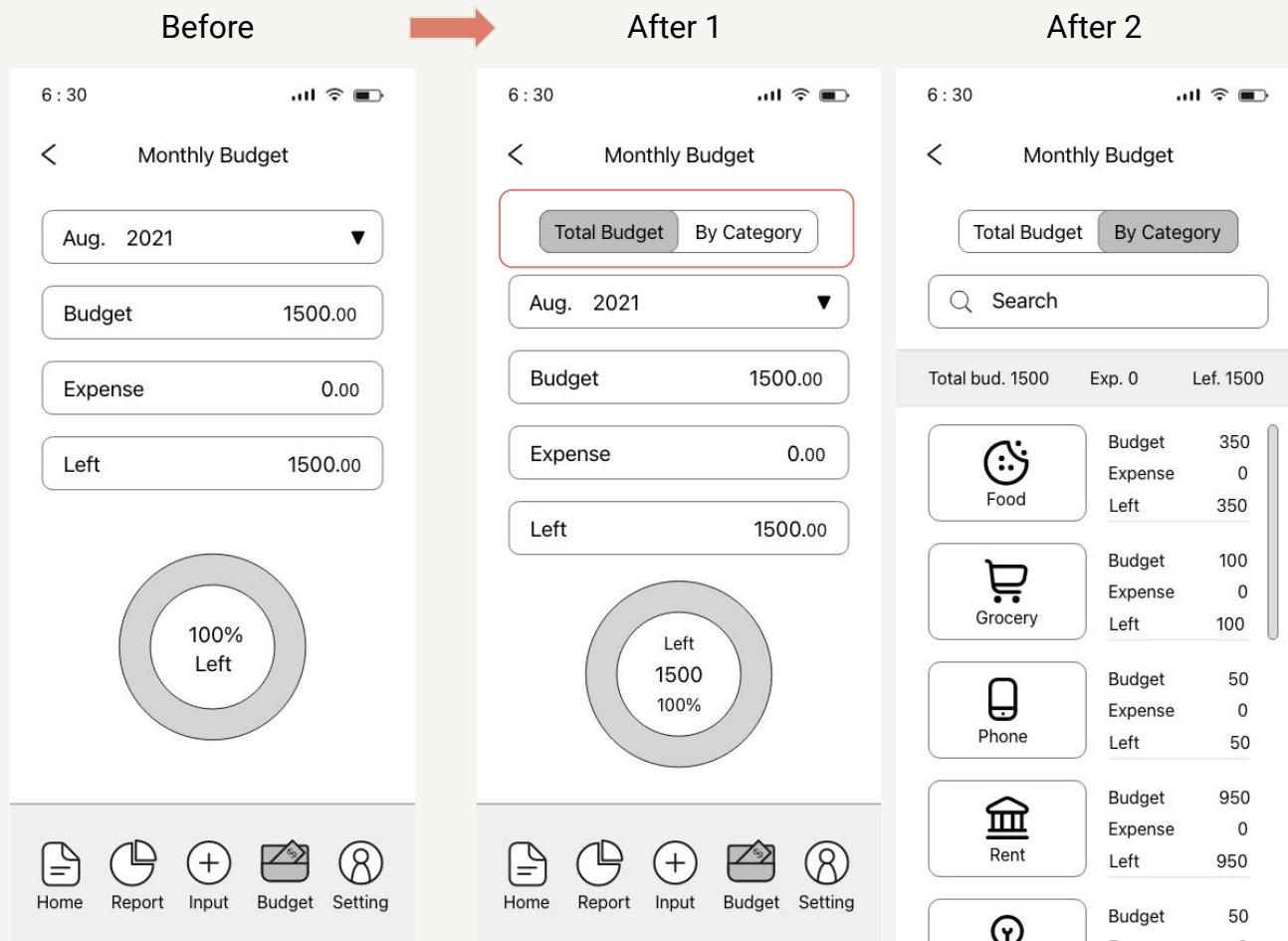
I changed the piggy illustration to a calendar for providing users a overview of everyday expense & income of the selected month. Rather than just showing a simple income, expense, and balance number, revised version provide more data for users, they can also hit the date on the calendar to check expense/income details of the chosen date, which makes homepage more meaningful for users.



Revision

Task #2: User Sets Monthly Budget of August - Monthly Budget Page

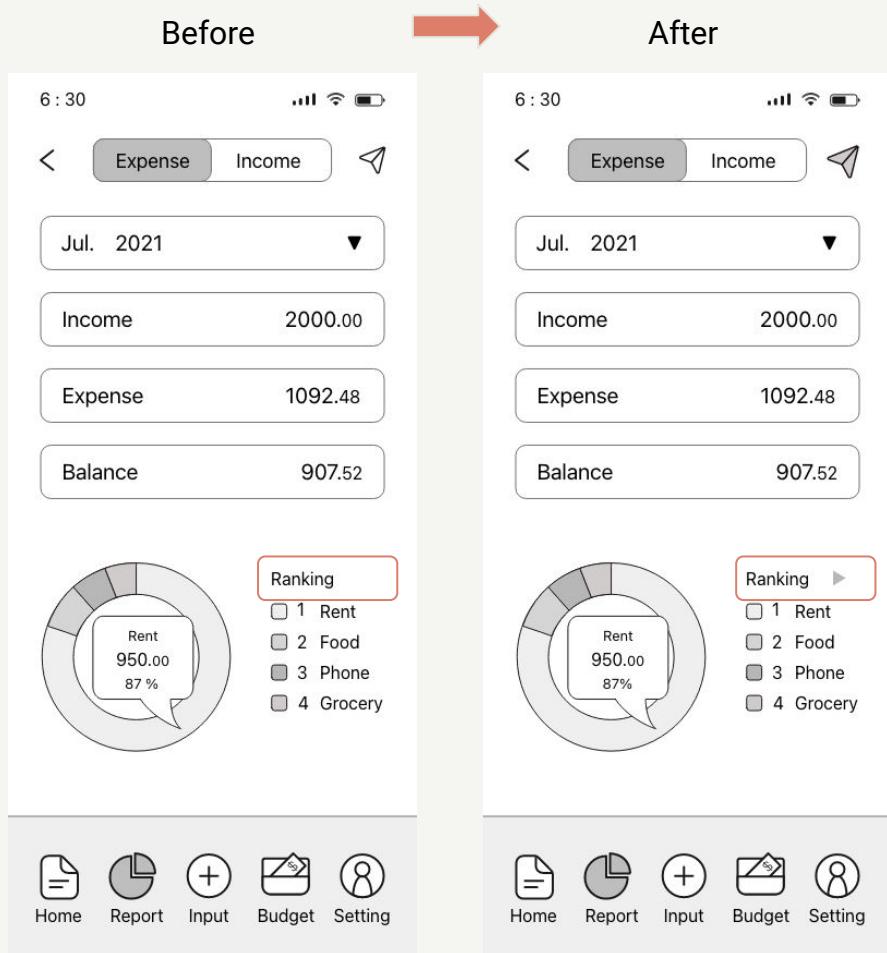
I add "Total budget & Budget by Category" feature on monthly budget page. Instead of only can set total budget, adding budget by category feature will allow users to set detailed budget. Furthermore, I created a new page-By category, which allow users to search, check, set and edit budget by different categories.



Revision

Task #3: User Shares Monthly Report to Family Via Facebook - Monthly Report page

I add a "►" button on the right side of "Ranking" to imply detailed expense report can be checked by hitting the "►" button.



Test #2



Participant: Zoe Zhao

Date of Testing: Jul. 22 9:00 am.

Moderator: Tianqi Huo

Observation & Feedbacks

Task #1: User Records Grocery Expense

Input Page: "How many words I can input in the box?"

Input Page: "Where is the dot of the calculator? Oh, I see. I don't have to input dot myself. That's convenient."

Task #2: User Sets Monthly Budget of August

Monthly Budget Page: "What is the '?' mark means?"

Budget Page: "Um...Actually I have no idea of the 27%, I mean it doesn't make any sense to me of how much I have left."

