

# INF 353 Assignment 1

## Desktop User Interface

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## 1. Design Pitch

We believe that most of the needs of food kiosk employees, who are our clients, revolve around the satisfaction of customers. Customers want to know that their information is safe and stored properly. They want their information and account to be ready to use when they are checking out. They also want to accumulate points and redeem their points so there must be an effective and accurate application to store this information. Customers do not want to have to repetitiously create accounts because the application on which their information is stored cannot find their account information. Meeting the kiosk customer's expectations is one part of the solution. In addition, we do not want kiosk employees to have to interact with frustrated or emotional customers because it will cause unnecessary stress and frustration for employees. We want to make the experience for both parties seamless. Therefore, the other part of the solution is to make the kiosk employees' jobs as easy and straightforward as possible with an application that is easy to learn and use. We will reference the experiences of group member Qiaoru Zhang in the assumptions phase and in order to validate our assumptions based on Qiaoru Zhang's experiences, we will interview many different former food industry employees for shared or conflicting experiences.

Our desktop app will be a simple and effective way to store, manage, and update customer information. A major problem is that outdated account management methods and software are difficult to use and navigate. Information can end up lost or being stored in the wrong place, which would make the kiosk employee's job stressful as he or she tries to find the account without upsetting the customer. Our application must minimize the chance of employee mistakes and frustrated customers. An existing example would be establishments that store customer information on Excel, such as the Cafe that our personna Calvin the Cashier works at. Excel can be tedious and time consuming to navigate as the establishment's business grows and the customer base is big. Employees have to manually search for customer information instead of using an automated process. It is also not a secure way to store personal information, and the lack of clear labels for each category leaves a lot of room for trivial mistakes. In addition, it is easy to disturb other customer account information with Excel because everything is always available for edit. We want to ensure that the employees will be spending more time interacting with the customers than with the machine.

We have come up with a few simple solutions to solve these problems. Our app will have a simple search page that will find the customer's account using a phone number or student id number. In addition to the search bar, we will strive to minimize the page changes in all application processes. We will remove all unnecessary steps, pages, and information to make the application

