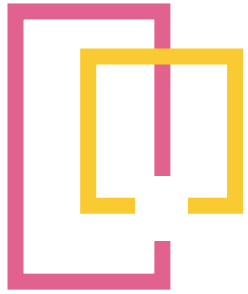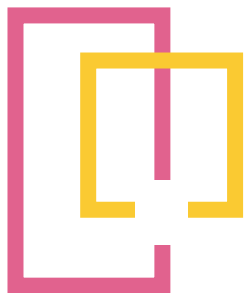# Split The Check App

MAKI HIROSE

The Mission

Improve the experience of splitting a check at a restaurant between a group of people, with a mobile app.
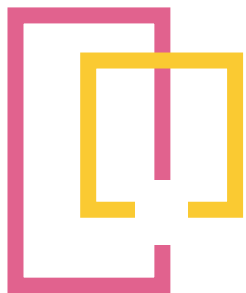
User Research: Survey & Interview Questions

A user survey was sent out and in-person interviews were also conducted. These were the questions asked:

1. What are the pain points in your experience when splitting a check with other people?

2. What would you like to see in a check splitting app, what features would make your life easier and save you time?

User Research: Demographic

The demographic of our user research participants were:
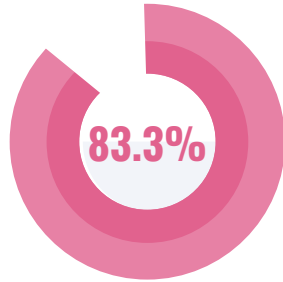
Gender: Male and Female
Race: Various
Age range: 22 - 54

User Research: Highlights of Pain Points

83.3%

Everyone orders different priced items and consumes different quantities. For the person who ordered less this is particularly unfair when splitting the check.

"Worst thing ever at a restaurant is when everyone orders different things, someone may get a T-bone steak with 3 cocktails while another person gets a salad and a lemonade. When the check comes, everyone is looking around the table to see who is the culprit for ordering the most." - Pascal C.
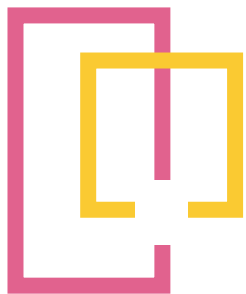
User Research: Highlights of Pain Points (cont.)

- Difficult to calculate each individual's check especially the tax and tip amount.

- A waiter is going to have trouble keeping track of separate checks and the checks would inevitably get mixed up. Some restaurants won't even allow you to split checks.

- There is always more than one person *wanting* to put the check on their credit card for the points. How do you decide who gets to do this?
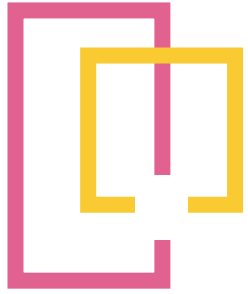
# User Research: Highlights of Wants in App

50% Want different payment methods including: Cash, Credit Card, Zelle, Venmo.

- Option for splitting the check by individual's consumed items, and another option for splitting the check evenly between everyone.

- Receipt scanning feature using smartphone's camera.

- E-mail invoices from app to each individual who is paying.

Target Audience

- Both young and older demographic.

- App must be user friendly, particularly for the non-tech savvy and older generation.
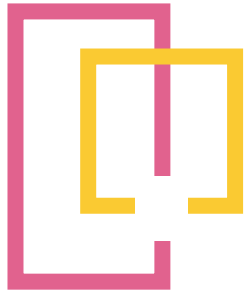
Market Research: TAB App

Tab - The simple bill splitter
bring10, LLC
OPEN

4.6 ★★★★★
270 Ratings

4+
Age

What's New
Version History
Version 3.23   2mo ago
Fixing a couple of sneaky bugs that eagle-eyed users pointed out. Keep the feedback coming, we really appreciate it!
more

Preview

Tab automatically reads items from your receipt

Tap the items you ordered to claim them

Tax & tip are divided proportionally

See your total and settle up with your group

Pay or request with integrated Venmo

View and share details of completed bills

9
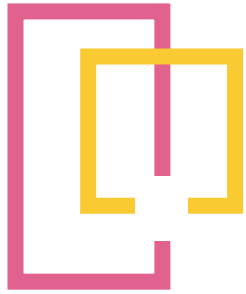
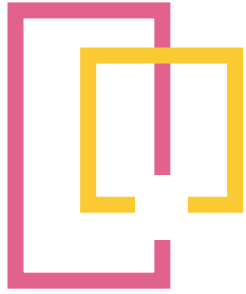# **Market Research: Problems with TAB**

- App has a cool user interface for the young and tech savvy, but not necessarily for non-tech savvy and older generation.