Task #3: User Shares Monthly Report to Family Via Facebook

Monthly Report Page: "Where shall I hit to share the report? Oh I find it, the paper plane button right?"

Monthly Report Page: "I like the raking feature! Looks nice!"

Test #1 Conclusions

Zoe took each process of the test seriously. She recently using an money recording application, therefore I think she was comparing the usability of the one she is using with my design. Based on her reaction summarized the revisions listing on the right.

Revision

Task #1: User Records Grocery Expense

Input Page : Change the default to “0.00” instead of pencil mark to let users know the “.” shows automatically when input amount.

Task #2: User Sets Monthly Budget of August

Monthly Budget Page: Change the “?” to “0.00” to prevent from confusion. Also add left amount number on the top of the percentage data in the middle of ring chart to let user to be more clear on how much left.

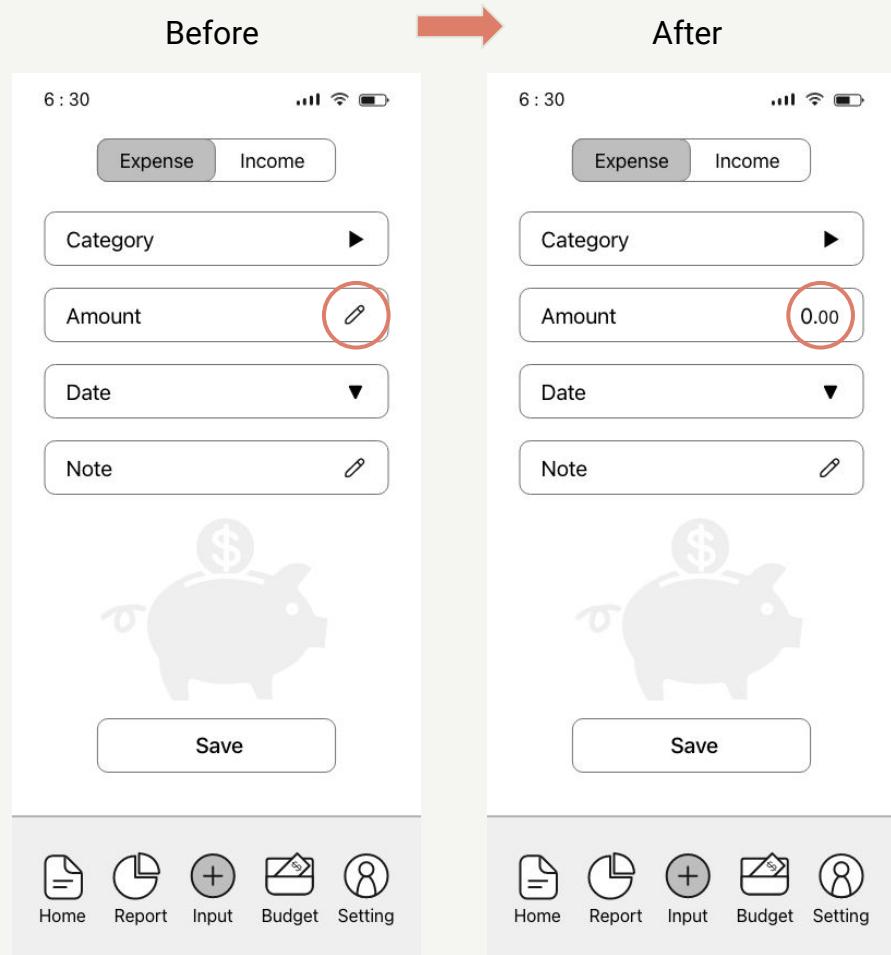
Task #3: User Shares Monthly Report to Family Via Facebook

Monthly Report Page : Make paper plane button bigger and fill with gray color to make sure user can find it.

Revision

Task #1: User Records Grocery Expense - Input page

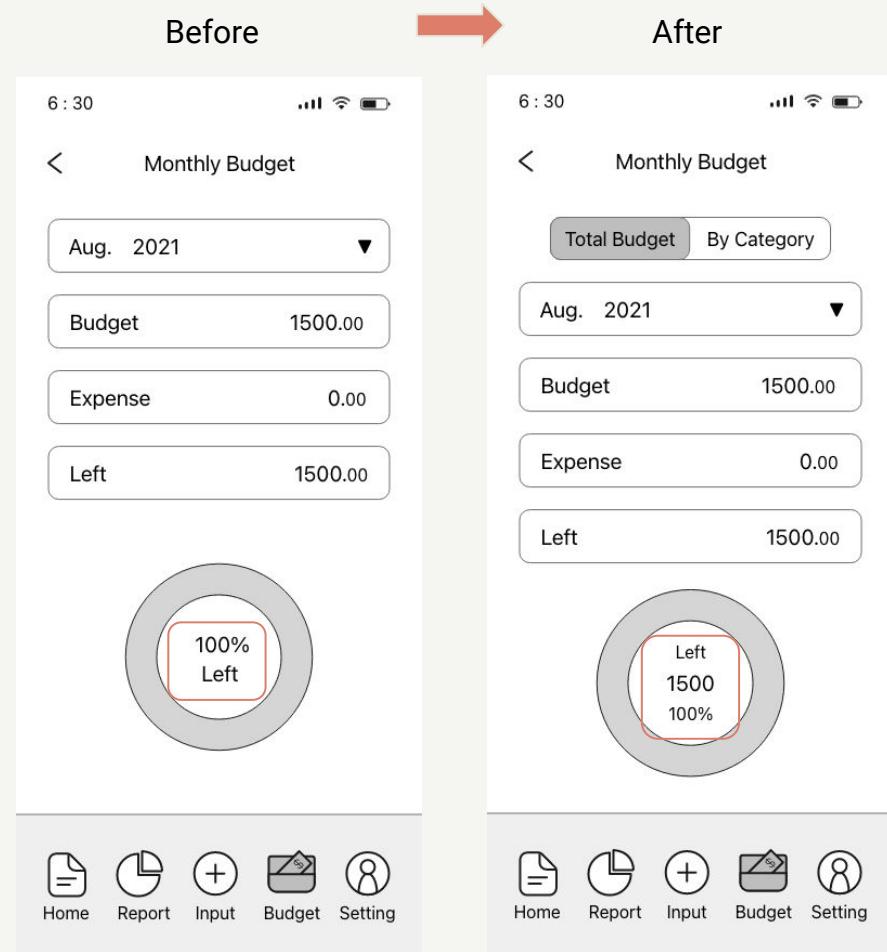
I changed the default from a pencil mark to "0.00" in the input box of "Amount". The purpose is to let users know instead of input dot themselves, the system will automatically show the dot when they input amount.



