

HOPPER

Hopper Flight App Proposal

TEAM TASKS

ANH MAI

- RESEARCH
- CONTENT STRATEGY
- COMPETITIVE ANALYSIS
- PERSONA
- UI DESIGN
- PAPER PROTOTYPE - FLIGHT PAGE
- WIREFRAME - FLIGHT PAGE
- PROTOTYPING
- USABILITY TESTING
- STYLE GUIDE
- CASE STUDY DOCUMENTATION
- LAYOUT DESIGN
- UX DESIGN

ELIZABETH GANGSTAD

- RESEARCH
- CONTENT STRATEGY
- COMPETITIVE ANALYSIS
- USER PERSONA
- PAPER PROTOTYPE - HOME PAGE
- WIREFRAME - HOME PAGE
- PROTOTYPING
- USABILITY TESTING
- INTRODUCTION PARAGRAPH

CARLOS AVILA

- RESEARCH
- COMPETITIVE ANALYSIS
- USER SCENARIO
- PAPER PROTOTYPE - PAYMENT PAGE
- WIREFRAME - PAYMENT PAGE
- USABILITY TESTING
- FLOW CHART
- XD PROTOTYPING

CLIENT & PRODUCTS

Who is our client?

Hopper is based in Cambridge, MA. Hopper is a new kind of travel company that is reinventing the way people plan to travel and books flights by leveraging the power of mobile conversation and big data in the form of trillions of flight prices.

Today, Hopper is one of the fastest growing travel apps ever, with over 10 million installs since 2015.

Why did we choose Hopper?

Their existing mobile site app is good but it is missing some of the basic information that is should be given immediately.

A more user-friendly revision of their app will serve as a demonstration of Hopper's excellent ticket options and care about their customers.



CLIENT & PRODUCTS

What type of mobile experience?

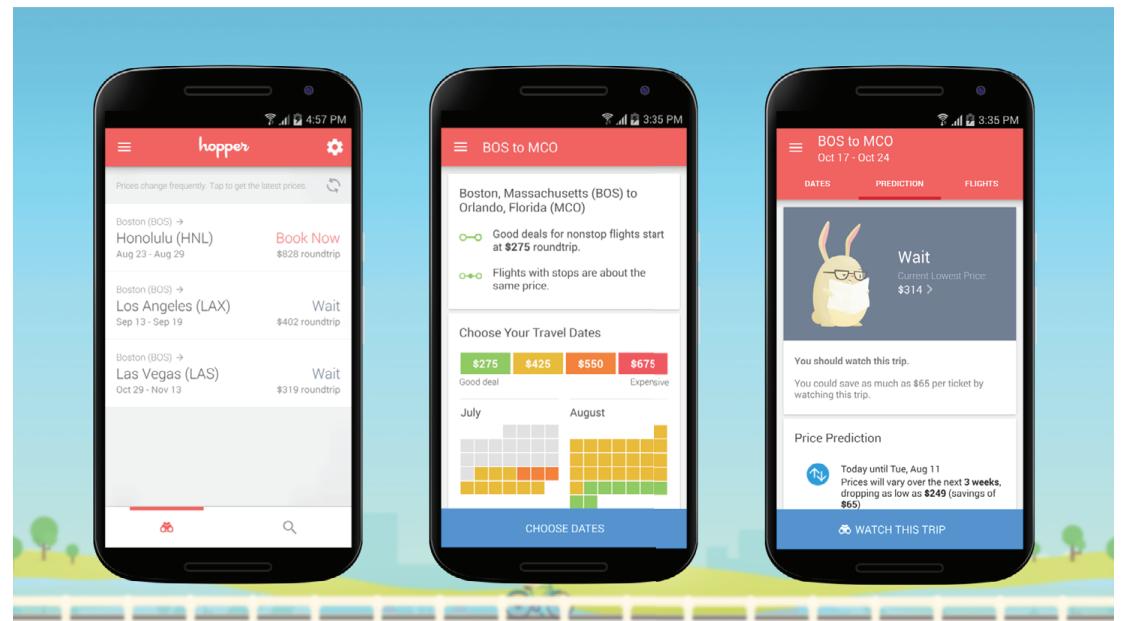
We decided to design around Android's capabilities and conventions to give users the best experience.

Our team decided to improve some features that will help their customers access the app anywhere and anytime.

Having this app re-design would not only allow customers search for the future flight, it also allows customers to keep track on every step they make without any confusion.

Target Audiences

Aged 19 - 55
Traveler
Students
Businessman



Our Task and Goals

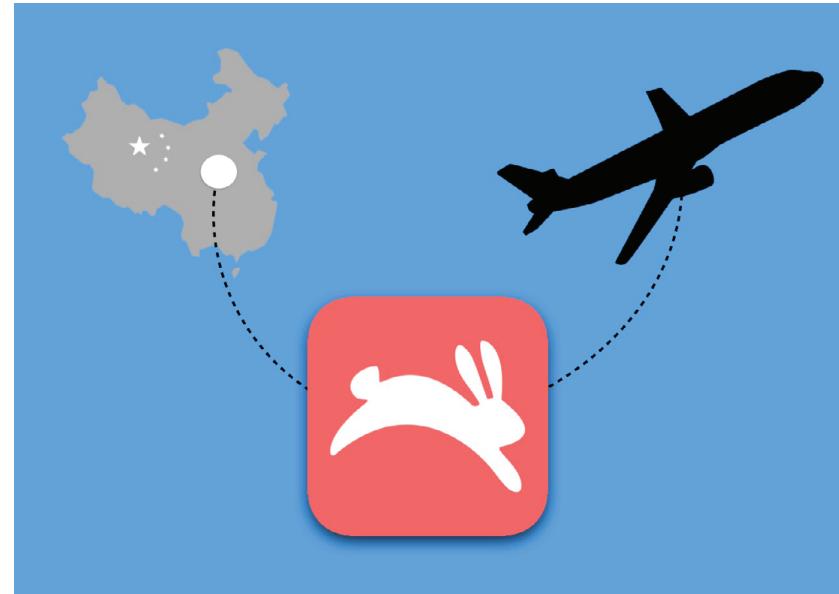
Our goal is to design an app version including multiple features that will help either existing and potential customer who are not have much time to spend on flight shopping.