- App could have more options of splitting the check such as:
    1) itemize check and split by paying members
    2) split evenly

- It is not clear which items on a page are buttons and which are not.

Market Research: Problems with TAB (cont.)
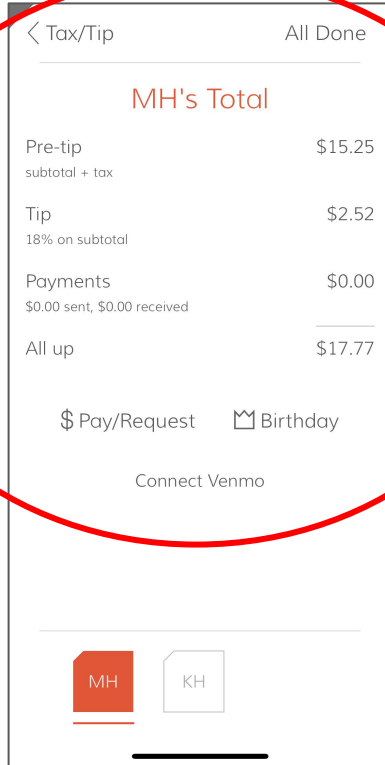
It is not clear which items on a page are buttons and which are not. With the exception of the title, all the text and buttons are the same color.

Market Research: Problems with TAB (cont.)

- App could have more options of requesting money from other paying members besides cash and Venmo. These include Zelle which is widely used by banks, and credit card because users want credit card points.

- The page layout and wording for the Grand Total Page and Individual's Total Page are inconsistent.

- App's payment modal and completed bills page are not well organized and are difficult to understand.

Market Research: Problems with TAB (cont.)

Edit Bill   Totals ›

Subtotal	$28.00
Tip (18%)	$5.04
Tax	$2.49
Grand Total	$35.53

+Add Included Tip

+Add Discounts

Tip your server

−   18%   +

‹ Tax/Tip   All Done

MH's Total

Pre-tip subtotal + tax	$15.25
Tip 18% on subtotal	$2.52
Payments $0.00 sent, $0.00 received	$0.00
All up	$17.77

$ Pay/Request   ♔ Birthday

Connect Venmo

MH   KH

The page layout and wording
on the Grand Total page (left)
and Individual's Total page (right)
are inconsistent and confusing. What is "All up" ?