Revision

Task #2: User Sets Monthly Budget of August - Monthly Budget Page

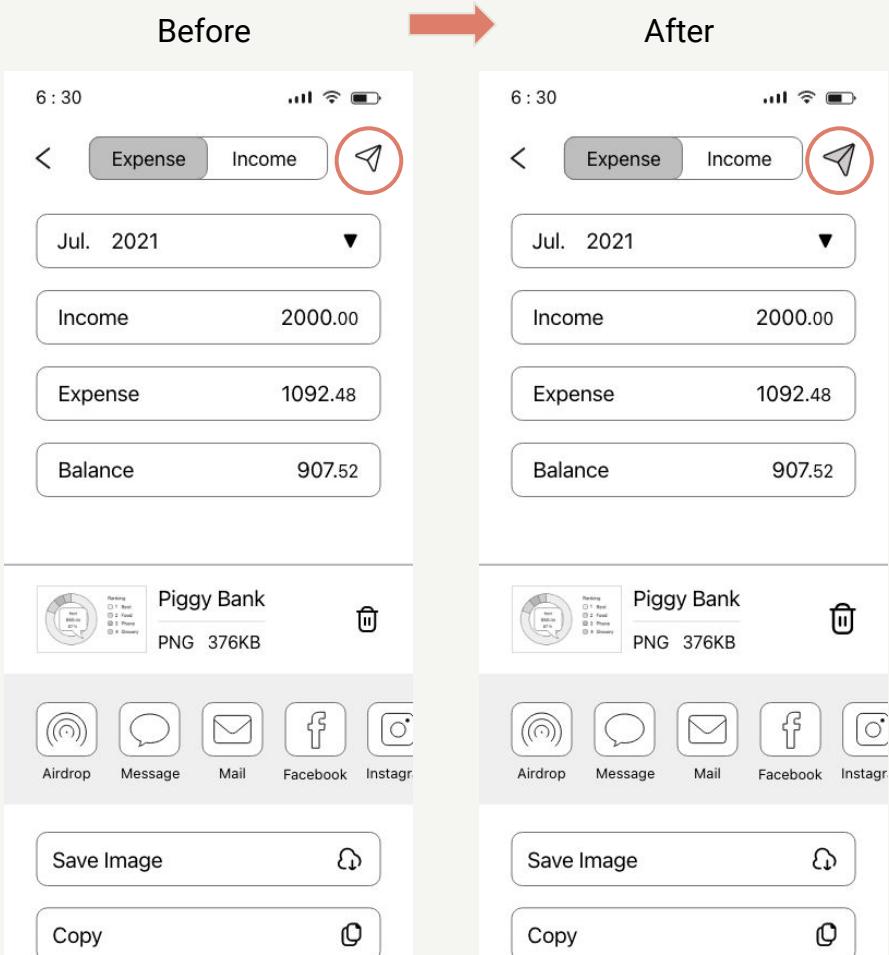
In the middle of ring chart, I added left amount number on the top of the percentage data. The purpose is to prevent from confusing, and let user to be more clear on how much left.



Revision

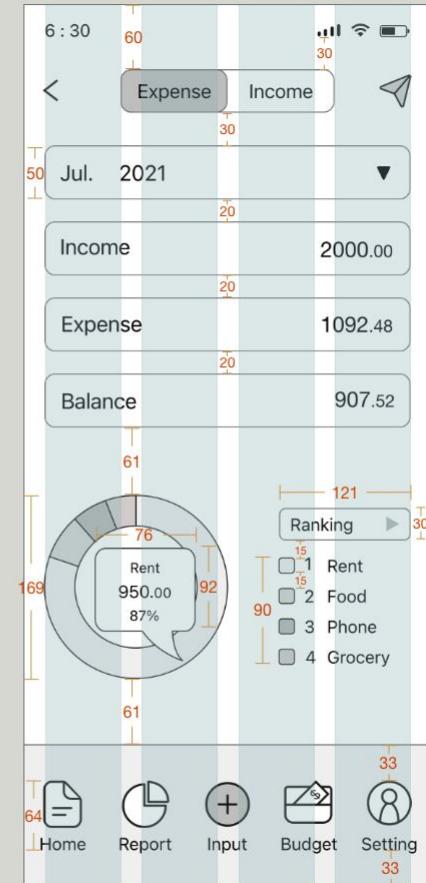
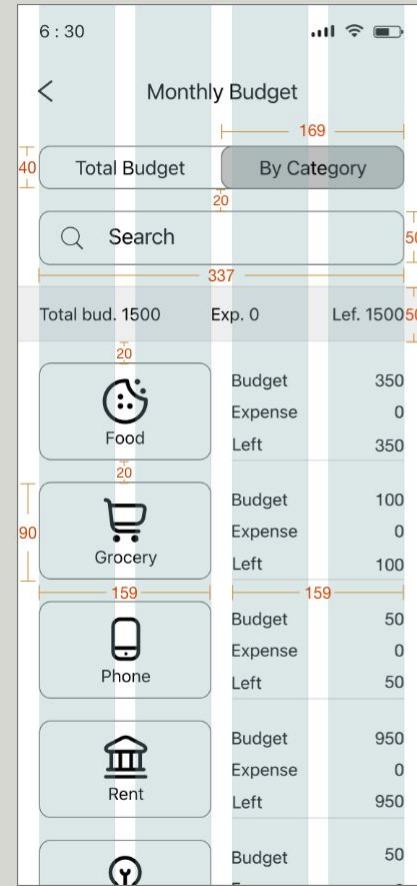
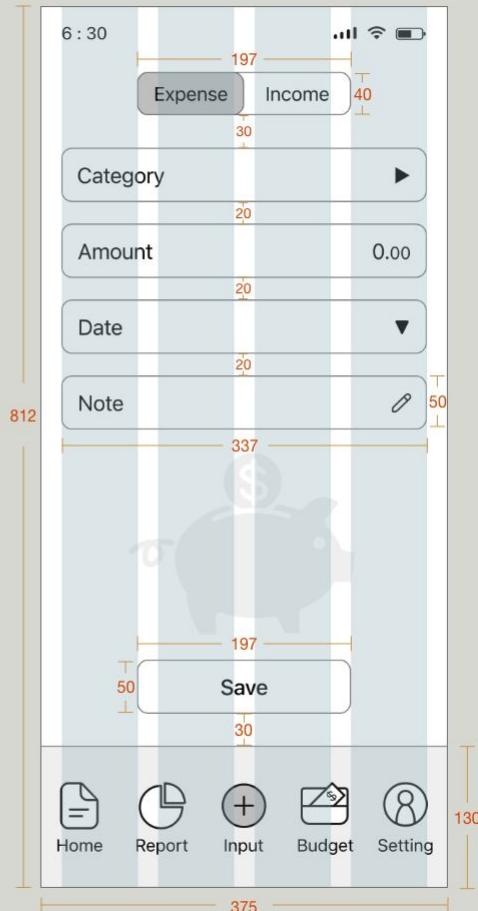
Task #3: User Shares Monthly Report to Family Via Facebook - Monthly Report page

Since both of the users took a little bit time to try to find where should they hit to send report. Therefore, I made the share button-paper plane bigger and fill with gray color to make sure user can find it.