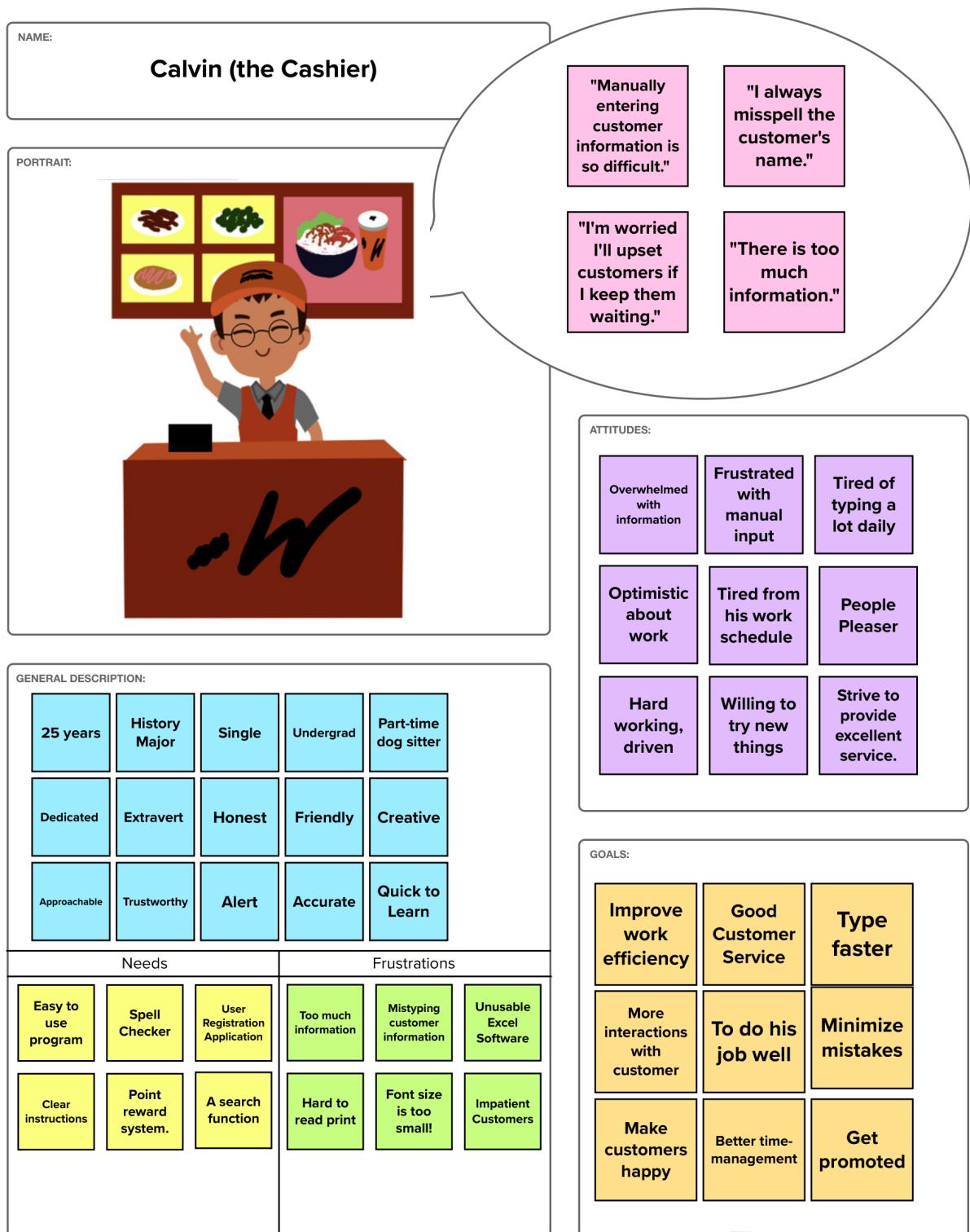
as simple and intuitive as possible. This will also prevent any problems relating to internet or server connection because there will be fewer pages and less page content to load. We will also implement many steps to avoid accidents and unnecessary mistakes. The application user must purposefully click the edit button or delete button in order to change an account. There are confirmation pages that ensure accounts are not being accidentally changed or deleted. We purposefully made it easy to cancel any operation or navigate back to the home page, which is checkout. The amount of points added or redeemed by an account is automatically calculated by the application based on the price of purchase. We believe that as a result of all the solutions we implemented, customers will be satisfied with the speedy service and kiosk employees can worry less about their performance or customer feedback.

## 2. One proto - persona

Our proto-persona is Calvin the Cashier. He works at a cafe in Toronto that used to use excel sheets to store customer information. He is a friendly, outgoing, and dedicated worker who is eager to help customers, but is often frustrated by the cafe's outdated methods. By storing information in excel sheets, there is a lot of room for error and it keeps customers waiting longer than necessary, which can lead to unhappy customers. Finally, his boss decided to implement a points reward app and he suggested that Calvin test run the application. Calvin the Cashier's approach focuses on if the application addresses his needs. In order of priority, the app must have a clear and fast process that is easy to pick up, easy to use, and not prone to error. The goal is for the app to help cashiers like Calvin do their job better in a timely fashion so that customers are happy and cashiers have less worries about mistakes on the job. (Please follow this MURAL link for the proto-persona: <https://app.mural.co/t/inf3527270/m/inf3527270/1612133309487/87e3c56acd3cf9ec57c775fbef21ea6c83d4b500>)