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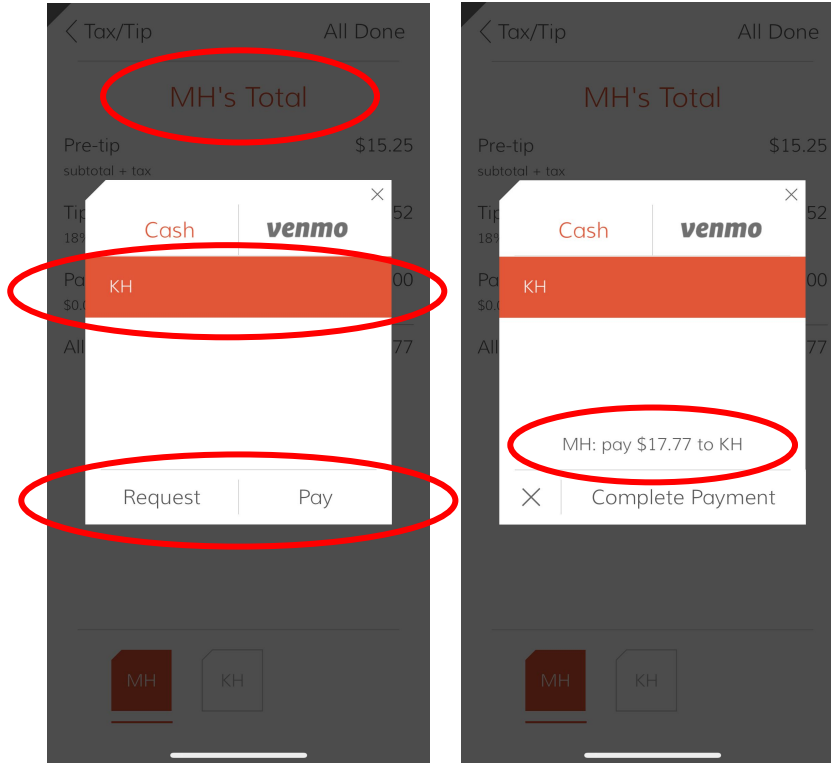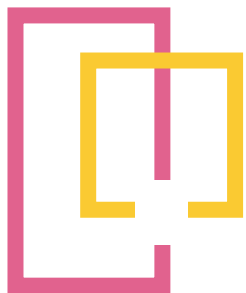
Market Research: Problems with TAB (cont.)
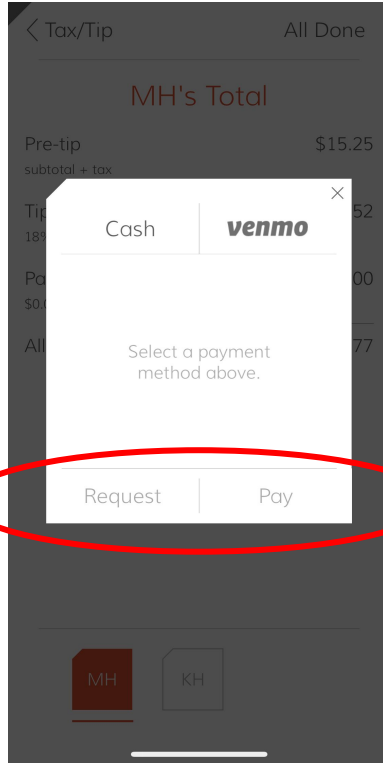
This is confusing. There should be just one person who is organizing the bill for everyone and using the app. It would be much simpler and easier to understand if this was just the request payment button. The pay button ought to be omitted.

Market Research: Problems with TAB (cont.)

Once either the Cash or Venmo button is pressed, things get even more confusing. Who is organizing the check for everyone?

In this example, is MH organizing the check or is KH organizing the check?

Market Research: Problems with TAB (cont.)

- Lack of ability to e-mail an itemized receipt for each paying member, together when requesting payment.

- The name "TAB" is cool but not necessarily user intuitive when searching for the app.