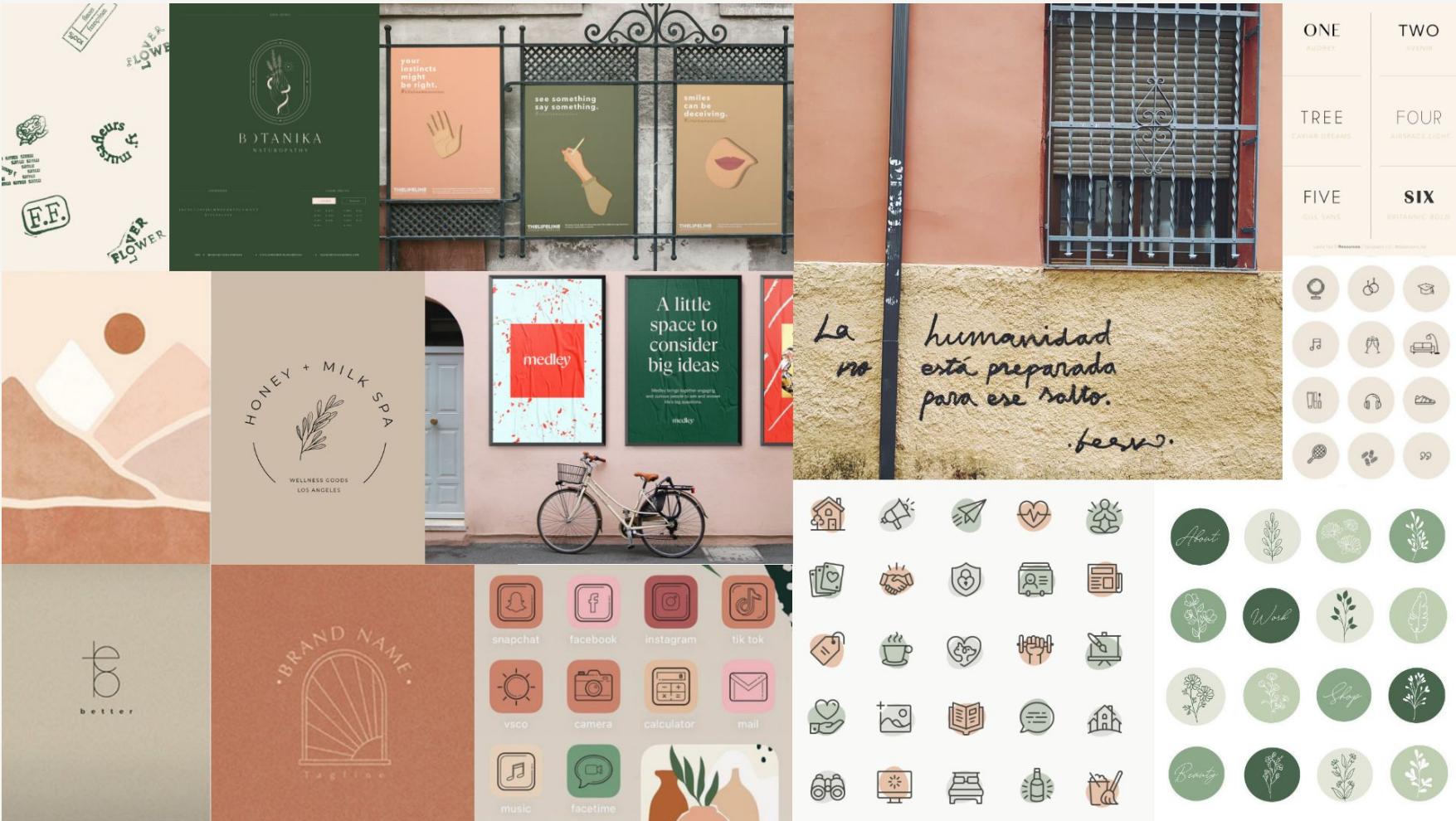


Develop a Grid System

Columns: 4
Gutter width: 19
Column Width: 70
Margins: 19



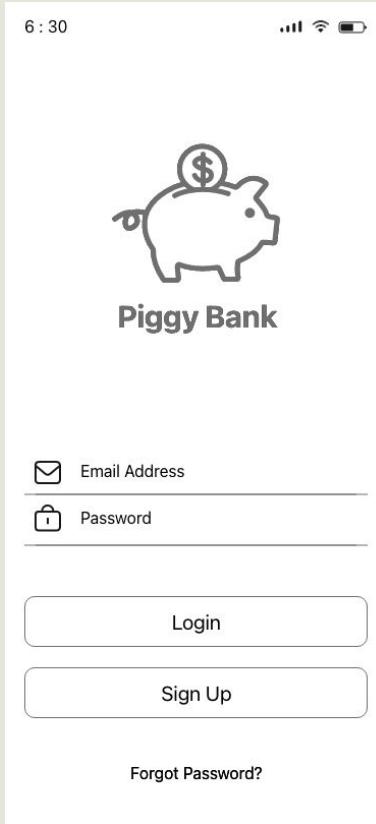
Mood Board



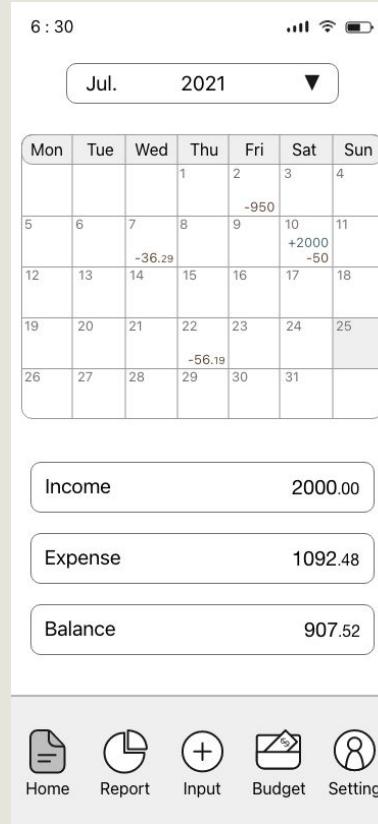
Medium-Fidelity Wireframes

Task #1: User Records Grocery Expense of July

1. Login Page



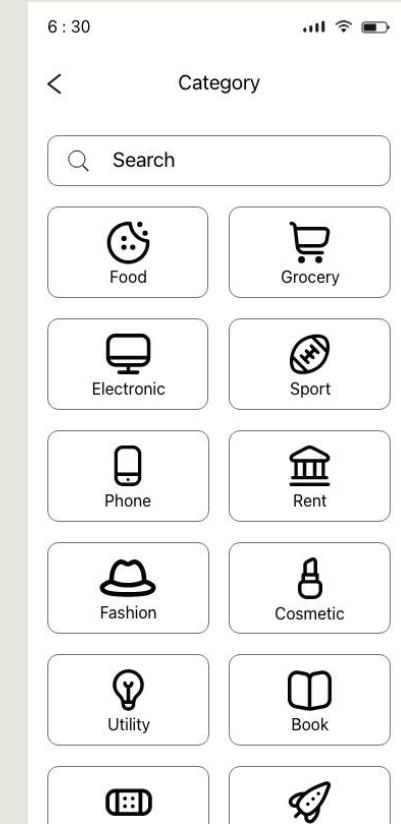
2. Home Page



3. Input Page

The input page has tabs for "Expense" and "Income". It includes fields for "Category" (with a right arrow), "Amount" (0.00), "Date" (with a dropdown arrow), and "Note" (with a pencil icon). A large piggy bank icon is centered below the input fields. At the bottom are five navigation icons: Home, Report, Input, Budget, and Setting. The status bar shows the time as 6:30 and battery level.

4. Category Page



Task #1: User Records Grocery Expense of July

5. Input Page

6 : 30

Expense Income

Category 

Amount 22.63

Date 

Note 



Cancle Ok

7 8 9 ÷ AC
4 5 6 × Del
1 2 3 -
0 00 + =

6. Input Page

6 : 30

Expense Income

Category 

Amount 22.63

Date Jul. 14 2021

Note 



Cancle Ok

Month	Day	Year
April	11	2017
May	12	2018
June	13	2020
July	14	2021
August	15	2022
September	16	2023
September	17	2024

7. Input Page

6 : 30

Expense Income

Category 

Amount 22.63

Date Jul. 14 2021

Note Walmart 



Cancle Ok

"Walmart" | Walk | Walkable

qwertyuiop
asdfghjkl
zxcvbnm
123 ☺ space return

8. Input Page

6 : 30

Expense Income

Category 

Amount 22.63

Date Jul. 14 2021

Note Walmart

 Data has been saved !