# Persona Profile

INF 353 Assignment 1 - Goldie Zhu, Qiaoru Zhang



3. One set of hand - Drawn low - fidelity sketches of the user interface

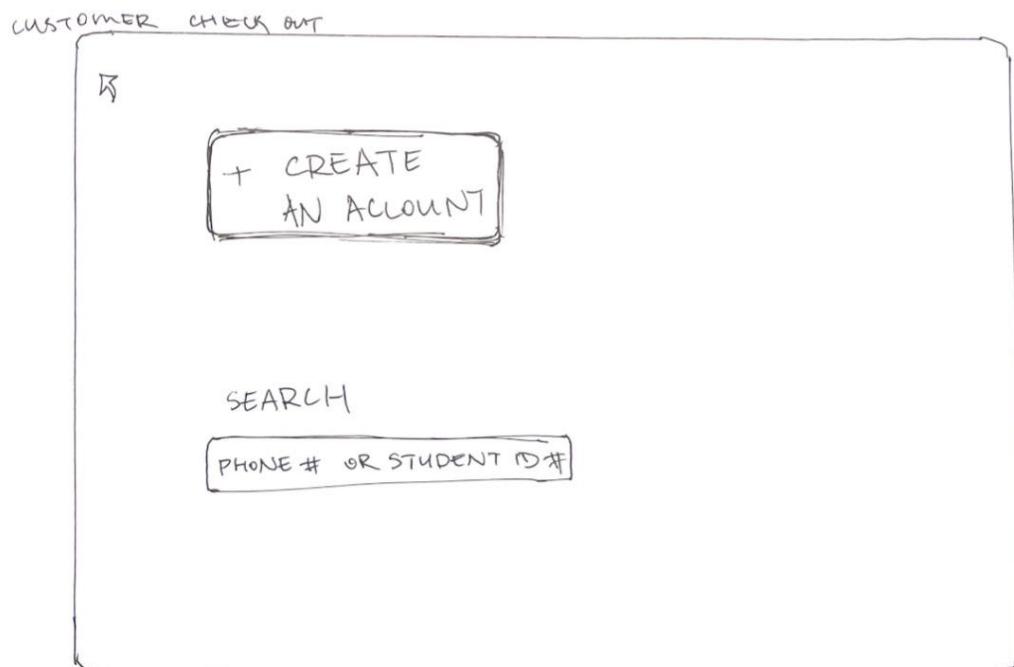
1) Add a new customer account

a. Home Screen

HOME



b. Customer Check Out



c. Create an account

CREATE AN ACCOUNT

NEW ACCOUNT

Name \*

PHONE # OR STUDENT ID #\*

CONFIRM

CANCEL

(\*) indicates required fields.

d. Confirmation for account creation

confirmation

Account ~~successfully~~ created.

Name

#

Points : 0

CHECK OUT

## 2) Delete a new customer account

- a. Home Screen for account information

<input type="checkbox"/> New Card	<input type="checkbox"/> Card Redeem	<input type="checkbox"/> Card Fetch	<input type="checkbox"/> Card Freeze	<input type="checkbox"/> Card Cancellation	<input type="checkbox"/> Change password.
Account Information.					
Name <input type="text"/>	level: <input type="text"/>	Telephone <input type="text"/>	edit.		
Membership Category.	Card Number.	Points Information			
		Cumulative points: <input type="text"/>	Available points <input type="text"/>		
Registration Date	Cancellation Date				

- b. Delete account

Cancellation Card:

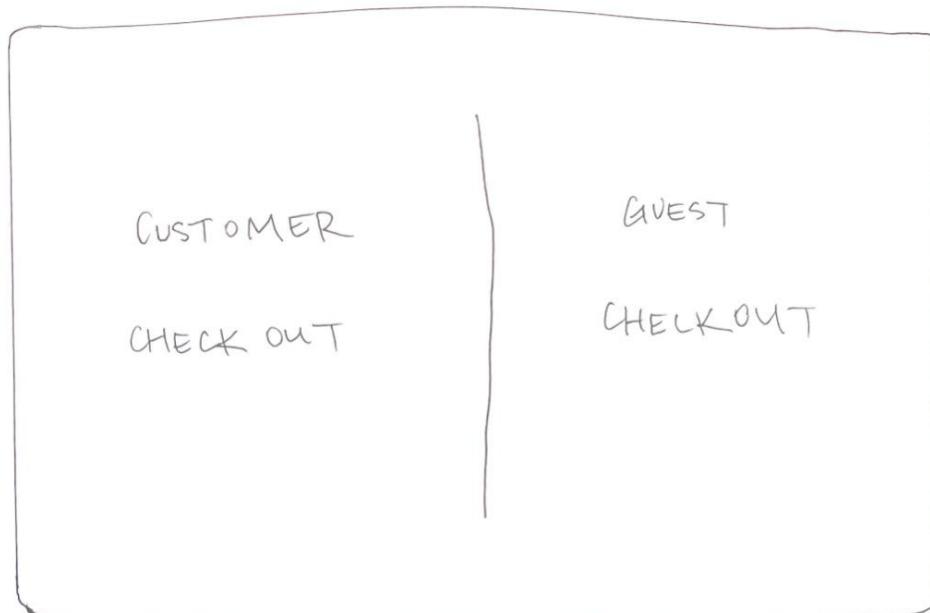
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	Name: <input type="text"/>
	+ Evel: <input type="text"/>
	Telephone: <input type="text"/>
	Registration Date <input type="text"/>
	Cancellation Date <input type="text"/>
	Cumulative Points <input type="text"/>
<input type="button" value="Edit"/> <input type="button" value="Cancel"/>	

