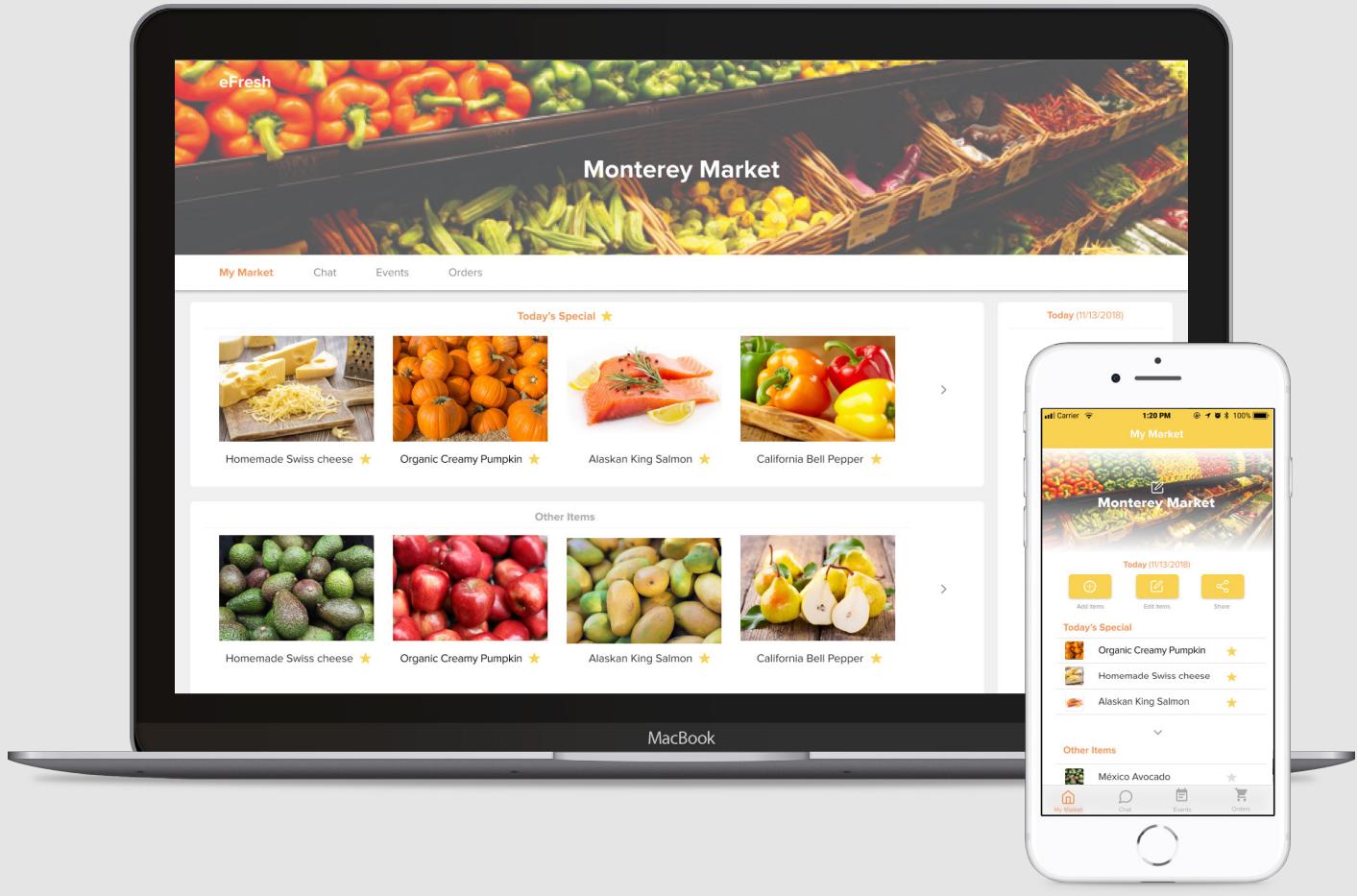


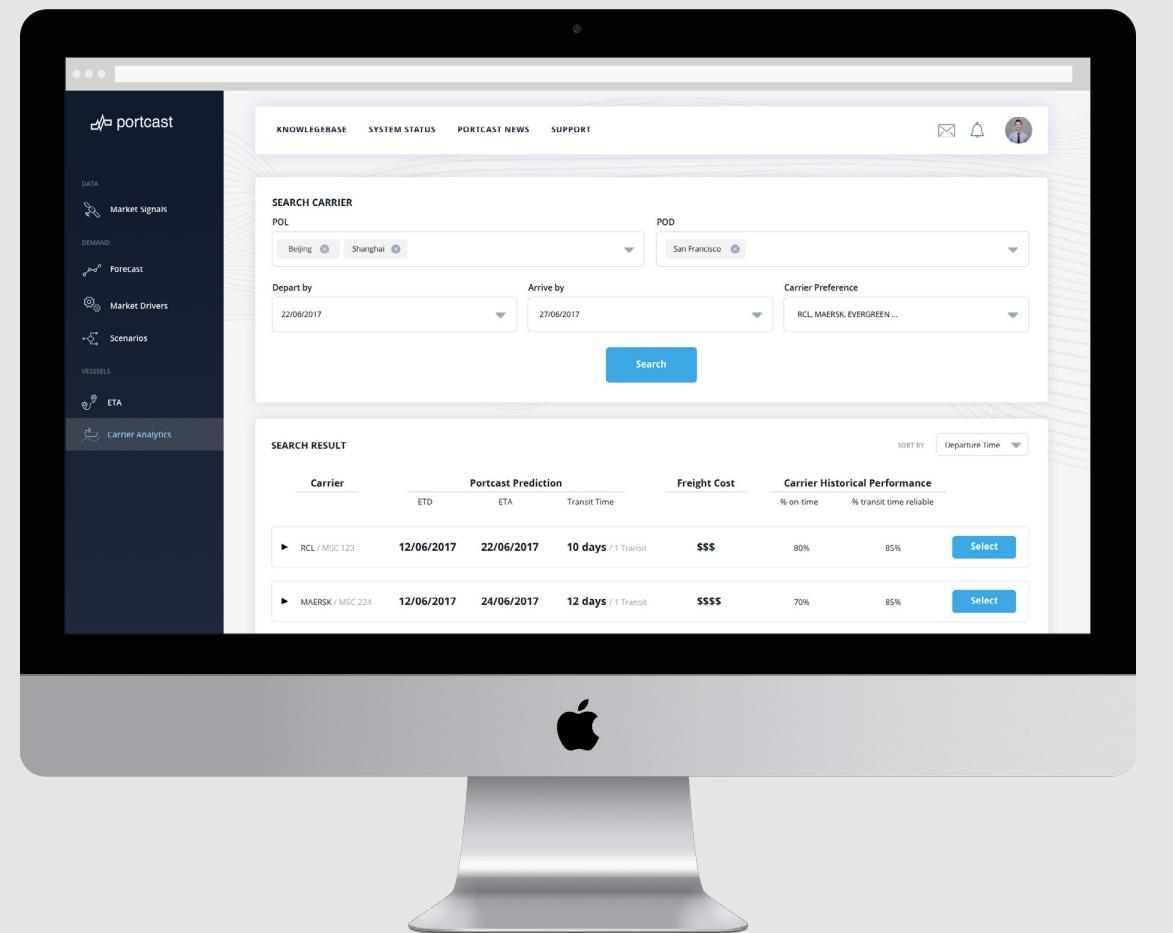
Chengcheng Huang
Product | User Experience Designer

WORK SAMPLES 2016-2019
FOR EYES ONLY — PLEASE DO NOT SHARE



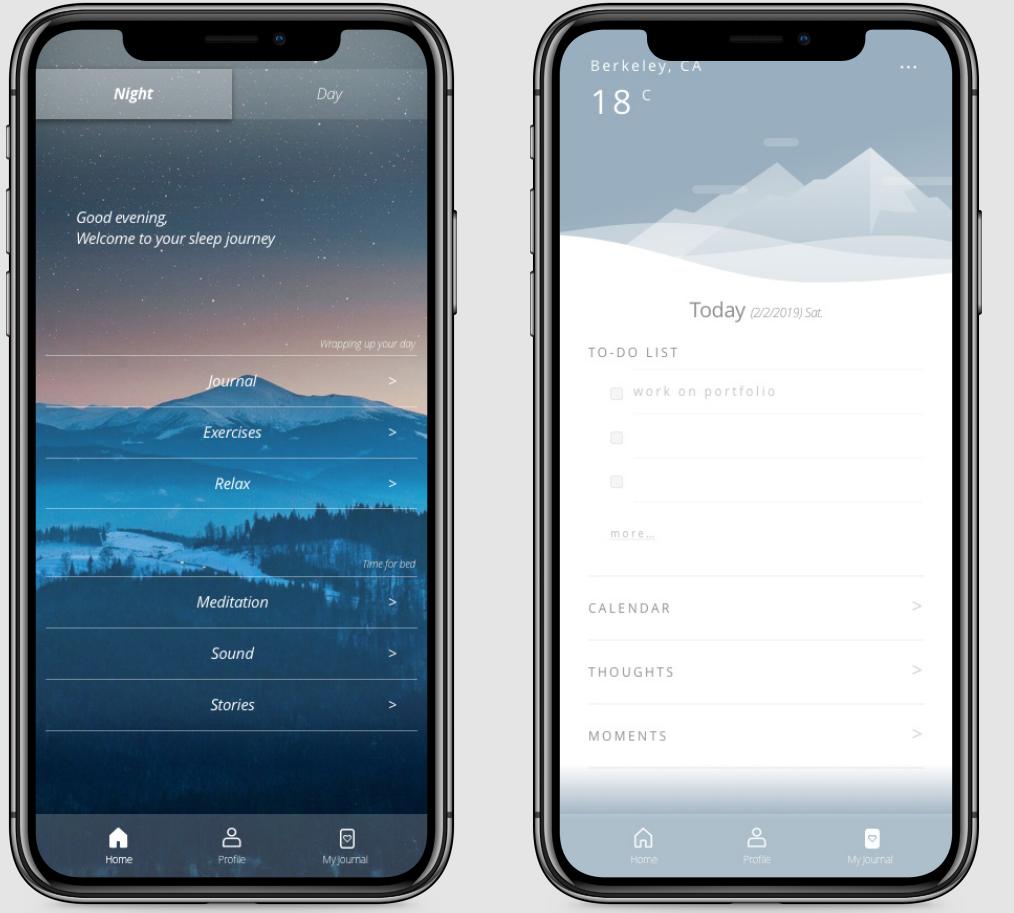
1 - eFresh

HELPING INDEPENDENT GROCERY MARKET OWNERS
START ONLINE BUSINESS



2 - Portcast Analytics platform

MAKING IT EASY TO CHOOSE A SHIPPING CARRIER



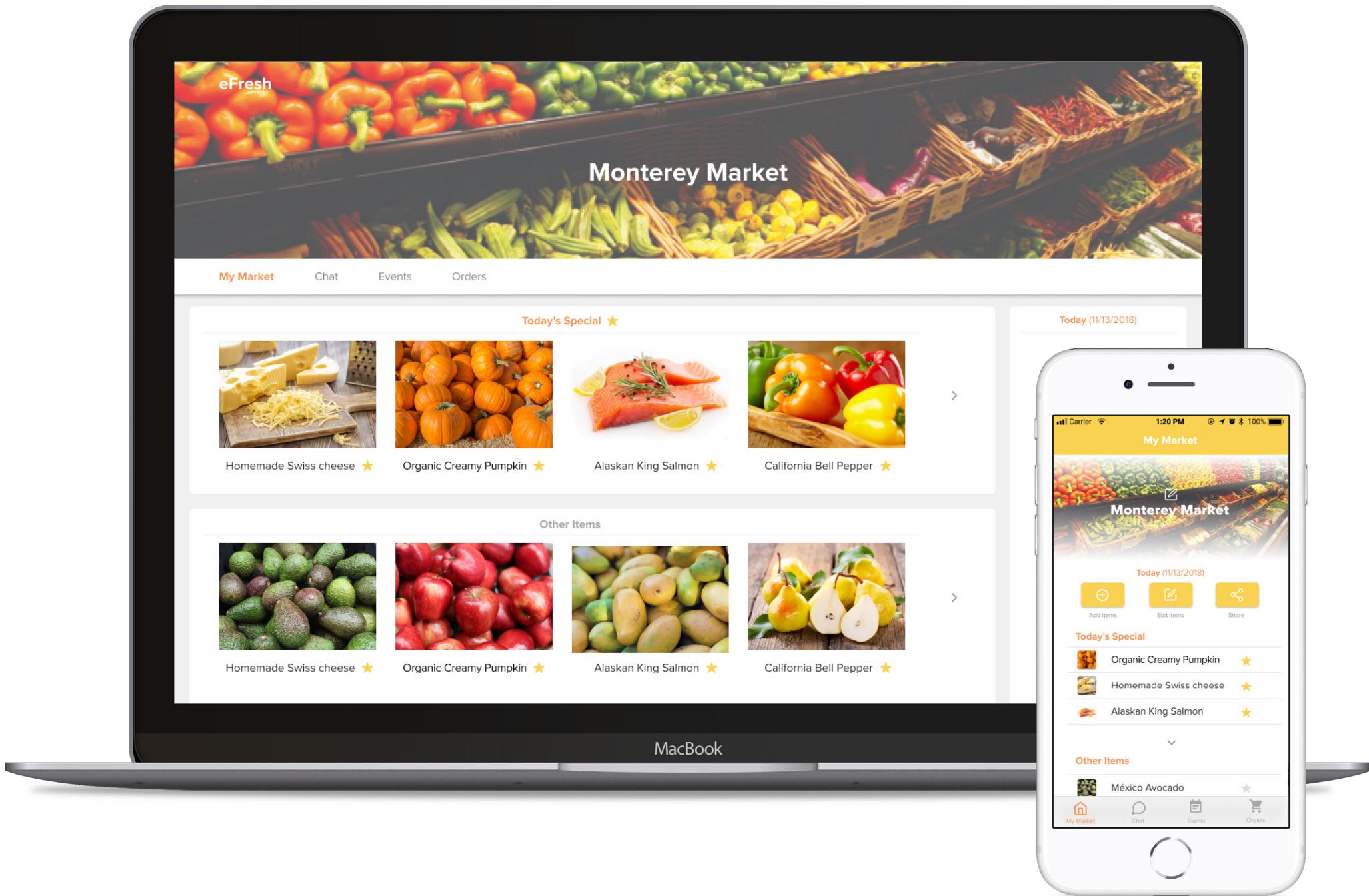
3 - Sleep Journey

TRANSFERRING BEDTIME EXPERIENCE TO
A DELIGHTFUL JOURNEY

1 - eFresh

HELPING INDEPENDENT GROCERY MARKET OWNERS START ONLINE BUSINESS

MOBILE AND DESKTOP UI & UX DESIGN



eFresh

HELPING INDEPENDENT GROCERY MARKET OWNERS START ONLINE BUSINESS

THE CHALLENGE

Independent local grocery stores have been experiencing a decline in profits. What can we do to help independents make more profits and better serve their customers? Meanwhile, how to make seasonal healthy groceries more accessible to people?

THE OUTCOME

A holistic online grocery selling/shopping system - "eFresh". It includes 4 different apps targeting different user types - local grocery market owners; individual customers; local restaurant owners and delivery drivers. I worked on designing the app for local grocery market owners. It's a platform that helps independent market owners make more profits and engage better with the community by starting their own online business.

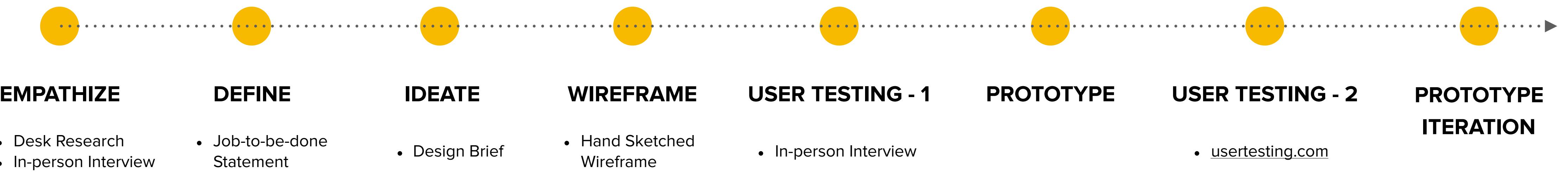
TEAM: Chengcheng Huang; Andrew Nguyen; Rui Sun; Siyu Hou

DATE: Sep 2018 - Dec 2018 (3 months)

ROLE: UX/UI Designer & Researcher

SKILLS: Desk research, ideation, JTBD, user flow, wireframing, user interview, lo-fi & hi-fi prototyping, user testing, ui design

DESIGN PROCESS



PROBLEM SPACE

- **Industry Research**

With decreased dollar sales, flat margins and higher expenses, the independent grocery sector saw net profit before taxes decline to 0.09% in 2017 from 0.98% the year before. EBITDA also fell to 1.4% from 1.85%, yet NGA(National Grocers Association)'s report said that result shows that independents remain cash-flowing.

Meanwhile, more and more people tend to shop groceries at local independent stores for their seasonal, fresh, organic products. While most of us still enjoy shopping in person, we'd also love to have this option to order groceries online and get them delivered when we do not have time. We went to visit some local independent grocery stores located at North Berkeley, a lot of owners express a desire to enable online sales in order to better serve their customers and make more profits. But they are worried about the technical issues of starting and managing an online store on their own.

- **Interview with local grocery market owners**



Raxakoul Coffee & Cheese owner

“Yeah, we’d love to start online business. But we don’t know how to do it and we don’t want to put too much efforts to maintain it.”

Monterey Market owner

“We used to be in partnership with a local Berkeley pizza place, but they canceled it after two years because we do not support delivery.”

Berkeley Natural Grocery Company manager

“Online store with events marketing will be a nice way to engage with the community! Especially now since everything has gone online.”

JOB STATEMENT

In order to better understand user needs and help them achieve their goals, I created this customer job-to-be-done statement targeting individual local grocery market owners.

USER: Local grocery market owners

USER OBJECTIVES: make more profits and promote their brand by starting online stores.

	VERB WHAT IS THE CUSTOMER TRYING TO DO	OBJECT TO WHAT OBJECT IS THE CUSTOMER TRYING TO DO THE VERB	FUNCTIONAL GOAL	EMOTIONAL GOAL	SOCIAL GOAL
PRIORITY X	increase	grocery volume sales	make more profits	feel happy and satisfied about the increased sales	
PRIORITY X	provide instant service to	customers	help customers with their inquiries more instantly	feel happy that their customers get help and feel satisfied	secure their customers
PRIORITY X	advertise	market events	attract more people to come to their events	feel happy when bringing people together getting to know their market and grocery	make more friends in the community; gain popularity
PRIORITY X	find	a safe and fast delivery service with special care	get their grocery delivered to customers safe and in time	feel reassured when their customers are satisfied with their delivered grocery	secure their customers
PRIORITY	promote	their market brand	gain reputation	feel happy and a sense of self-achievement when they get popular	let the community know their market value and social responsibility

SYNTHESIS

Targeting different user needs, I came up with 4 major features to help users achieve their goals.

User Needs

Online selling

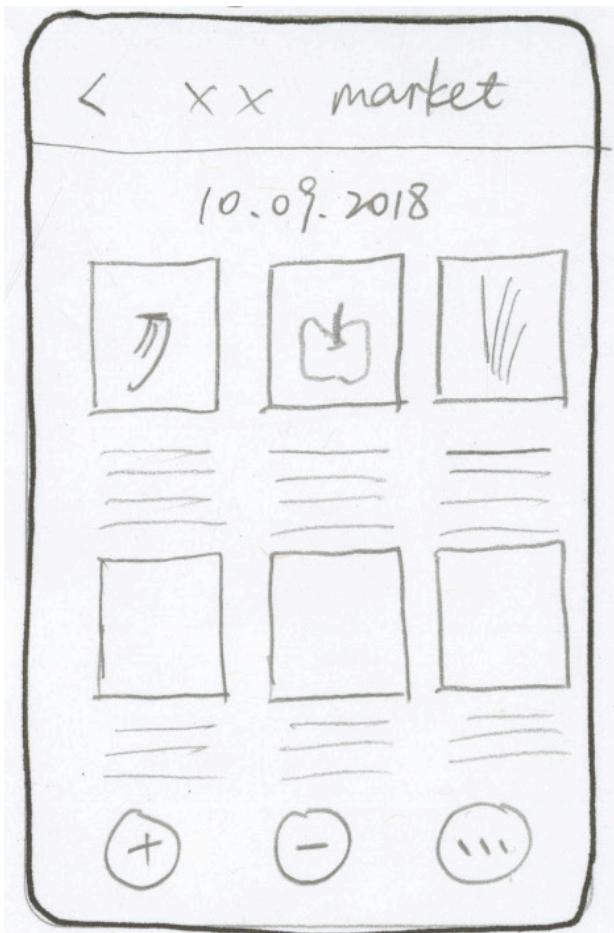
Assist customers
in time

Better engage with
community

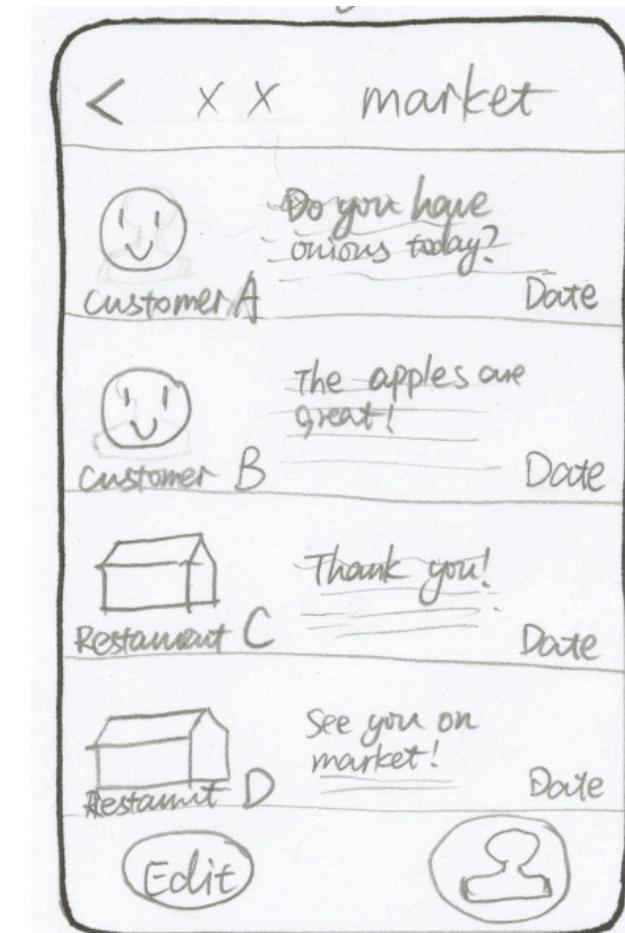
Enable reliable
grocery delivery

Design Proposal

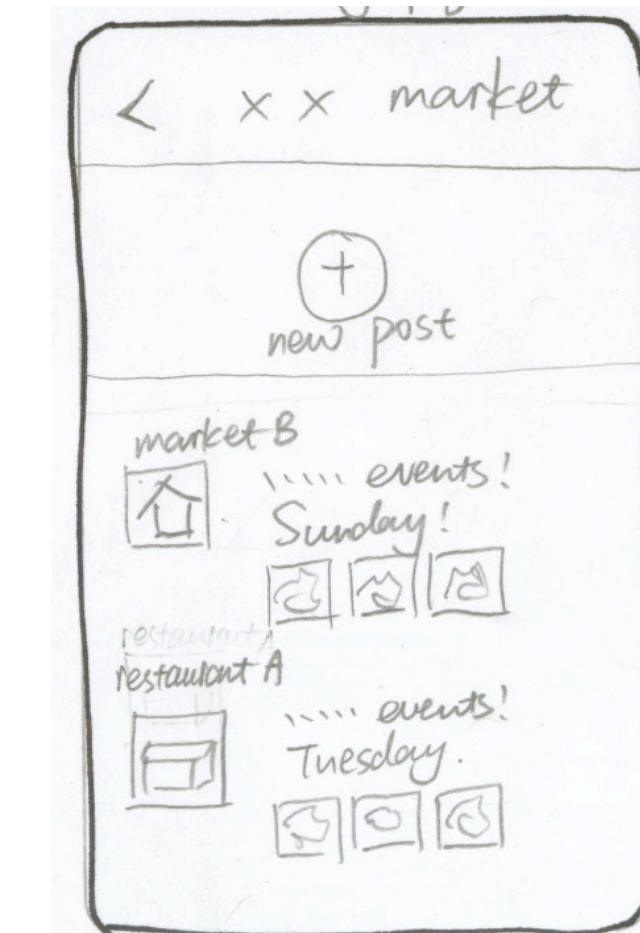
My Market



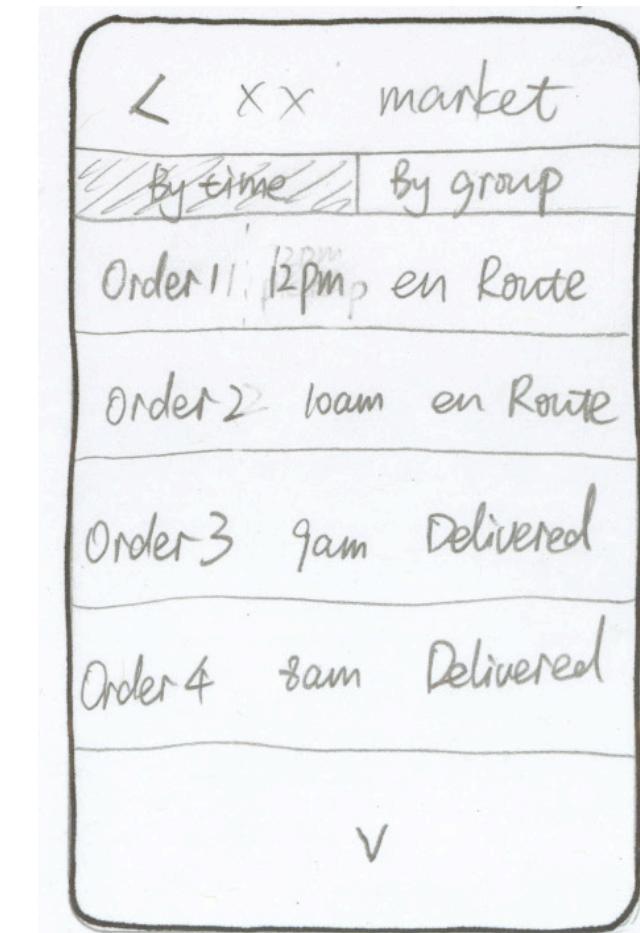
Chat



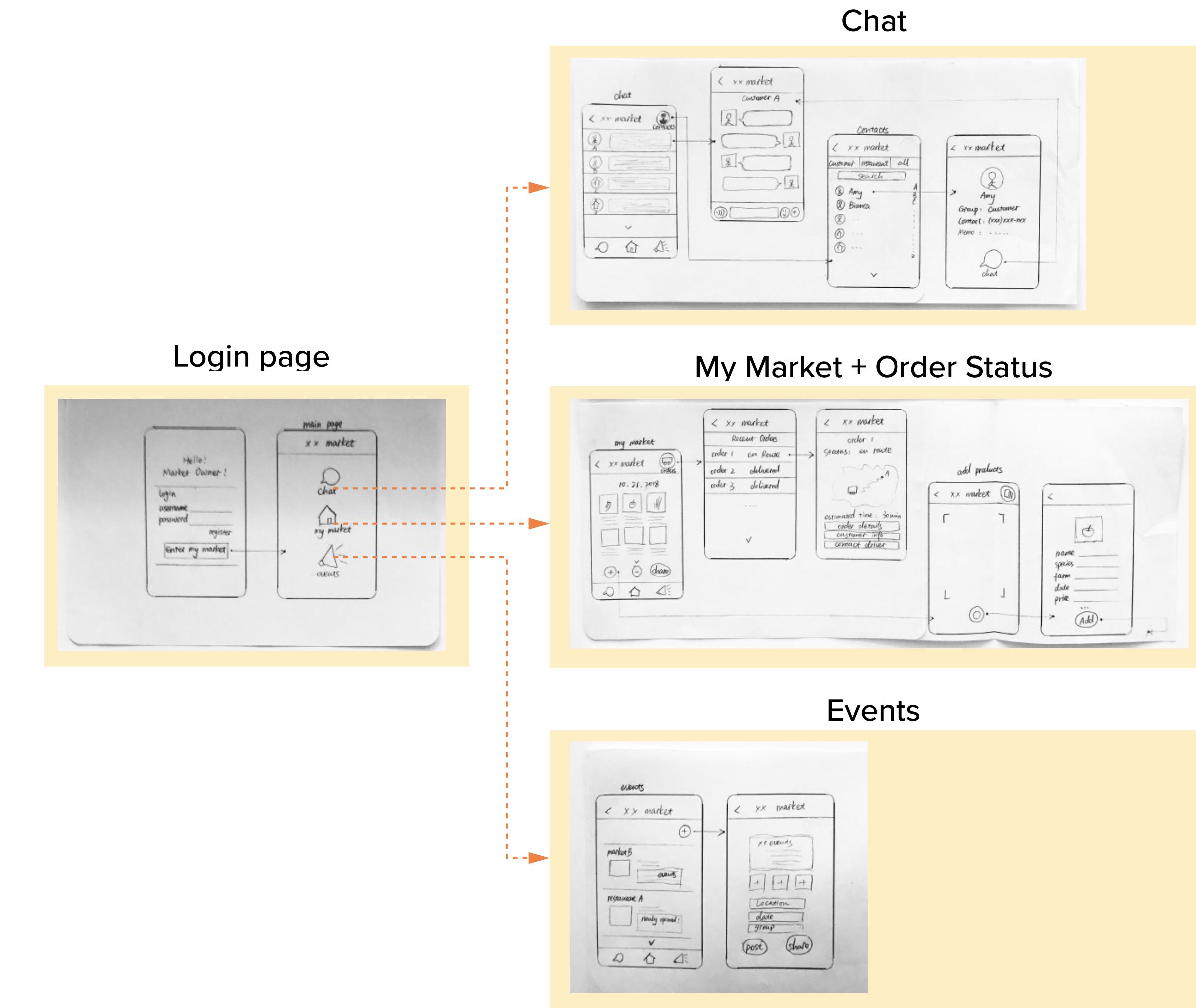
Events



Order Status



WIREFRAME



USER TESTING - 1

Testing Format

In-person Interview

Primary Objectives of Testing

Get initial feedback on:

- **Value Proposition**
- **Information Architecture**
- **User Flow of Major Features**