Save

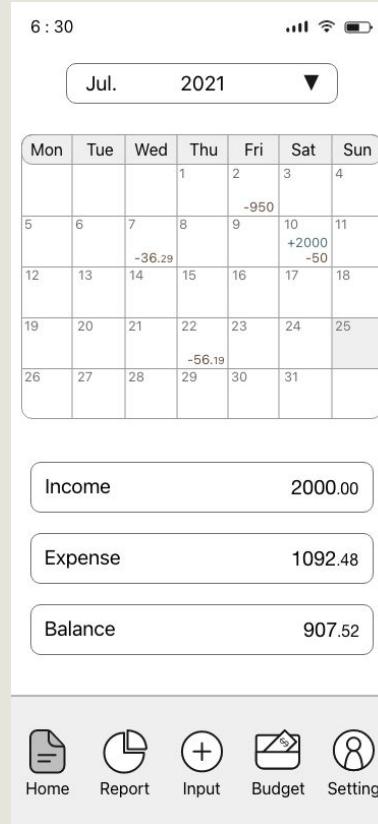
 Home  Report  Input  Budget  Setting

Task #2: User Sets Total Monthly Budget & By Category of August

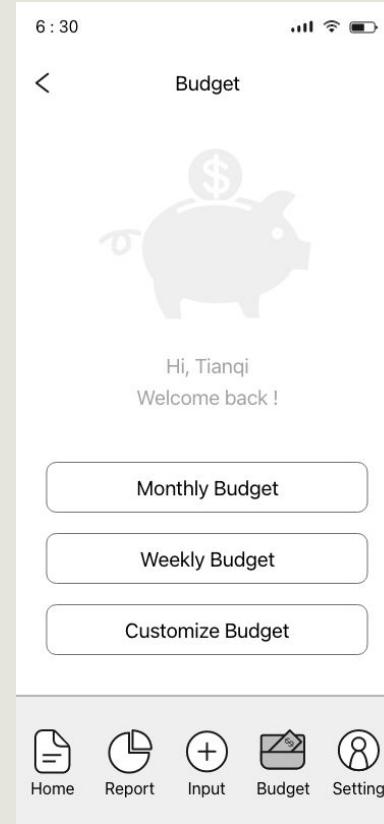
1. Login Page



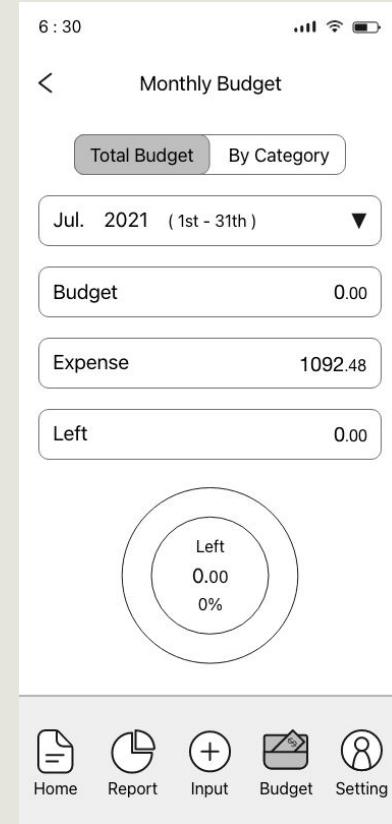
2. Home Page



3. Budget Page



4. Monthly Budget Page



Task #2: User Sets Total Monthly Budget & By Category of August

5. Total Budget Page

6 : 30

< Monthly Budget

Total Budget By Category

Aug . 2021 (1st - 31th) ▼

Budget	0.00
Expense	1092.48
Left	0.00

Cancle Ok

May	2017
June	2018
July	2020
August	2021
September	2022
October	2023
November	2024

6. Total Budget Page

6 : 30

< Monthly Budget

Total Budget By Category

Aug . 2021 (1st - 31th) ▼

Budget	1500.00
Expense	0.00
Left	0.00

Cancle Ok

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Del

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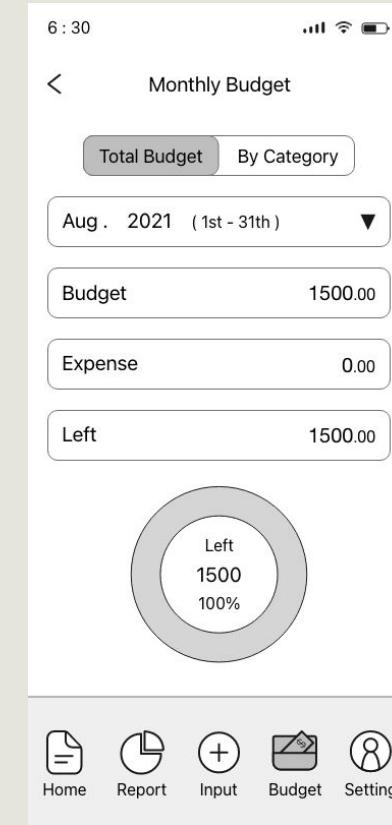
=

0

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+

7. Total Budget Page



8. Budget By Category Page

6 : 30

< Monthly Budget

Total Budget By Category

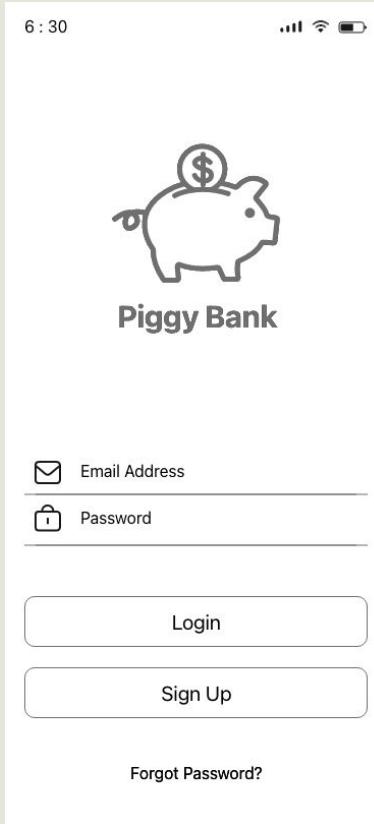
Search

Total bud. 1500 Exp. 0 Lef. 1500

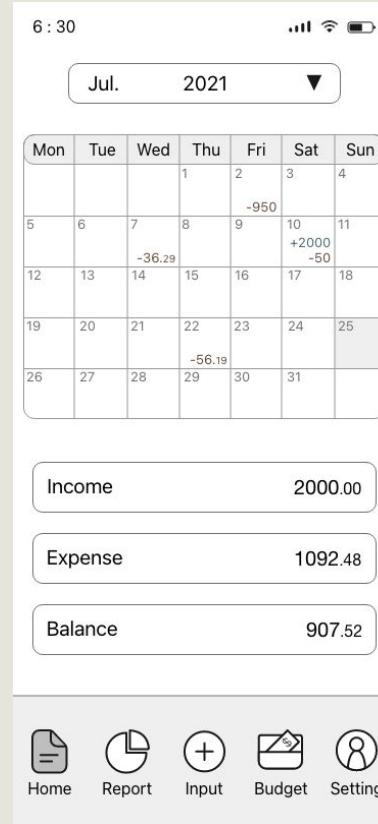
Food	Budget 350	Expense 0	Left 350
Grocery	Budget 100	Expense 0	Left 100
Phone	Budget 50	Expense 0	Left 50
Rent	Budget 950	Expense 0	Left 950
Budget	50		