CONTENT STRATEGY

This mobile app will focus on purchasing flight by entering customer information. Included in the first page, the customer will enter their departure and destination, round or one-way trip, date and time of flight, and number of travelers. The second page will contain tabs to aid in the search of the flight by price, departure times, arrival times, and the number of stops.

The customer will add their personal information, such as if any assistance is required, legal name, birthday, gender, or known traveler number. The customer then will go to the forth page and enter their card information to purchase their flight.

In order to enhance the Hopper app, we researched competitor apps, such as Skiplagged, Kayak, Orbit, and Skyscanner, comparing each to adapt features that would work best for the updated app. We will focus on simplifying and containing the sections of information to one page each.



That will help the user navigate through the app without overwhelming the customer with too much information. Equally important, simplifying the information will make time spent searching for the right flight effortless and straightforward. We are eliminating the clutter of information throughout the flight and payment pages, creating the tabs on the flight page to better the search experience.

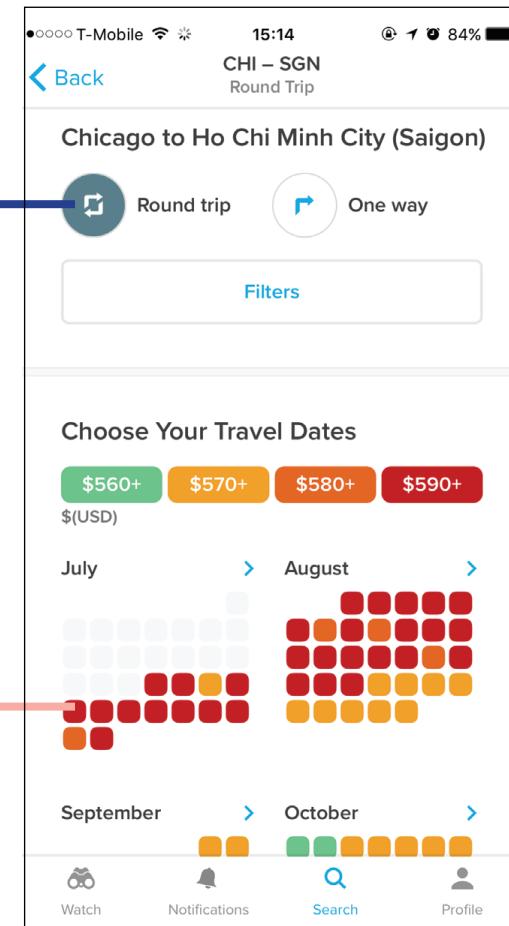
CONTENT STRATEGY

Landing



First opening page

Flight Page

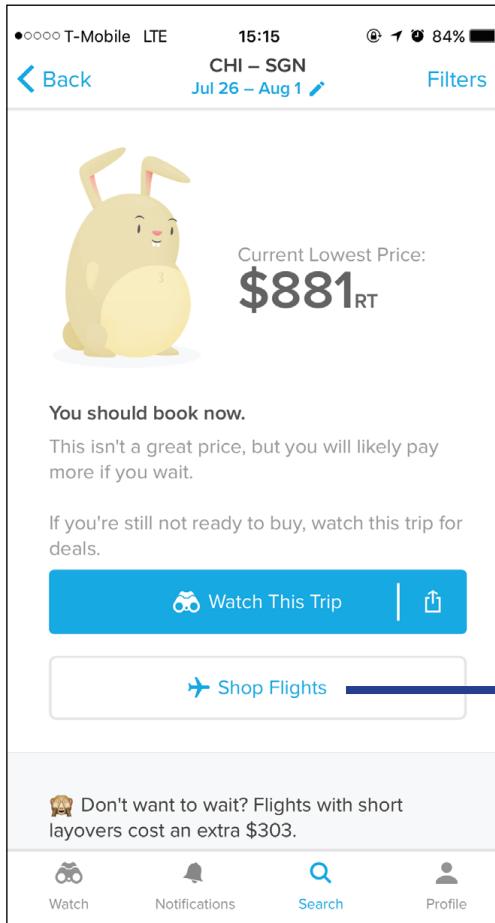


Flight form

Date travel

CONTENT STRATEGY

Price Page



Multi page results

Price details

Interactive button

Result Page

Price	Depart	Arrive	Stops
\$880	12:30 am - 11:40 am+1d	23h 10m, 1 stop	EVA Air
\$880	12:30 am - 10:00 pm+1d	1d 9h 30m, 1 stop	EVA Air
\$913	12:30 am - 9:45 am+1d	21h 15m, 1 stop	EVA Air
\$976	1:25 pm - 12:50 am+2d	23h 25m, 1 stop	United + 1 more
\$1,181	1:25 pm - 12:05 am+2d	22h 40m, 1 stop	United + 1 more

Trip summary

Outbound to Ho Chi Minh City (Saigon)
Wed, Jul 26 Round Trip, Per Person

Not ready to book?
This isn't a great price, but you will likely pay more if you wait.