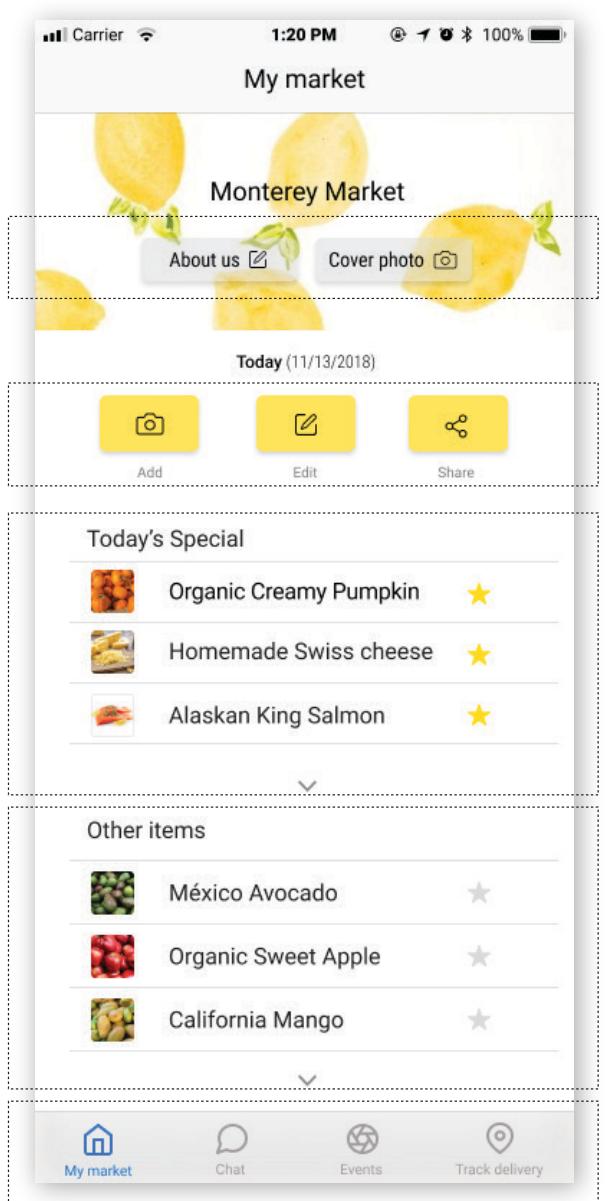
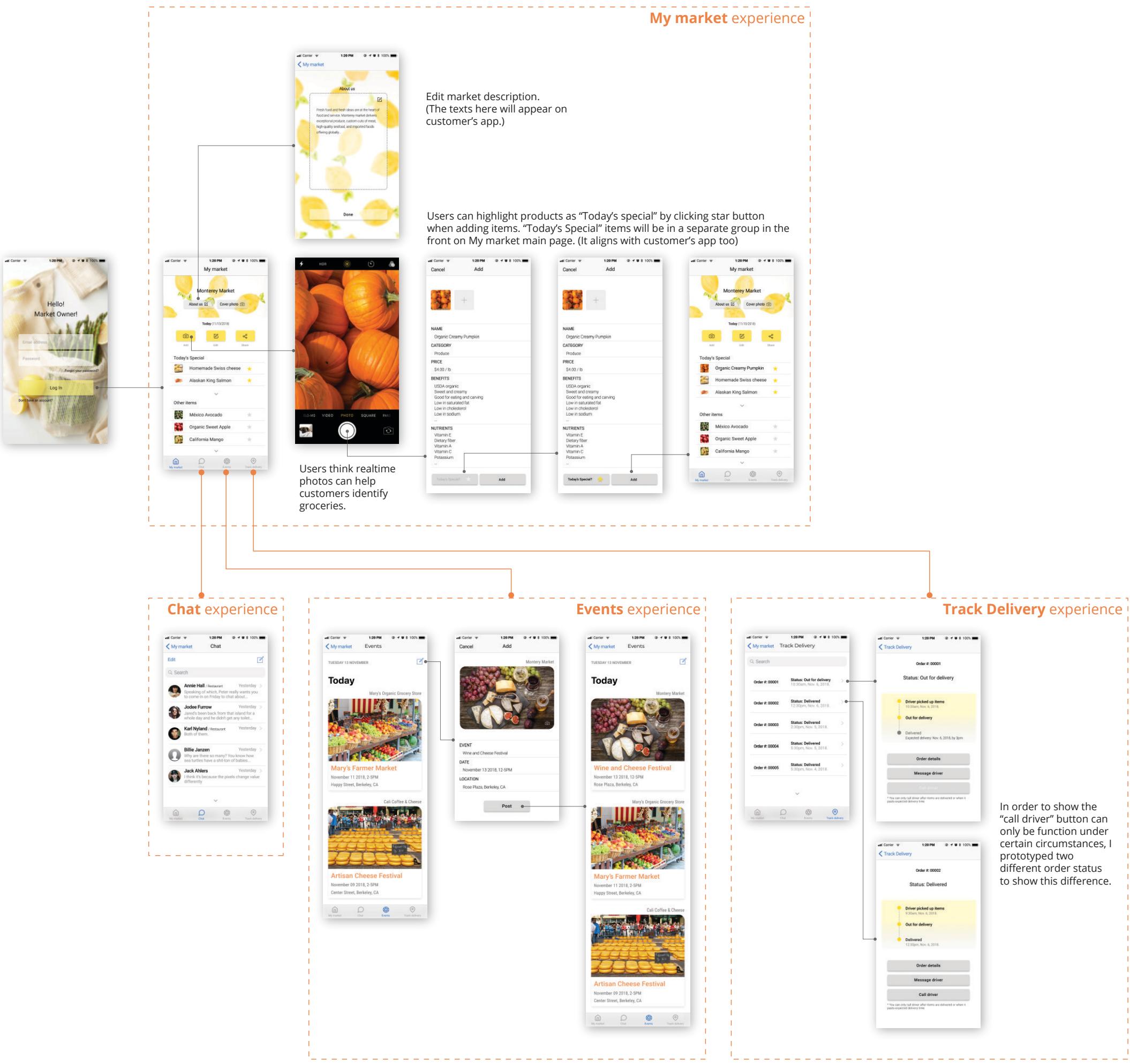
User testing takeaways

1. Users want to show personality / history of the market.
2. Users want to highlight items.
3. Users want to check order status in a more direct way.
4. Users want a more effective way to list items.

USABILITY TEST PLAN DASHBOARD

AUTHOR	CONTACT DETAILS	FINAL DATE FOR COMMENTS
Chengcheng Huang	cc.huang@berkeley.edu	Oct.25.2018
PRODUCT UNDER TEST What's being tested? What are the business and experience goals of the product? An app designed for local independent grocery market owners.	TEST OBJECTIVES What are the goals of the usability test? What specific questions will be answered? What hypotheses will be tested? Do people agree with the value proposition - achieving their goals by starting an online store? Do people understand the information architecture? The test will address several key questions that will give design team future guidance for iteration.	PARTICIPANTS How many participants will be recruited? What are their key characteristics? 6 Local, independent, community-based grocery markets.
BUSINESS CASE Why are we doing this test? What are the benefits? What are the risks of not testing? The test will address several key questions that will give design team future guidance for iteration.	EQUIPMENT What equipment is required? How will you record the data? Pen, paper, paper-based wireframe prototype.	TEST TASKS What are the test tasks? Start a conversation with your customer and check the contact information. Check the order status. Add products to the main page. Post market events on events center.
PROCEDURE What are the main steps in the test procedure?		

PROTOTYPE V1



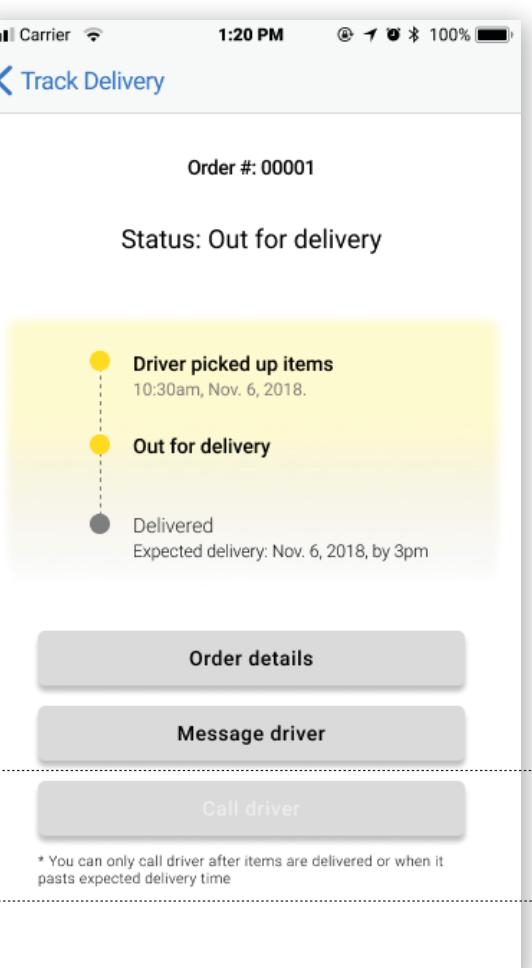
My market page

- Use My market page as main page to navigate to different features (Chat, Events and Track delivery).
- Create hierarchy by grouping features.
- Use lists instead of card UI design for listing groceries to help users better organize their products and save space.



Events page

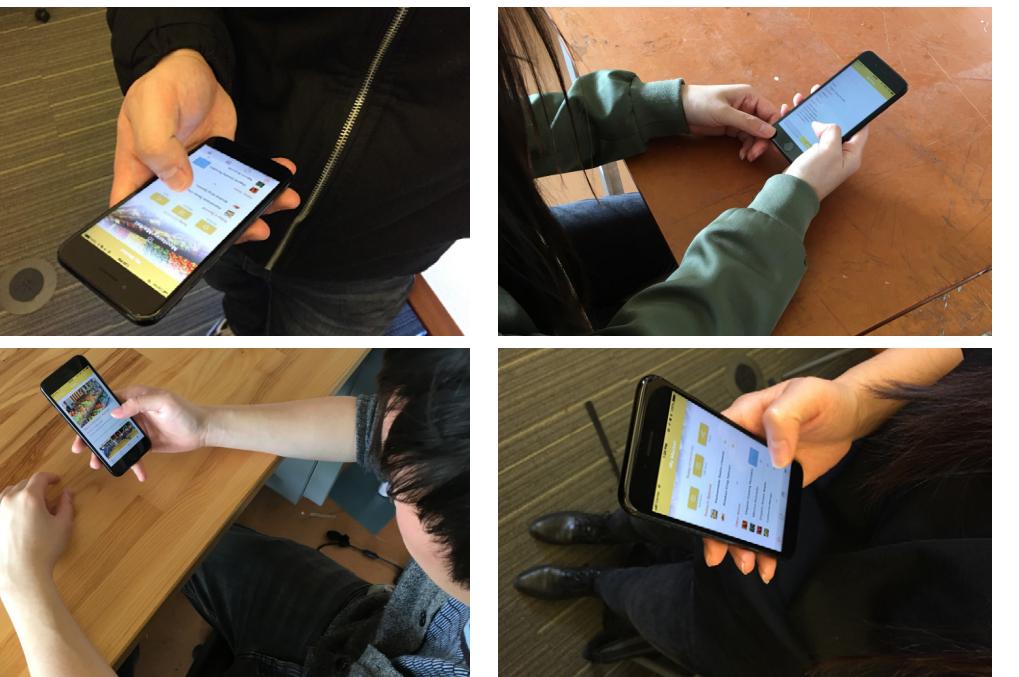
- Use card UI design at events page to better integrate core information with clear hierarchy so that the page is tidier and more pleasing to the eye.
- Large events photos make the entire interface aesthetically delightful, simple and stylish with good usability, that's what you want to feel when you are on events page.



Track delivery page

- Keep interface tidy and simple by only including core information that users would care.
- Use grouping to show clear information hierarchy.
- Users suggest making phone call can be disturbing when the driver is still driving. So I decide to only allow users to call driver when the items are delivered or past expected delivery time. And the explanation is also written below the button in texts in case users are confused.

USER TESTING - 2



Testing Format

Designer pilot testing + usertesting.com

Primary Objectives of Testing

Get detailed feedback on:

- **User Flow of Certain Tasks**
- **User Interface**

User Testing Takeaways

- Users failed to highlight the items through the flow I designed.
- Users felt unnatural when adding items they are directly taken to camera page.
- Users felt they can't identify different orders only through numbers.
- Users wanted to see more detailed information about different events.
- Users felt confused about some icons.
- Overall interface does not seem holistic.

Test Plan
An overview of the tasks and questions included in your test.

User Testing®

Introduction

Hello! This is a prototype of an iOS app which aims to help local grocery market owners to make more profits by starting their online business and help promote the market within the community. Imagine you're the owner of a local grocery market and you have several needs: 1) You want to build your online market shop and be able to start instant online conversation with your customers; 2) You want to discover events happening in the community and also post your events; 3) You want to check the status of your customer's orders. Please note that it is a prototype, not a fully functional app. Please don't tap the screen unless instructed to do so. Lastly, please speak out any thoughts or feelings you experience when navigating the app.

Tasks

1. Imagine you are a returning user of this app. Go ahead and tap on the "Log In" button to enter your market main page.
2. You are entering your market main page now. Try to scroll down to have an overall view of your market page. And please describe your impression of the layout in general. Do you think the features listed on your page are clear? Can you tell there are different groups of features? Which features do you think come with relatively higher priorities? [Verbal Response]
3. Try to "Add" a new item to your grocery list and mark it as "Today's Special". [Success: Yes, No]
4. When you were performing the task, did you run into any trouble or confusion? What do you think of the flow of performing the task? Was there anything unnatural in your experience? How do you know you completed the task successfully? Did you observe any changes on your market main page? Is it obvious to you? Do you have any suggestions on how to improve this flow and user experience? Please share it here. [Verbal Response]
5. Try to edit your market store information by clicking "About us" button. [Success: Yes, No]
6. When you were performing the task, did you run into any trouble or confusion? Was there anything unnatural in your experience? Do you have any suggestions on how to improve this flow and user experience? Please share it here. [Verbal Response]
7. Go ahead and tap on "Chat" button listed at the bottom of the interface. Explore the chat platform and tell me what you think of it. Please share any thoughts that you think can help improve this feature. [Verbal Response]
8. Go ahead and tap on "Events" button listed at the bottom of the interface. Scroll down and explore the events and tell me what you think of it. Do you think the information listed on the page is clear and sufficient for you to participate in the events? What do you think of the general interface? [Verbal Response]
9. Try to post an event with the "editing" button on top right side of the interface. [Success: Yes, No]
10. When you were performing the task, did you run into any trouble or confusion? Was there anything unnatural about your experience? How do you know you completed the task successfully? Did you observe any changes on your events page? Do you have any suggestions on how to improve this flow and user experience? Please share it here. [Verbal Response]
11. Go ahead and tap on "Track delivery" button listed at the bottom of the interface. Explore the "Track delivery" page and tell me what you think of it. Do you think the information listed on the page is clear? [Verbal Response]
12. Try to check the status of your "Order #: 00001" and "Order #: 00002". And return to the "Track delivery" page. [Success: Yes, No]
13. When you were performing the task, did you run into any trouble or confusion? Was the information listed on the page clear enough for you to get basic order status information? Do you think there's any information missing? Did you notice any differences in contacting driver features in those two orders? Do you think it's necessary to make this difference? Do you have any suggestions on how to improve this flow and user experience? Please share it here. [Verbal Response]

Questions

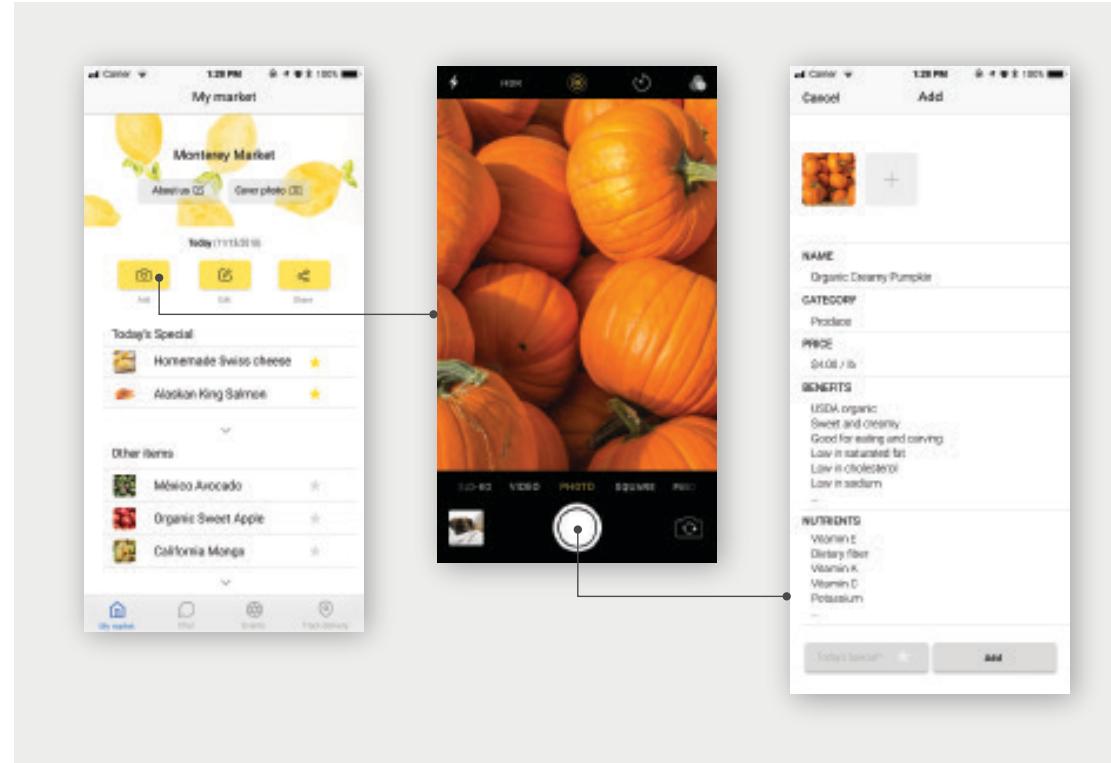
1. What did you like about this app?
2. What frustrated you most about this app?
3. If you had a magic wand, how would you improve this app?
4. Are there any helpful features that are missing? Are there any features you wish to explore more?

The screenshots show the following sequence of the user testing interface:

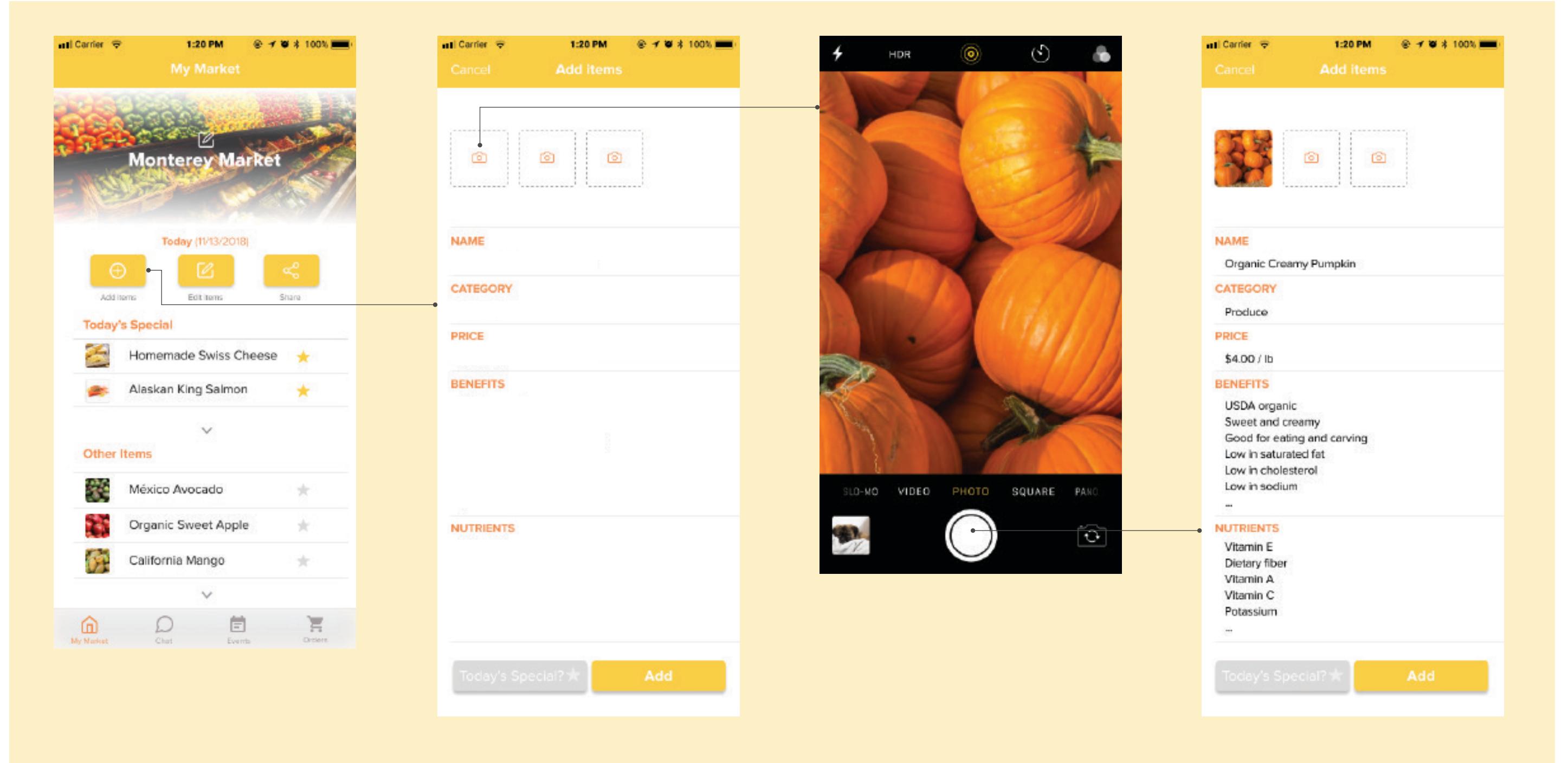
- Step 1/21:** Introduction screen with the User Testing logo and instructions.
- Step 2/21:** Task screen showing a smartphone displaying the grocery app's main market page.
- Step 3/21:** Task screen showing a smartphone displaying the grocery app's main market page.
- Step 4/21:** Question screen asking if the user completed the task successfully, with options for yes/no and additional comments.
- Step 15/21:** Question screen asking for overall task satisfaction, with a scale from 1 (Very Difficult) to 5 (Very Easy).

PROTOTYPE ITERATION

Before

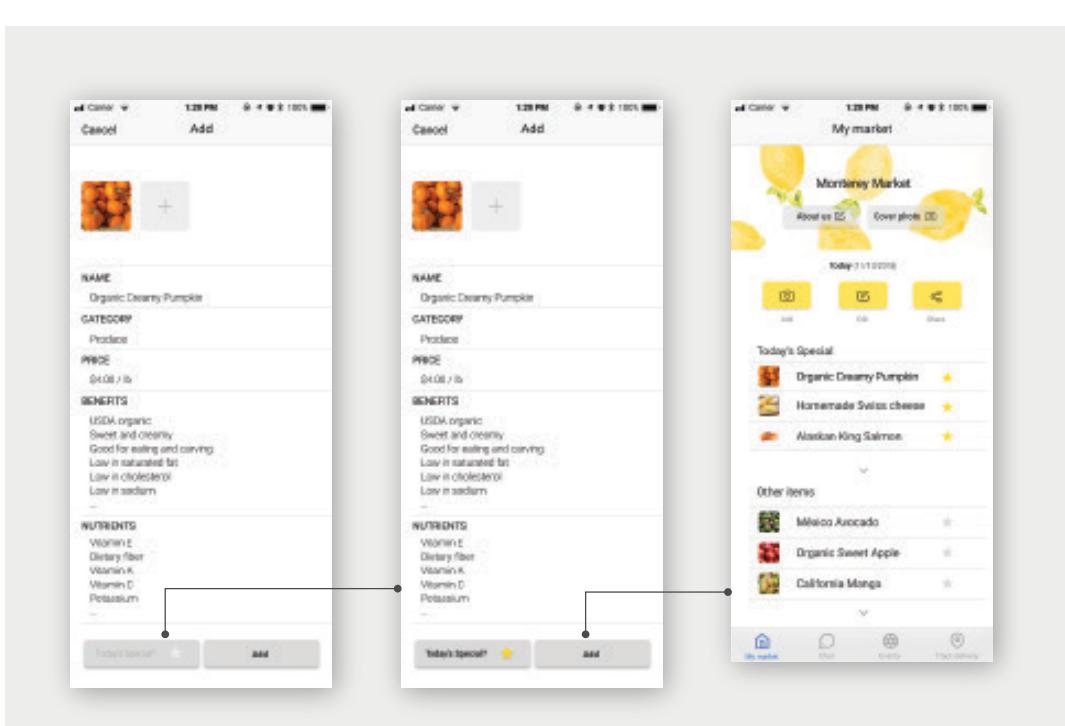


After



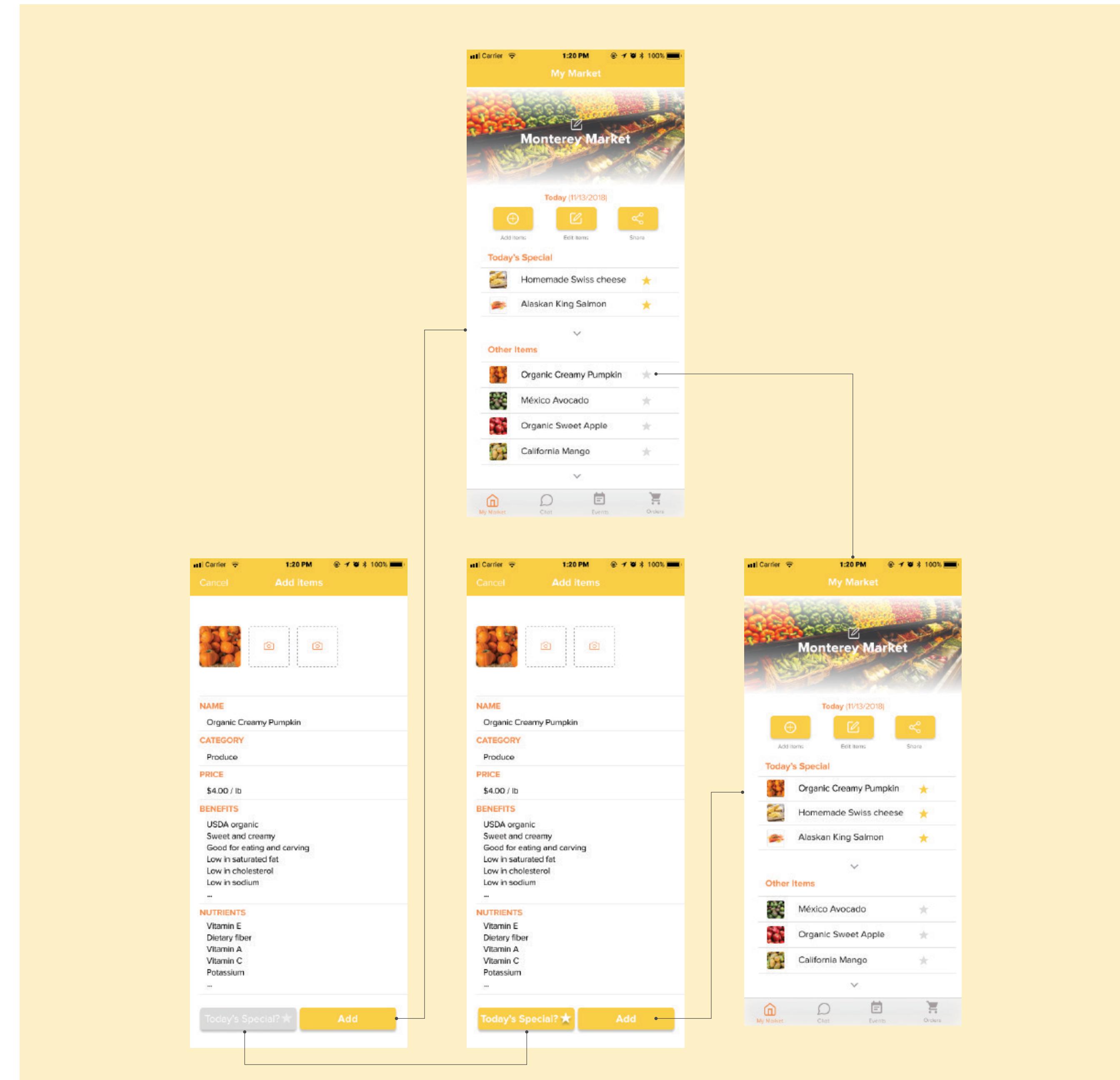
1. Adjusted user flow in adding items

After clicking “Add items” button, instead of being directly taken to camera page, users are presented with a template page of item information so that they can get an overview first. Then they can choose if they want to take a live photo or use existing photo.