3) Summary of the reward points for a customer

a. Home Screen

HOME



b. Customer check out

CUSTOMER CHECK OUT

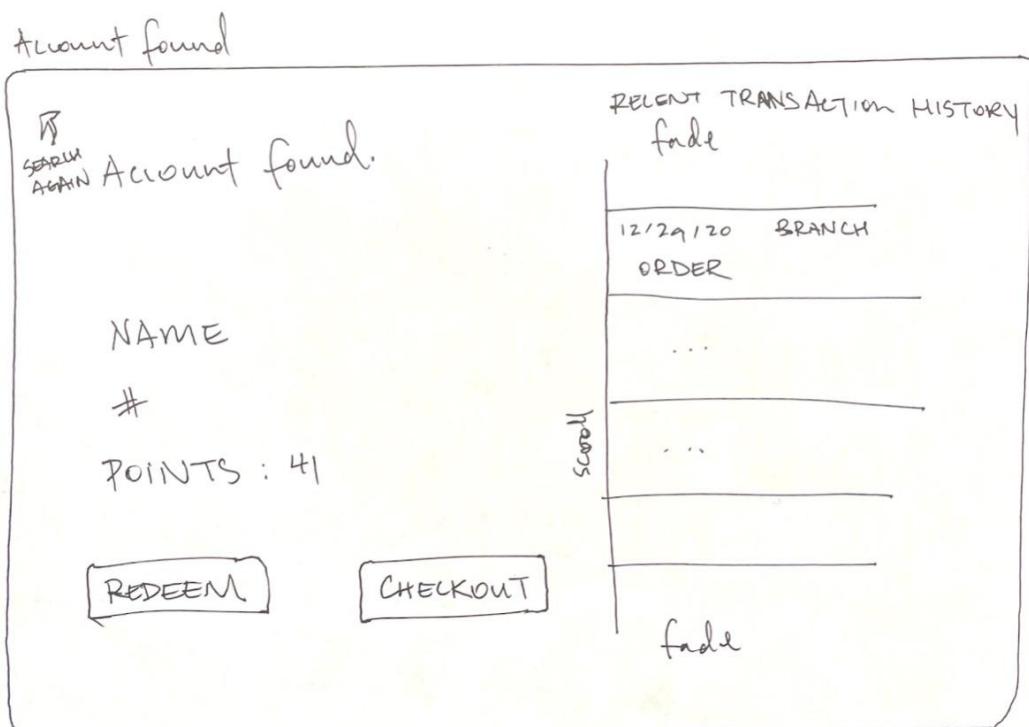
R

+ CREATE  
AN ACCOUNT

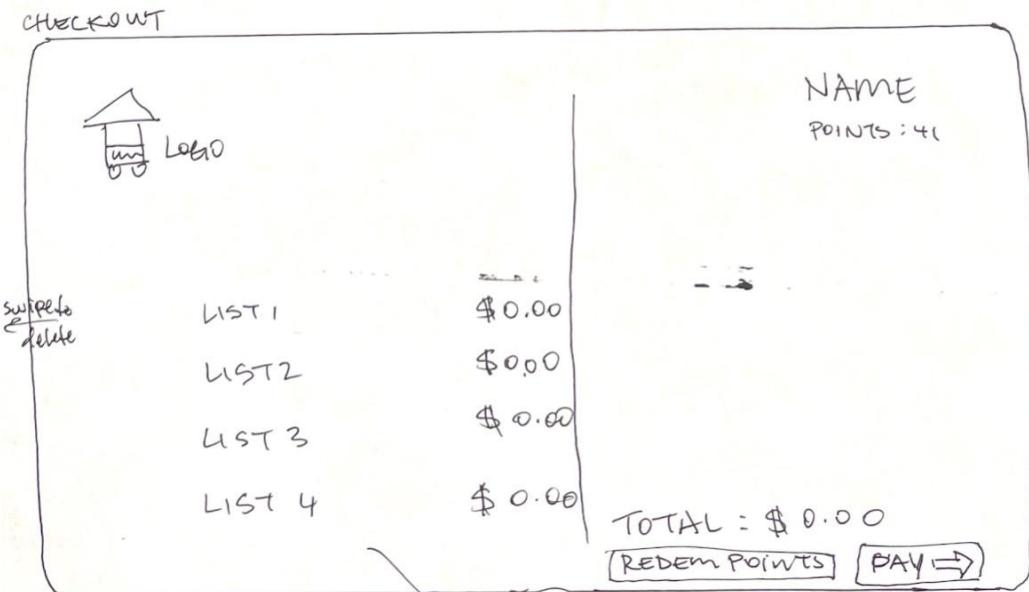
SEARCH

PHONE # OR STUDENT ID #

c. Account found



d. Check out



#### 4) Update the point balance

- Home Screen for transaction history

Point management

Point Program	Exchange program	Redeem point	Clear points	Inquiry
home	Customer level	Telephone	Note	
Default level				