Watch Notifications Search Profile

Extra icons

- Included (with change needed)
- Included
- Excluded

PROPOSED MOBILE APPROACH

Hopper app has plenty of potential to develop as well as improving interoperability with customers. Due to the customer feedback we collected, we realize there are many functions that need to be changed as well as a few that can be kept.

For instance, simplifying the “call to action” button and flight information would be a good idea to improve the app and removing the cluttered financial information makes the customer less confused.

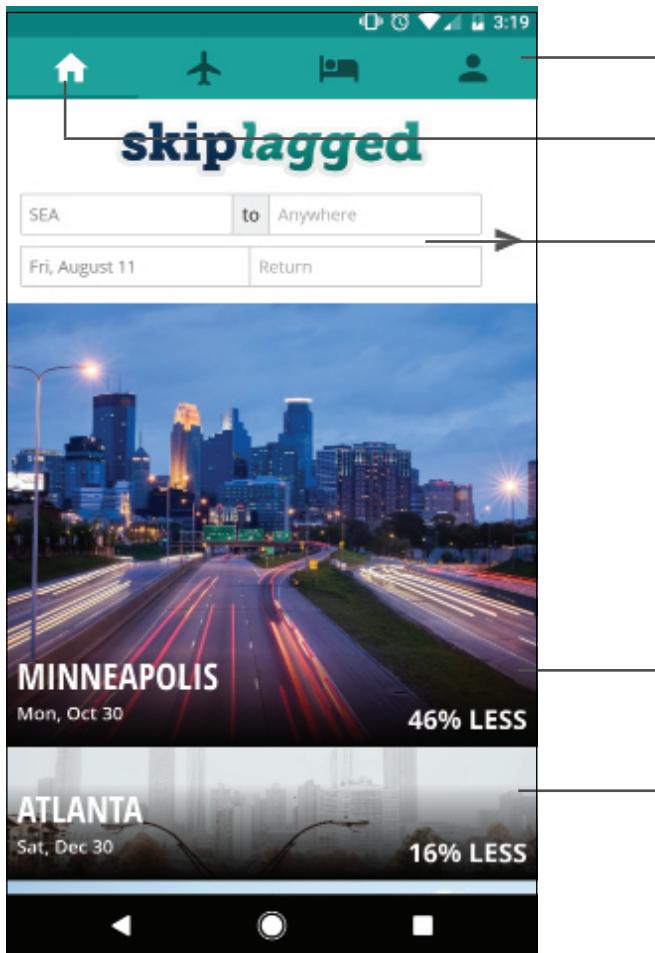
We would like to simplify how new customers find information about the flights by adding different tabs, such as searching by price, departure time, destination time, and the number of stops a flight will have.

Since a successful user experience is our goal, we will focus on helping loyal customers look for flight information or review their information before obtaining the final results.



COMPETITIVE ANALYSIS

Skiplagged



Navigation Bar On Top
Highlighted Current Section

Information Filter

Highlighted Important Information

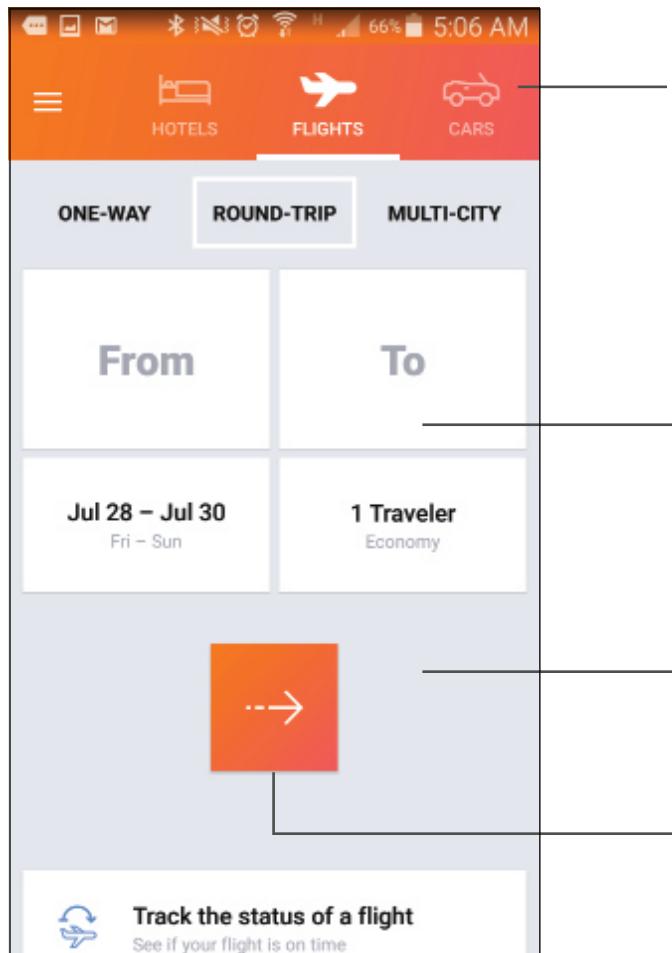
Photo Display With Statistic

The Hopper Flight App interface shows a search for flights from SEA to MSP on Mon 10/30. The results table lists various flight options with their duration, departure time, arrival time, and price. A blue heart icon is located in the bottom right corner of the table area.