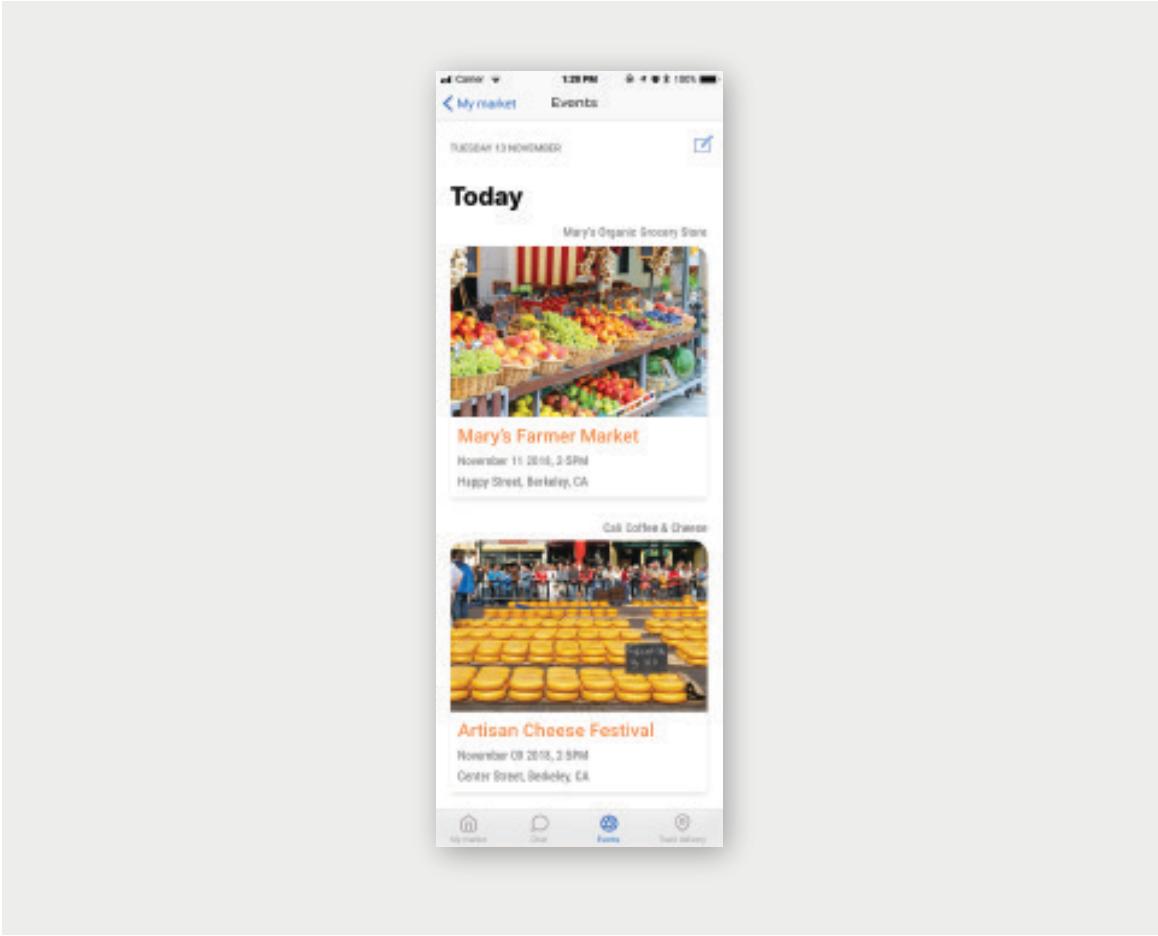


Users are given more options in performing the task - they can either mark it during adding process or highlight it directly on market main page (by clicking the star next to it)

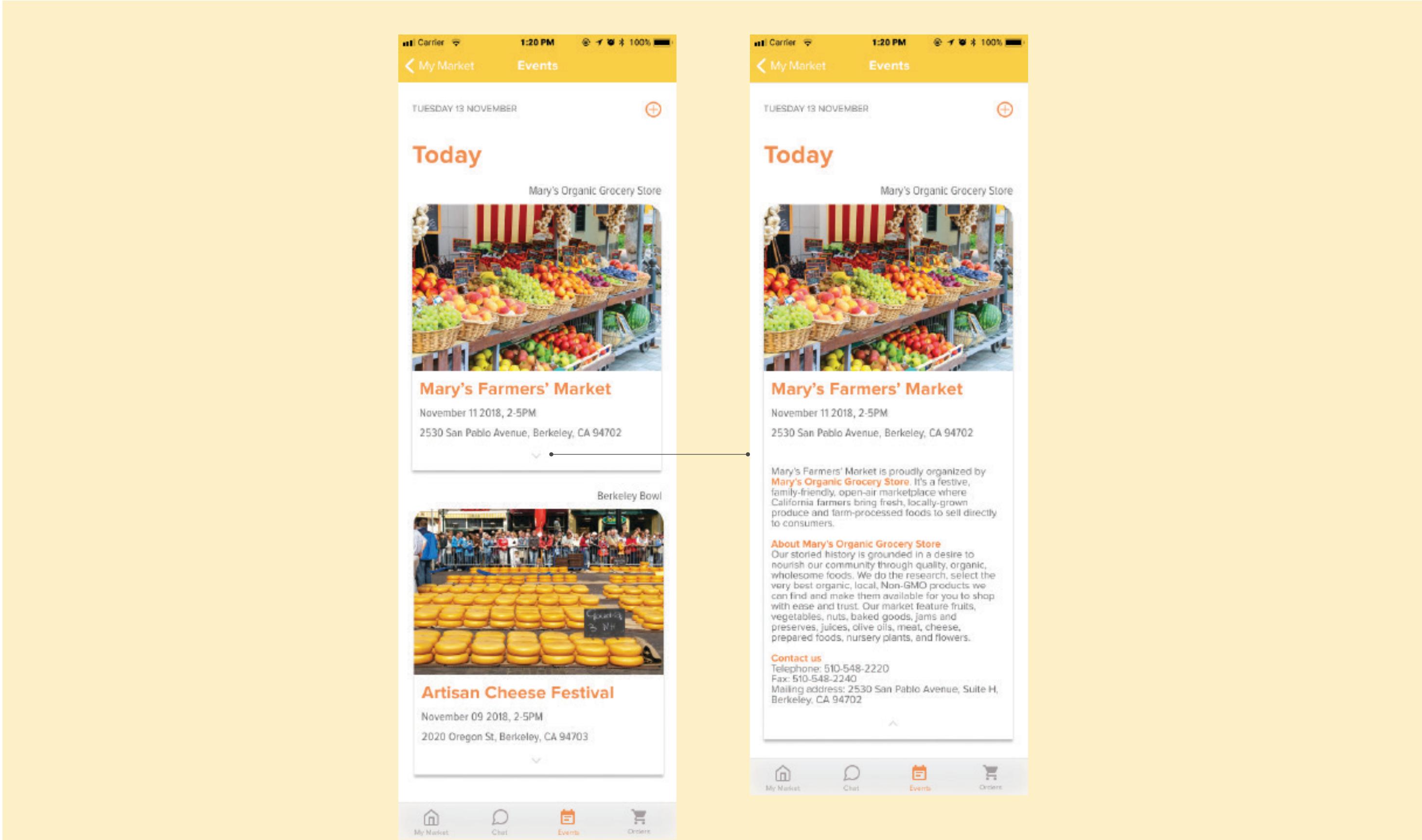
2. An additional flow for highlighting items



Before



After

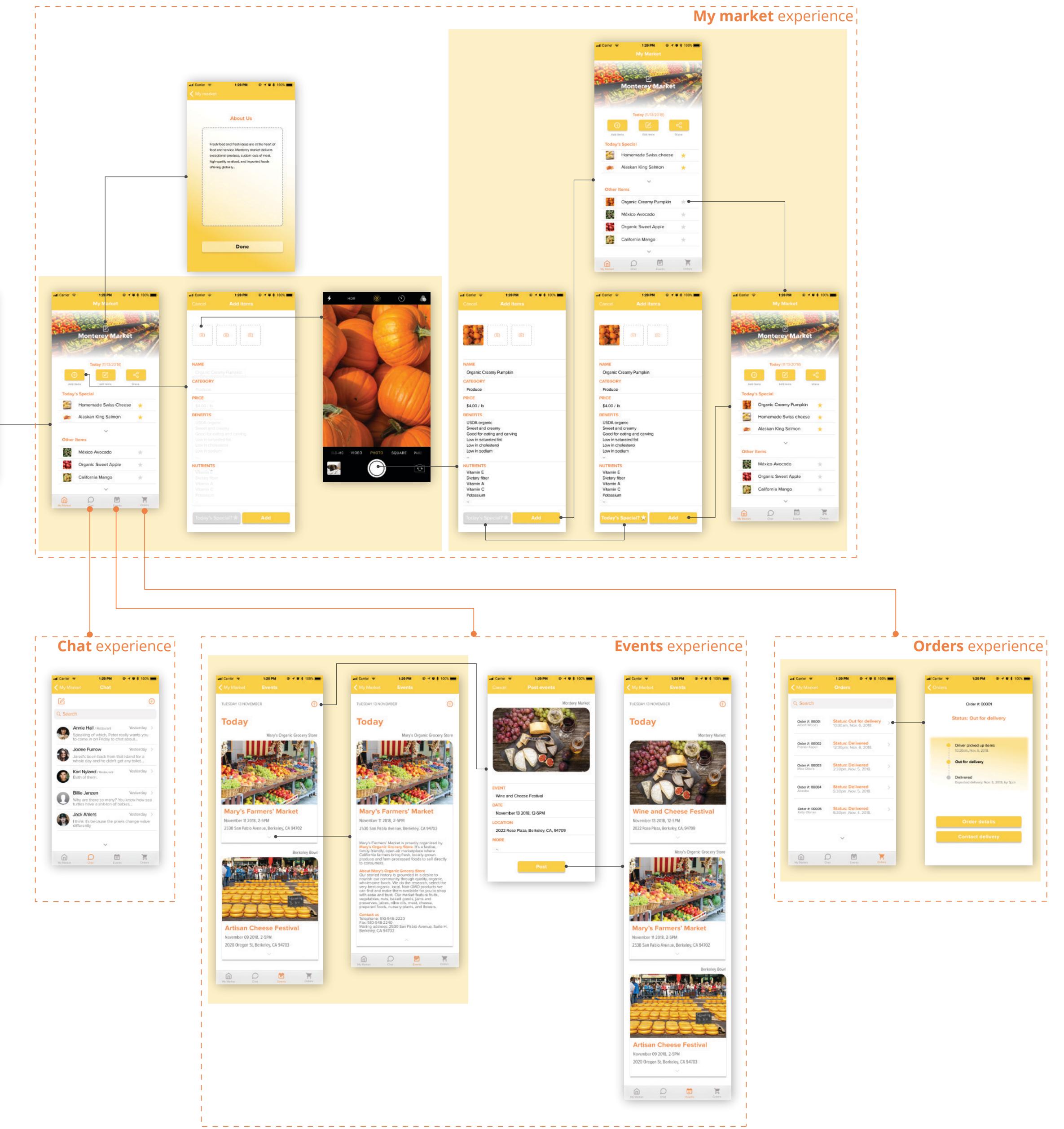
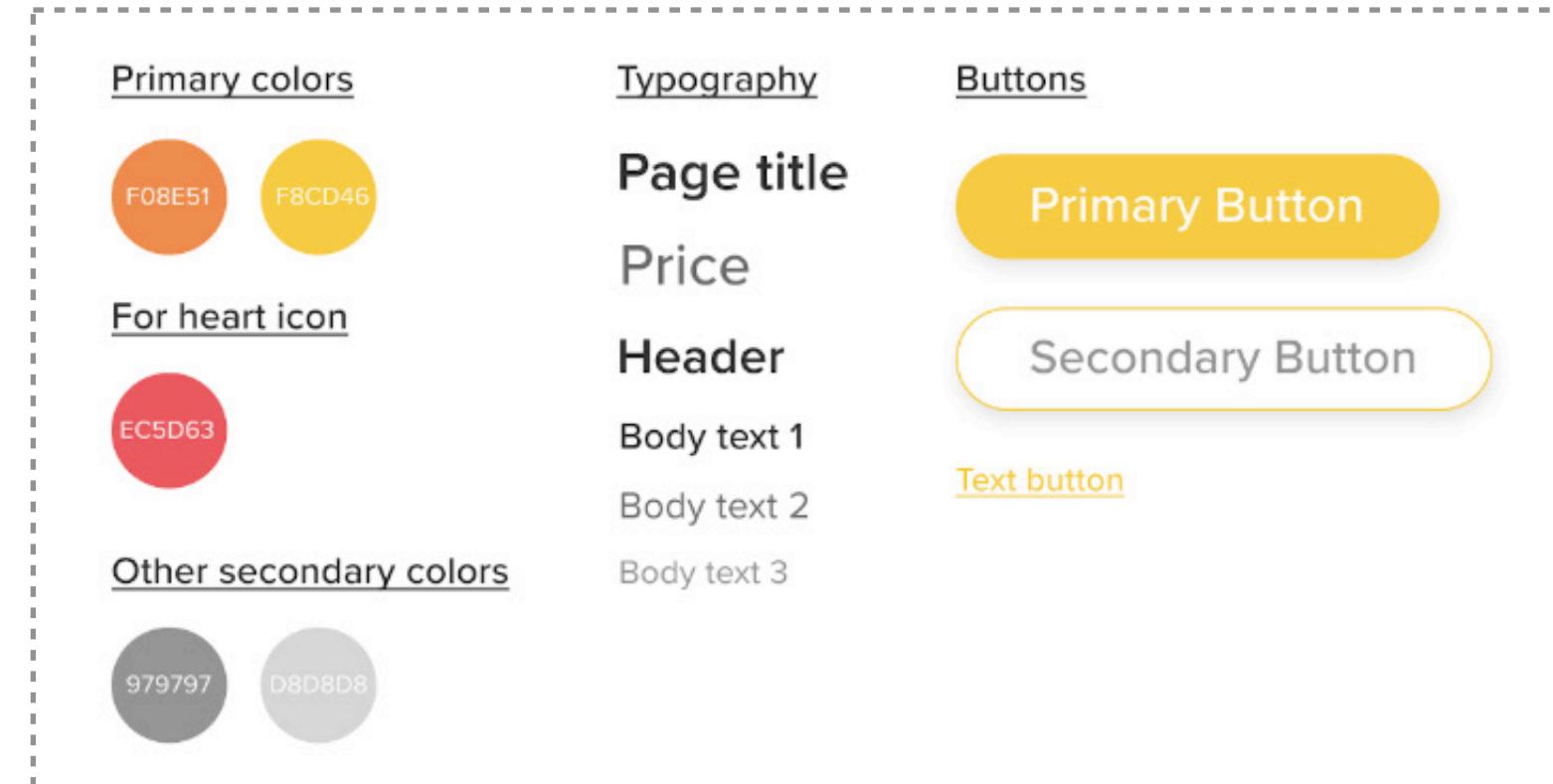


3. New user flow for checking events details

Users can check events details by clicking the arrow at the bottom of each events card.

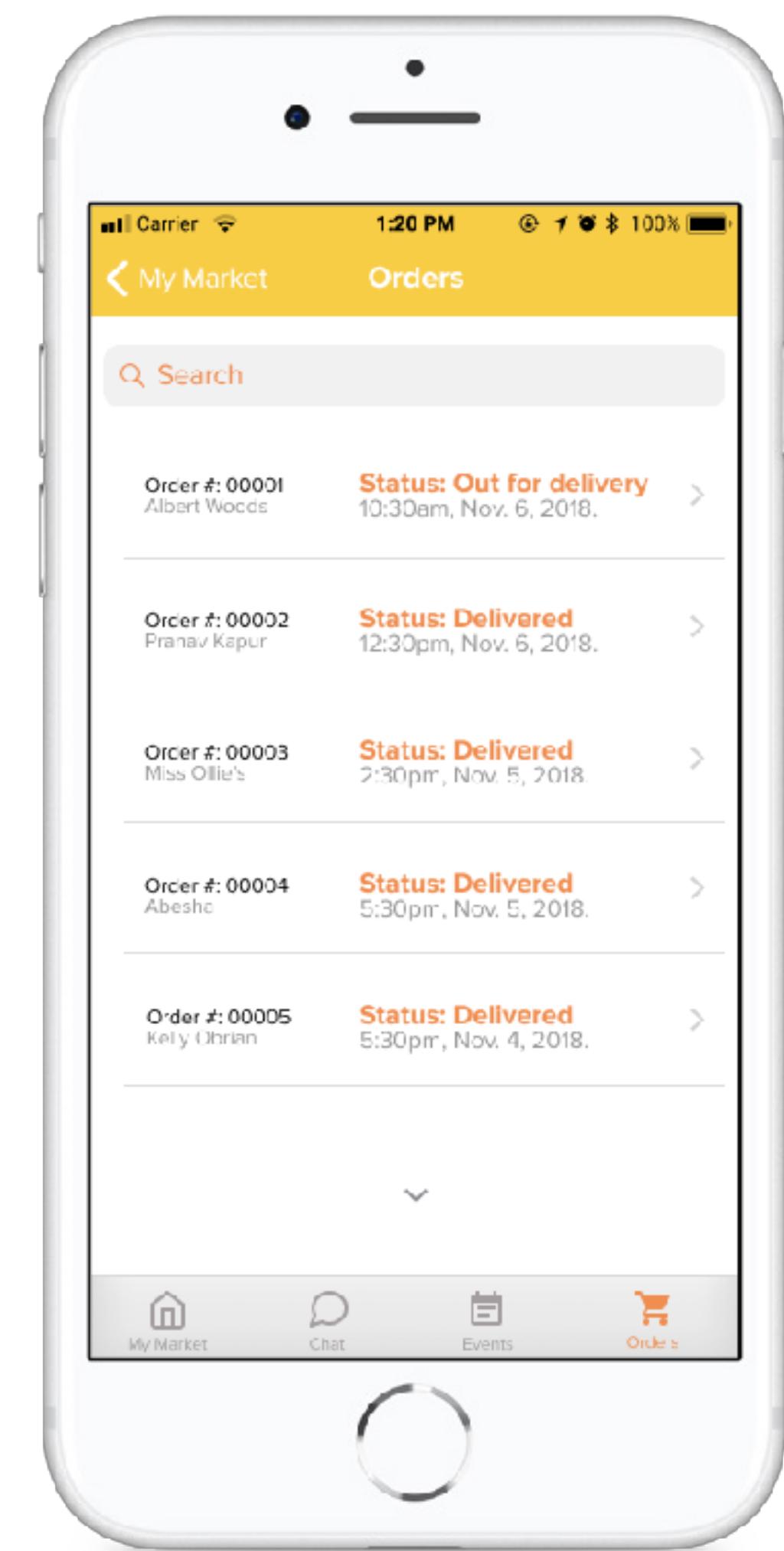
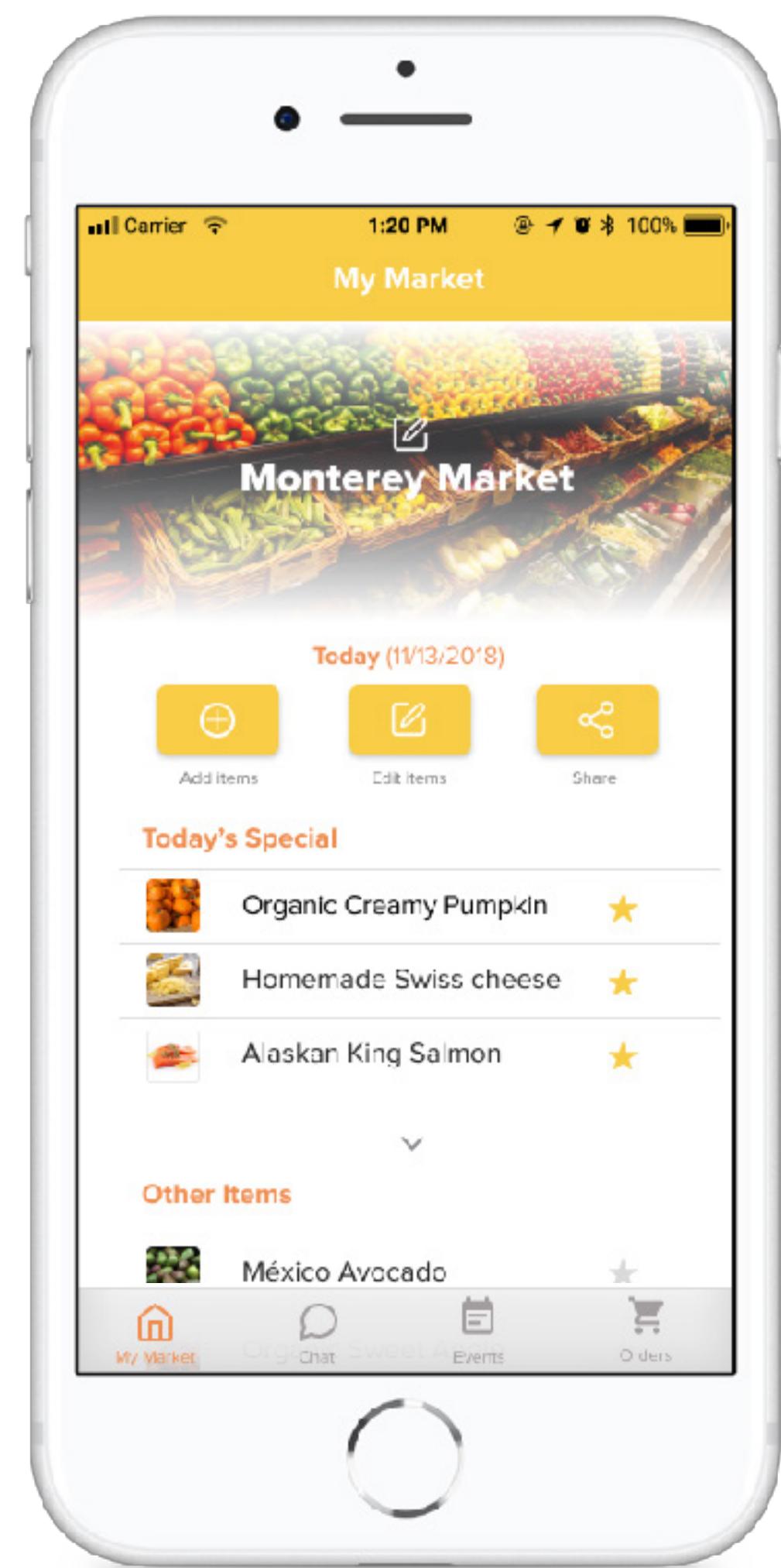
UI DESIGN ITERATION

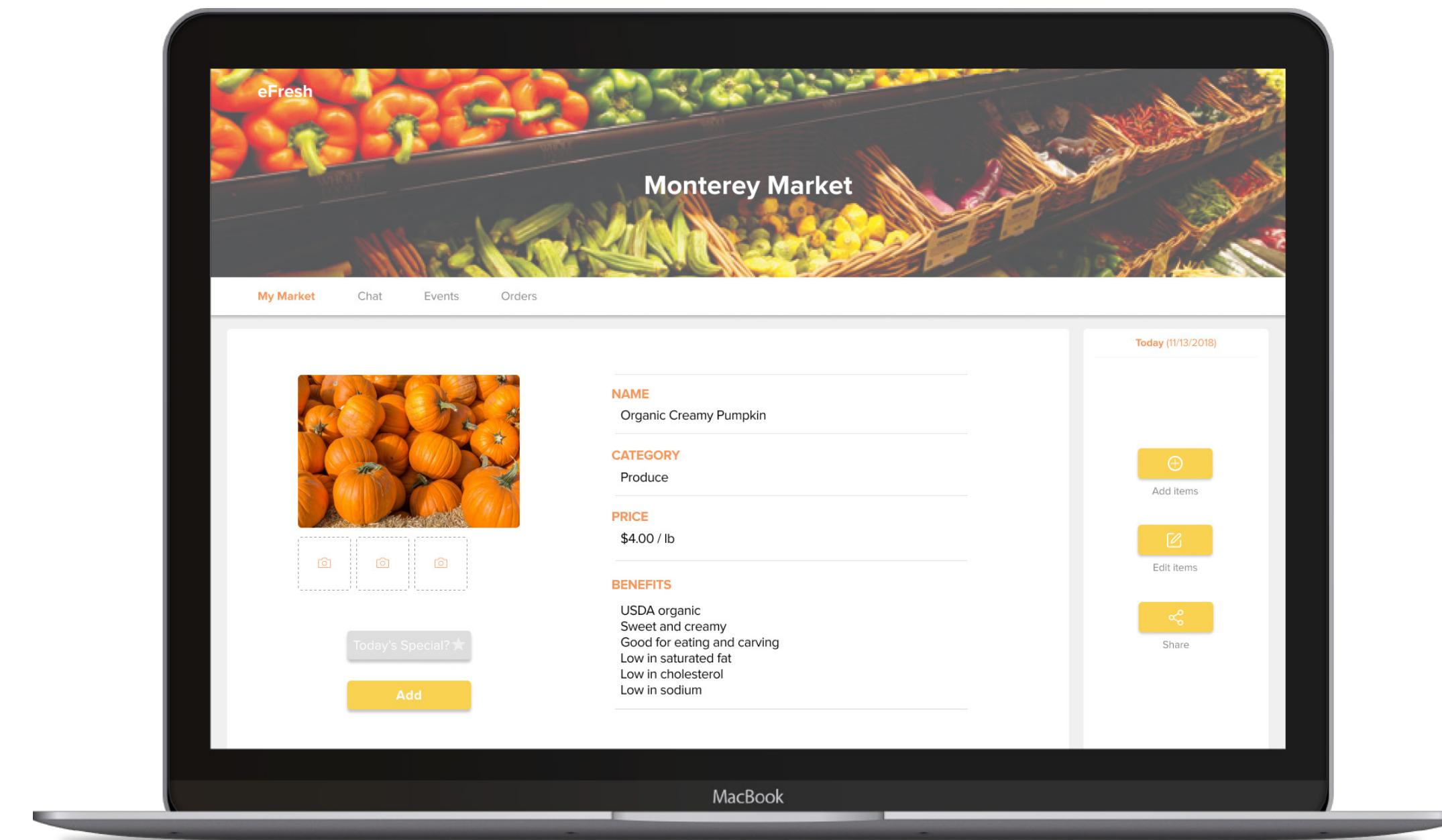
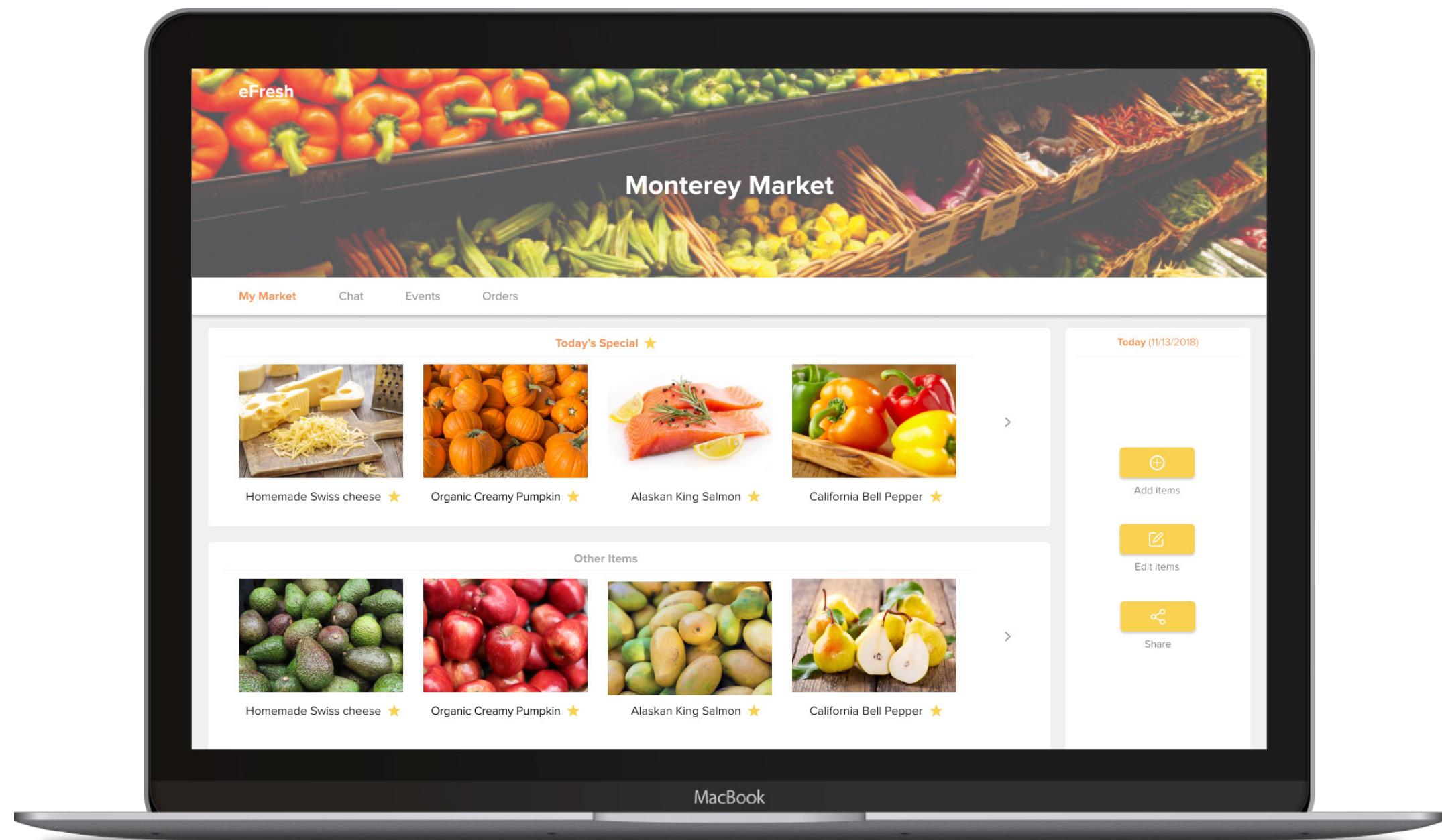
Iterated UI with a more developed material design library provided a holistic experience. It helped users better navigate within different features and presented a warm and inviting overall atmosphere.



FINAL PROTOTYPE SHOWCASE

<https://invis.io/efresh>





REFLECTION

What we did right:

- 2 different user testing sessions are very fruitful in providing me with insights on different aspects.
- We learned a lot from each other through the collaboration process.

What didn't make it:

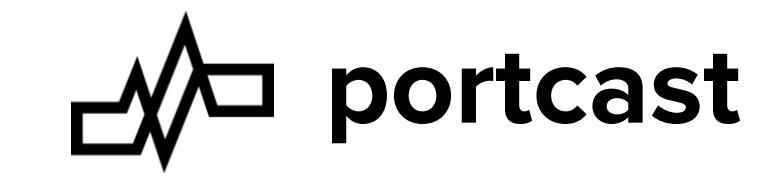
- Till the end, we're still in lack of logical alignments between the 4 apps.
- The interview session is kind of lack of focus.
- UI design library comes at a very late stage of the project.

Next step:

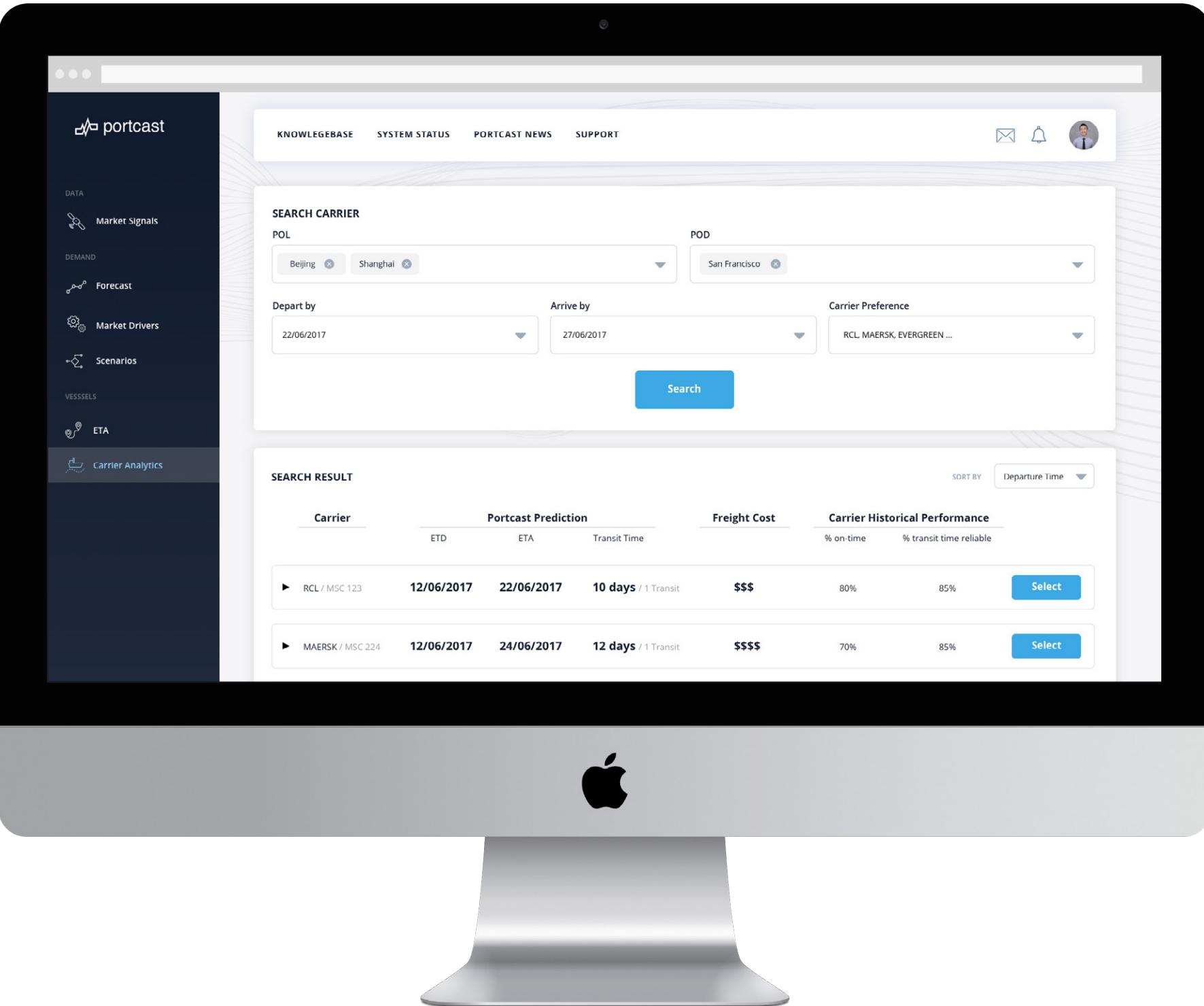
- Developing a more logical alignment between the 4 apps.
- Continue developing the desktop platform.
- Mobile platform implementation.