Task #3: User Share Monthly Report of July to Mom Via Facebook

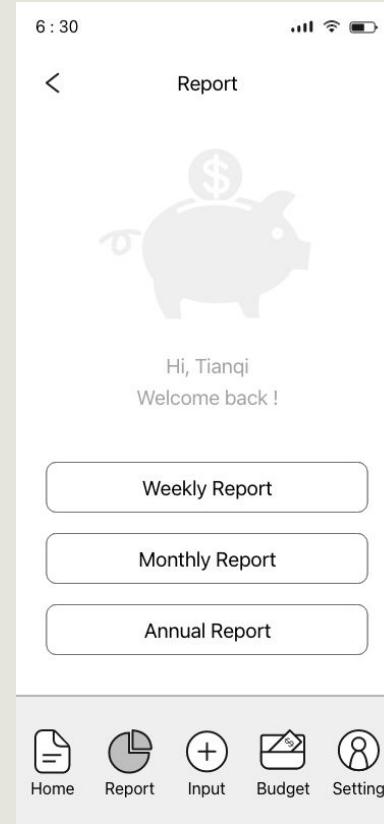
1. Login Page



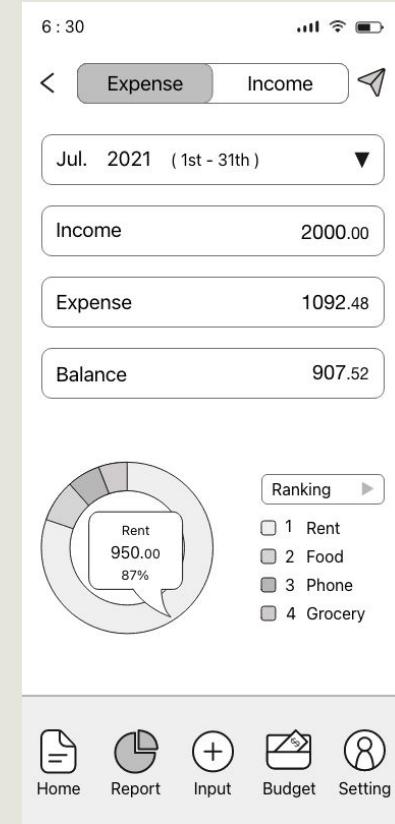
2. Home Page



3. Report Page

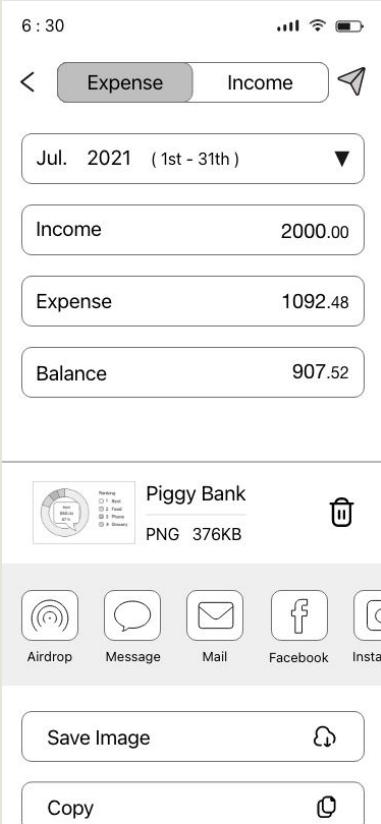


4. Monthly Report Page

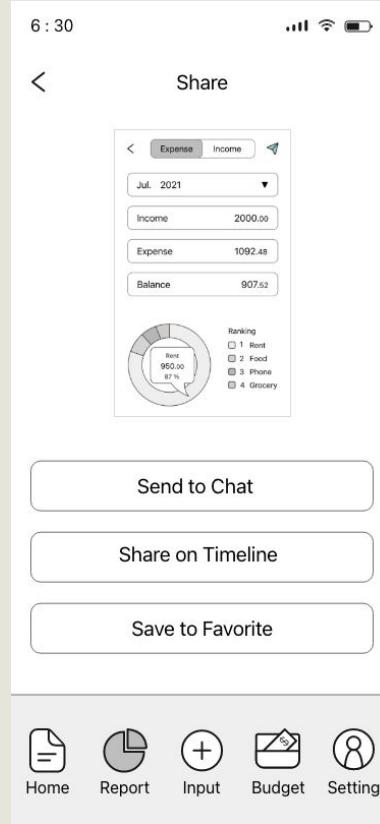


Task #3: User Share Monthly Report of July to Mom Via Facebook

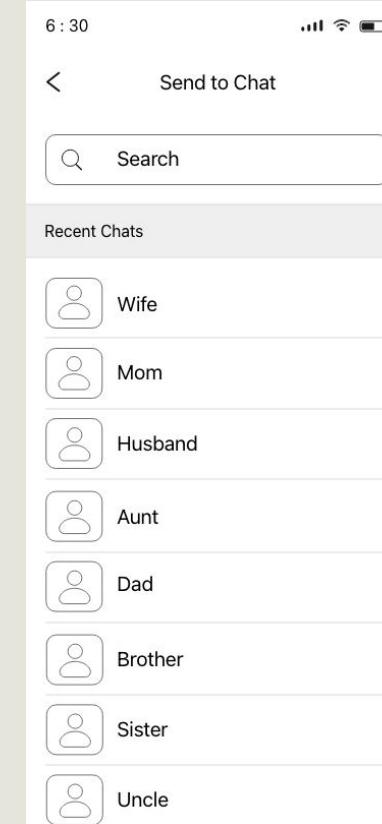
5. Monthly Report Page



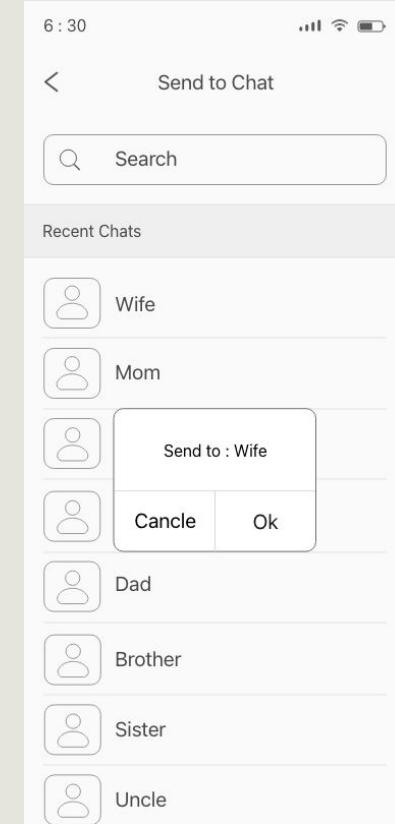
6. Share Page



7. Send to Chat Page



8. Send to Chat Page



UI Style Guide

Color Palette

Primary Color



Secondary Color



Neutral Color



Typography-Dark on Light

H1: Yantramanav, 26px, Medium

Button 1: Yantramanav, 22px, Regular

Button 2: Yantramanav, 22px, Medium

Button 3: Yantramanav, 18px, Regular

Body 1: Yantramanav, 22px, Regular

Body 2: Yantramanav, 20px, Regular

Body 3: Yantramanav, 18px, Regular

Body 4: Yantramanav, 16px, Regular

Typography-Light on Dark

H1: Yantramanav, 26px, Medium

Button 1: Yantramanav, 22px, Regular

Button 2: Yantramanav, 22px, Medium

Button 3: Yantramanav, 18px, Regular

Body 1: Yantramanav, 22px, Regular

Body 2: Yantramanav, 20px, Regular

Body 3: Yantramanav, 18px, Regular

Body 4: Yantramanav, 16px, Regular

Components

Switch Button



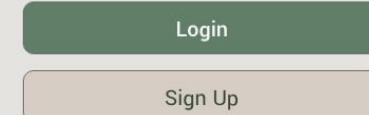
Navigation Bar



Calendar

Mon	Tue	Wed	Thu	Fri	Sat	Sun
			1	2	3	4
5	6	7	8	9	10	11
		-36.29		-950	+2000	-50
12	13	14	15	16	17	18
19	20	21	22	23	24	25
			-56.19			
26	27	28	29	30	31	

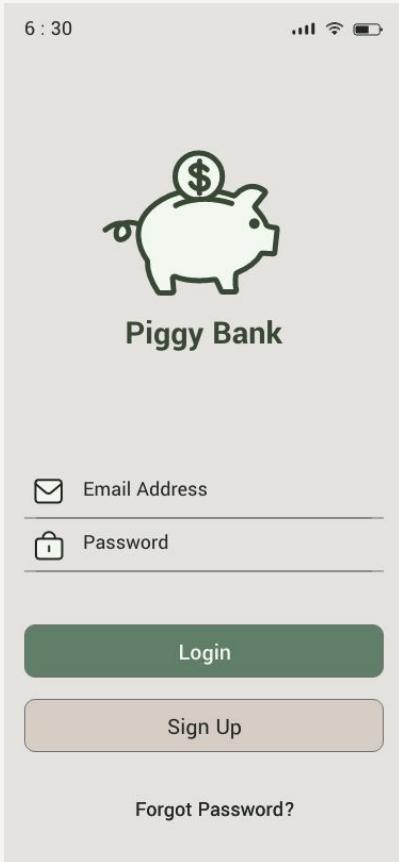
Button



High-Fidelity Wireframes

Task #1: User Records Grocery Expense of July

1. Login Page



2. Home Page



3. Input Page

The input page has four text input fields: "Category" (green), "Amount" (orange), "Date" (light blue), and "Note" (light orange). A large piggy bank icon is centered above the fields. A "Save" button is at the bottom. Below the input fields are navigation icons for Home, Report, Input (green), Budget, and Setting.