Duration	Flight Details	Price
3h	SEA 8:30am → MSP 1:45pm	\$86
3h	SEA 12:55am → MSP 6:03am	\$141
3h	SEA 7:00am → MSP 12:15pm	\$141
5h	SEA 11:00am → MSP 6:25pm	\$163
10h	SEA 11:00am → MSP 11:20pm	\$173
12h	SEA 3:05pm → MSP 5:18am	\$177
13h	SEA 9:35am → MSP 12:40am	\$177
7h	SEA 5:00am → MSP 1:49pm	\$178
7h	SEA 2:36pm → MSP 11:12pm	\$178
7h	SEA 3:00pm → MSP 11:55pm	\$178

COMPETITIVE ANALYSIS

Kayak

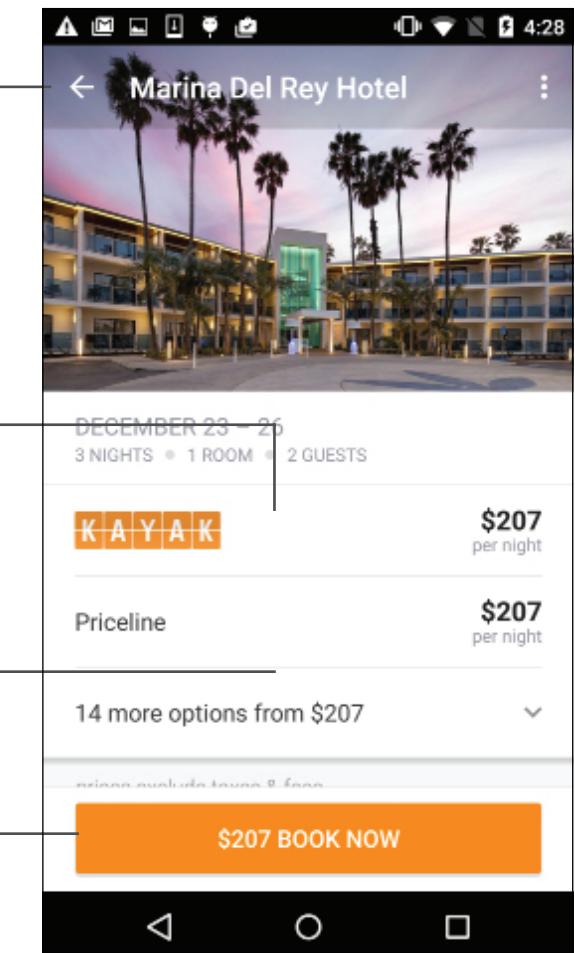


Gradient To Create Contrast Between Information And Images

Grid System

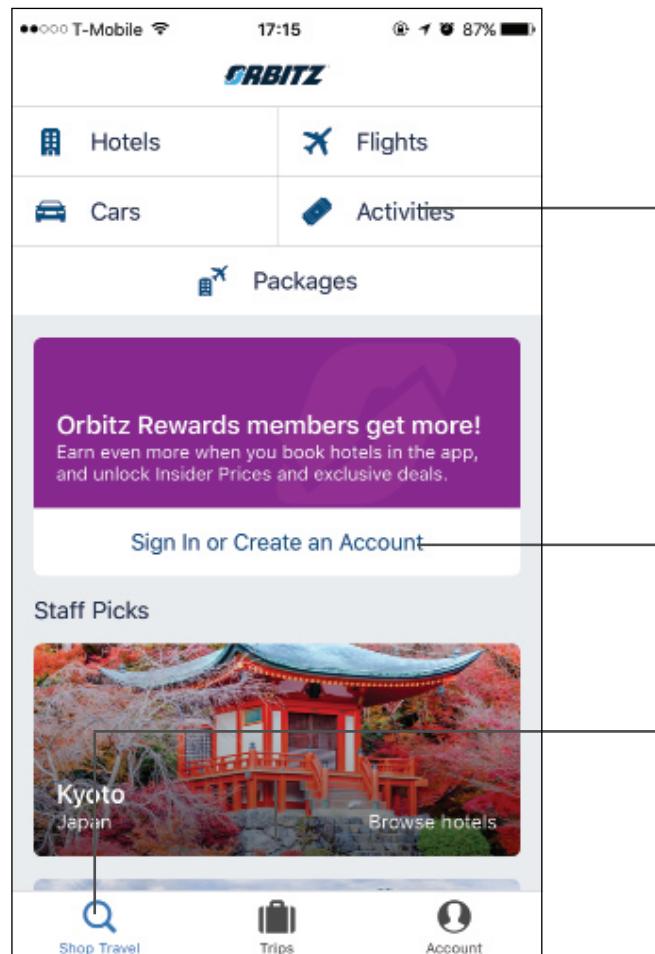
Clean Design

Highlighted Button

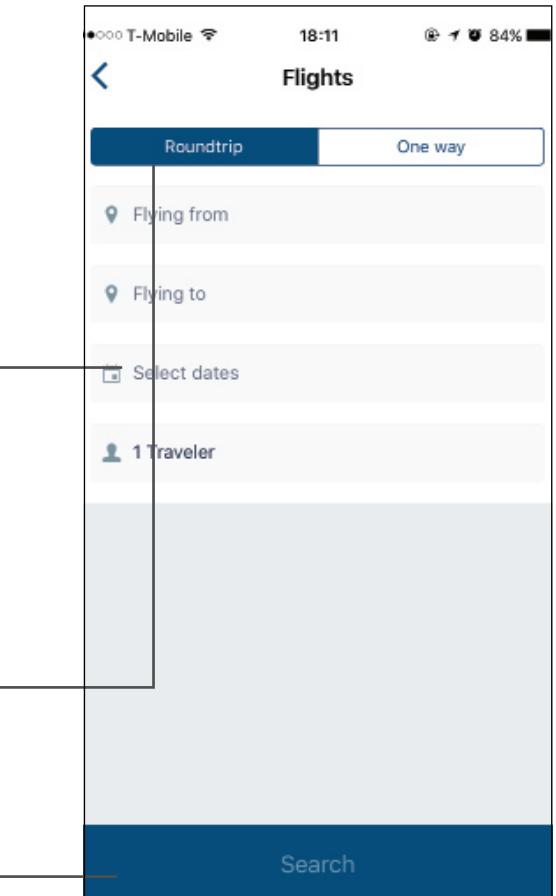


COMPETITIVE ANALYSIS

Orbitz



Clear Information Filter

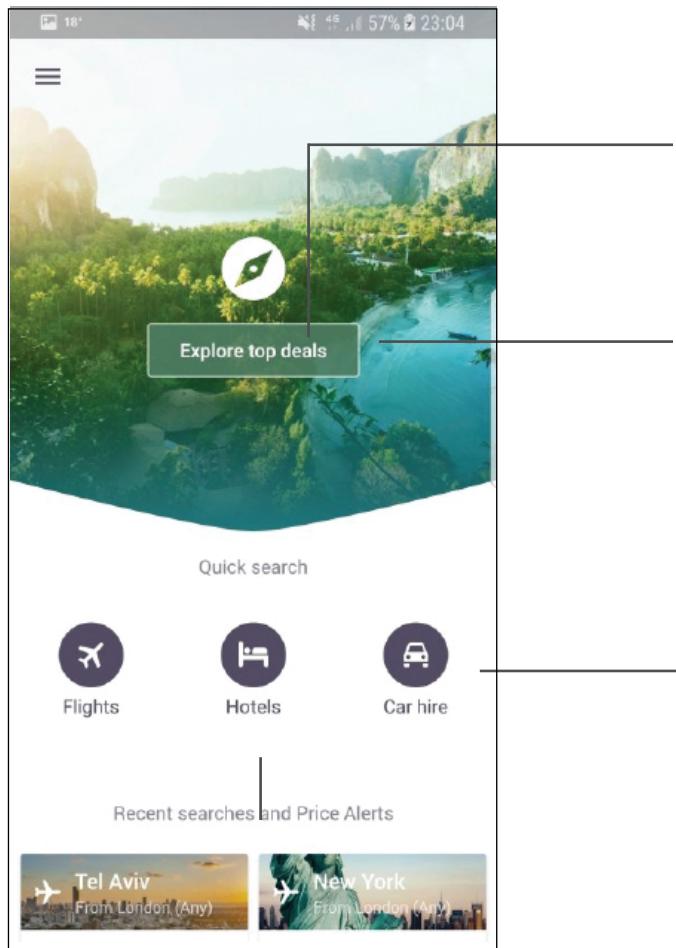


Call To Action Button

Highlighted Current Section

COMPETITIVE ANALYSIS

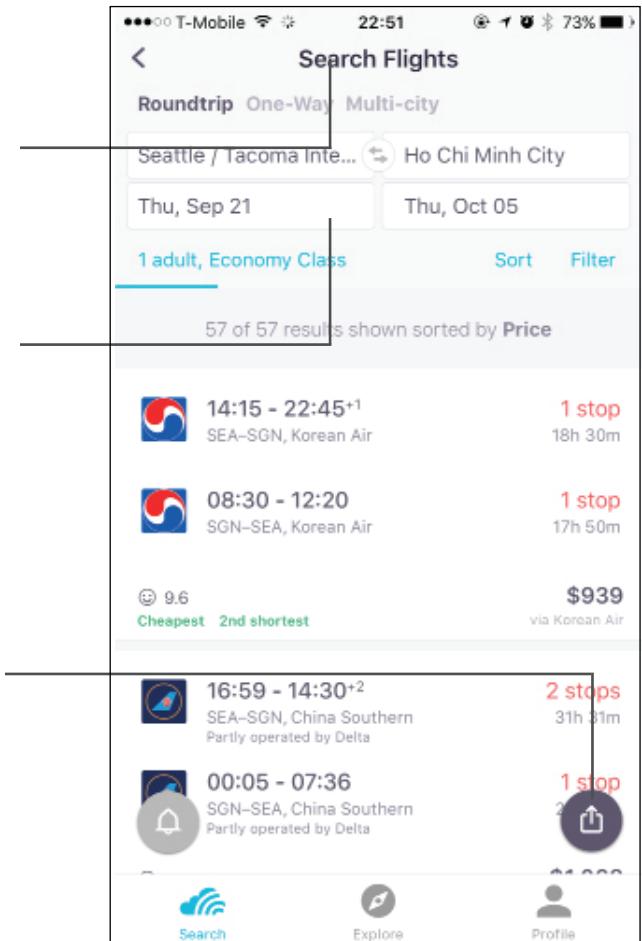
Skyscanner



Bold Text

Rectangle Box For Information Display

Big Circle Icon



COMPETITIVE ANALYSIS

FEATURES TO ADOPT

- **Icon Hierarchy**

To adapt from text to icons buttons will draw the user in with a cleaner and easier the look.

- **Multiflight result**

Incorporating tabs to make searching easier based on the user's need, such as by lowest price, time, and whether the flight is non-stop.

- **Review pages**

To have user fully understand what they are purchasing before buying to prevent future issues.

- **Highlight color**

Highlighting the color of tabs, or icon in use will make the user understand where they are in the app making usability easier

- **Call to action button**

Enhance the look of the button and interface to get the user to understand what the next step is going to be.