- Confirmation to redeem points

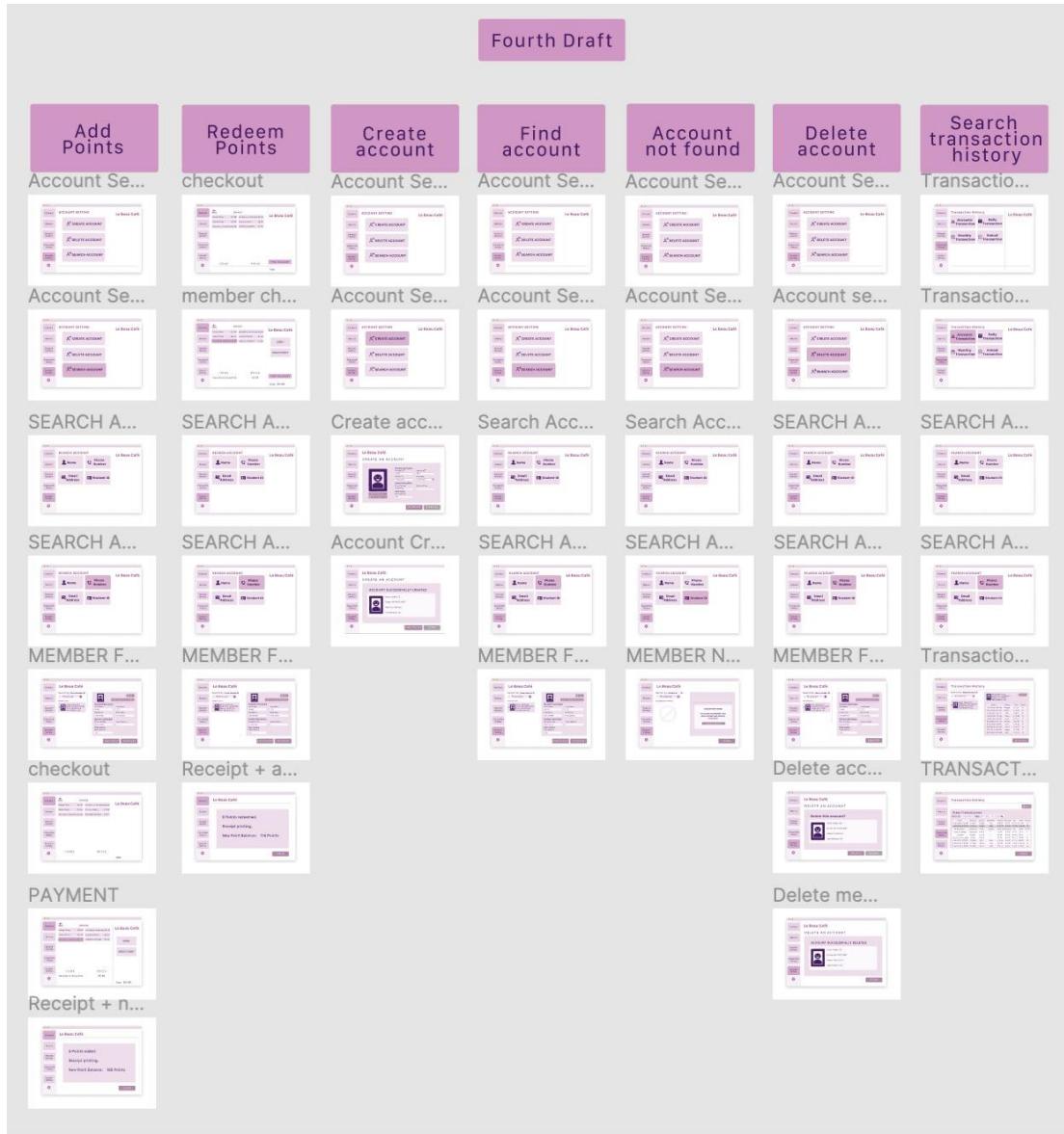
Reedem Points

Name: <input type="text"/>	Cumulate points <input type="checkbox"/>
Add points: <input type="text"/>	
Create Date: <input type="text"/>	
<input type="button" value="Cancel"/>	<input type="button" value="Confirm"/>

## 4. Figma clickable high – fidelity prototype

Please follow this FIGMA link for the clickable high - fidelity prototype, the fourth draft is our final version:

<https://www.figma.com/file/8GGUXpxTaTnukMqE9KmCJ9/INF353-Desktop-UI?node-id=3%3A1300>