2 - Portcast Analytics platform

MAKING IT EASY TO CHOOSE A SHIPPING CARRIER



DESKTOP UX&UI DESIGN AND DATA VISUALIZATION



Portcast Analytics platform

MAKING IT EASY TO CHOOSE A SHIPPING CARRIER

THE CHALLENGE

Salespeople at shipping company want to use this platform to help them choose the right carrier for their business. But there are so many data and information provided, it's hard for them to navigate through all the information and finish their job.

THE OUTCOME

A new platform focusing on search experience and way-finding experience with clearly-organized information hierarchy.

CLIENT: Portcast

TEAM: Neha Mittal(Project Manager), Ben Stukenborg(Product design lead), Chengcheng Huang(Product designer)

DURATION: Feb 2019 - March 2019 (3 weeks)

ROLE: Product Designer

SKILLS: User research, industry research, job statement, user storyboard, user testing, prototype, UI design, data visualization

THE RESULT

Client spoke highly about the final result:



Nidhi Gupta
Portcast CEO

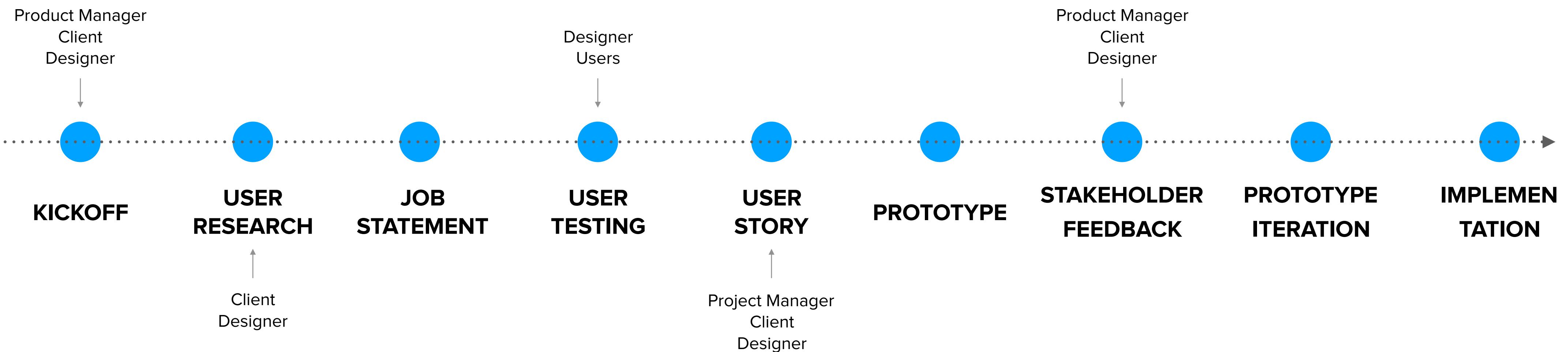
“It was definitely a successful - coming from where I had started to where we are, this was a significant change!

“I didn’t expect doing customer interview could bring so many useful insights. It was an eye opener for me. “

Now the prototype has been passed to engineers for implementation. I will stay with engineers on this project in case there’re other questions.

DESIGN PROCESS

During the process, stakeholders are highly involved in different design phases, including PM, client, design lead and users of the platform.



KICKOFF

During the kickoff meeting with stakeholders, we(RoadMap) discussed project current status, project scope, schedule etc with client.

Goal:

Design a “Carrier Analytics” feature to be implemented on Portcast current platform.

The new feature is going to help users better choose a carrier based on the prediction Portcast provides.

Final deliverables:

High-fidelity prototype ready for implementation.

Project current status:

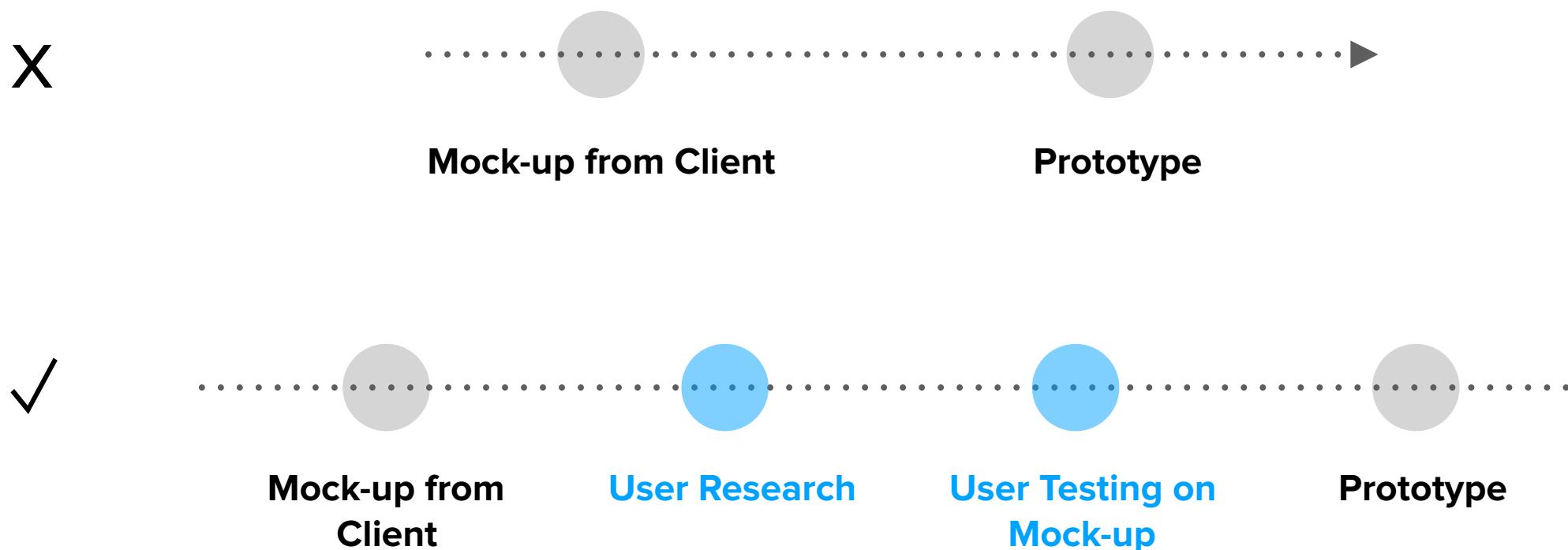
A few screenshots put together by client showing how she wants the new feature to be.

The screenshot shows the Portcast Customer interface. At the top, there are search fields for 'SEARCH SCHEDULES' (set to 'POL'), 'POD' (set to '2018-08-05'), and buttons for 'DEPART BY' and 'ARRIVE BY'. Below the search bar is a navigation menu with 'NEWS' and 'API' tabs, and a 'PORTCAST CUSTOMER' section with a user icon. The main area displays a table of vessel schedules. The table has columns for 'SERVICE', 'CARRIER', 'VESSEL', 'YEAR', 'TONNAGE', 'ETD (POL)', 'ETA (POD)', 'TRANSIT TIME', 'PORTCAST PREDICTION', and 'HISTORICAL PERFORMANCE'. Three rows of data are shown: 1. MIRA 005, NCL, 2010, ..., ETD: 6 FEB 12:00, ETA: 8 FEB 00:00, Transit: 2 days, Predicted ETA: 16 FEB 00:00, Actual ETA: 10 days, On-time: 80%, Avg. transit: 5 days. 2. ABC 123, MAERSK, 2012, ..., ETD: X FEB XX:00, ETA: 6 FEB 15:00, Transit: 7 FEB 12:00, Predicted ETA: 7 FEB 18:00, Actual ETA: 8 FEB 00:00, On-time: 80%, Avg. transit: 5 days. 3. QUEEN 005, EVERGREEN, 1910, ..., ETD: 2 FEB 12:00, ETA: 11 FEB 00:00, Transit: 9 days, Predicted ETA: 16 FEB 00:00, Actual ETA: 10 days, On-time: 80%, Avg. transit: 5 days. A red circle highlights the 'BY SERVICE' button in the header.



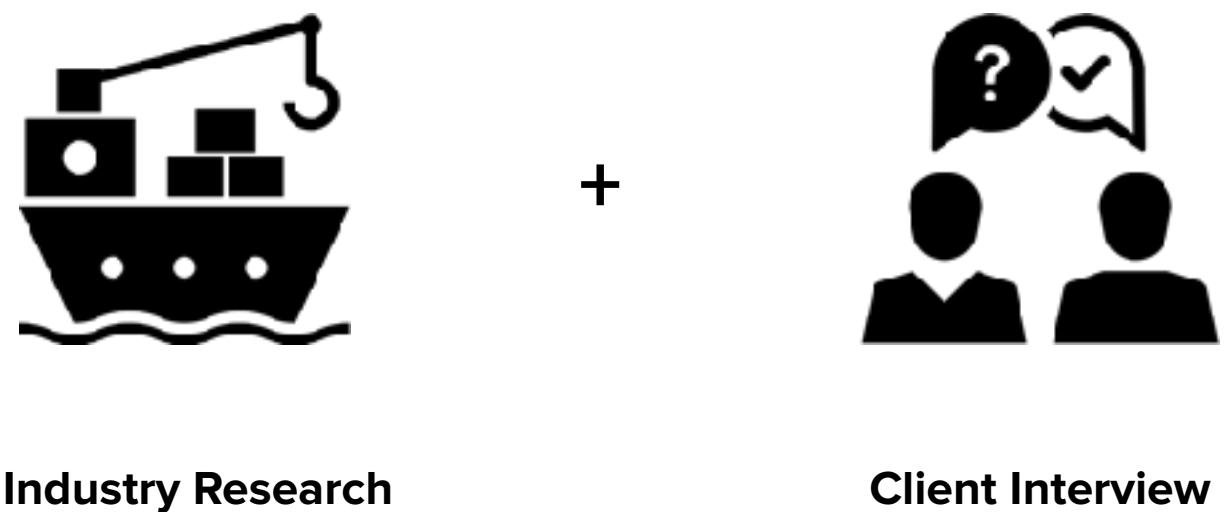
Challenges:

- Tight schedule
- Client already put up a design proposal
- Not familiar with logistic industry and especially this user case.



Our approach:

- Propose a new workable schedule to client;
- Convince client of the value on user research and user testing and ask her to arrange a testing session with the real users;
- Collaborate with client on doing user research. Combine industry research and client interview to make sure research scope is right.



SYNTHESIS

User type-1

Salespeople at shipping company

Job Statement

"When I want to be more in control of the shipping schedule and satisfy my customers, I want to see a more accurate predicted transit time and historical delivery information of that carrier, so I can guide manufacturers to choose the best carrier to send their goods to their customers in time."

Concern

Transit time / Journey + Cost

Pain Points

1. The transit time is not accurate and reliable. User can't guarantee when the goods will get delivered. They might get bad feedback from customers if the goods arrive late.
2. Hard to obtain comprehensive data about different carriers and vessels.

User type-2

In-house logistic person at manufacturers/retails

Job Statement

"When I want to plan shipping effectively and reduce costs, I want to compare the reliability and performance of the vessel and also the prices of different carriers, so I can select the best carrier to ship my goods."

Concern

Cost + Transit time / Journey + Reliability

Pain Points

1. The transit time is not accurate and reliable. User can't guarantee when the goods will get delivered. They might get bad feedback from customers if the goods arrive late.
2. Hard to obtain comprehensive data about different carriers and vessels.

USER TESTING

User Testing Format:

“think aloud” user test with the real users from Singapore through video call.

Preparation:

Mock-up for user test, test plan, user test script

Primary Objectives for User Testing:

- Value Proposition - verify the hypothesis on user's job/needs
- Information hierarchy
- User flow

Procedure:

1. Introduction
2. Warm-up: ask users questions about daily work to get them into the job mood.
3. Test: users are given a task (“choose the right carrier for your business/client”). They are asked to speak out any thoughts they have and any frictions they encounter when performing the task.
4. Post-test interview: further interview users with more detailed questions relating to the task and user flow.
5. Wrap-up

Hi, thanks for being here to do this user test. Our design decision on prototype iteration will be made based on the test results. I'm xxx. I'll be the moderator of this test. This test session will be audio recorded.

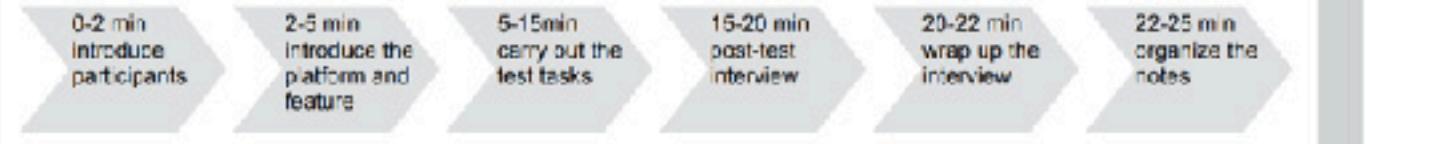
Before the test, Yusen, can you talk about your workflow in terms of choosing a shipping method for your company? Is there any specific information you care about? How do you make a decision?

Thank you!

This is a prototype of the “Carrier Analytics” feature to help users compare different shipping methods and make the best decision based on the information provided. Now, you are the customer. The task for you is to choose the best shipping method for your business. Please speak out any thoughts or feelings you have when observing the information and navigating the feature.

(At the end) Do you think you can choose the best shipping method for your business based on the information provided by this feature? Is the information here enough for you to make this decision? What's missing? Is there any frustration you experience when performing the task?

Thank you for your participation in this user test. Have a good day!

USABILITY TEST PLAN DASHBOARD			
AUTH-ON Chengcheng Huang	CONTACT DETAILS		FINAL DATE FOR COMMENTS
PRODUCT UNDER TEST What is being tested? What are the business and user needs/goals of the product? The “Carrier Analytics” feature of Postest that helps customer check and compare different shipping choices and make a decision.	TEST OBJECTIVES What are the goals of the usability test? What specific questions will be answered? What hypotheses will be tested? Get to know the real user needs, what is the job they want to hire this product to do.	PARTICIPANTS How many participants will be recruited? What are their key characteristics? 1 Yusen (a shipping company)	TEST TASKS What are the test tasks? Think about test. Ask user to check the shipping choices by service and by carrier and check historical performance.
BUSINESS CASE Why are we testing this test? What are the benefits? What are the risks of not testing? The test will address several key questions that will give design team future guidance for iteration.	EQUIPMENT What equipment is required? How will you record the data? Audio recording equipment. Description.		RESPONSIBILITIES Who is involved in the test and who and what responsibilities? Nidhi (lead the test) Chengcheng (take notes) Ben
			LOCATION & DATES Where and when will the test take place? When and how will the results be shared? Over internet: Wed Feb 27
PROCEDURE What are the main steps in the test procedure?			
			

USER STORY

Job: Choose the right carrier for the business



After user research and testing session, I created this storyboard to help demonstrate the interaction between users and the platform and to show how the feature can best help users finish their job.

The storyboard also reveal important insights on the major experience through the platform; information with top priority and the overall user flow.

Key Insights:

2 major experience through the platform

SEARCH

POL _____ POD _____ TRADELANE _____
DATE depart by arrive by
SEARCH



I log into Portcast and open this Carrier Analytics page. I start putting in info about location and date.

WAYFINDING

CARRIER	VESSEL	PORTCAST PREDICTION			PRICES	HISTORICAL PERFORMANCE		
		ETA POD	TRANSIT TIME	ACCURACY		% ON TIME TRIPS	AVERAGE TRANSIT TIME	
SELECT	RCL	21,000 TEU	Jun 22 - Jun 24	0 - 2 days	80%	\$15	80%	10 days
SELECT	MAERSK	19,000 TEU	Jun 23 - Jun 26	3 - 4 days	85%	\$18	70%	12 days
SELECT	EVERGREEN	18,500 TEU	Jun 23 - Jun 26	0 - 4 days	70%	\$16	70%	11 days



Oh great! I see all the data about the carriers that are available and can do the job for my client within that time range.

Key Insights:

Information with top priority (crucial in decision-making)

JOURNEY PREDICTION

PORTCAST PREDICTION			
ETA (POD)	TRANSIT TIME	ACCURACY	
▼ Jun 22 - Jun 24	8 - 12 days	80%	
POL	PORT	PORT	POD
ETA Jun 20	Jun 22	Jun 22	Jun 23
ETD Jun 20	Jun 22	Jun 22	Jun 23
► Jun 23 - Jun 26	9 - 14 days	85%	
► Jun 23 - Jun 26	9 - 14 days	70%	



I click the arrow in order to see more detailed information about the transit time and different ports.

PRICE

PRICES
\$\$\$
\$\$\$\$
\$\$\$



Okay, I think I've got pretty good overview on transit time prediction. Now I want to see the costs.

PROTOTYPE V1

Problems:

- Information is too cramped on one page
- No clear information hierarchy
- Hard to navigate through

Solution:

Refer to “booking flight” experience.

Instead of choosing a carrier, user actually is choosing a journey.

The screenshot shows a web-based prototype interface for shipping information. At the top, there is a search bar with fields for POI (set to Shanghai Shenzhen), POD (set to San Francisco), Date (set to Jun 22-27), Carrier Preference (set to KLM MAERSK), and a 'Search' button. Below the search bar is a sidebar with icons and labels: Market Signal (with a line chart icon), Forecast, Market Drivers, Scenarios, and ET A. The main content area displays a table titled 'Schedule by Carrier' and 'Schedule by Forecast Prediction'. The table has columns for Carrier, Service String, Vessel, ETA, Transit Time, ETD, EIA, Confidence Level %, Prices, and Historical Performance. Three rows of data are shown:

Carrier	Service String	Vessel	Schedule by Carrier		Schedule by Forecast Prediction			Prices	Historical Performance		
			ETA	Transit Time	ETD	EIA	Confidence Level %				
PCL	MFA 005	VESSEL A Vessel 0	Jun 15	3 days	▶ Jun 12	Jun 20-24	8-12 days	80%	\$\$\$	80%	More
MAERSK	ABC 123	Vessel C	Jun 16	4 days	▶ Jun 12	Jun 21-26	9-14 days	70%	\$\$\$	70%	More
EVERGREEN	QUEEN 05	Vessel D Vessel E	Jun 15	3 days	▶ Jun 12	Jun 21-26	9-14 days	70%	\$\$\$	65%	More

PROTOTYPE V2

- Clear information hierarchy
- Clean and simple interface
- Put information with less importance in drop-down menu

The image displays two side-by-side screenshots of the Prototype V2 software interface, illustrating its design and functionality.

Left Screenshot:

- Top Bar:** Includes dropdown menus for "Shanghai; Shenzhen" (selected), "San Francisco" (selected), "06/27/2019" (selected), and "RCI, MAERSK ...".
- Left Sidebar:** Contains links for "Market Signals", "Forecast", "Market Drivers", "Scenarios", and "ET A".
- Historical Performance:** Three bar charts showing "On Time Rate", "Avg TurnTime", and "Vessel Availability" for RCI, MAERSK, and ES across three time periods.
- Schedule by Portcall Prediction:** A table showing port calls, dates, times, and duration for RCI, MAERSK, and EVERGREEN.

Right Screenshot:

- Top Bar:** Same as the left screenshot.
- Left Sidebar:** Same as the left screenshot.
- Historical Performance:** Same as the left screenshot.
- Schedule by Portcall Prediction:** This section has been expanded to show detailed information for the RCI entry on June 12th.

 - Detailed Schedule by Portcall:** Shows three port calls: POL (06/12, 80%), PORT (06/15, 80%), and POD (06/22, 80%).
 - Schedule Arrived by Carrier:** Shows a table with columns: Carrier, Service String, and Total Time. It lists RCI (MIRA 005, EVENT NAME: VERIP).

- Bottom Schedule Table:** Shows the same port call details as the left screenshot.

PROTOTYPE FINAL

SEARCH: INPUT LOCATION

The image displays two side-by-side screenshots of the portcast prototype's search interface. Both screenshots show a dark-themed header with navigation links: KNOWLEDGE BASE, SYSTEM STATUS, PORTCAST NEWS, SUPPORT, and a user profile icon. Below the header is a search bar labeled "SEARCH CARRIER". The search bar has two dropdown fields: "POL" containing "Bei" and "PCD" containing "Start typing to search". To the right of these fields are three input fields: "Arrive by", "Carrier Preference", and a "Search" button. On the left side of the interface is a sidebar with various menu items: DATA (Market Signals), DEMAND (Forecasts, Market Drivers, Scenarios), VESSELS (FIA, Carrier Analytics). A dashed box highlights the "Carrier Analytics" section. In the first screenshot, a dropdown menu for "PORT" under "China" shows checkboxes for Beijing, Shanghai, Shenzhen, and Ningbo, with Beijing selected. In the second screenshot, checkboxes for Beijing and Shanghai are checked.

- User Testing indicated users want to be able to input multiple locations for searching

This image shows two screenshots of the portcast prototype's search interface, similar to the one above but with more input fields. The layout includes a dark header, a search bar, and a sidebar with the same menu items. A dashed box highlights the "Carrier Analytics" section. The search bar now includes two "POL" dropdowns with "Beijing" and "Shanghai" selected, and a "PCD" dropdown with "San" typed into it. The "Arrive by" and "Carrier Preference" fields remain. The "Search" button is present. The "PORT" dropdown menu under "North America" (USA) shows checkboxes for San Francisco, Los Angeles, Seattle, and Santa Barbara, with San Francisco checked. This indicates a progression from single location input to multiple location input.

PROTOTYPE FINAL

SEARCH: INPUT DATES

The initial prototype shows a search interface titled "SEARCH CARRIER". It includes fields for "POL" (Beijing, Shanghai) and "POD" (San Francisco). Below these are two date input fields: "Depart by" and "Arrive by", each with a dropdown menu and a calendar. A third field, "Carrier Preference", is also present. A "Search" button is located at the bottom right of the search area.

The first iteration of the prototype adds a dashed box around the "Depart by" and "Arrive by" fields. The "Carrier Preference" field is removed. The "Search" button is moved to the bottom right of the search area.

- User Testing indicated users want to see all the possible results within a certain range of dates.

The second iteration of the prototype removes the dashed box from the "Depart by" and "Arrive by" fields. The "Carrier Preference" field is restored. The "Search" button is moved to the bottom right of the search area.

The final prototype removes the "Carrier Preference" field and moves the "Search" button to the bottom right of the search area. The overall layout is simplified compared to the previous iterations.

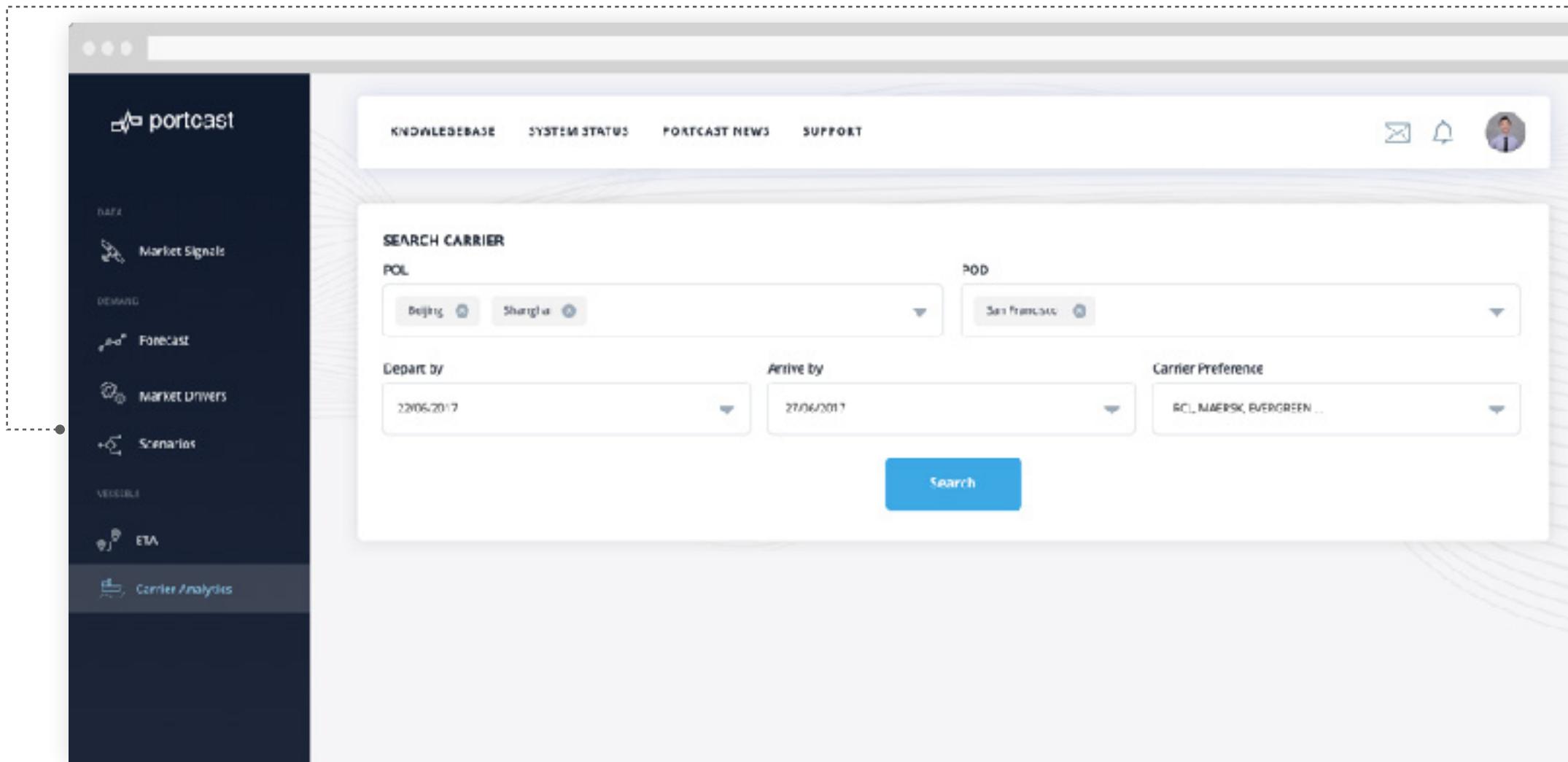
PROTOTYPE FINAL

SEARCH: CONTROL CARRIER PREFERENCE

The figure consists of three screenshots of the portcast web application, showing the 'SEARCH CARRIER' feature across three different states:

- Screenshot 1 (Left):** Shows the initial state where all carriers are selected by default. The 'Carrier Preference' dropdown menu is open, listing FCL, MAERSK, EVERGREEN, ABB, CEAD, and SCCC, all with checked checkboxes.
- Screenshot 2 (Middle):** Shows the state after a user has unselected some carriers from the preference list. The 'Carrier Preference' dropdown now shows RCL, MAERSK, EVERGREEN, ABB, CEAD, and SCCC, with only RCL and MAERSK having checked checkboxes.
- Screenshot 3 (Right):** Shows the state after another user interaction, where the 'Carrier Preference' dropdown now only lists RCL, MAERSK, EVERGREEN, and SCCC, with only RCL and MAERSK having checked checkboxes.

- User Testing indicated users want to be able to control the carriers shown in the result (avoid the ones they don't trust / only show the ones they know etc). But the default setting is showing all the possible carriers.



PROTOTYPE FINAL

WAYFINDING: SORTING RESULTS

The image displays two side-by-side wireframe prototypes of a search results page for 'Carrier Analytics'. Both prototypes show a 'SEARCH RESULT' table with three rows of data. The columns are: Carrier, Portcast Prediction (with sub-fields CTD, ETA, Transit Time), Freight Cost, and Carrier Historical Performance (with sub-fields % on-time and % transit time reliable). Each row includes a 'Select' button. A 'HISTORICAL PERFORMANCE' section is visible at the bottom of each prototype.

Prototype 1 (Left): The sorting dropdown menu shows 'Departure Time' selected. The historical performance section shows 80% on-time and 55% reliable.

Carrier	Portcast Prediction	Freight Cost	Carrier Historical Performance			
	CTD	ETA	Transit Time	% on-time	% transit time reliable	
▶ ACI / MSC 123	12/06/2017	22/06/2017	10 days / 1 Transit	\$\$\$	80%	55%
▶ MAERSK / MSC 224	12/06/2017	24/06/2017	12 days / 1 Transit	\$\$\$\$	70%	85%
▶ EVERGREEN / MSC 233	12/06/2017	24/06/2017	12 days / 1 Transit	\$\$\$\$	70%	75%

Prototype 2 (Right): The sorting dropdown menu shows 'Arrival Time' selected. The historical performance section shows 70% on-time and 85% reliable.

Carrier	Portcast Prediction	Freight Cost	Carrier Historical Performance			
	CTD	ETA	Transit Time	% on-time	% transit time reliable	
▶ ACI / MSC 123	12/06/2017	22/06/2017	10 days / 1 Transit	\$\$\$	80%	55%
▶ MAERSK / MSC 224	12/06/2017	24/06/2017	12 days / 1 Transit	\$\$\$\$	70%	85%
▶ EVERGREEN / MSC 233	12/06/2017	24/06/2017	12 days / 1 Transit	\$\$\$\$	70%	75%

- After meeting with stakeholders, we agreed on adding this filter box to help users best sorting results.

PROTOTYPE FINAL

WAYFINDING: NAVIGATING THROUGH INFO

The image displays two versions of a search results page from 'Carrier Analytics'. Both pages have a header with 'SEARCH RESULT' and filters for 'Carrier', 'Portcast Prediction', 'Freight Cost', and 'Carrier Historical Performance'. The left version shows three port predictions for the route '12/06/2017 - 22/06/2017' with transit times of 10 days. The right version shows the same three predictions, but the third one is expanded to show detailed voyage information for each leg: POL to JAKARTA (12/06 0000 - 16/06 0000) and JAKARTA to POD (15/06 1000 - 22/06 0000). The expanded view includes tables for 'Detailed Voyage Prediction by Portcall' and 'Schedule Provided by Carrier'.