- **Simple navigation bar**

Cleaner navigation bar for the user to be aware of where they are in the app.

FEATURES TO AVOID

- **Long description**

Long descriptions in small areas cause confusion and lead to errors and frustration with the user.

- **Contrasting Background color**

The background needs to compliment the icons and features we will highlight.

- **Complex filters system**

Too much information compiled into a small area without proper padding will overwhelm the user

COMPETITIVE ANALYSIS

PAGE HIERARCHY

Navigation Bar

- Watch
- Notification
- Search
- Trip

Flight option

- Price
- Depart
- Arrive
- Stop
- Checked Bag

New User

- Add new traveler
- New User Form

Flight Search

- Departure
- Destination
- Flight form (One way/
Roundtrip)
- Date
- Traveler
- Search

Existing User

- Sign in

Payment

- Add / Update Card
- Card Type
- Payment Summary
- Submit Payment
- Confirmation

HEURISTIC ASSESSMENT

Visibility of system status

- Highlighted "call action buttons" such as shop flight.
- Clean and Simple navigation bar for each category to guide customer throughout the app

User control and freedom

- Refining control buttons such as back and search ticket
- Refining flight results
- Providing sub-category for extra information

Match between system and the real world

- On the homepage, the information provided lacks of essential information that makes hard to search for the ticket.
- The text hierarchy need to improve to create a consistency

Consistency and standards

- Design style is inconsistency
- Inconsistency buttons style
- Inconsistency statistic display
- Inconsistency color scheme between title and text

HEURISTIC ASSESSMENT

Error prevention

- On the homepage, there is no review button
- Confirmation message pop-up before purchasing

Recognition rather than recall

- When searching for flight, includes "trip summary" on the top for reviewing

Flexibility and efficiency of use

- Providing features to review and edit entered information
- Add pop up window
- Minimal searching steps

Aesthetic and minimalist design

- Linking result page
- Reduce useless data and placed them inside sub-category

Help users recognize, diagnose and recover from errors

- Error message along with help link
- Warning color scheme if needed

Help and documentation

- "Help" link with "?" sign
- Providing contact information to search for help

PERSONA



Mia Wilson

20, Female

Student

Single

Portland, OR

Mia studies Asian and Middle Eastern Studies at Dartmouth College. Being a student, Mia doesn't have a big budget but is looking forward to studying abroad.

Mia is looking for the cheapest flight to her current foreign study program in Hyderabad, India. While shopping around online and the best app, she came across Hopper and found the best and cheapest deal.

Goals:

- Looking for the best deal for her student budget
- To gain knowledge of the world around her to grow in her Degree.

PERSONA



Vu Pham

26, Male

Software Engineer

Redmond, WA

In a relationship

Vu has been working in the software engineer industry for six years. As a key member of a team, Vu is responsible for attending the company conferences in various places and go on for a business trip to build a teamwork with his colleagues.

He usually looks online and buy his flight tickets through Hopper app for its affordable prices although the app sometimes is a bit complicated to navigate.

Goals:

- Wants to buy a ticket more efficiently
- Introducing a good flight shopping experience to his colleagues

PERSONA



Grant Harrison

56, Male

Life Coach, Entrepreneur

Newly Divorced (Single)

NewYork

He loves travels around the world as a motivational speaker. His beginning was a humbling one that taught him the importance of saving your money. In continuing to live frugal in some cases, saving a money on a plane ticket is necessary.

Goals:

- Looking for an app that helps find the best plane ticket deals.
- Updated in and when tickets may go on sale, as well as when they rise.

USER SCENARIO



Mia is looking for a foreign study program in Hyderabad, India.



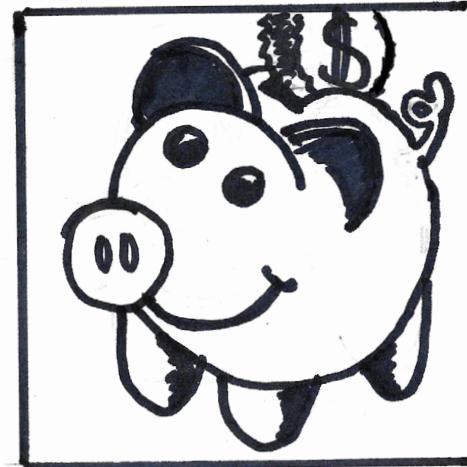
She has a pounding headache because her finances don't support her and she must spend money wisely.



She found "Hopper" app by searching "cheap flight ticket" on google.



Hopper gives her a deal that nearly saves her \$100 compared to other flight apps.