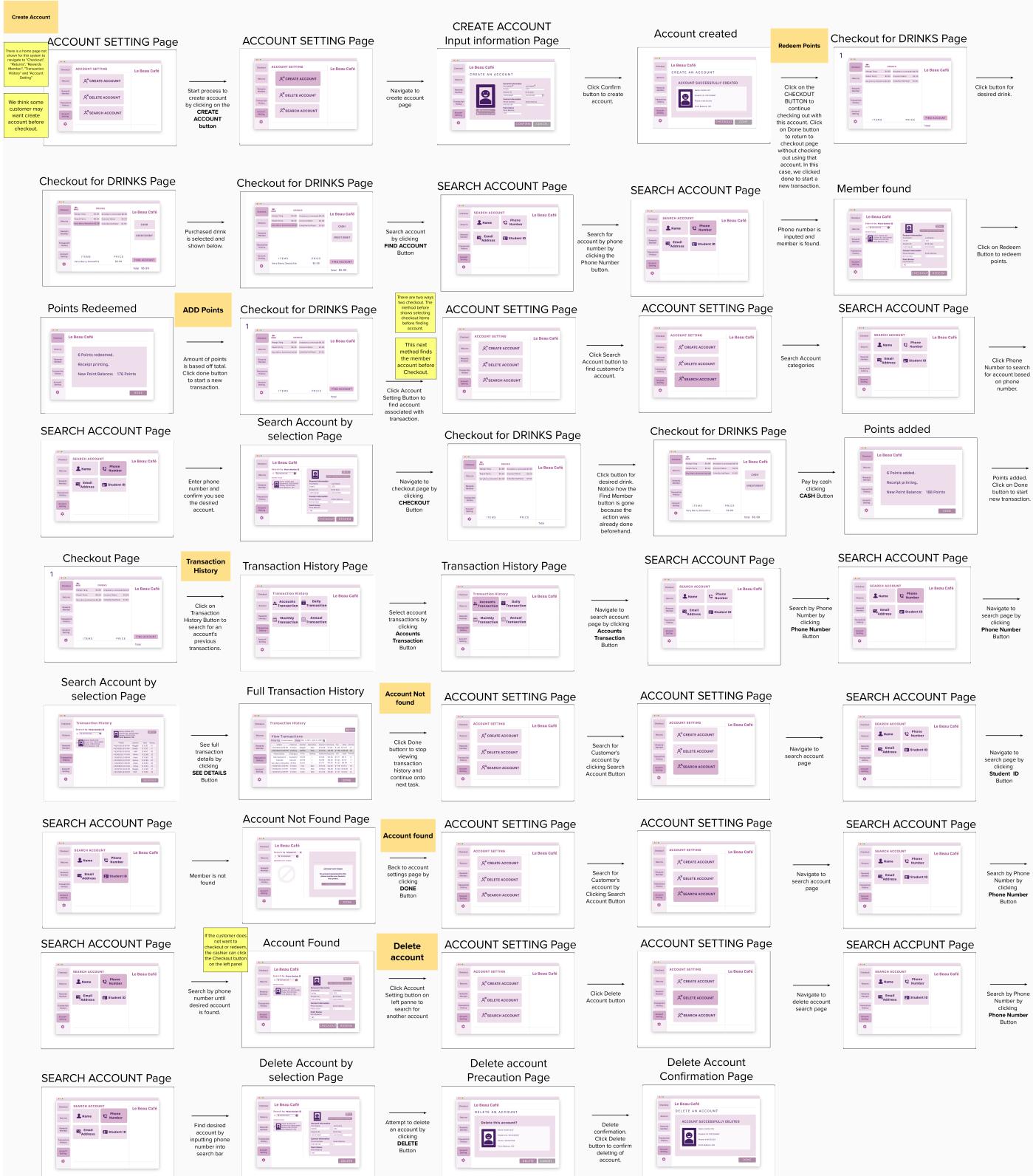


## 5. High – fidelity prototype

Please follow this MURAL link for the clickable high - fidelity prototype sequential storyboard:

<https://app.mural.co/t/inf3527270/m/inf3527270/1613336537978/876add46eb9a8d86bb5bdac1feaf32baff2149e5>

## High Fidelity Story Board



## **6. Evidence of iterative feedback throughout the process**

Summary of Interviews and Iterative Processes:

The goal for the usability testing of our low-fidelity paper prototype was to gather preliminary feedback on the ease of use and effective problem solving of our application. Restrictions imposed by COVID-19 limited our access to participants so testing was done remotely. The two selected participants were former employees in the food industry and are representative users resembling our persona, Calvin the Cashier. Each participant verbalized their consent to the application designers. The two participants then navigated through our low fidelity storyboard and gave us feedback on the clarity and failings of our features, which helped us create our first high-fidelity application.

Next, we conducted the usability testing of our initial high-fidelity application design via Figma's clickable prototype. For each interview, we gave the participants one task at a time to do and would allow the participants to interact with the application with minimal interference. When the participant struggled to complete the task, the reasons were noted and one of us would then give the participant some assistance. With each iteration of our design, participants found it easier to complete tasks and interact with the application. By our final version of the application, the participants' self-reported metrics indicated that the interface design was clear with few issues. There were a few areas that needed improvements, such