- The TAB app is free and doesn't include any advertising. However incorporating in-app advertising in a non-invasive way to the user would enable an app to create a high and consistent revenue stream. Examples of advertising include credit cards and banks.
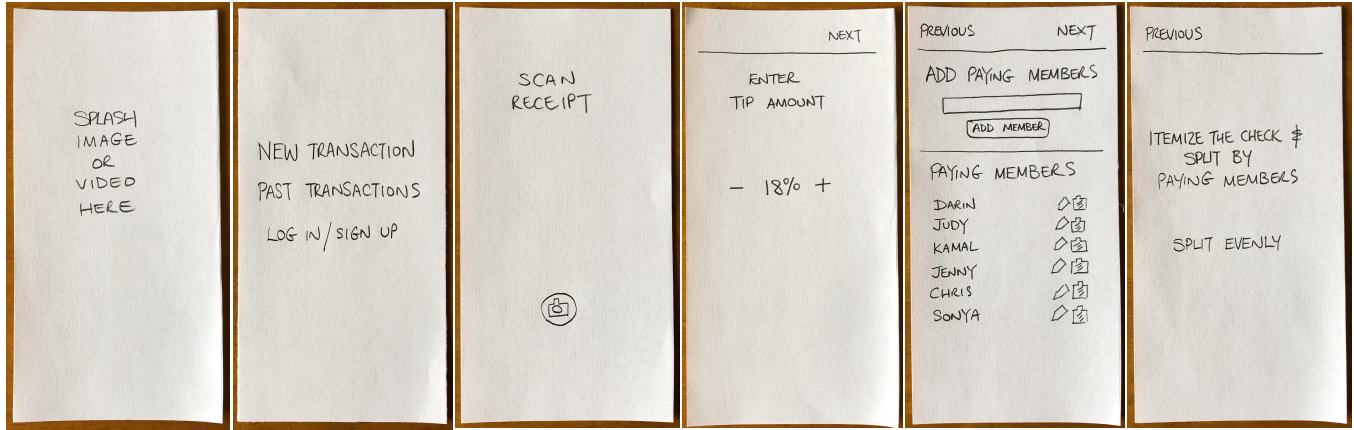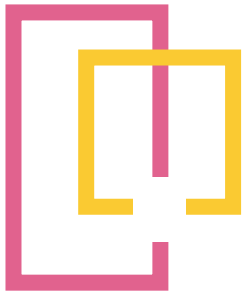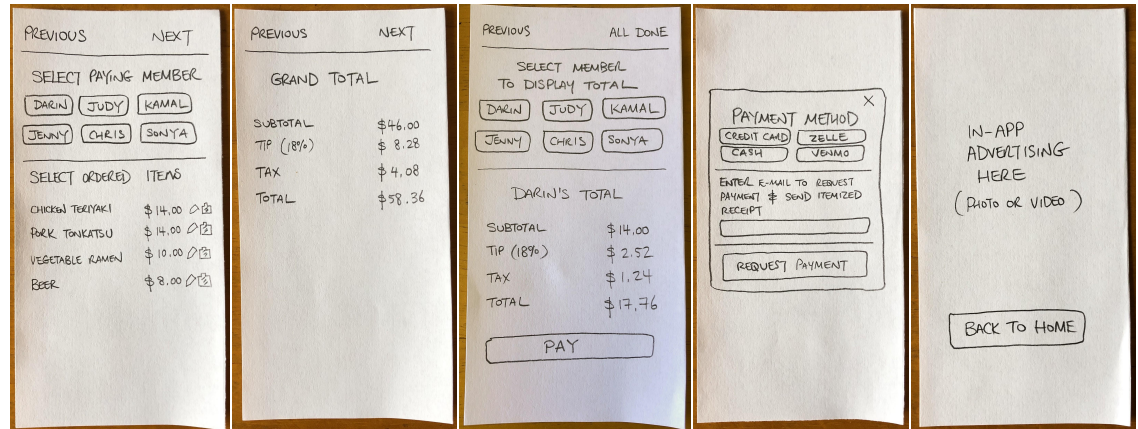
Proposed Design for "Split The Check" App
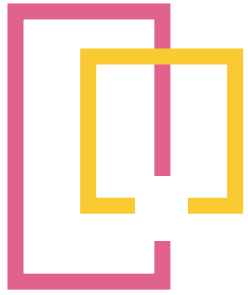
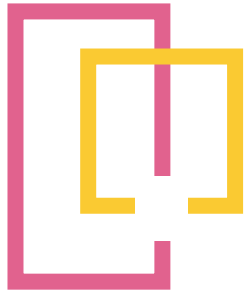# User Flow
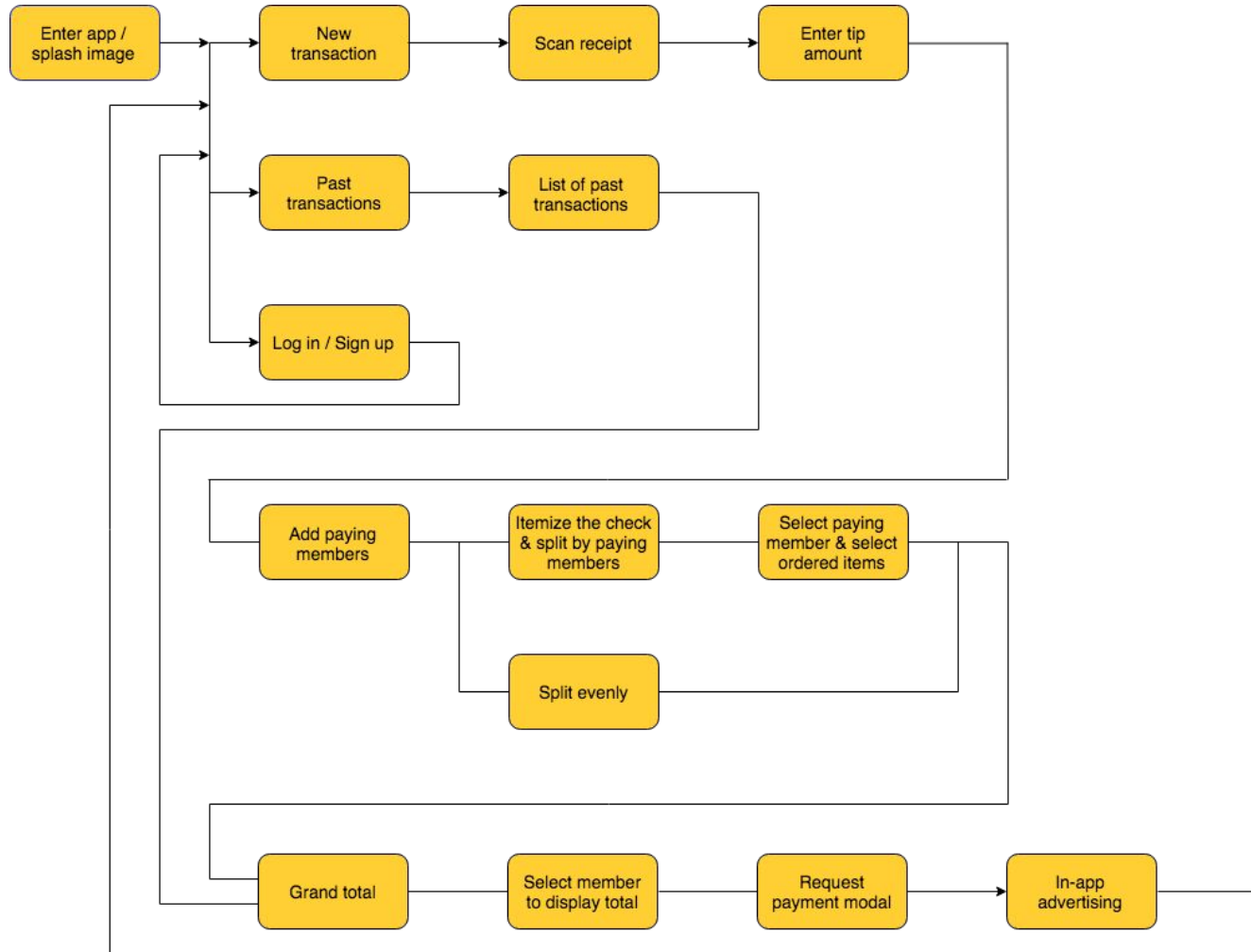
Mobile Sketches for Paper Prototyping