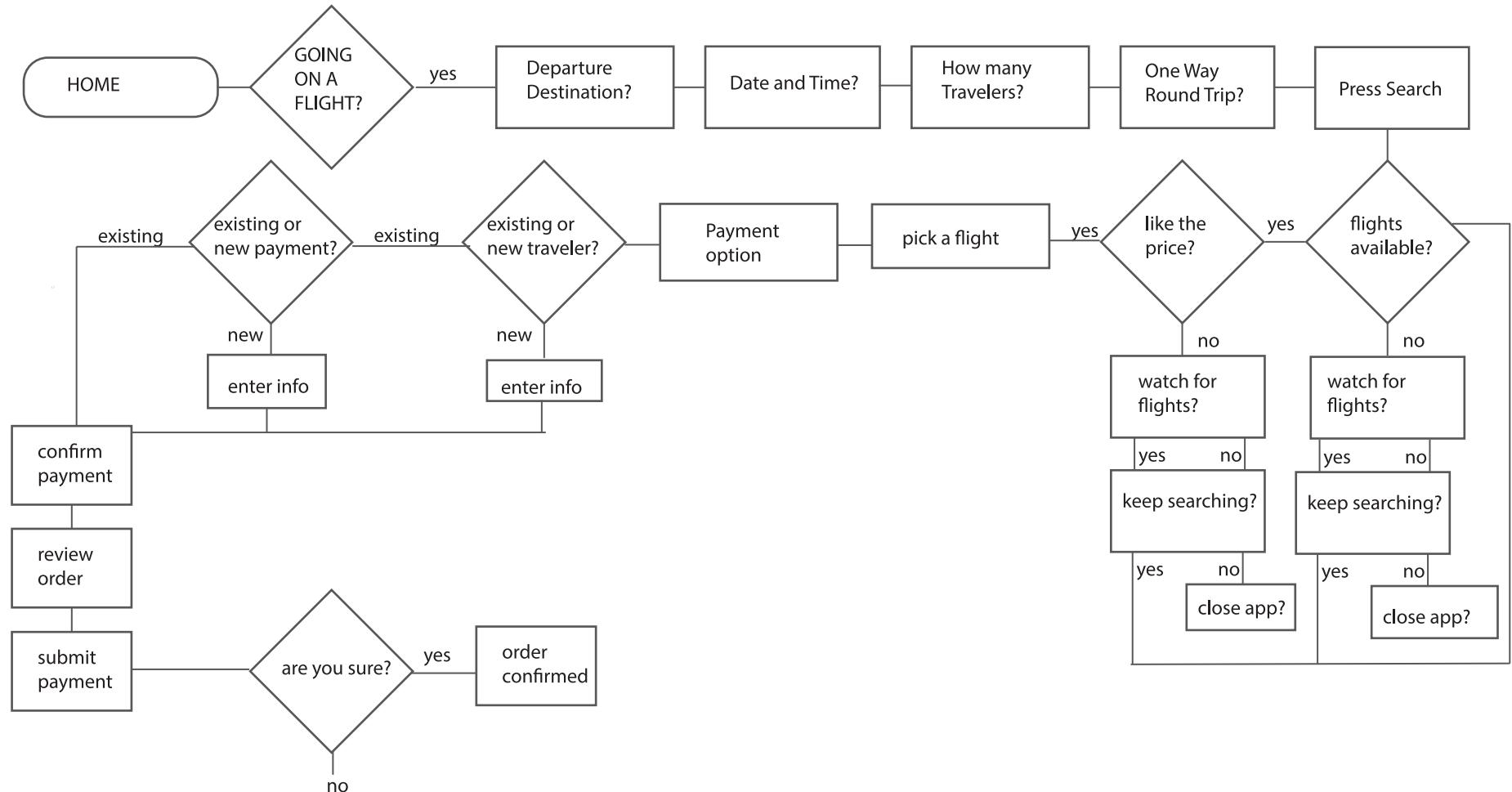


She loves it because now she has extra money to spend on other things she may want/need.



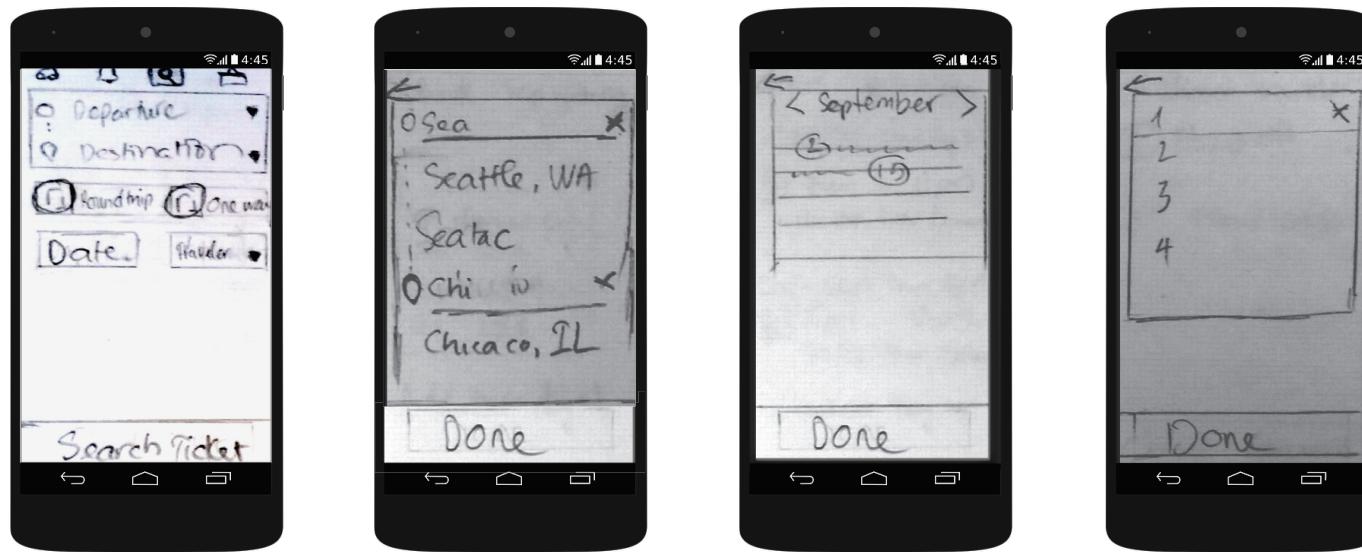
Being able to find a cheap plane ticket, she now gets to go to India and maybe even meet the love of her life.