- The iterated prototype still focuses on emphasizing the information with primary level hierarchy - Journey Prediction and Freight Cost.
- After synthesizing the feedback from stakeholders and users, I added more information to display on search result (carrier info and historical performance). But they are in 2nd hierarchy.
- All the other information will be displayed in drop-down menu in order to keep the main result display page clear and simple.

Hierarchy

Primary Level Hierarchy
2nd Level Hierarchy
3rd Level Hierarchy

Information

Journey Prediction + Freight Cost
Carrier Info + Historical Performance
Detailed Journey Prediction etc

PROTOTYPE FINAL

WAYFINDING: PORT ALERT

The image displays two side-by-side screenshots of a web-based application interface titled "Carrier Analytics". Both screenshots show a "SEARCH RESULT" page with a dark header and a light gray body.

Left Screenshot (Alert Present):

- Header:** Carrier Analytics, SEARCH RESULT, SORT BY: Departure Time.
- Table Headers:** Carrier, Portcast Prediction (ETD, ETA, Transit Time), Freight Cost, Carrier Historical Performance (% on-time, % transit time reliable).
- Row 1:** RC.7 MSC 123, 12/06/2017, 22/06/2017, 10 days / 1 Transit, \$\$\$, 80%, 55%, **Select**.
- Row 2:** Detailed Voyage Prediction by Portcast table:

Port	Arrival	Departure	On/Off	Vessel Details	Departure (POD)	Arrival (POD)	Transit Time	Confidence Level by Portcast
POL	-	12/06 00:00	12/06 00:00	EVENT	06/12	06/20	8 days	80%
JAKARTA	15/06 10:00am	16/06 20:00am	16/06 10:00am	EVENT	Service String	Cata. Info	Transit Port	Destination Terminal
POD	22/06 00:00am	-	-	NAVIOS	MIRA.003	Successional	Jakarta	ADK
- Row 3:** NAERSH / MSC 224, 12/06/2017, 24/06/2017, 12 days / 1 Transit, \$\$\$\$+, 70%, 55%, **Select**.
- Row 4:** EVERGREEN / MSC 233, 12/06/2017, 24/06/2017, 12 days / 1 Transit, \$\$\$\$+, 70%, 75%, **Select**.
- Bottom:** ▶ HISTORICAL PERFORMANCE.

Right Screenshot (Alert Removed):

- Header:** Carrier Analytics, SEARCH RESULT, SORT BY: Departure Time.
- Table Headers:** Carrier, Portcast Prediction (ETD, ETA, Transit Time), Freight Cost, Carrier Historical Performance (% on-time, % transit time reliable).
- Row 1:** RC.7 MSC 123, 12/06/2017, 22/06/2017, 10 days / 1 Transit, \$\$\$, 80%, 55%, **Select**.
- Row 2:** Detailed Voyage Prediction by Portcast table (identical to the left screenshot, but the POD row now shows a note: "This voyage has been flagged as abnormal").
- Row 3:** NAERSH / MSC 224, 12/06/2017, 24/06/2017, 12 days / 1 Transit, \$\$\$\$+, 70%, 55%, **Select**.
- Row 4:** EVERGREEN / MSC 233, 12/06/2017, 24/06/2017, 12 days / 1 Transit, \$\$\$\$+, 70%, 75%, **Select**.
- Bottom:** ▶ HISTORICAL PERFORMANCE.

- Client requested to show alert information on port when there's abnormal situation (that might leads to a possible delay). The port with abnormal situation appears in red color. When users hover over it, they can see the alert and decide whether they want to choose this voyage or not.

PROTOTYPE FINAL

WAYFINDING: COMPARING RELIABILITY

The image displays two side-by-side screenshots of a web-based 'Carrier Analytics' application. Both screenshots show a search results page for a specific voyage.

Left Screenshot (Historical Performance Expanded):

- Search Result Header:** Includes 'Carrier', 'Portcast Prediction', 'Freight Cost', and 'Carrier Historical Performance' sections.
- Carrier Details:** Shows RCL / MSC 123, departure on 12/06/2017, arrival on 22/06/2017, 10 days transit time, \$\$\$\$ freight cost, 80% on-time, and 55% transit time reliable. A 'Select' button is present.
- Detailed Voyage Prediction by Portcast:** Shows a table with columns: Port, Arrival, Departure, On/Offort, Visual Details, Departure (POD), Arrival (POD), Transit Time, and Confidence Level by Portcast.
- Schedule Provided by Carrier:** Shows a table with columns: Port, Arrival, Departure, On/Offort, Visual Details, Departure (POD), Arrival (POD), Transit Time, and Confidence Level by Portcast.
- Historical Performance:** A section titled 'HISTORICAL PERFORMANCE' contains two bar charts: 'On Time Performance' showing % trips on-time (RCL: 80%, MAERSK: 70%, EVERGREEN: 75%) and 'Transit Time Performance' showing Avg. Transit Days (RCL: 10, MAERSK: 12, EVERGREEN: 12).

Right Screenshot (Historical Performance Collapsed):

- Search Result Header:** Same as the left screenshot.
- Carrier Details:** Same as the left screenshot.
- Detailed Voyage Prediction by Portcast:** Same as the left screenshot.
- Schedule Provided by Carrier:** Same as the left screenshot.
- Historical Performance:** The 'HISTORICAL PERFORMANCE' section is collapsed, indicated by a dashed border and a small arrow icon.

- Historical Performance box provides additional graphs in helping users compare the reliability of carriers. But it's with low level hierarchy, and we don't want the graphs to disturb the main results display. So users can only see it after clicking the arrow.

PROTOTYPE FINAL

WAYFINDING: MAKING A SELECTION

SEARCH RESULT

Carrier	Portcast Prediction			Freight Cost		Carrier Historical Performance	
	STD	ETA	Transit Time	% on-time	% transit time reliable		
RCL / MSC 123	12/06/2017	22/06/2017	10 days / 1 Transit	\$\$\$\$	60%	85%	<button>Select</button>
MAERSK / MSC 224	12/06/2017	24/06/2017	12 days / 1 Transit	\$\$\$\$\$	70%	85%	<button>Select</button>
EVERGREEN / MSC 233	12/06/2017	24/06/2017	12 days / 1 Transit	\$\$\$\$\$	70%	75%	<button>Select</button>

HISTORICAL PERFORMANCE

On Time Performance
% trips on-time

Carrier	% trips on-time
RCL	80%
MAERSK	70%
EVERGREEN	75%

Transit Time Performance
Avg. Transit Days

Carrier	Avg. Transit Days
RCL	10
MAERSK	12
EVERGREEN	12

SELECTED CARRIER INFO

PortcastPrediction				
Carrier	STD	ETA	Transit Time	Freight Cost
PCL / MSC 123	12/06/2017	22/06/2017	10 days / 1 Transit	\$\$\$\$

Detailed Voyage Predictor by Portcast

Port	Arrival	Departure	On/Off	Vessel Details	Departure (POD)	Arrival (POD)	Transit Time	Confidence Level by Portcast
POL	-	12/06 00:00	EVENT	-	06/12	06/20	8 days	80%
JAKARTA	15/06 10:00am	16/06 2:00am	EVENT	-	Service String	Canal Info	Transit Port	Destination Terminal
POD	22/06 9:00am	-	-	NAVIOS	MIRA 005	Success serial	Jakarta	ABK

Schedule Predicted by Carrier

Port	Arrival	Departure	Cutoff	Vessel Details
PCL	-	12/06 00:00	12/06 00:00	EVENT
JAKARTA	15/06 10:00pm	16/06 2:00am	16/06 10:00	EVENT
PCL	22/06 9:00am	-	-	NAVIOS

Schedule Predicted by Vessel

Departure (POD)	Arrival (POD)	Transit Time	Confidence Level by Vessel
06/12	06/20	8 days	80%

Service String
Carrier Info
Transit Port
Destination Terminal

MIRA 005
Success serial
Jakarta
ABK

[Download as PDF or CSV](#)

- After users make a selection, they'll be directed to a page with all the information listed. They can download the info sheet as reference for future tasks.

Before

POL
POD
Prediction start date: 2018-08-05
DEPART BY ARRIVE BY
Download

SEARCH SCHEDULES

BY SERVICE (highlighted with a red oval)

BY CARRIER

SCHEDULE

PORTCAST PREDICTION

HISTORICAL PERFORMANCE

Service	Carrier	Vessel	Year	Tonnage	ETD (POL)	ETA (POD)	Transit Time	ETA (POD)	Transit Time	% On Time Trips	Avg. Transit Time																																					
MIRA 005	RCL	2010	---	---	6 FEB 12:00	8 FEB 00:00	2 days	16 FEB 00:00	10 days	80%	5 days																																					
<table border="1"> <thead> <tr> <th>POD</th> <th>PORT</th> <th>PORT</th> <th>PORT</th> <th>POD</th> </tr> <tr> <td>ETA: 6 FEB 12:00</td> <td>6 FEB 15:00</td> <td>7 FEB 12:00</td> <td>7 FEB 18:00</td> <td>8 FEB 00:00</td> </tr> <tr> <td>ETD: X FEB XX:00</td> <td>6 FEB 15:00</td> <td>7 FEB 12:00</td> <td>7 FEB 18:00</td> <td>X FEB XX:00</td> </tr> </thead> <tbody> <tr> <td>ABC 123</td> <td>MAERSK</td> <td>2012</td> <td>---</td> <td>8 FEB 12:00</td> <td>10 FEB 00:00</td> <td>2 days</td> <td>16 FEB 00:00</td> <td>10 days</td> <td>80%</td> <td>5 days</td> </tr> <tr> <td>QUEEN 05</td> <td>EVERGREEN</td> <td>1910</td> <td>---</td> <td>2 FEB 12:00</td> <td>11 FEB 00:00</td> <td>9 days</td> <td>16 FEB 00:00</td> <td>10 days</td> <td>80%</td> <td>5 days</td> </tr> </tbody> </table>												POD	PORT	PORT	PORT	POD	ETA: 6 FEB 12:00	6 FEB 15:00	7 FEB 12:00	7 FEB 18:00	8 FEB 00:00	ETD: X FEB XX:00	6 FEB 15:00	7 FEB 12:00	7 FEB 18:00	X FEB XX:00	ABC 123	MAERSK	2012	---	8 FEB 12:00	10 FEB 00:00	2 days	16 FEB 00:00	10 days	80%	5 days	QUEEN 05	EVERGREEN	1910	---	2 FEB 12:00	11 FEB 00:00	9 days	16 FEB 00:00	10 days	80%	5 days
POD	PORT	PORT	PORT	POD																																												
ETA: 6 FEB 12:00	6 FEB 15:00	7 FEB 12:00	7 FEB 18:00	8 FEB 00:00																																												
ETD: X FEB XX:00	6 FEB 15:00	7 FEB 12:00	7 FEB 18:00	X FEB XX:00																																												
ABC 123	MAERSK	2012	---	8 FEB 12:00	10 FEB 00:00	2 days	16 FEB 00:00	10 days	80%	5 days																																						
QUEEN 05	EVERGREEN	1910	---	2 FEB 12:00	11 FEB 00:00	9 days	16 FEB 00:00	10 days	80%	5 days																																						

Iteration:

- Users can control and also have more freedom in setting search criteria.
- Results display is with clearer information hierarchy.
- Overall interface is simpler and clearer.
- Users can sort results as they wish.

After

POL
POD
Beijing Shanghai San Francisco
Depart by: 22/06/2017 Arrive by: 27/06/2017 Carrier Preference: RCL, MAERSK, EVERGREEN...
Search

SEARCH CARRIER

SEARCH RESULT

Carrier

Portcast Prediction

Freight Cost

Carrier Historical Performance

Carrier	ETD	ETA	Transit Time	Freight Cost	% on-time	% transit time reliable
RCL / MSC 123	12/06/2017	22/06/2017	10 days / 1 Transit	\$\$\$	80%	85%
MAERSK / MSC 224	12/06/2017	24/06/2017	12 days / 1 Transit	\$\$\$\$	70%	83%
EVERGREEN / MSC 233	12/06/2017	24/06/2017	12 days / 1 Transit	\$\$\$\$	70%	75%

Detailed Voyage Prediction by Portcast

Port	Arrival	Departure	Cutoff	Week Details	Departure (POL)	Arrive (POD)	Transit Time	Carrier Level by Portcast
POL	-	12/06 6:00am	12/06 6:00am	EVENT	06/12	06/20	8 days	80%
JAKARTA	15/06 10:00pm	16/06 2:00am	16/06 1:00am	EVENT	Schedule String	Canal Info	Intransit Port	Desination Terminal
POD	22/06 5:00am	-	-	NAVIOS	MIRA 005	Suez canal	Jakarta	ABX

HISTORICAL PERFORMANCE

FINAL PROTOTYPE SHOWCASE

<https://invis.io/portcast-analytics>

The screenshot shows the Portcast Analytics search interface. On the left is a dark sidebar with navigation links: Market Signals, Forecast, Market Drivers, Scenarios, Vessels, ETA, and Carrier Analytics (which is selected). The main area has tabs for KNOWLEDGEBASE, SYSTEM STATUS, PORTCAST NEWS, and SUPPORT. It features a 'SEARCH CARRIER' section with fields for POL (Beijing, Shanghai) and POD (San Francisco), Depart by (22/06/2017), Arrive by (27/06/2017), and Carrier Preference (RCL, MAERSK, EVERGREEN...). A 'Search' button is at the bottom. Below this is a 'SEARCH RESULT' section showing two entries: RCL / MSC 123 (12/06/2017, 22/06/2017, 10 days / 1 Transit, \$\$\$, 80%, 85%) and MAERSK / MSC 224 (12/06/2017, 24/06/2017, 12 days / 1 Transit, \$\$\$\$, 70%, 85%). Each entry has a 'Select' button.

The screenshot shows the Portcast Analytics search result interface. At the top is a header with tabs for SEARCH RESULT, Portcast Prediction, Freight Cost, and Carrier Historical Performance. Below is a table titled 'Detailed Voyage Prediction by Portcast' with columns: Port, Arrival, Departure, CY cutoff, Vessel Details, and Schedule Provided by Carrier. It lists three rows: POL (12/06 8:00am, 12/06 6:00am, EVENT, 06/12, 06/20, 8 days, 80%), JAKARTA (15/06 10:00pm, 16/06 2:00am, 16/06 1:00am, EVENT, MIRA 005, Suez canal, Jakarta, ABX), and POD (22/06 9:00am, -, -, NAVIOS). Below the table are sections for 'Portcast Prediction' (RCL / MSC 123, 12/06/2017, 22/06/2017, 10 days / 1 Transit, \$\$\$, 80%, 85%), 'Freight Cost' (MAERSK / MSC 224, 12/06/2017, 24/06/2017, 12 days / 1 Transit, \$\$\$\$, 70%, 85%), and 'Carrier Historical Performance' (EVERGREEN / MSC 233, 12/06/2017, 24/06/2017, 12 days / 1 Transit, \$\$\$\$, 70%, 75%). Each section has a 'Select' button.

REFLECTION

What we did right:

- User research and user testing provided us with very useful insights on future design.
- We worked with client through the process.

What didn't make it:

- Due to the time limit, we can't conduct a 2nd round user testing on the iterated prototype.

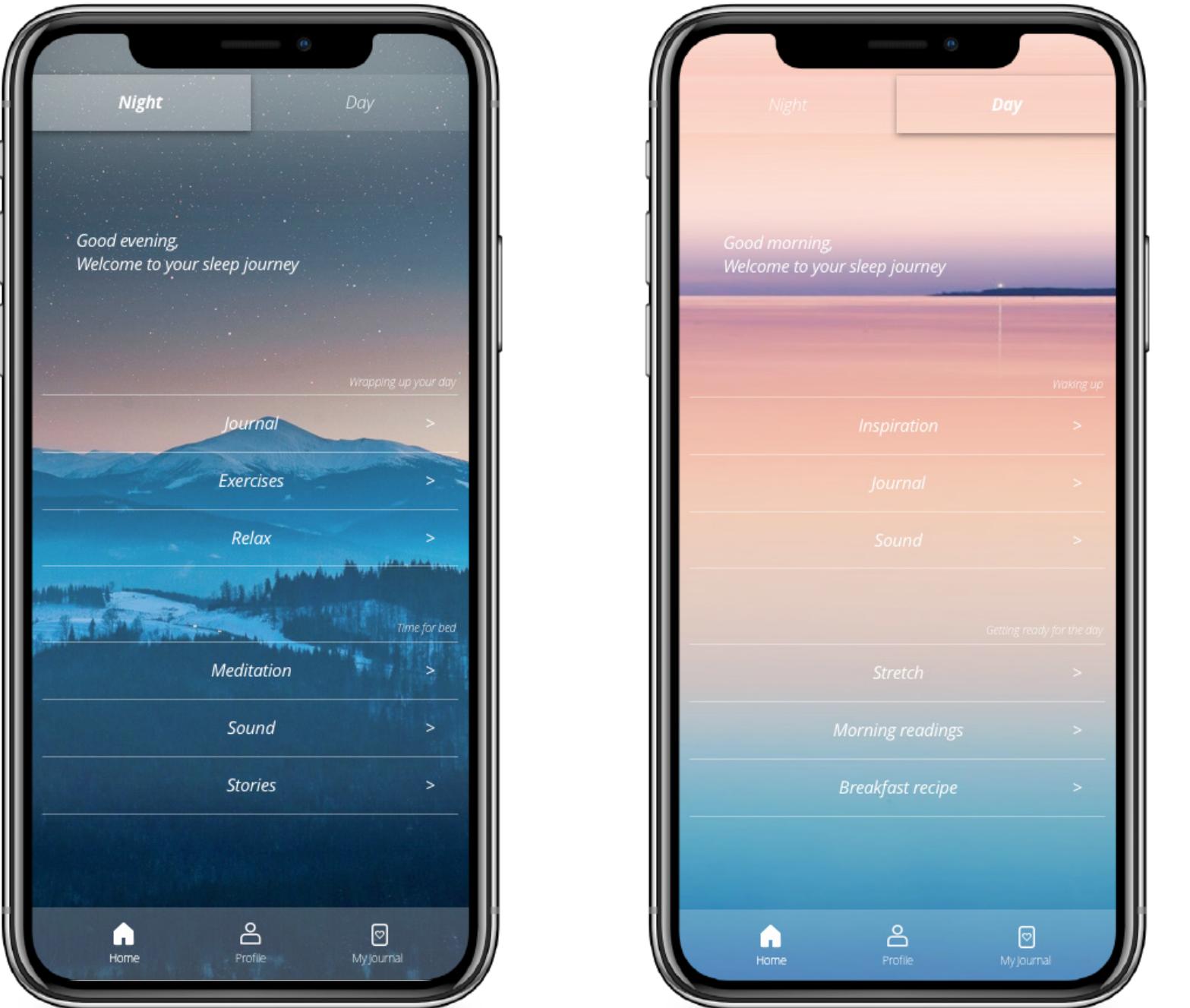
Next step:

- Implementation

3 - Sleep Journey

TRANSFERRING BEDTIME EXPERIENCE TO A DELIGHTFUL JOURNEY

MOBILE UI & UX DESIGN



Sleep Journey

TRANSFERRING BEDTIME EXPERIENCE TO A DELIGHTFUL JOURNEY

THE CHALLENGE

More and more people suffer from sleep related problems. After investigation, I found out the major reason behind this problem is the stress from daily life and the incompleteness people feel when heading to bed. The stress is actually coming from the fear of losing control of their work and life.

THE OUTCOME

An app that helps people sleep better, maintain a good lifestyle and mental health through developing good habits around sleep time. It provides holistic and delightful experience with a comprehensive feature set aiming at different time periods around sleep. It not only provides you with the features that calm you down, but most importantly helps you get better control of your life and work.

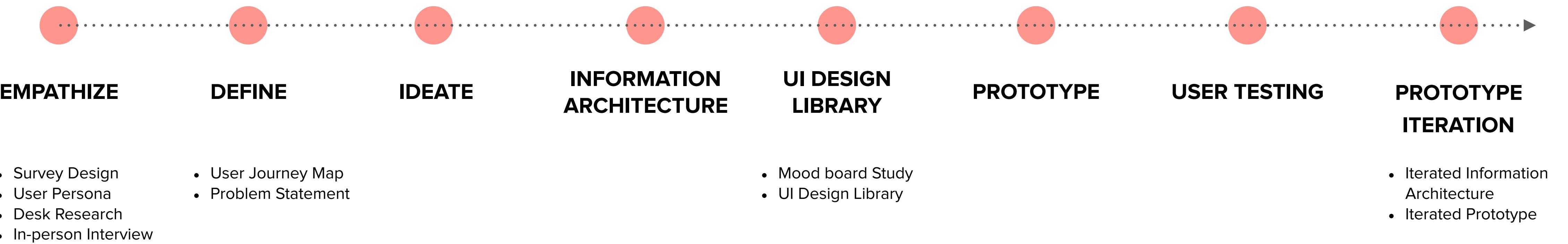
TEAM: Chengcheng Huang (Self-started project)

DURATION: Jan 2019 - Feb 2019 (1.5 weeks)

ROLE: UX/UI Designer & Researcher

SKILLS: Survey design, user persona, user journey mapping, information architecture, wireframing, lo-fi & hi-fi prototyping, visual study, user testing, UI design

DESIGN PROCESS

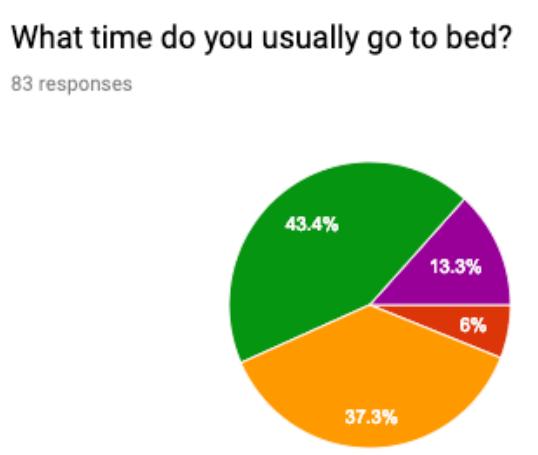
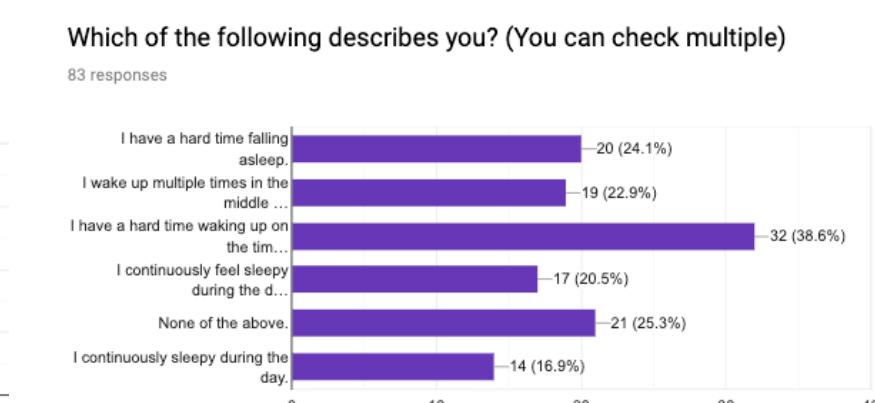
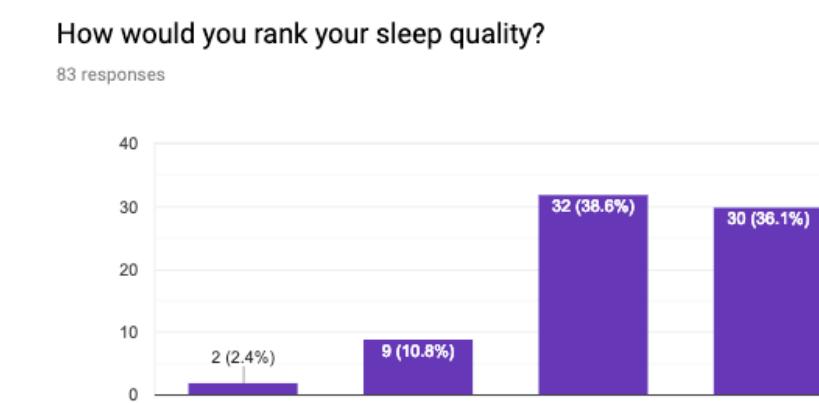


SURVEY DESIGN AND INTERVIEW

• User Survey

I designed and conducted a Sleep Behavior Survey targeting people aging from 18 to 34 to understand more about their sleep behavior, pain points, and needs. I received more than 150 responses. Here are some insights from the survey results:

1. Among all the responses, 96% of them usually sleep 5-8 hrs a day.
2. About 44% of the participants usually go to bed around 12:30-2:00 am; about 36% usually wake up around 7:00am-8:00 am.
3. Most of the participants rank their sleep quality not very satisfied.



• Interview

I also interviewed some of the participants to get to know their sleep routine(pre-bed activities), the major concern about their sleep behavior, and the possible cause leading to it.

1. Most of the participants express they have a hard time waking up on time; a lot of them also feel they have a hard time falling asleep too.
2. A lot of the participants think pre-bed activities can help them sleep better, like taking a shower, reading, doing exercise etc.
3. Most of the participants think the cause of their sleep behavior is stress/anxiety. Many of the people say that their minds keep running even when they close their eyes and it usually takes a while for them to truly relax.

"I usually do my work which requires much thinking right before going to bed, so I just keep thinking and cannot stop it instantly for sleep."

Scott, 28, programmer

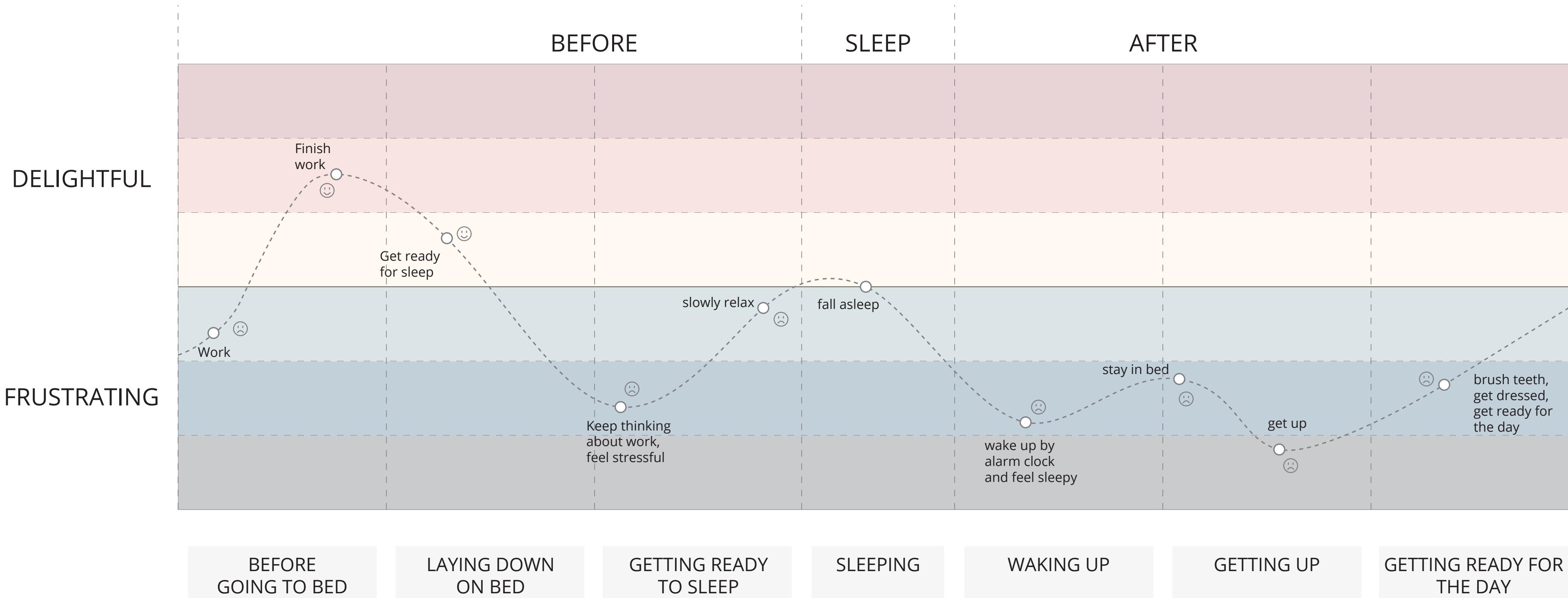
"Long working hour during weekday makes me tired in mind. I feel stress in mind and cannot get relax easily. Sometimes getting nervous when I hear sounds in midnight."

Daniela, 27, designer

"I think too much. I usually plan my schedule for the next day right before I sleep."

Kevin, 24, graduate student

USER JOURNEY MAP



USER PERSONA AND PROBLEM STATEMENT

Stacy Morelli



Graduate student, 26, lives in Berkeley, CA

Bio:

Stacy is a graduate school student majoring in Architecture. She's busy with her thesis design project and meanwhile she's been actively looking for a job after graduation. She loves her major but she's very stressed out. She always stays up late working on her portfolio and has a hard time falling asleep. When she wakes up, she also feels very sleepy and not in a good mood.

Wants & Needs

- Fall asleep faster and stop thinking about work.
- Relax before bedtime.
- Feel good and refreshed when waking up.
- Get enough rest to stay energetic during the day so that she can be more productive while working and more social with her friends.

Frustrations

- Always works till very late and forgets time. When she goes to bed, she's still thinking about work and can't fall asleep.
- Feels so sleepy and not in a good mood when waking up.

"I usually work on my project right before going to bed, so I just keep thinking and can't stop it instantly for sleep."