SPLASH
IMAGE
OR
VIDEO
HERE

NEW TRANSACTION

PAST TRANSACTIONS

LOG IN / SIGN UP

SCAN
RECEIPT

NEXT

ENTER
TIP AMOUNT

— 18% +

PREVIOUS   NEXT

ADD PAYING MEMBERS

[ADD MEMBER]

PAYING MEMBERS

DARIN
JUDY
KAMAL
JENNY
CHRIS
SONYA

PREVIOUS

ITEMIZE THE CHECK &
SPLIT BY
PAYING MEMBERS

SPLIT EVENLY

PREVIOUS   NEXT

SELECT PAYING MEMBER

[DARIN] [JUDY] [KAMAL]
[JENNY] [CHRIS] [SONYA]

SELECT ORDERED ITEMS

CHICKEN TERIYAKI $14.00
PORK TONKATSU $14.00
VEGETABLE RAMEN $10.00
BEER $8.00

PREVIOUS   NEXT

GRAND TOTAL

SUBTOTAL $46.00
TIP (18%) $ 8.28
TAX $ 4.08
TOTAL $58.36

PREVIOUS   ALL DONE

SELECT MEMBER
TO DISPLAY TOTAL

[DARIN] [JUDY] [KAMAL]
[JENNY] [CHRIS] [SONYA]

DARIN'S TOTAL

SUBTOTAL $14.00
TIP (18%) $ 2.52
TAX $ 1.24
TOTAL $17.76

[PAY]