as the choice of darker colors used and communication between the investigator and Participant #2, but the general processes proved to be simple and straightforward. We made some minor adjustments in color and fonts to improve consistency but overall, we are satisfied with our final design and the application's feedback.

<u>Participant #1</u>	
Things that worked	Redeem process is really good and user friendly
Things to change	The purple tone is a little bit dark
Questions	If buy will the item show twice? What do you mean on search account by date
New Ideas	Add item description and suggestion system.

Participant #2	
Things that worked	Create and delete account
Things to change	Make clear the customer scenario first. As a user testing this out, I need to know that I'm a cashier, already checked out the item, and the customer wants to make an account.
Questions	Nope - pretty straight forward!
New Ideas	Maybe make it so that the logo "Le Beau Cafe" is clickable too - like it'll bring you to the home page or something.

## 7. Design specifications that document all

- a) font sizes and their purposefont sizes and their purpose,

CATEGORY / ROLE	FONT SAMPLE
Cafe Name	<b>SF Compact</b>  <b>Display Bold 44</b>
Big buttons, Title of pages with major Buttons, such as Find Account, Search Account	<b>SF Compact</b>  <b>Display Bold 36</b>

Action Page title text, such as Edit Account, Delete an Account, Create an Account	<b>SF Compact Text 36</b>
Checkout Button,  Redeem Button text,  Cancel Button text,  Delete button text,  Done Button text,  Confirm Button text	<b>SF Compact Text 32  (ALL CAPS)</b>
Checkout total	<b>SF Compact Text 30</b>
Checkout Cash Button, Find Account Button	<b>SF Compact Text 28  (ALL CAPS)</b>
the word “Total”	<b>SF Compact Text 28</b>
Checkout Credit/Debit Button	<b>SF Compact Text 26  (ALL CAPS)</b>