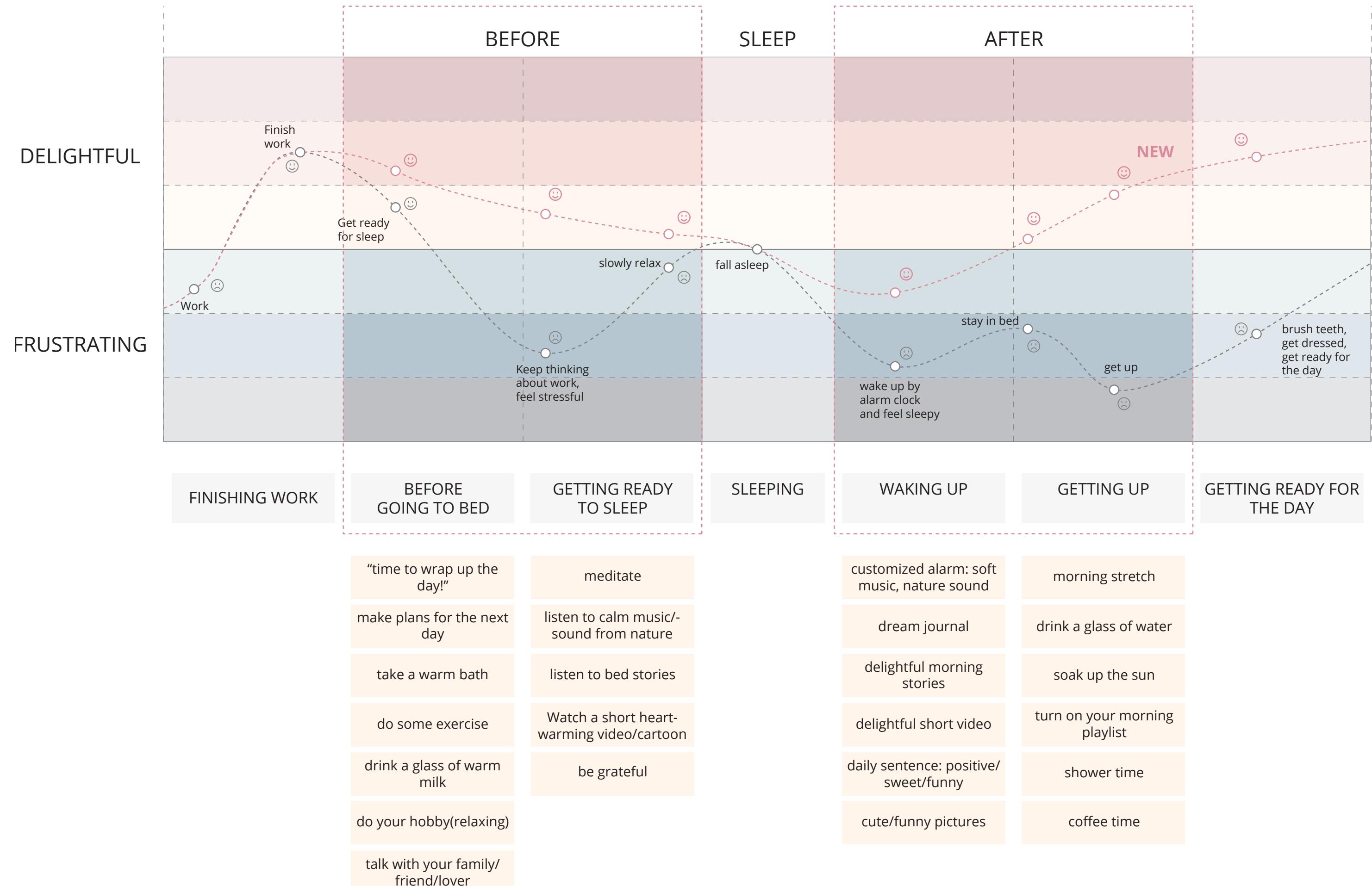
The research led me to the problem statement:

How might we make users' experience before and after sleep more delightful?

- How might we help users get relaxed and fall asleep easier?

- How might we help users feel refreshed and delighted when waking up?

DESIGN STRATEGY



Based on the User Journey Map, I came up with design solutions to help improve users' experience at different stages around sleep time.

INFORMATION ARCHITECTURE



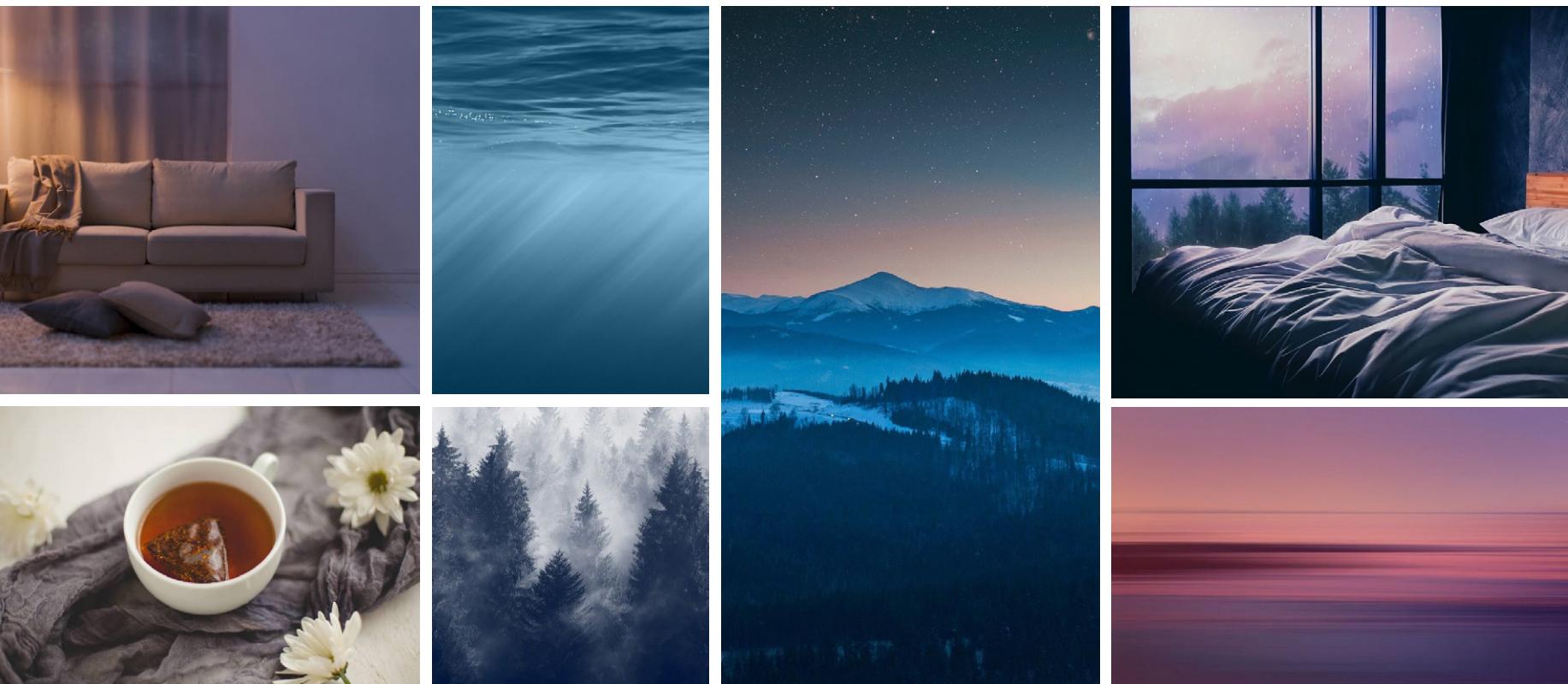
Main Project

High-level components

Features

MOOD BOARD AND COLOR PALETTE STUDY

night

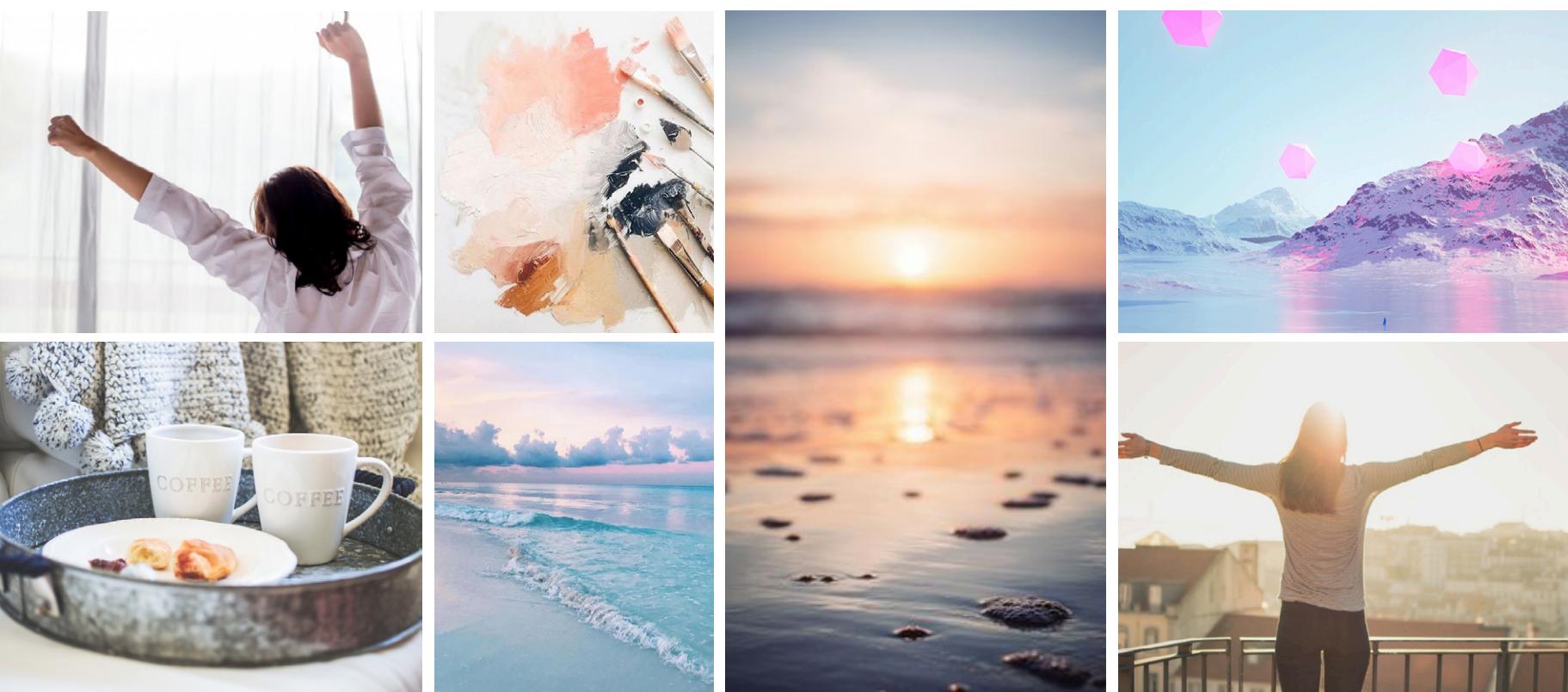


For night mode, I want to create a calm, serene, dreamy atmosphere. Imagine you are surrounded by woods, everything is so quiet. You feel you can finally release all the stress from day life, and close your eyes just enjoying the pure calmness of the nature.

For morning mode, I want to create a refreshing, inspiring and cozy atmosphere. Imagine you wake up, seeing the beautiful sunshine shining into your room. Having a cup of coffee, you feel motivated and excited about starting your day.

Meanwhile, in order to maintain the coherence within the app. The 2 mood boards also share similar color palette and overall atmosphere.

morning



Primary colors



Typography

Title

Subtitle

Heading

Heading 2

Body text 1

Body text 2

Secondary colors



PROTOTYPE V1



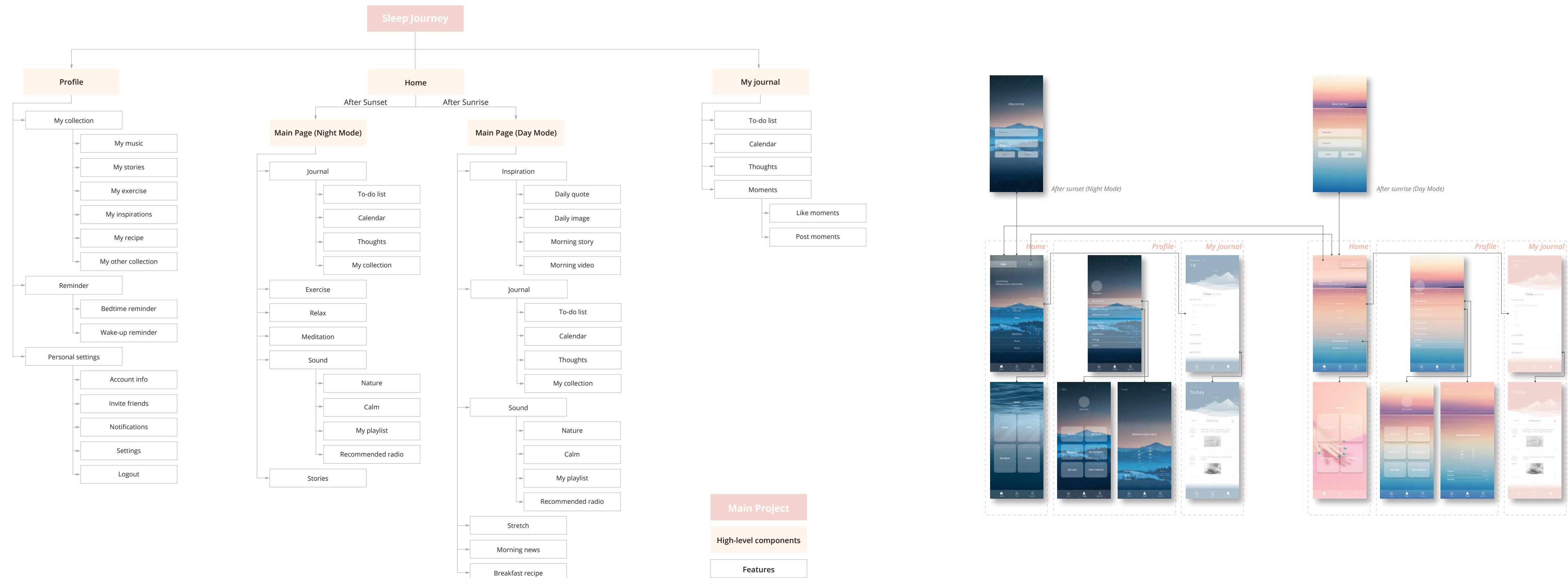
USER TESTING

I found users (college students or new graduates) to do user testing for me with my prototype on inVision.

- **Key Findings**

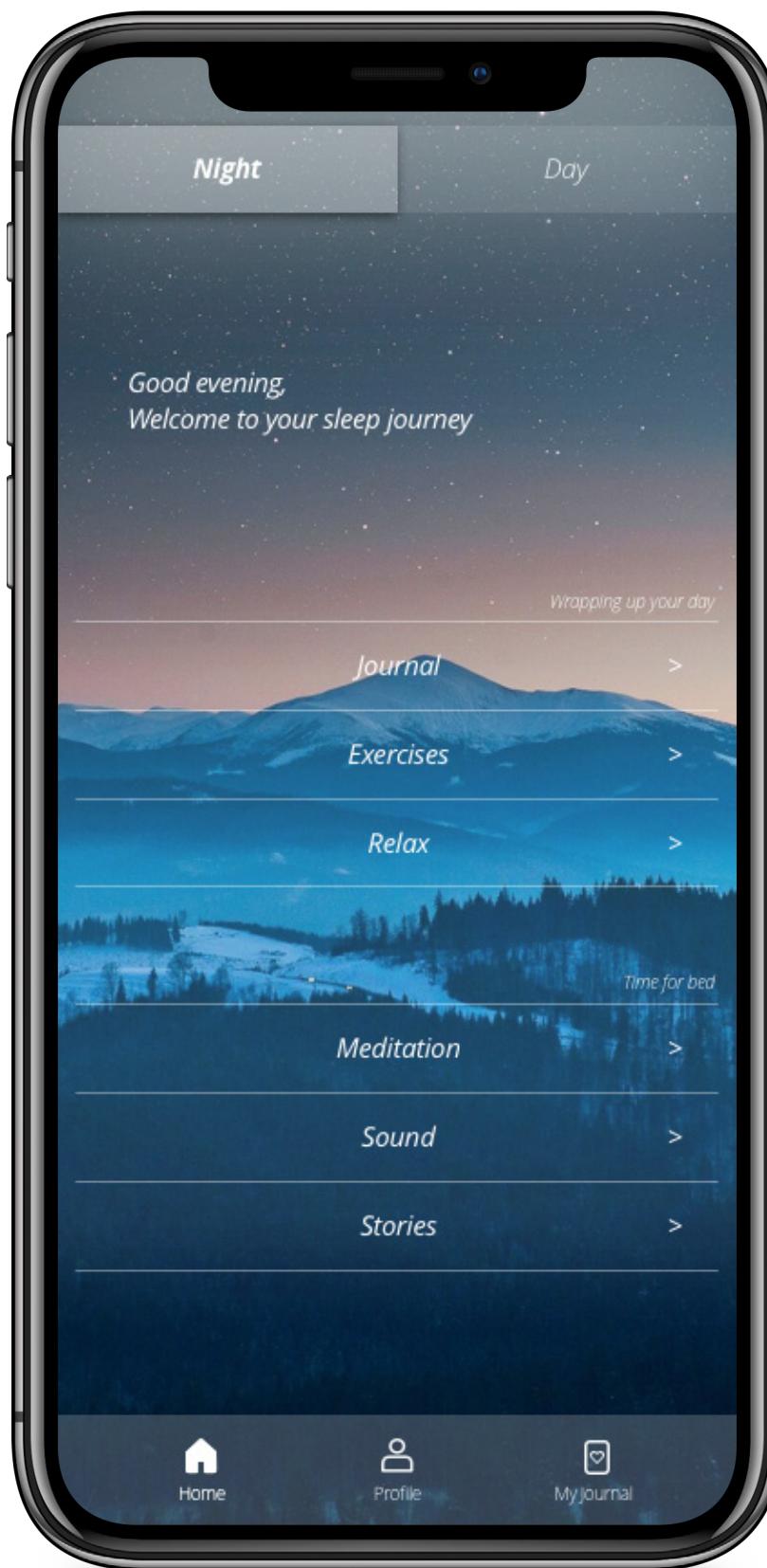
1. Users say they don't know what those names mean: bedtime,... and they don't want to click into it in order to figure it out.
2. Users don't like there're too many options to click at main page.
3. Users think Journal is an important feature, maybe it should always be kept at the bottom box.
4. Bedtime, sound, stories maybe used the most. A few users say they are not gonna use alarm, because prefer the alarm on ios.
5. Texts are hard to read on some ui, there is not enough color contrast with background
6. Texts are not consistent in colors.
7. Images are kind of sticking together, they do not seem like buttons.

PROTOTYPE ITERATION

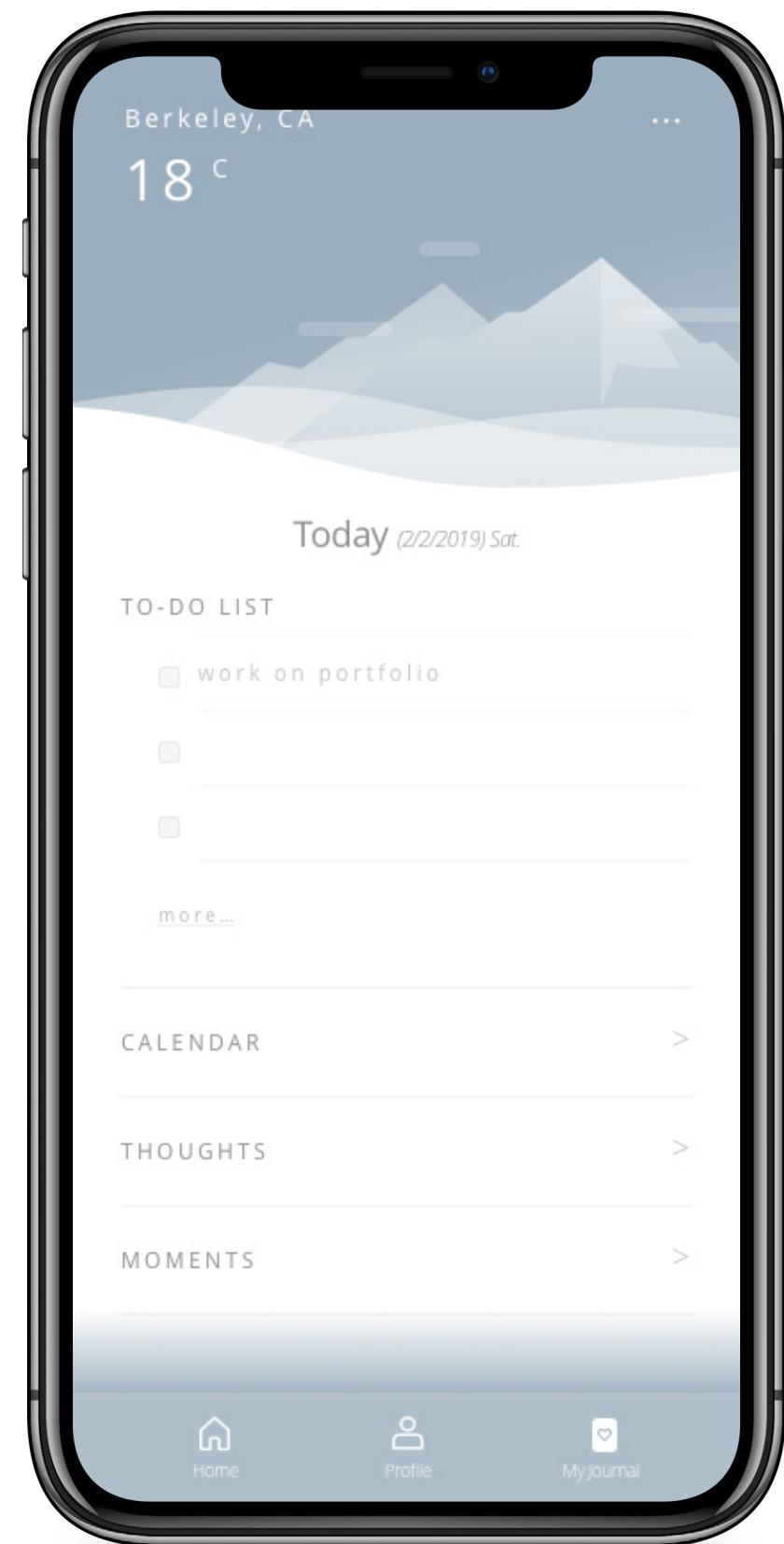


FINAL PROTOTYPE SHOWCASE

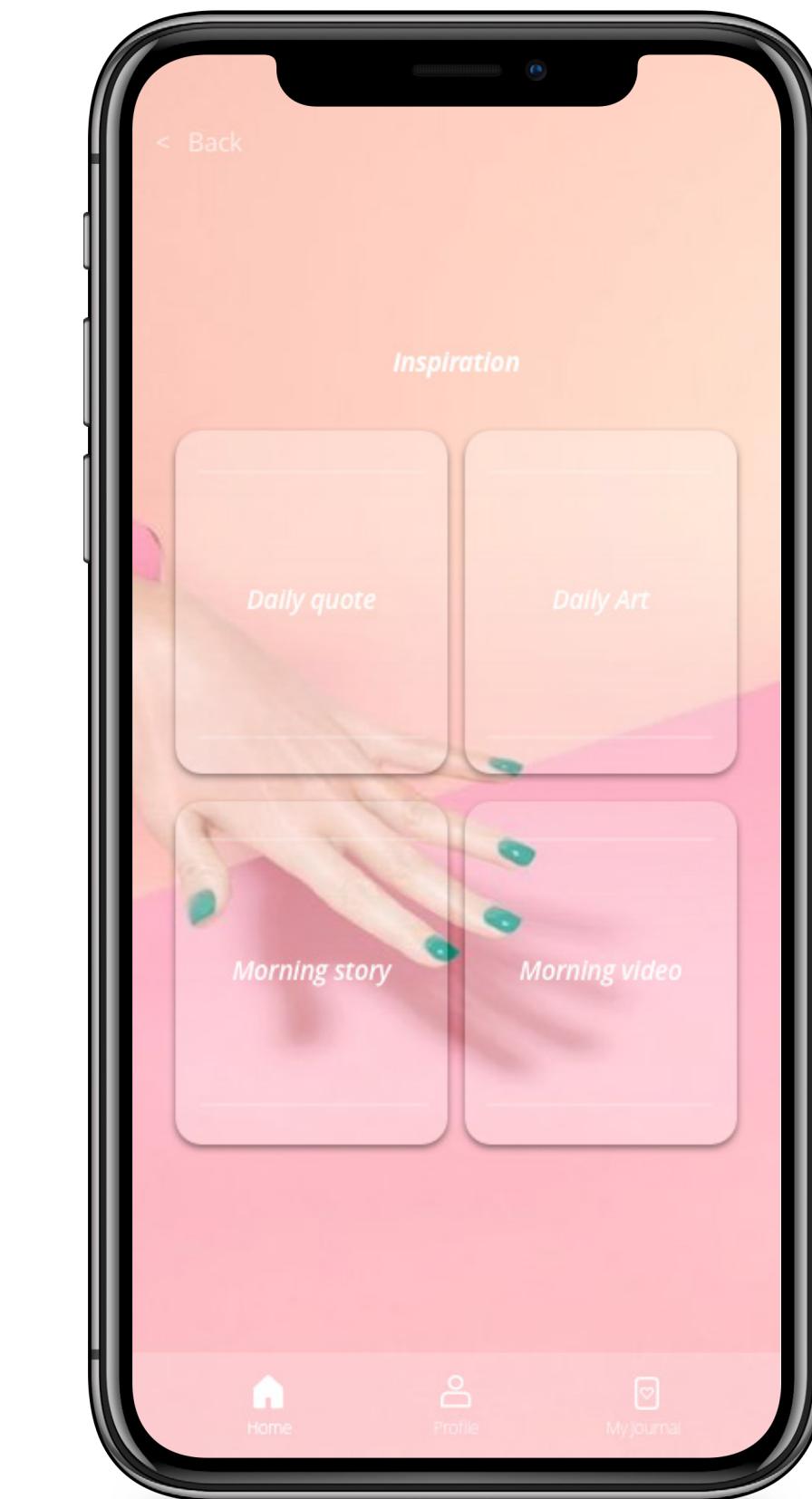
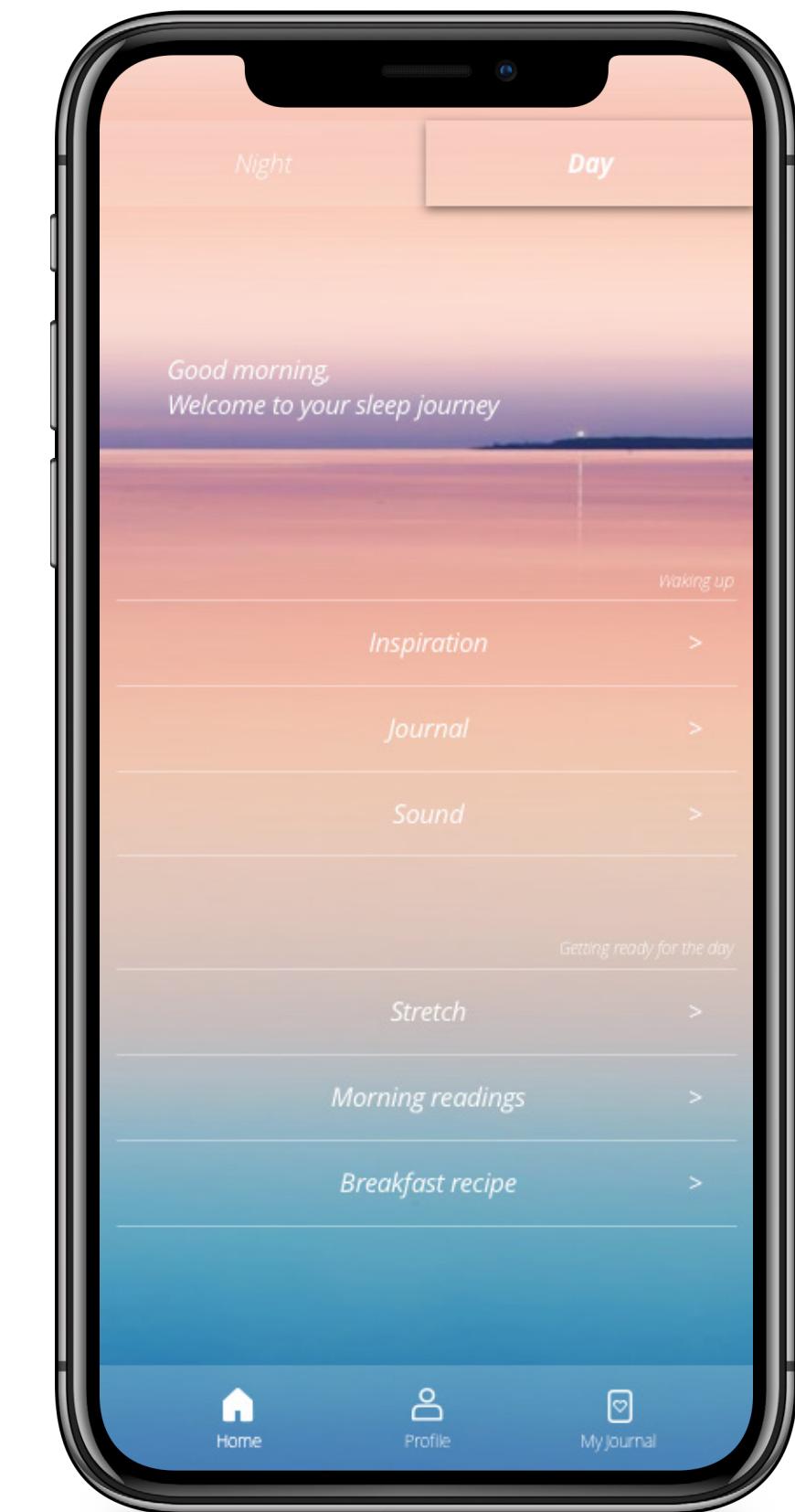
<https://invis.io/sleepjourney>



Night mode



Day mode



REFLECTION

What I did right:

- User research provided me with profound insights and helped me better understand problems.
- User journey map is a great design tool for me.
- User testing provided me with significant insights on iteration (Information Architecture and Prototype)
- Mood board study provided me with inspiring ideas on interface.

What didn't make it:

- I should conduct a 2nd round user testing on the iterated prototype.
- More polish on interface design (adjusting fonts etc).

Next step:

- Conduct a 2nd round user testing.
- Implementation.

4 - Skanska Identity & Design

REDEFINING SKANSKA EXPERIENCE



BRAND IDENTITY, VISUAL DESIGN & INTERIOR DESIGN

Skanska Identity & Design

REDEFINING SKANSKA EXPERIENCE

Working closely with clients(SKANSKA) and design team at Henning Larsen from kickoff to shipping. Participated in research, visual design, new identity development for SKANSKA brand and interior design for their headquarter lobby in Warsaw. We designed and produced a brand brochure showing their heritage and culture. We redefined the purpose of lobby. We brought a sense of community and Scandinavian heritage to the design with the concept of Swedish summer house.

The final product (brand identity and interior design concept) was presented in Feb 2018 at Warsaw with a final product film. Now we are on the construction phase of the lobby interior.

CLIENT: SKANSKA

TEAM: Viggo Haremst(Design director), Claudia Sing(Project manager), Lucas Z(Senior designer), Chengcheng Huang(Designer)

DURATION: Sep 2017 - Dec 2017 (3 months)

ROLE: Visual designer, Researcher, Interior designer

SKILLS: Brand research, organizing design workshops, visual design, ideation, conceptual design, interior design, 3d digital modeling, moodboard, diagramming, illustration, branding

DESIGN PROCESS



KICKOFF **EMPATHIZE** **RESEARCH** **IDEATION** **BRAND IDENTITY DEVELOPMENT** **STAKEHOLDERS FEEDBACK** **DESIGN IMPLEMENTATION** **SHIPPING**

- | | | | | | | |
|-----------------------------|--|---------------------------|-------------------------------------|--|--|---|
| • Meeting with Stakeholders | • Design workshop with clients
• Interviews | • In-depth Brand Research | • Mood board
• Strategic Concept | • Visual Design
• Branding
• Experience Design | • Design Iteration
• Concept implemented to lobby interior design | • Final Presentation
• Final film and visual published
• Interior Design Construction started |
|-----------------------------|--|---------------------------|-------------------------------------|--|--|---|

KICKOFF

During the kickoff meeting with stakeholders, we(Henning Larsen) discussed project scope, schedule, final deliverables... with client.