PAYMENT METHOD   ✕
[CREDIT CARD] [ZELLE]
[CASH] [VENMO]

ENTER E-MAIL TO REQUEST
PAYMENT & SEND ITEMIZED
RECEIPT

[REQUEST PAYMENT]

IN-APP
ADVERTISING
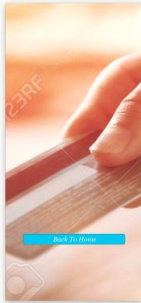HERE

(PHOTO OR VIDEO)

[BACK TO HOME]

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High Fidelity Mobile Sketches

Mobile 1

Mobile 2
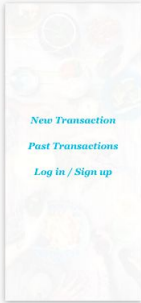
Mobile 3
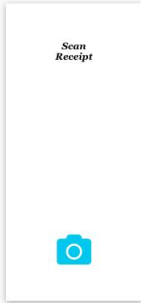
Mobile 4

Mobile 5

Mobile 6

Mobile 7
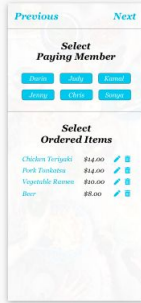
Mobile 8

Mobile 9

Mobile 10

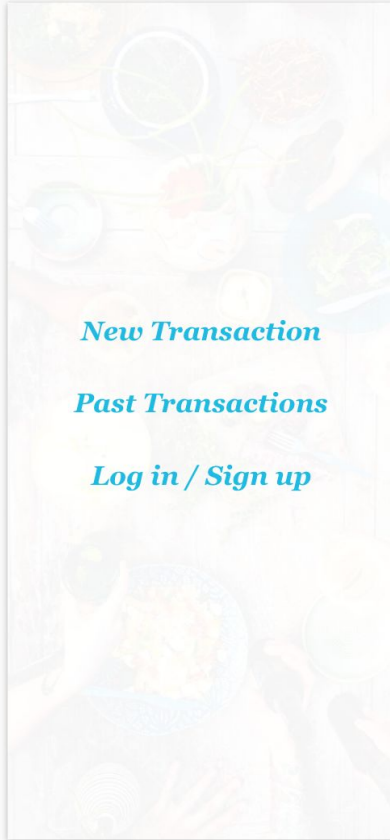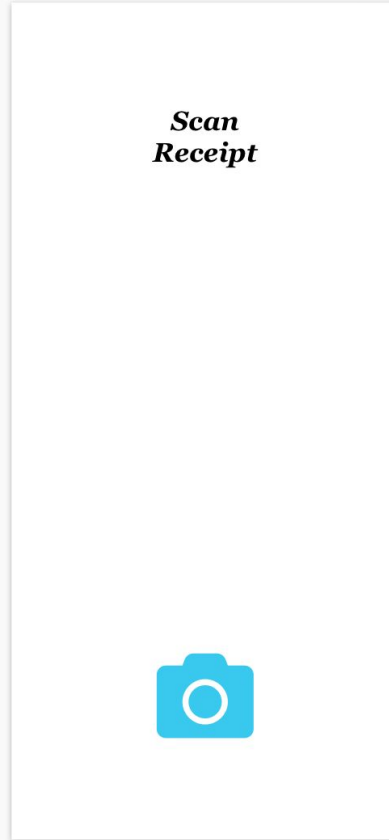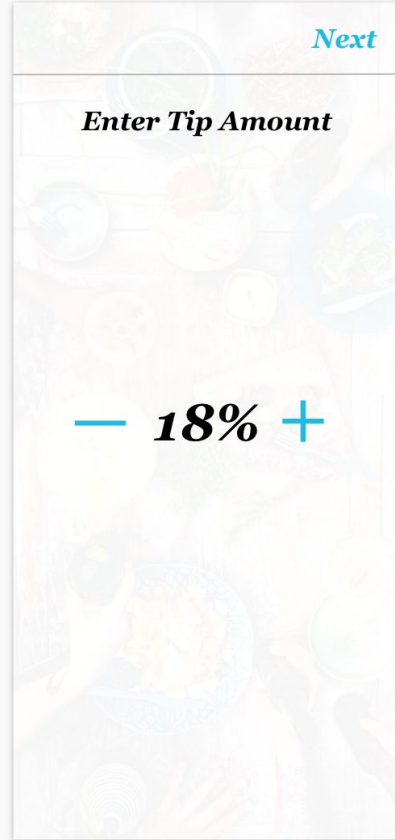Mobile 11