Purchased Items Text under items and price, “Drinks” title on Checkout page	<b>SF Compact Text 26</b>
Left Panel Text, Drink Menu Text	<b>SF Compact Text 22</b>
Transaction History Page See Details Button	<b>SF Compact Text 22 (ALL CAPS)</b>
Drink Menu text, Delete Account Page Account information, Add Account Button text	<b>SF Compact Text 20</b>
Personal Information Title text on Account information (Personal Information, Contact Information, Point Status), Account Not Found Text	<b>SF Compact Text 20</b>
Search bar text size, Account information text size, Account not found text, Edit account button, View Transaction History button, Take picture button text, Scan student card button text, Transaction History text	<b>SF Compact Text 18</b>
Member Found title	<b>SF Compact Text 14</b>

**b) colours you used and their purpose**

Swatch	Hex Code	Purpose
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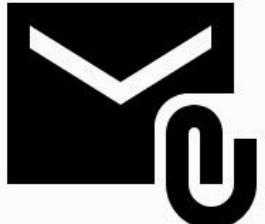
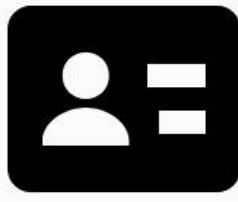
**b) colours you used and their purpose**

Swatch	Hex Code	Purpose
	461D65	All Text except titles, icons  (Profile picture, search icon, etc.)
	AA5697	Screen titles and Cafe Name
	AA5697 (20%)	Left panel buttons, Title bar
	AF86A6	Buttons on Account pages (Checkout, Redeem) and Finished Processes buttons (Done)
	E0B5D6	Find Account buttons during Checkout
	ABA0A9	Done button on Account Created, Cancel buttons
	28C840	Green button on title bar
	FEBC2E	Yellow button on title bar
	FF5F57	Red button on title bar

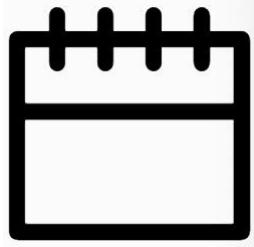
	785B71	lines on checkout page
	FFFFFF	Text on dark buttons

c) and cite all external assets you have used.

Button	Name	Author	License	Purpose
	Toolbar Standard Example 2	macOS-11-Ske tch.dmg	Apple Design Resources	Toolbar for all screens
	line-md:accou nt-add	Vjacheslav Trushkin	MIT	Create Account Icon
	line-md:accou nt-delete	Vjacheslav Trushkin	MIT	Delete Account Icon
	ant-design:sea rch-outlined	HeskeyBaozi	MIT	Search Icon
	wpf:name	Icons8	Good Boy License	Name Icon

	bx:bxs-phone-call	IBM	Apache 2.0	Phone Icon
	ic:sharp-attachment-email	Material Design Authors	Apache 2.0	Email Icon
	bx:bxs-id-card	Atisa	CC BY 4.0	ID ICON
	clarity:happy-face-solid	VMware	MIT	Small Icon
	eva:refresh-filled	Akveo	MIT	Research Icon
	ion:close-circle	Ben Sperry	MIT	Close Icon
	ant-design:check-outlined	HeskeyBaozi	MIT	Check Icon

	ant-design:setting-filled	HeskeyBaozi	MIT	Setting Icon
	bx:bx-edit	Atisa	CC BY 4.0	Edit Icon
	fxemoji:back-withleftwardsarrow	Mozilla	Apache 2.0	Back Icon
	icons8:old-time-camera	Icons8	Good Boy License	Take Picture Icon
	wpf:facial-recognition-scan	Icons8	Good Boy License	Scan Icon
	uil:calender	Iconscout	Apache 2.0	Calender Icon
	el:ban-circle	Team Redux	Open Font License	Infomation Missing Icon

	eva:people-fill	Akveo	MIT	Accounts Icon
	bi:calendar2-month	The Bootstrap Authors	MIT	Month Calender Icon
	bytesize:calendar	Dan Klammer	MIT	Year Calender Icon
	mdi:calendar-clock-outline	Austin Andrews	Open Font License	Search Calender Icon