Goal:

- Develop a new identity for SKANSKA brand at central Europe market.
- Redefine the lobby experience with SKANSKA's new identity at Poland HQ.

Final deliverables:

- A brochure presenting SKANSKA's new identity.
- A final movie showing the newly defined SKANSKA experience.
- Interior design of SKANSKA HQ lobby space based on the new identity.

BRIEF & KICKOFF	RESEARCH & CONCEPT	DESIGN	PRODUCTION
ACTIVITIES	ACTIVITIES	ACTIVITIES	ACTIVITIES
<ul style="list-style-type: none"> • KICK OFF MEETING • COLLECTION OF DATA • SKANSKA INTERVIEWS <ul style="list-style-type: none"> - K.Zawodna president of SKANSKA CDE - A.Wisniewska head of marketing CDE - T. Dabrowski - Project Management / PL • STATUS MEETING 	<ul style="list-style-type: none"> • RESEARCH SKANSKA IDENTITY AND VALUES • GLOBAL BEST PRACTICE - FUTURE NEEDS <ul style="list-style-type: none"> - K.Zawodna president of SKANSKA CDE - A.Wisniewska head of marketing CDE - T. Dabrowski - Project Management / PL • ESTABLISH STRATEGIC CONCEPT BASED ON INFORMATION • MOOD BOARDS • STATUS MEETING 	<ul style="list-style-type: none"> • DESIGN QUALIFICATION • PREPARE DESIGNMANUAL FRAMEWORK - drawing list to be provided by HL and accepted by skanska • CONCEPT DEVELOPMENT OF IDENTITY • CONCEPT OF INTERIOR DESIGN - CASESTUDY Skanska will provide "subject" of case study. The space will be one of the Skanska projects under construction or future developments. • STATUS MEETING & COORDINATION OF PRODUCTION AND PROOFING FOR NEXT PHASE 	<ul style="list-style-type: none"> • MATERIAL IS PRESENTED AND DISCUSSED • CONCEPT IS TAILEDRED • IMPLEMENTATION OF DESIGN MANUAL • PROOFING OF TEXT AND GRAPHICS • IMPLEMENTATION OF POSSIBLE CHANGES AND COMMENTS • FINALISATION OF DRAWINGS, TEXT AND GRAPHICS • DELIVERY AND PRESENTATION • PREPARATION & FORMATTING FOR PRESENTATIONS & PROMO
RESULT	RESULT	RESULT	RESULT
WE ESTABLISH AN INSIGHT OF THE PROJECT'S TARGET GROUP AND MARKET	CONCEPT CONTAINING DESIGN CONCEPTS AND "LOOK AND FEEL".	CONCEPT CONTAINING DESIGN CONCEPTS AND "LOOK AND FEEL".	FINAL DELIVERY

EMPATHIZE - DESIGN WORKSHOPS

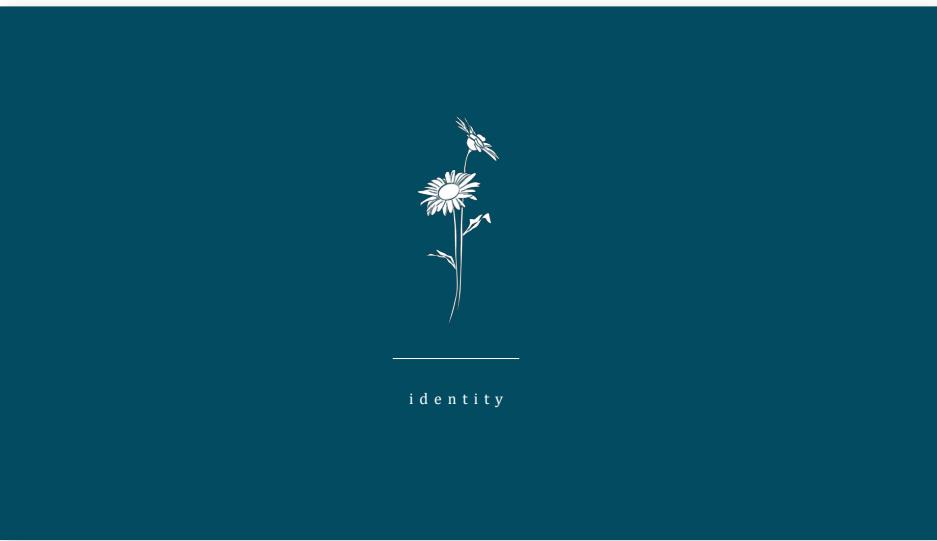
Through design workshops with clients, we got to know their understanding towards SKANSKA, the value of the brand they appreciate, the atmosphere they wish to have at their HQ lobby.



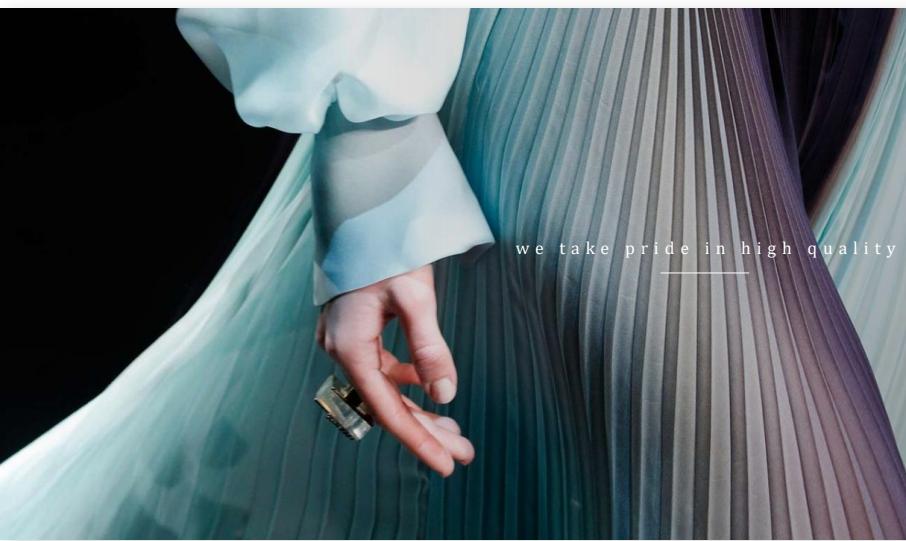
BRAND RESEARCH



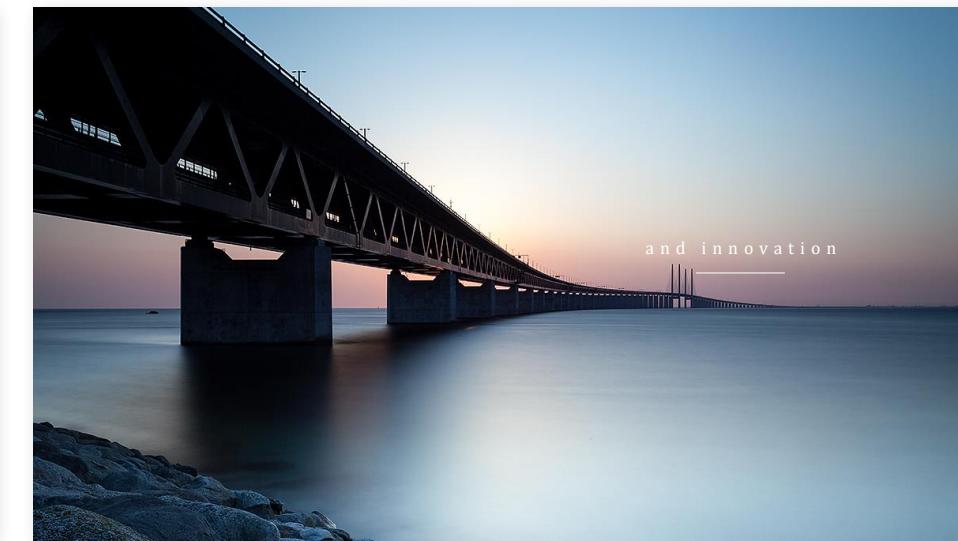
BRAND IDENTITY DEVELOPMENT



our purpose is to build for
a better society



we take pride in high quality



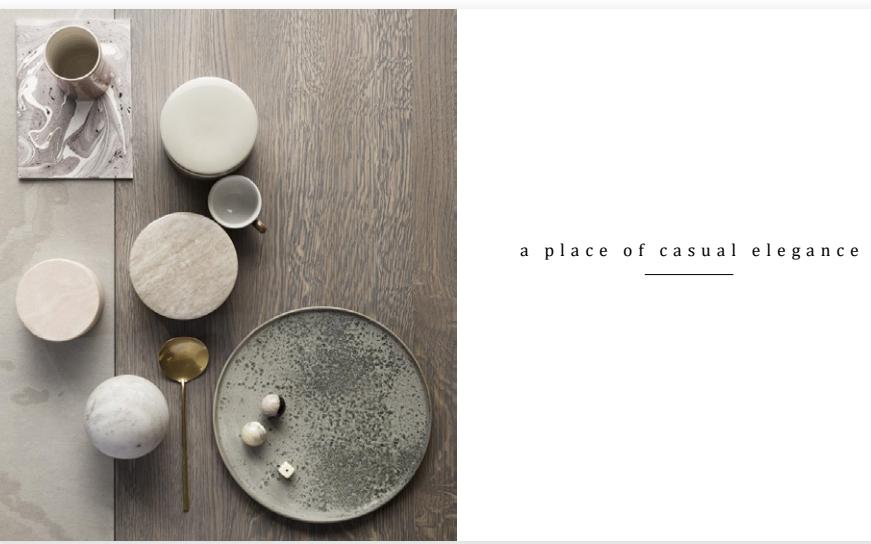
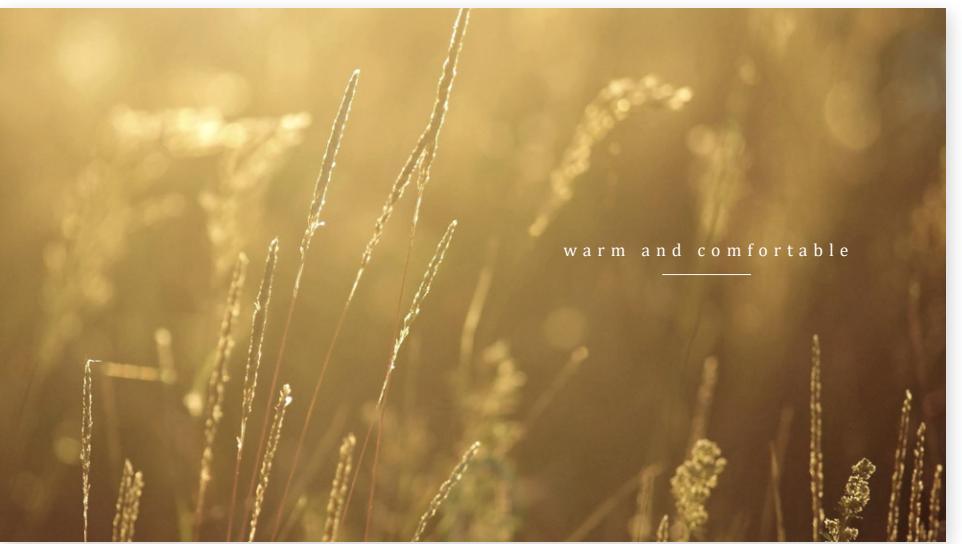
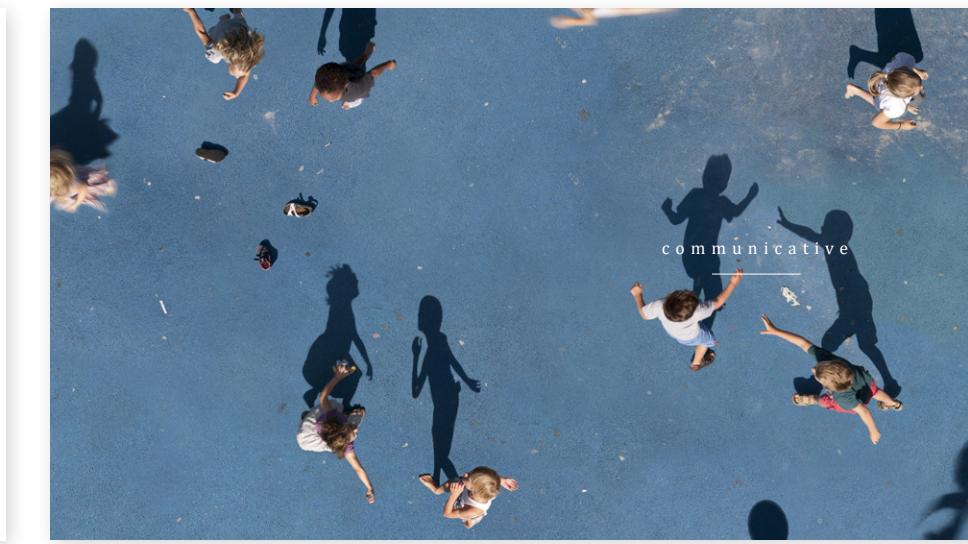
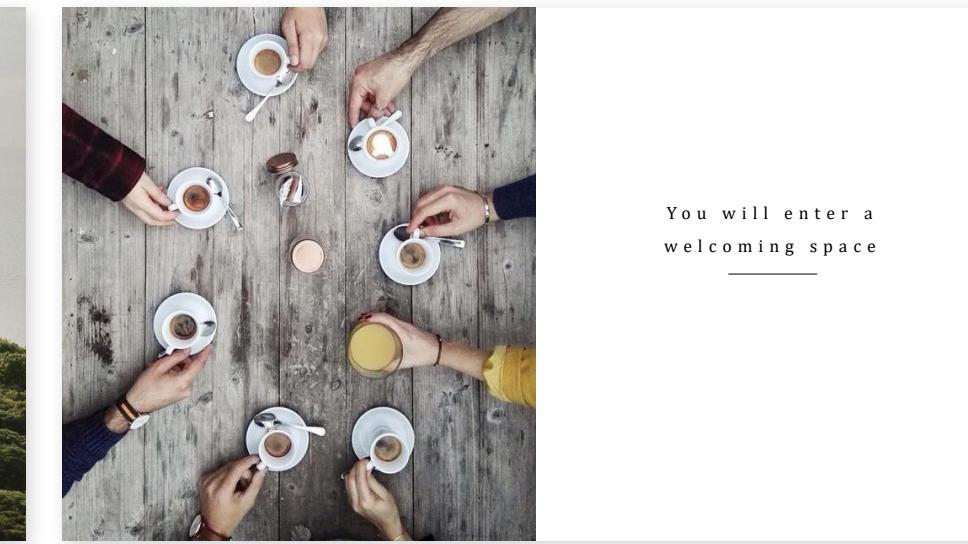
and innovation



we always strive to be better in
all we do

We care for the lives of people and the environment
Our purpose is to build for a better society.
We take pride in high quality and innovation.
We always thrive to be better in all we do with strong belief in our Scandinavian roots.
Skane, where we are from.

BRAND IDENTITY DEVELOPMENT

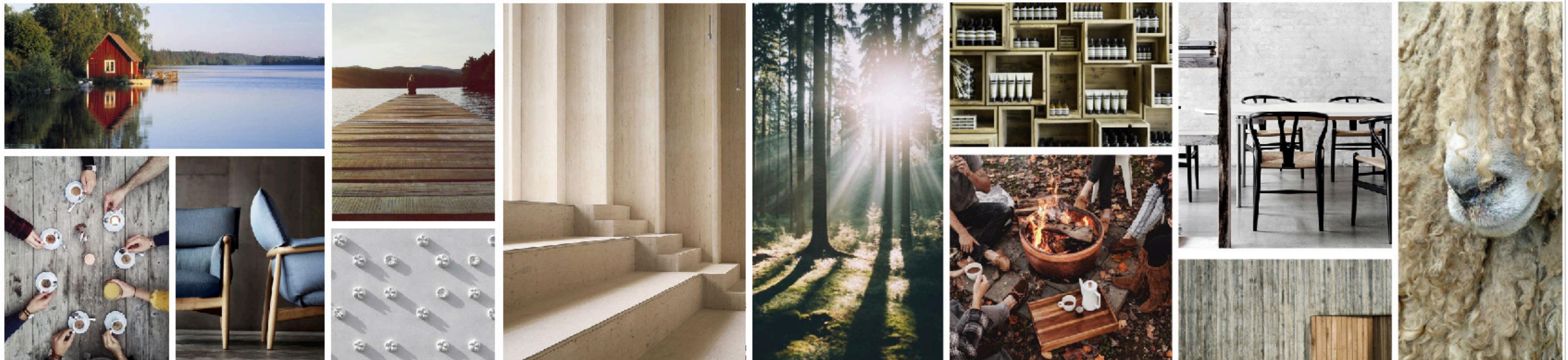


Based on the design workshop we had with client and our in-depth desk research on their brand. We designed this poetic brochure showing our understanding towards their new brand identity emphasizing their **Scandinavian roots, social responsibility** and **attention to high quality**.

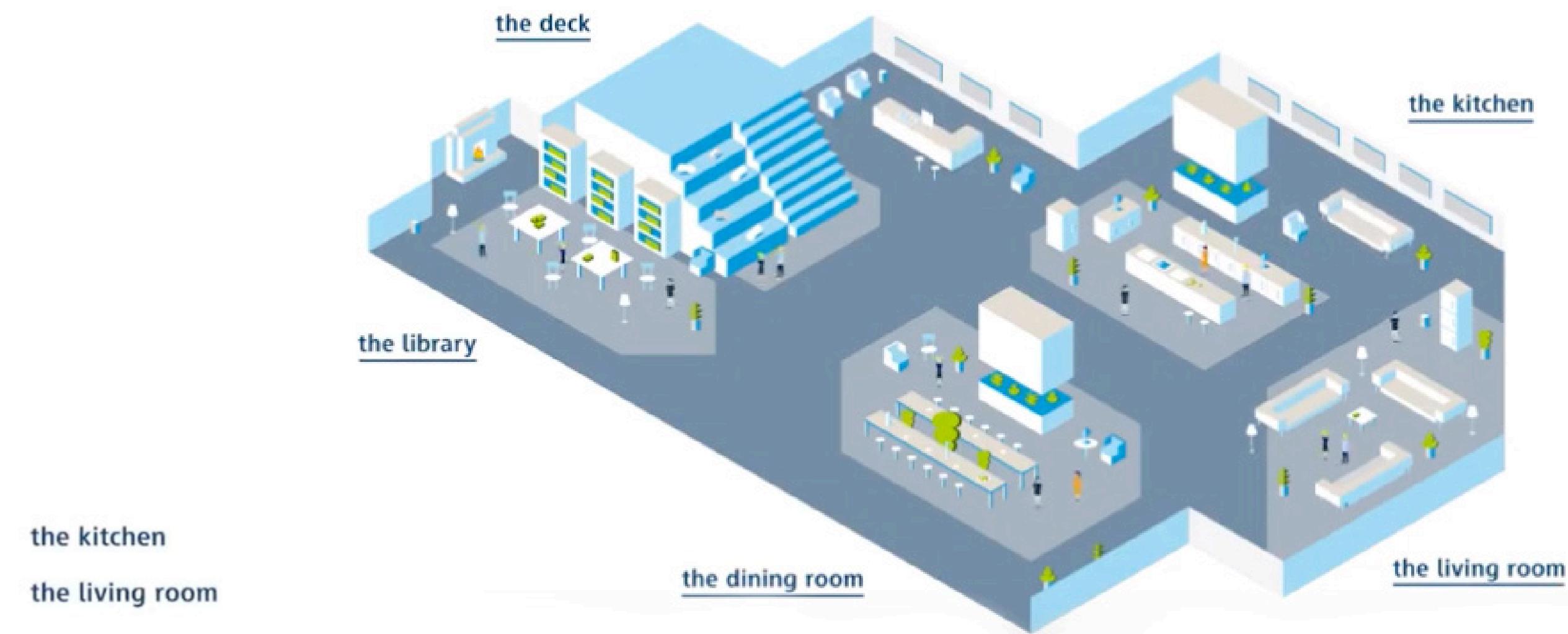
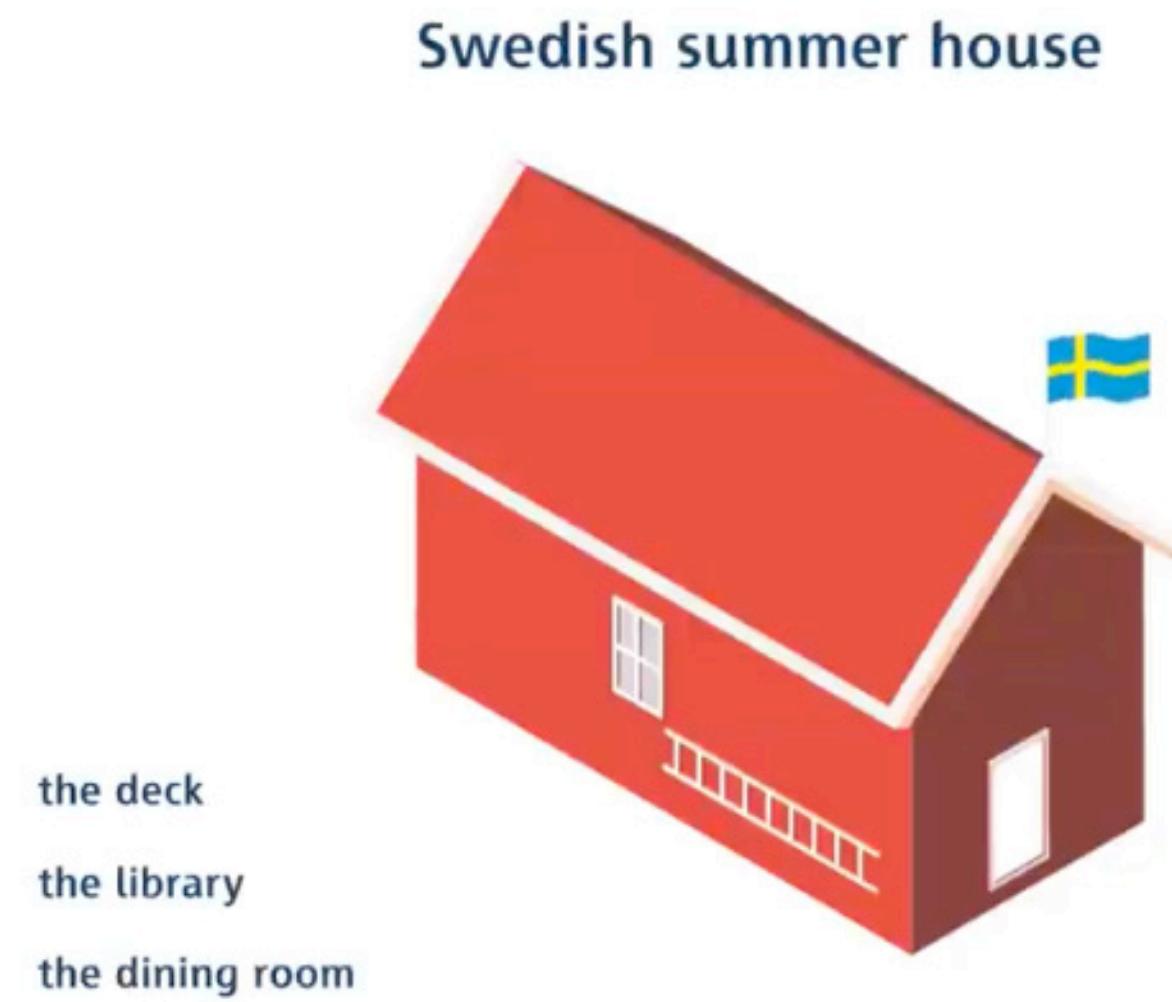
STRATEGIC CONCEPT AND MOOD BOARD

Identity - Reinventing our heritage

Lobby - The vision of a Swedish summer house



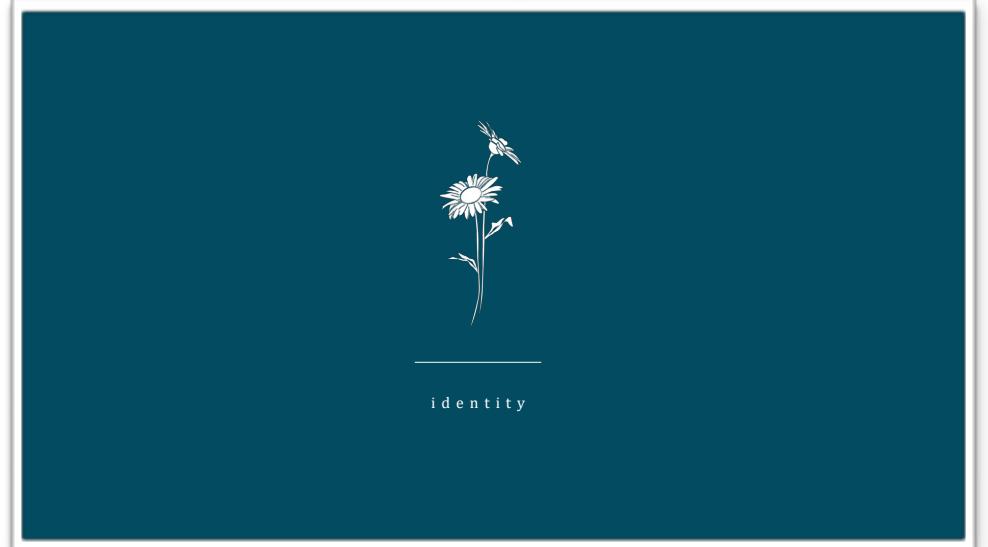
CONCEPT IMPLEMENTATION - LOBBY INTERIOR DESIGN



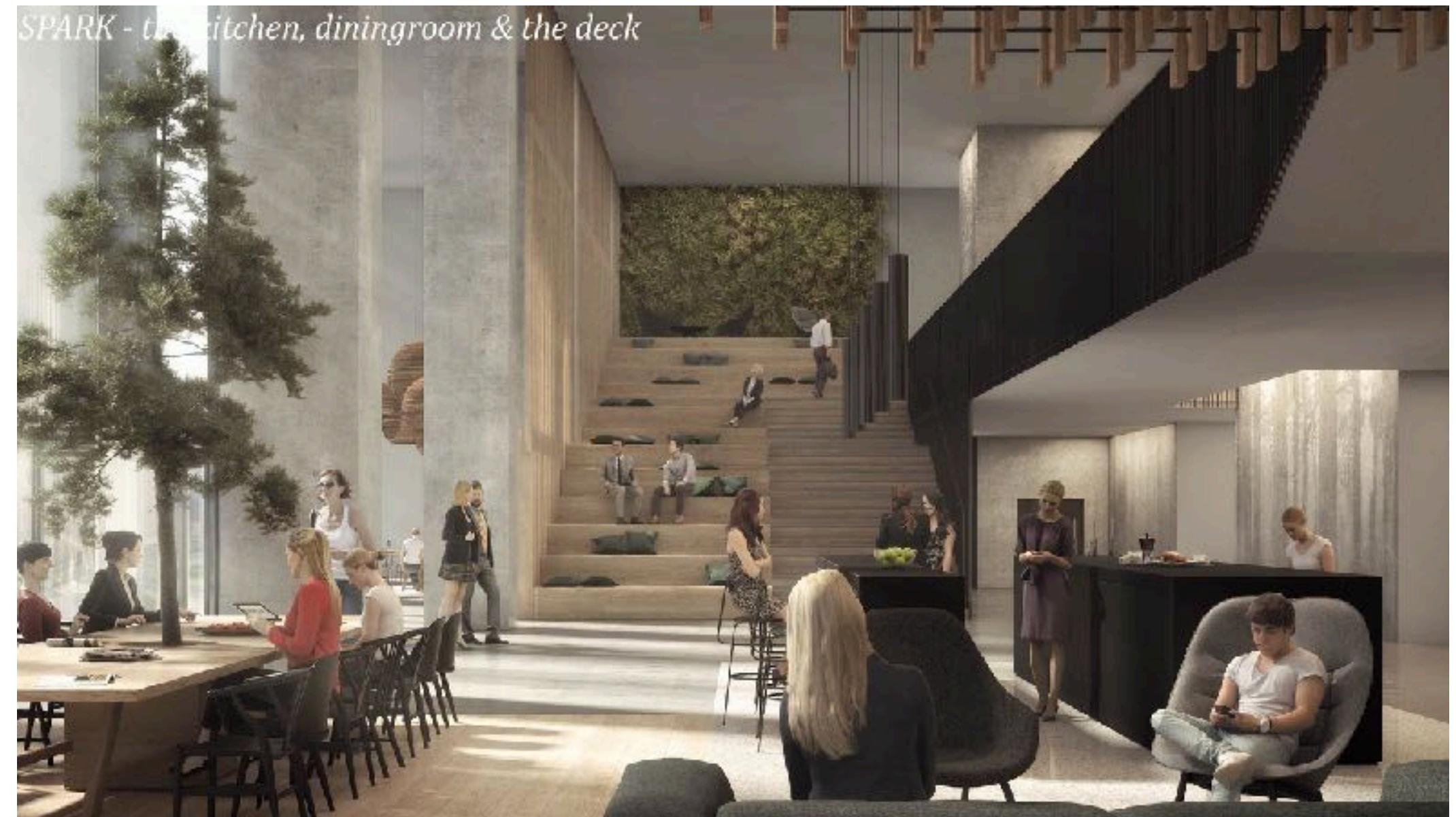
PRODUCT SHIPPING

FINAL PRODUCT FILM

<https://www.youtube.com/redefining skanska experience>



Brand Identity Brochure

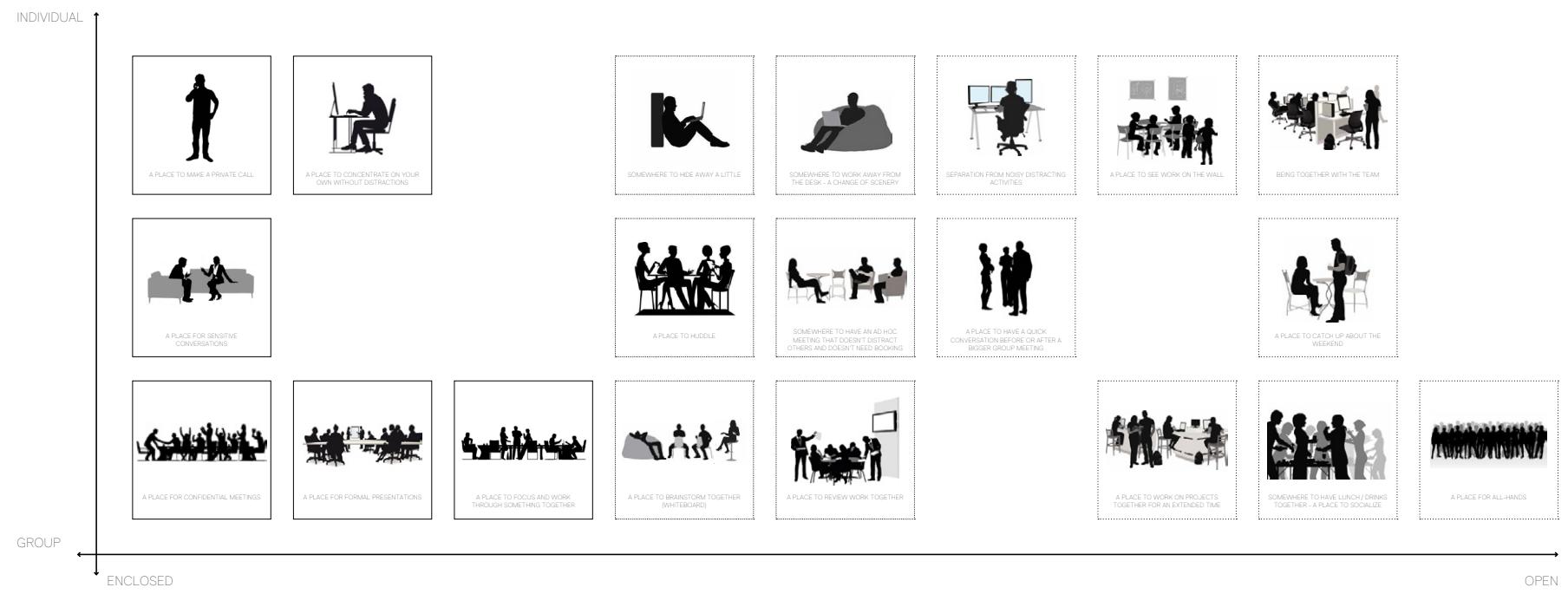


Interior Design Visualization

5 - Spatial Utilization Study

IMPROVING BAY AREA WORKPLACE UTILIZATION

UX RESEARCH & STRATEGIC DESIGN



Spatial Utilization Study

IMPROVING BAY AREA WORKPLACE UTILIZATION

THE CHALLENGE

In bay area, more and more people express dissatisfaction on their workplace environment at office or tend to work from home, which might lead to the lack of efficiency while working. So what can employers do to increase their workplace utilization and make employees feel more satisfied about their working environment?