6 : 30

Expense Income

Category

Amount 0.00

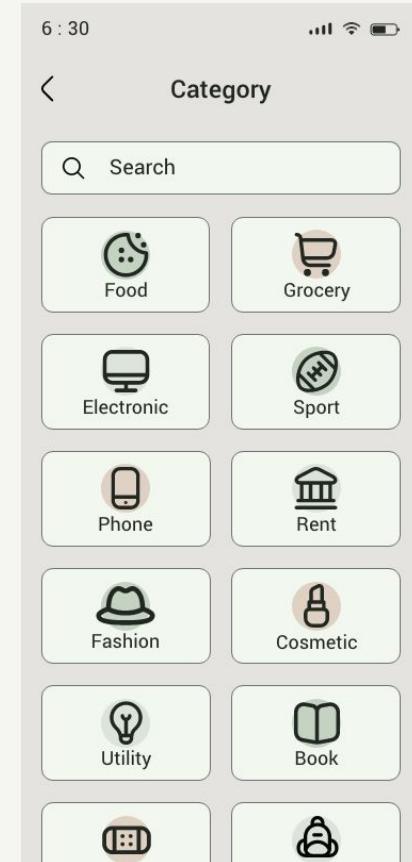
Date

Note

Save

Home Report Input Budget Setting

4. Category Page



Task #1: User Records Grocery Expense of July

5. Input Page

6 : 30

Expense Income

Category	
Amount	0.00
Date	
Note	

×
✓

7	8	9	÷	AC
4	5	6	×	Del
1	2	3	-	
0	00		+	=

6. Input Page

6 : 30

Expense Income

Category		
Amount	22.63	
Date		
Note		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
April	11	2017
May	12	2018
June	13	2020
July	14	2021
August	15	2022
September	16	2023
October	17	2024

7. Input Page

6 : 30

Expense Income

Category		
Amount	22.63	
Date	Jul. 14 2021	
Note		
		
“Walmart”	Walk	Walka
q w e r t y u i o		
a s d f g h j k l		
z x c v b n m		
123	space	return
		