Split The Check

New Transaction

Past Transactions

Log in / Sign up

Scan Receipt

Next

Enter Tip Amount

− *18%* +

21

Previous   **Next**

Add Paying Members

Add Member

Paying Members

Darin

Judy

Kamal

Jenny

Chris

Sonya

Previous

Itemize The Check And Split By Paying Members

Split Evenly

Previous   **Next**

Select Paying Member

Darin   Judy   Kamal

Jenny   Chris   Sonya

Select Ordered Items

Chicken Teriyaki	$14.00
Pork Tonkatsu	$14.00
Vegetable Ramen	$10.00
Beer	$8.00

Previous   **Next**

Grand Total

Subtotal	$46.00
Tip (18%)	$8.28
Tax	$4.08
Total	$58.36

22

Previous   **Next**

Select Member
To Display Total

Darin   Judy   Kamal

Jenny   Chris   Sonya

Darin's Total

Subtotal	$14.00
Tip (18%)	$2.52
Tax	$1.24
Total	$17.76

Pay

✕

Select
Payment Method

Credit Card   Zelle

Cash   Venmo

Enter e-mail to request payment
and send itemized receipt

Request Payment

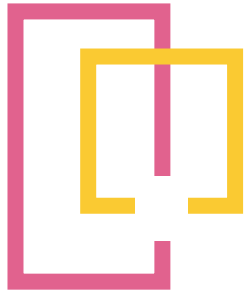Tip (18%) $2.52
Tax $1.24
Total $17.76

Back To Home

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Additional Notes on App Design

- Except for splash page branding text, all buttons are colored and all non-buttons are in black.
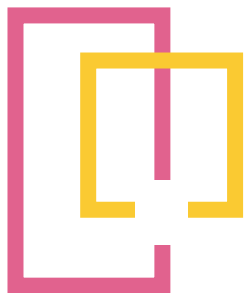
Photography

- The TAB app had a logo but lacked in a hero image. In a day and age where advertising has dwindled down to boring copy on a colored background--something that could have easily be made in Microsoft Word--having a photograph or illustration as a hero image is key for making an app more prominent to a user's mind.

- The hero image was sourced from a stock image site.

- This particular image was chosen because it transports a user's mind to a pleasurable experience dining out with a group.
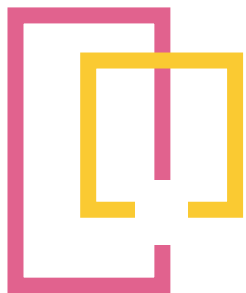
Coded Prototype for

Mobile Responsiveness Testing

Click here to view deployed prototype app

Realizations having coded a Prototype

- Some page elements such as section headers that were centered in the Sketch design might be better served with being aligned to the left upon testing mobile responsiveness with a coded prototype.

- Positioning of background image will change with screensize so deciding on an overall position that works across different devices need to be considered.

- Bootstrap grid can cause elements to not render in the same way intended in the original sketch.

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Future Development

- Consider creating a "round up" button on the payment link e-mail that is sent to paying members.

- Including more payment options such as Apple Pay, Apple Card, Cashapp, and Bitcoin.

- Additional design variation to conduct A/B testing.
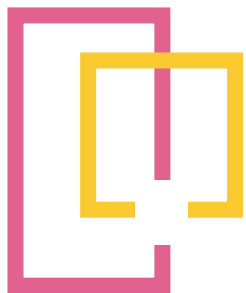
GitHub & Heroku URLs

Sketch Design:
https://github.com/makicoding/Split-The-Check

Code for mobile responsive prototype:
https://github.com/makicoding/Split-The-Check-Prototype

Deployed mobile responsive prototype:
https://aqueous-bayou-95081.herokuapp.com/

Thanks!

Contact Maki at:
maki@makicoding.com
makicoding.com