THE OUTCOME

A spatial utilization report showing the current situation based on observation and data analysis; defining pain points and strategic design proposals to solve the problems.

CLIENT:

M Moser Associates

TEAM:

Elfreda Chan(Strategist), Chengcheng Huang

DURATION:

July 2017 (3 weeks)

ROLE:

Researcher & Strategic designer

SKILLS:

Research, spatial study, data visualization, ideate, define problem space

OBSERVATION AND USER RESEARCH

I conducted both quantitative research and qualitative research to understand the current situation and pain points.

Research Methods:

- Observation
- Ethnographic Research
- Data Analysis

Research Period:

2 weeks

Research Goal:

- Understand current space utilization and human activities.
- Define pain points.
- Propose strategic design solutions to the problems.

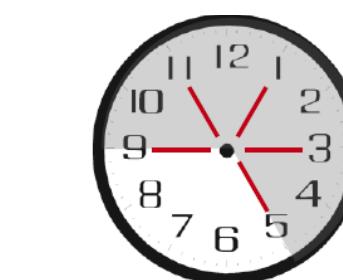
Survey location
11F
115 Sansome St,
San Francisco, CA



Survey period
10 working days
06/05 - 06/16

June 2017						
SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Observation times
5 times a day



38
Individual Spaces

1,900 observations
of 38 individual spaces (37 allocated workstations and 1 alternative work point)

8
Meeting Spaces

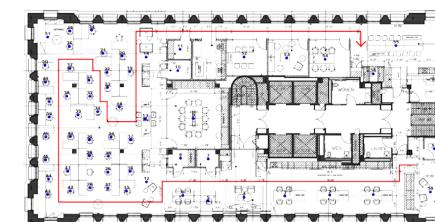
400 observations
of 8 meeting rooms (1 large meeting room, 3 small meeting rooms and 4 phone rooms)

12
Shared Spaces

600 observations
of 12 shared spaces (5 team tables, 2 soft seating areas, 1 diner booth, 1 communal table, 1 wellness room, 1 quiet library, 1 waiting area) We did not observe the Print/Copy Room or Server Room(Utility Spaces).

We observed:
i. if spaces were occupied, whether there were signs of life(someone was there, but stepped away), or if the spaces were unoccupied; and
ii. if occupied, how many people were there, what activity was going on and what tools people were using.

How we made the observations:
5 times a day, for 10 working days, a walk through was performed starting from the library and ending in the kitchen. Activities were recorded based on what was seen in the moment.



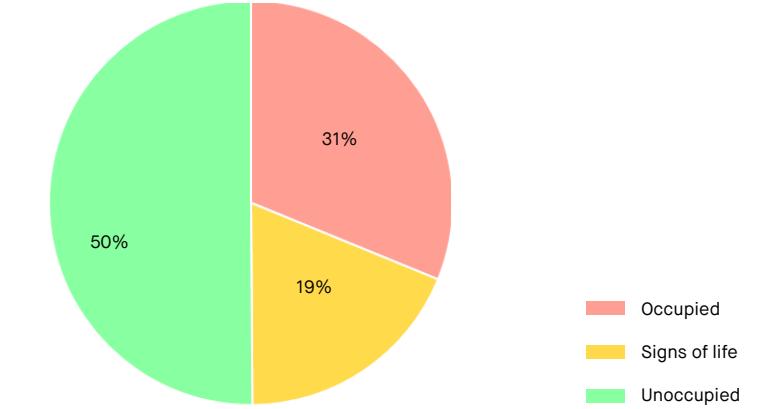
OBSERVATION FINDINGS

- About only 30% of the office space is actually occupied.
- Less than 40% of the personal desks are occupied.
- Less than 20% of the meeting rooms are occupied.
- Kitchen area tends out to be the most popular spot.
- “Individual work” is the most popular activity, followed by “2P conversation”.

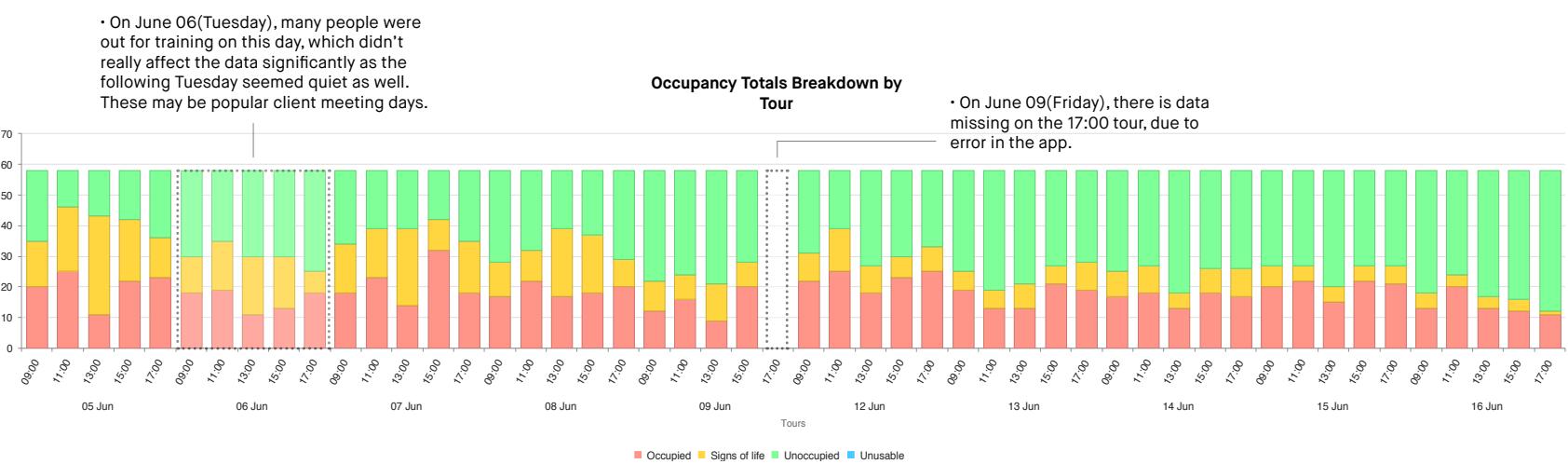
Overall Occupancy

Observations:

- In general, the office is only half occupied.
- The busiest days tend to be Mondays; while the quietest days tend to be Fridays, which is unsurprising as we have flexible Fridays with approximate half of our people out of office on these days.
- The busiest time of day is 11:00; while the quietest time of day is 13:00, when people are either coming back from their lunch breaks, or still out at lunch.



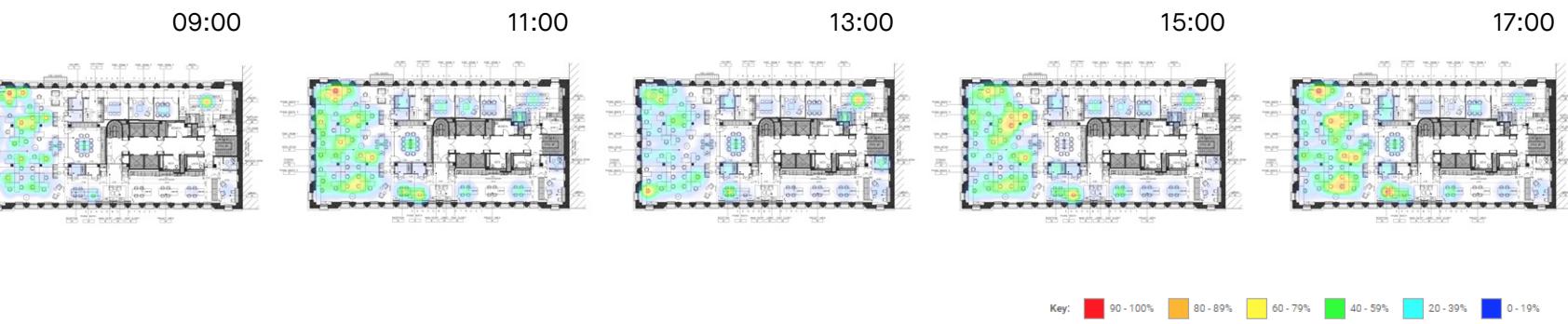
Legend:
■ Occupied
■ Signs of life
■ Unoccupied



Heat map

Observations:

- The kitchen area is a very popular spot throughout the day, especially breakfast and lunch time.
- The team table next to Shannon is very popular, but the ones in the library are less so. This could be because materials are occupying the surfaces most of the time and the locations are relatively far from the main work area.
- Both grey soft seating areas are almost never used.
- The team table in front of the large conference room is relatively well used possibly due to its convenient location, but still not as popular as the table next to Shannon.
- The quiet library is relatively under-utilized, and those who do use it are the same few people.
- The waiting area is almost never used. Its aesthetic value exceeds its actual function. It's great to look at and gives a great first impression, but people rarely interact with it.



PAIN POINTS

Phone rooms (P) - Underutilized. The direction of the door swings leaves limited room for furniture and different activities.

Soft Grey Seating (G) - Rarely used. The dimension between furniture is awkward for human. Being at the center of circulation zone also makes it less appealing to use.

Team Tables in the library (T) - Underutilized. Stools are not comfortable. And useable surface of the table is limited.

Quiet Library (Q) - Underutilized. The space gets very disorganized and messy from time to time. Sometimes it's being used as storage place due to its very isolated location.

P

Existing:
Rarely used:
P-1 P-3

Sometimes used: (Better)
P-2 P-4

Suitable activities:
• Phone call / Video Conference
• Heads-down Individual Work
• Informal Meeting / Group Work

Condition / Challenge:
• Limited room for furniture because doors open inward.
• In P-1 and P-3, the furniture only supports one or half the activities mentioned above.
• In P-1, furniture is not very comfortable.

G

Existing:
Rarely used:
G

Suitable activities:
• Heads-down Individual Work (Mostly)
• Informal Meeting / Group Work

Condition / Challenge:
• Table is broken
• The dimension between table and seat is awkward: The U-shape lounge makes it very hard to get in/out with the large table in the way.
• Very distracting location.
• In lack of power outlets.

Key:
Main Routes
Secondary Routes

T

Existing:
Rarely used:
T

Suitable activities:
• Heads-down Individual Work
• Informal Meeting / Group Work
• Material layout space

Condition / Challenge:
• Materials are occupying most of the surfaces.
• Stools are very uncomfortable – heavy and hard.

Q

Existing:
Rarely used:
Q

Suitable activities:
• Heads-down Individual Work

Condition / Challenge:
• The location and orientation of the work table is not very comfortable. (feels like you are being pushed to the corner)
• It gets very messy sometimes. One possible reason is that there is too much free space, the space gets very disorganized.
• The space frequently gets used as a store room, adding to the discomfort.

PROBLEM-SOLVING AND STRATEGIC DESIGN

Phone rooms (P)

Recommendations:

- For P-1 and P-2, doors to be open outward where possible, to provide more space inside the room.
- All the phone rooms to include a surface that fits both a phone and a laptop; P-1, P-3 and P-4 tables should be larger (40”L x 40”W x 30”H) and at a suitable height for heads-down individual work.
- Consider a banquette seat in P-3 to allow for more than one person.
- Consider changing P-1 to a desk and task chair set up.

Team Tables in the library (T)

Recommendations:

- Create more room for storing material palettes, etc
 - Change the middle table to a storage table, primarily for storing material palettes;
 - Have some small tables next to designer's workstations, so that they can bring the material palettes to their work area, instead of leaving them on the team tables.
- Replace the stools with more comfortable and lighter ones (easier to move), ideally height-adjustable.

Quiet Library (Q)

Recommendations:

- Keep the sofa area, and make the existing work table into a storage unit.
- Place two separate freestanding tables (Or move the tables from soft grey seating areas) in the center of the space and locate the task chairs on opposite sides. Provide power and task lighting appropriately.

Soft Grey Seating (G)

Option 1:

Recommendations:

Option 1: Keep the furniture and buy a couple of tables.

- Shift the whole setting to the left to encourage people to walk on the right.
- Fix the tables and reuse them somewhere else, e.g. move one table into the phone room(P-3) and place the other in the workstation area as a table for group work.
- Purchase new tables with smaller surfaces and that are a little bit lower.

Soft Grey Seating (G)

Option 2:

Recommendations:

Option 2: Rotate the furniture to support individual work only.

- Divide each setting to two individual work spaces by rotating the seats to face the corridor, and purchase new laptop tables (provide power if possible).
- Fix the old tables and reuse them somewhere else.

Soft Grey Seating (G)

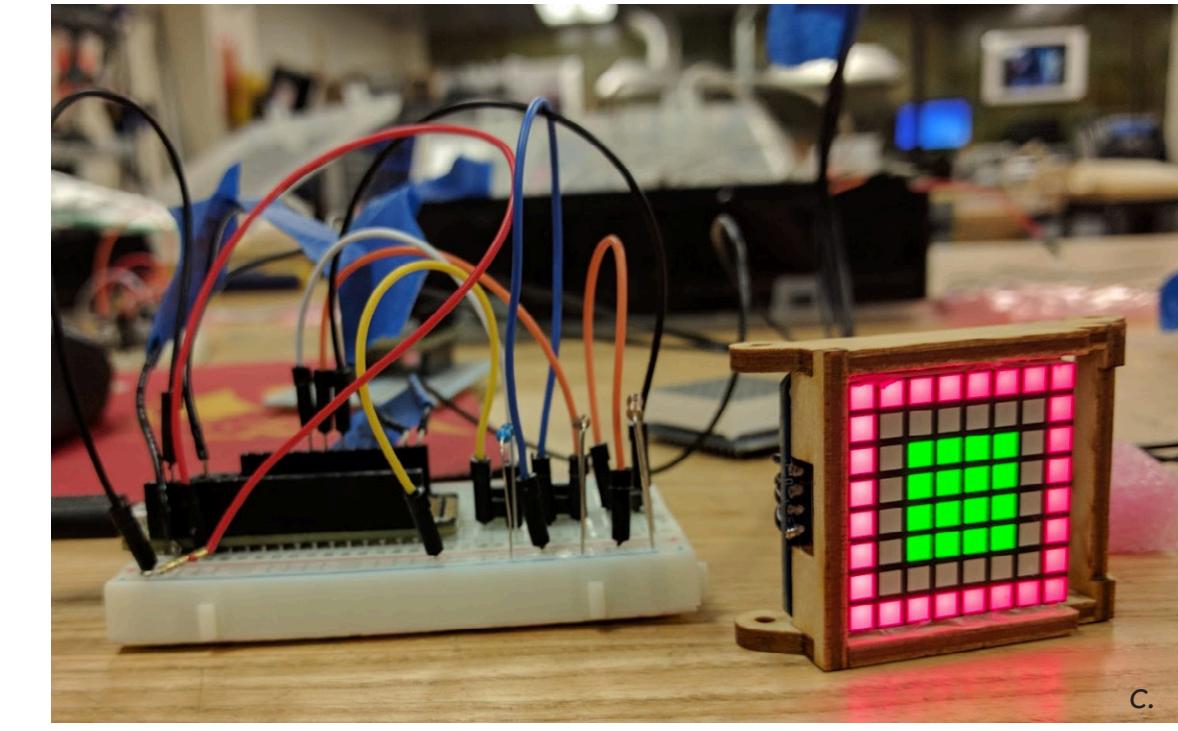
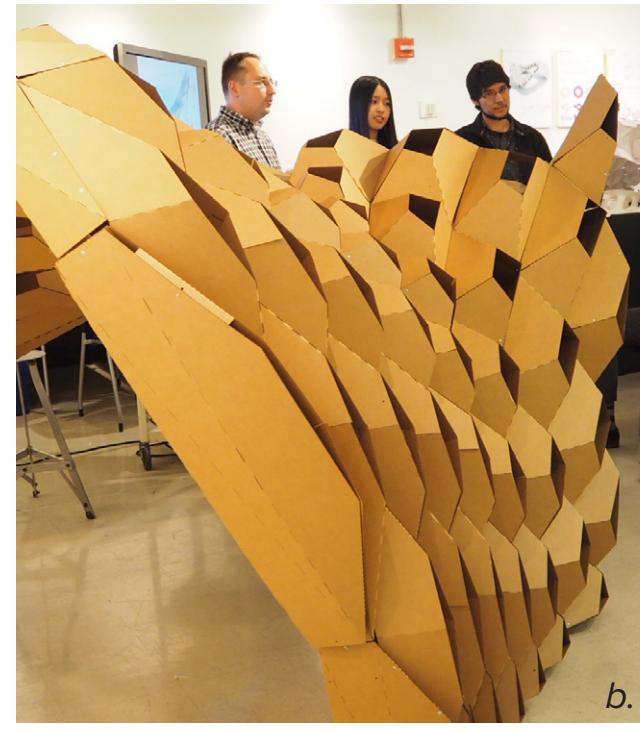
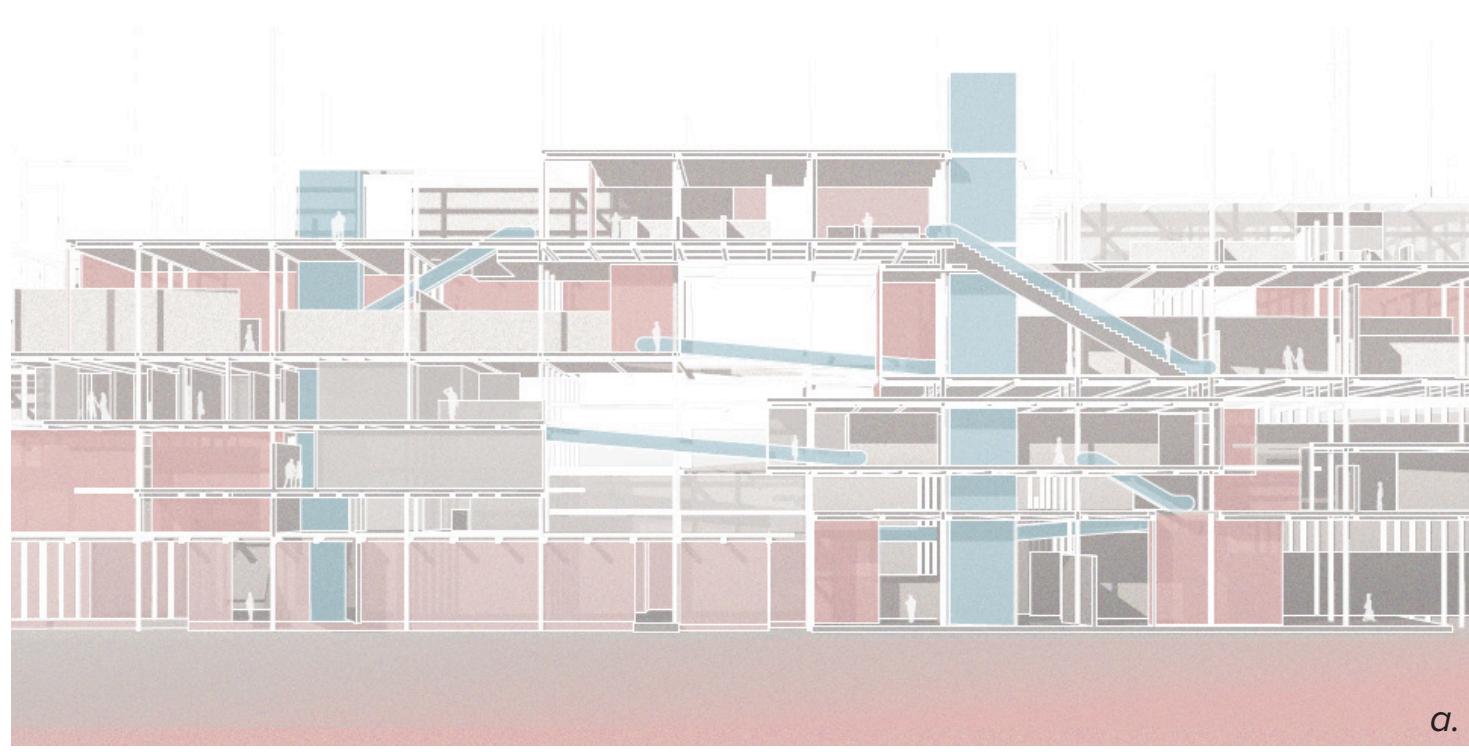
Option 3:

Recommendations:

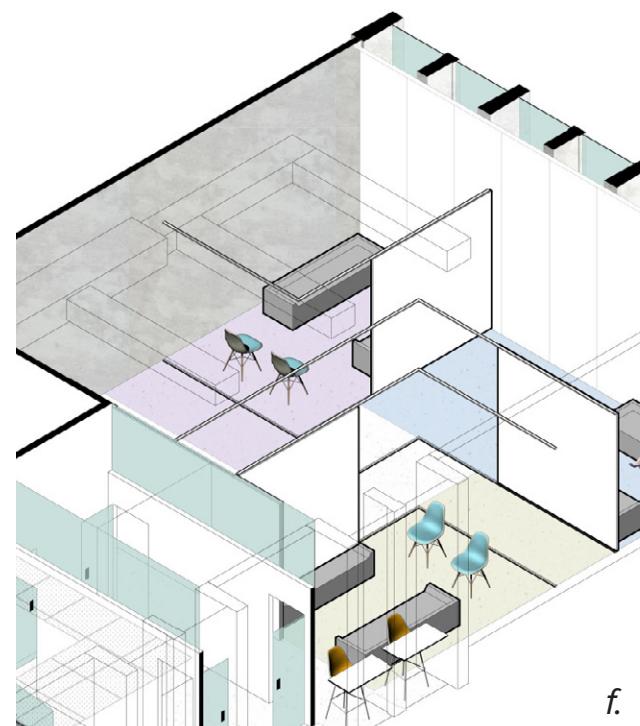
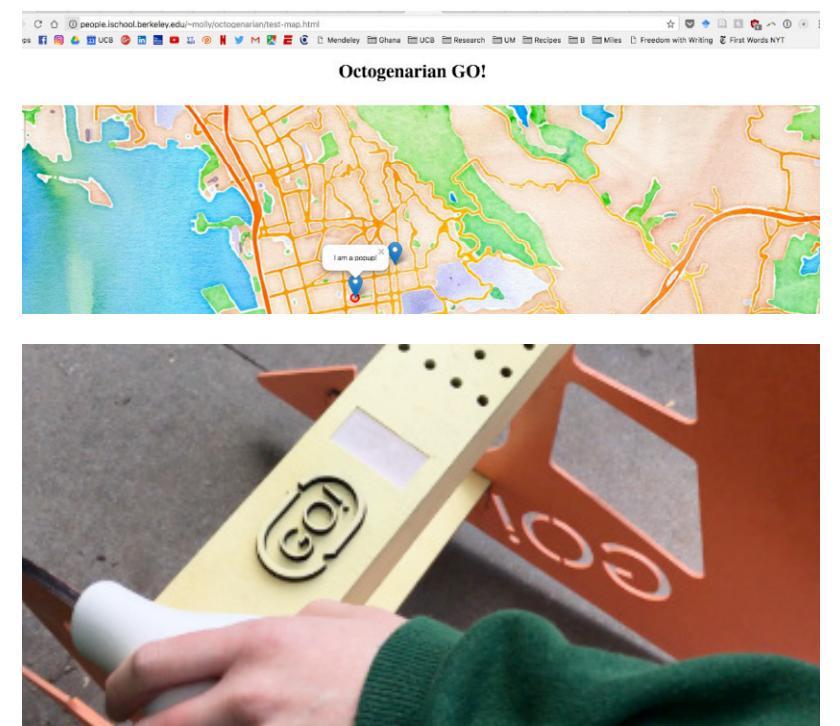
Option 3: Replace the furniture completely.

- Change the setting to be a semi-enclosed "C"-Shape booth, keeping the high-back (52in H) as a barrier.
- Replace the table to match the dimension of the seat. (ideally with adjustable height)
- Add power outlets.

Other Design Projects



a.



e.

a. **Architectural Design**, Museum in Los Angeles

b. **Pavilion Design**, Lightweight shell structure

c. **Electronic Product Design**, Alarming device for protest

d. **Furniture Design**, Body-conscious chair

e. **Interactive Product Design**, Senior walker with web mapping system

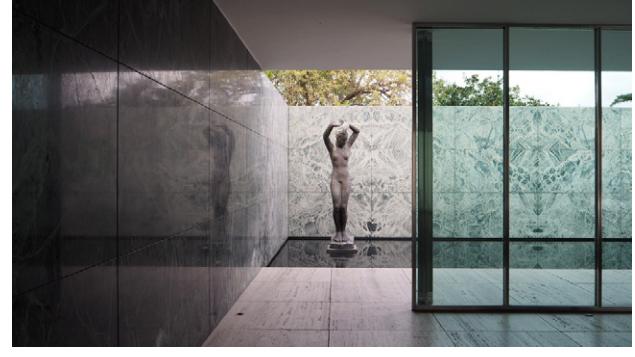
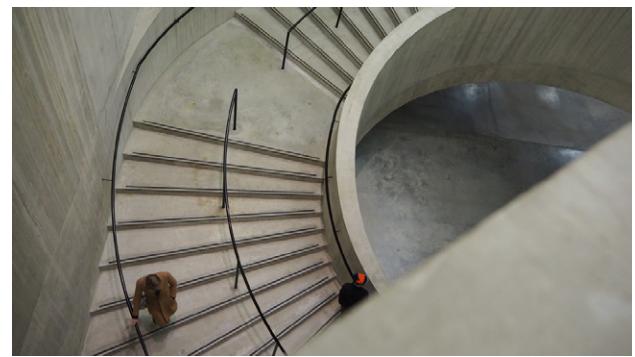
f. **Interior Design**, Flexible learning environment in collaboration with Herman Miller

g. **Wearable Product Design**, Farm-to-Label kit

When I'm not doing design...



As a Traveler & Photography Enthusiast...



Chengcheng Huang

Product | User Experience Designer

cchuangx.github.io/portfolio.pdf
510-570-6819
cc.huang@berkeley.edu

EXPERIENCE

RoadMap | Product Designer

01.2019 - Present | Berkeley, USA

- Designed a Carrier Analytics feature for a global shipping company to implement on their desktop platform. The feature includes search experience, way-finding experience and data visualization with clear information hierarchy.
- Worked with project manager and product design lead, I conducted user research, prepared and moderated the whole user testing session, finished defining problem space and storyboarding on user flow.
- Finished several rounds of iteration on prototype and presented them to client. Client highly appraised the final result. Now the project has been passed for implementation.

Reference: Ben Stukenborg (ben.stukenborg@gmail.com)

Henning Larsen | Designer

09.2017 - 07.2018 | Munich, Germany

- Worked closely with project manager and clients (Autodesk and Skanska) from kickoff to shipping on brand identity development, visual design and experience design.
- Organized design workshops with clients to get to know their needs and goals.
- Implemented brand identity ideas on interior design of Skanska HQ lobby and Autodesk workspace in Munich. Clients spoke highly of the final results.
- Participated in multiple international design competitions from research, ideation to architectural design.

Reference: Viggo Haremst (VH@henninglarsen.com)

M Moser Associates | Design and Strategy Intern

04.2017 - 07.2017 | San Francisco, USA

- Conducted Space Utilization Studies on M Moser's office environment through a 2-week observation. Finished a report with data analysis on utilization heatmap, defining problems and strategic design on improving office space utilization.

SELECTED PROJECTS

Sleep Journey | Mobile UX/UI Design

01.2019 - 02.2019 | Self-started Project

Designed an app that helps people sleep better and maintain a better lifestyle by encouraging users to develop good habits before sleep and after waking up.

eFresh | Mobile and Desktop UX/UI Design

Sep 2018 - Dec 2018 | UC Berkeley School of Information

Designed a platform (app and website) that helps independent local grocery market owners start their own online store to make more profits and engage with the community better.

Farm-to-Label | Wearable Product Design

Apr 2017 - May 2017 | Jacobs Institute for Design Innovation

Designed and fabricated "Farm-to-Label" kit to allow users cultivating clothing, creating living ecosystems on their garments. Project was featured on Jacobs website.

EDUCATION

University of California, Berkeley

08.2015 - 05.2019 | Berkeley, USA

Master's DE Certificate, Interaction Design
Master of Architecture, Environmental Design

Central China Normal University

03.2012 - 06.2015 | Wuhan, China

Associate Degree of Science, Psychology

Huazhong University of Sci & Tech

09.2010 - 06.2015 | Wuhan, China

Bachelor of Architecture

SKILLS

Design

Strategic design
User journey mapping
Concept sketches
Information architecture
Wireframes & mock ups
Storyboard
Data visualization
UI graphics
Illustration
Web design
Product design
Branding
Visual design
Video editing

Prototyping

Digital prototyping using Invision / Sketch / Figma
Physical prototyping using 3D printer / Laser cutter

Research & User Testing

Desk research
Survey design
In-person interview
Persona
Data analysis with SPSS
Usertesting.com

Software

Sketch / Figma / InVision / Keynote
Adobe Illustrator / Photoshop / InDesign / Premiere
AutoCAD / Fusion 360 / Rhino / Revit / SketchUp
HTML / CSS / JS

Thank You!