8. Input Page

6 : 30

Expense Income

Category 

Amount 22.63

Date Jul. 14 2021

Note Walmart



Save

 Home

 Report

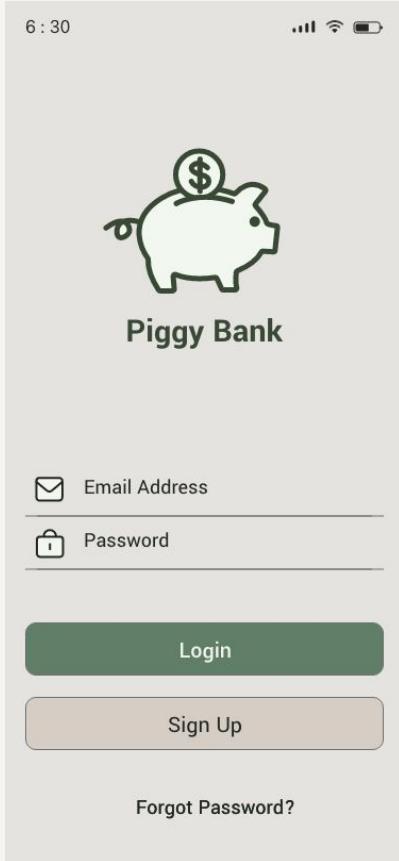
 Input

 Budget

 Setting

Task #2: User Sets Total Monthly Budget & By Category of August

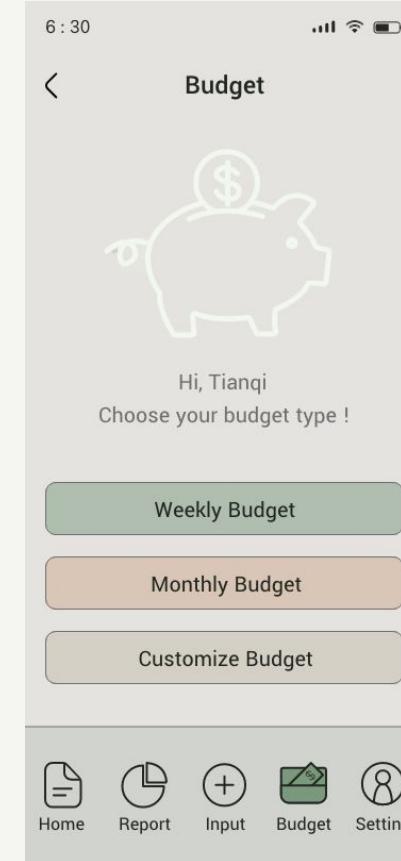
1. Login Page



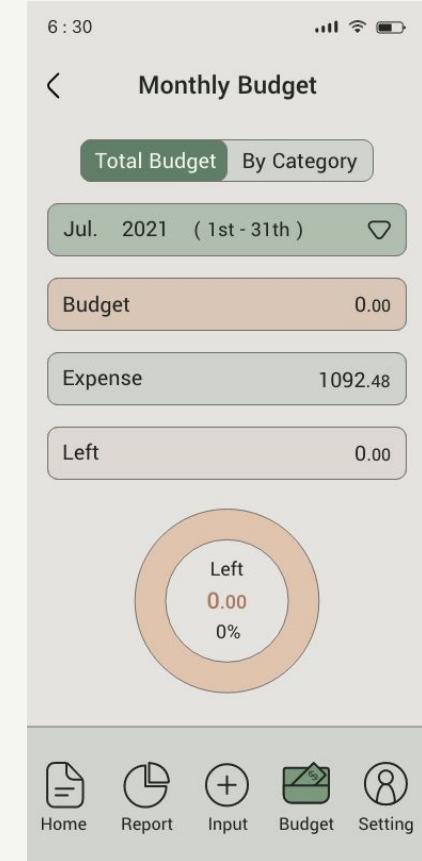
2. Home Page



3. Budget Page



4. Monthly Budget Page

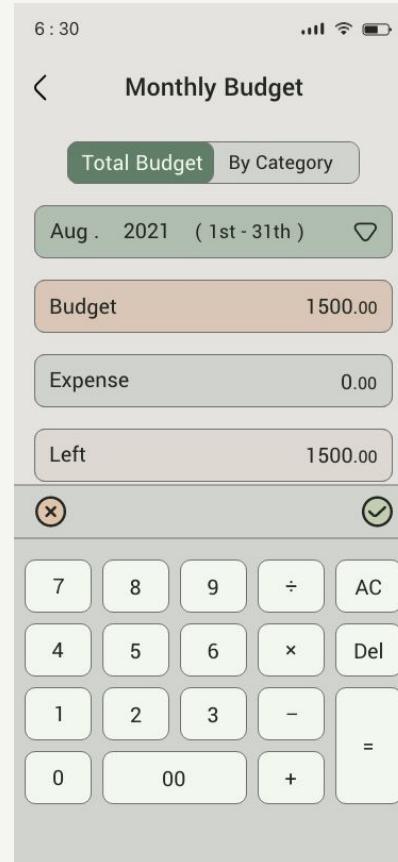


Task #2: User Sets Total Monthly Budget & By Category of August

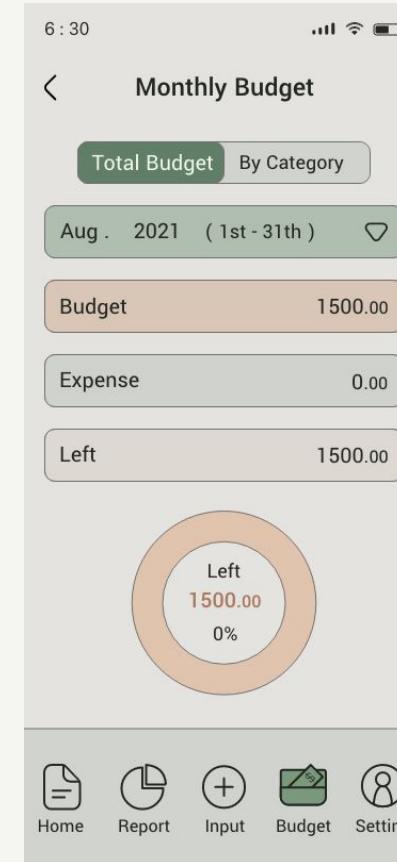
5. Total Budget Page



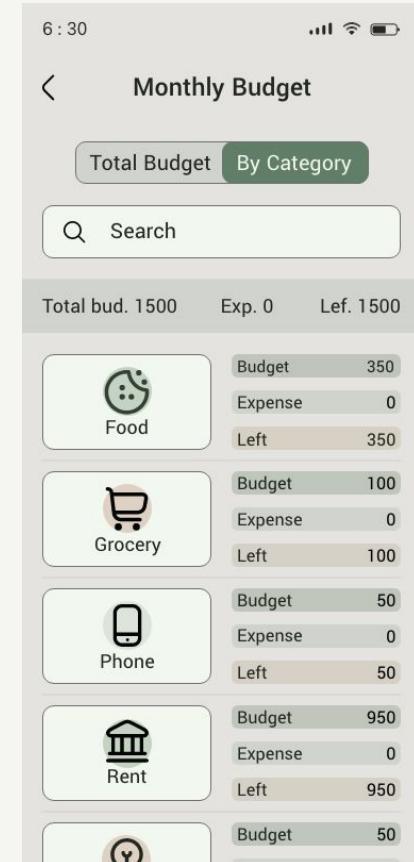
6. Total Budget Page



7. Total Budget Page

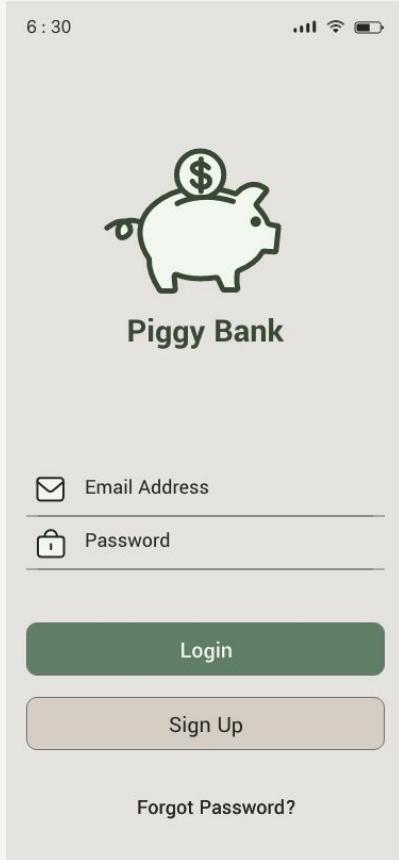


8. Budget By Category Page



Task #3: User Share Monthly Report of July to Mom Via Facebook

1. Login Page



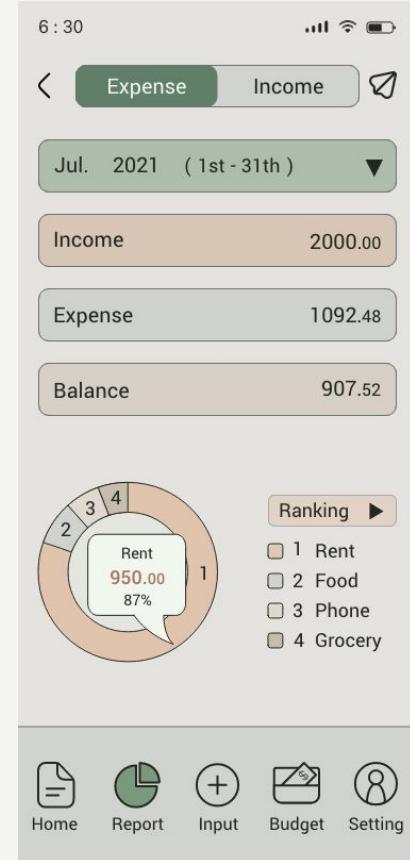
2. Home Page



3. Report Page



4. Monthly Report Page

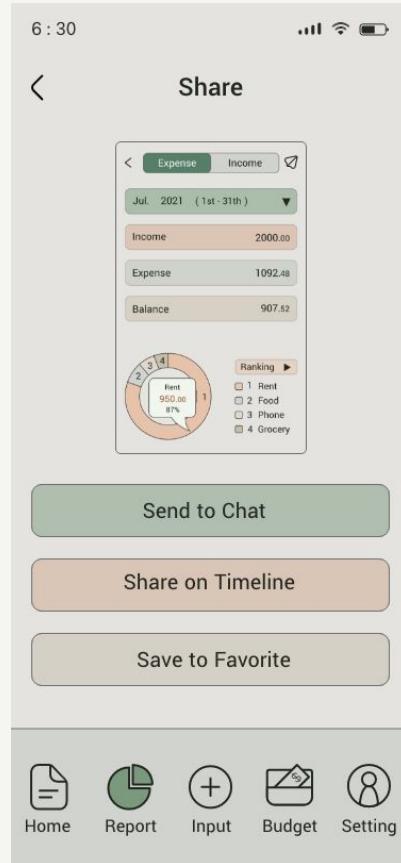


Task #3: User Share Monthly Report of July to Mom Via Facebook

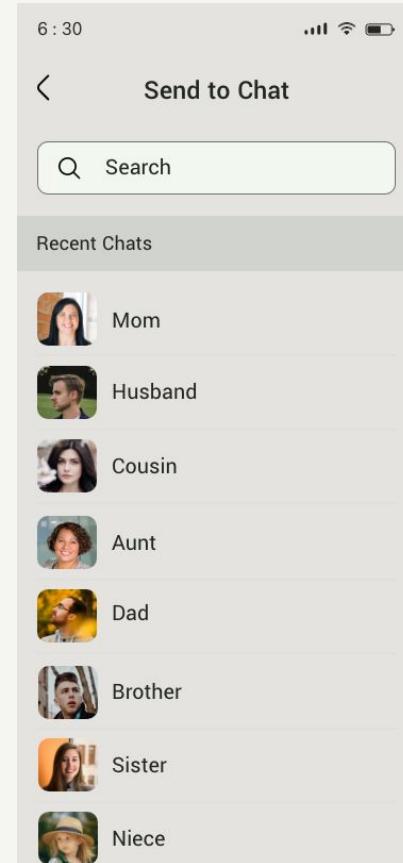
5. Monthly Report Page



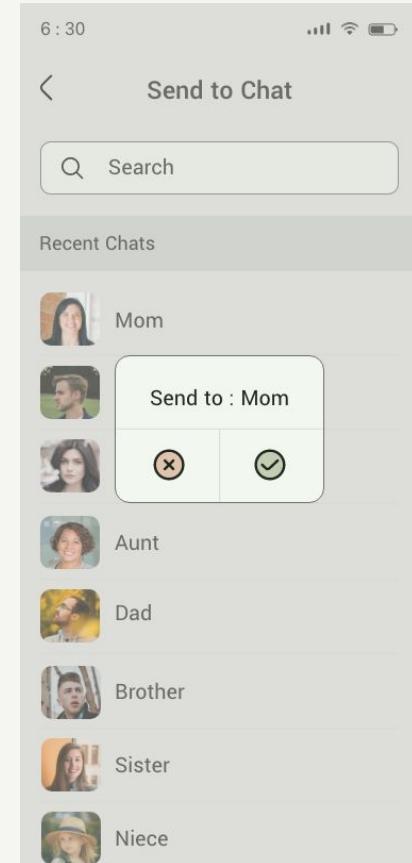
6. Share Page



7. Send to Chat Page



8. Send to Chat Page



Clickable Prototype

Task 1 - User Records Grocery Expense on July

<https://xd.adobe.com/view/d1c4a632-a281-4f8c-94af-3d422c9d9b97-8497/?fullscreen&hints=off>

Task 2 - User Sets Total Monthly Budget & By Category on August

<https://xd.adobe.com/view/99690316-ca74-4e27-9ec6-3a71bf2e6d65-cc3a/?fullscreen&hints=off>

Task 3 - User Share Monthly Report of July to Mom Via Facebook

<https://xd.adobe.com/view/977c96cb-226d-469f-bb6f-8647bb54d372-c22f/?fullscreen&hints=off>

Resources

Icons

<https://www.vecteezy.com/free-vector/icons>

Headshots

<https://unsplash.com/s/photos/headshot>

Mood Board Images

<https://www.pinterest.com/>

Surveys

<https://surveyplanet.com/>

UI References

<https://dribbble.com/>

Fonts

<https://fonts.google.com/>

Softwares

- ❖ Adobe XD
- ❖ Adobe Photoshop
- ❖ Adobe Illustrator

Thank You