FLOW CHART #1



PAPER PROTOTYPING AND LOW FIDELITY

Concept Sketches HOME PAGE



First Page (Home)

- Flight searching filter

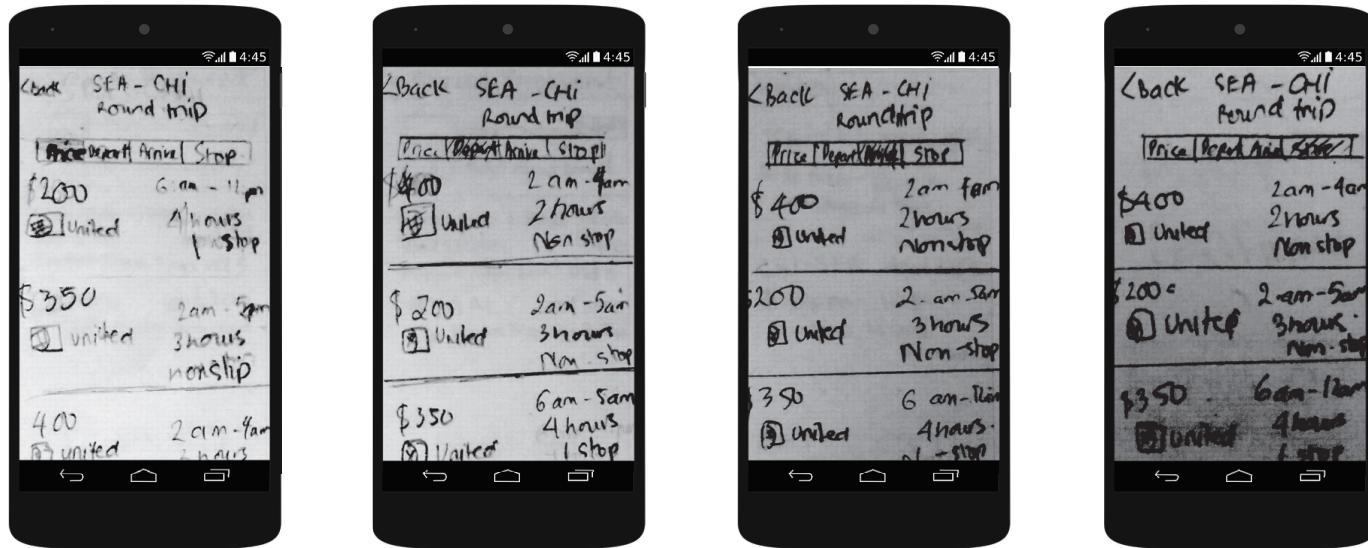
Departure and
Destination page

Date Option Page

Traveler Option Page

PAPER PROTOTYPING AND LOW FIDELITY

Concept Sketches FLIGHT PAGE



Price Category

- Price displays from Low to High

Depart Category

- Departure time option

Arrive Category

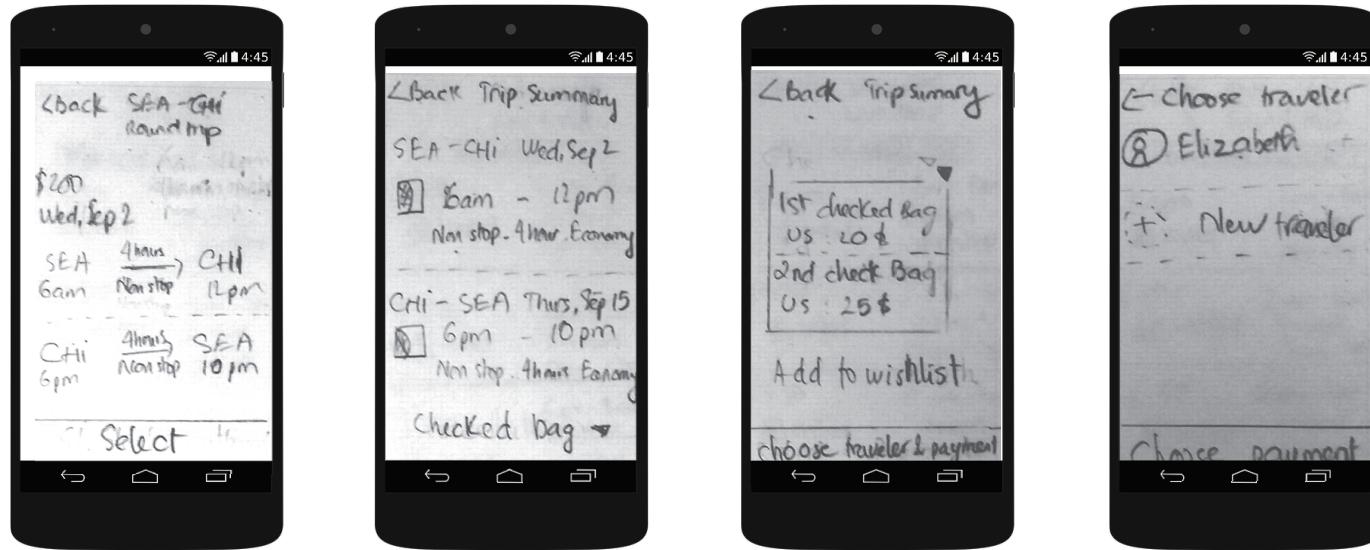
- Arrive time option

Stop Category

- Stops option

PAPER PROTOTYPING AND LOW FIDELITY

Concept Sketches FLIGHT PAGE



Flight Selected Page

- Flight details (when selected)

Trip Summary Page

- Trip summary shows outbound information
- Checked bag

Arrive Category

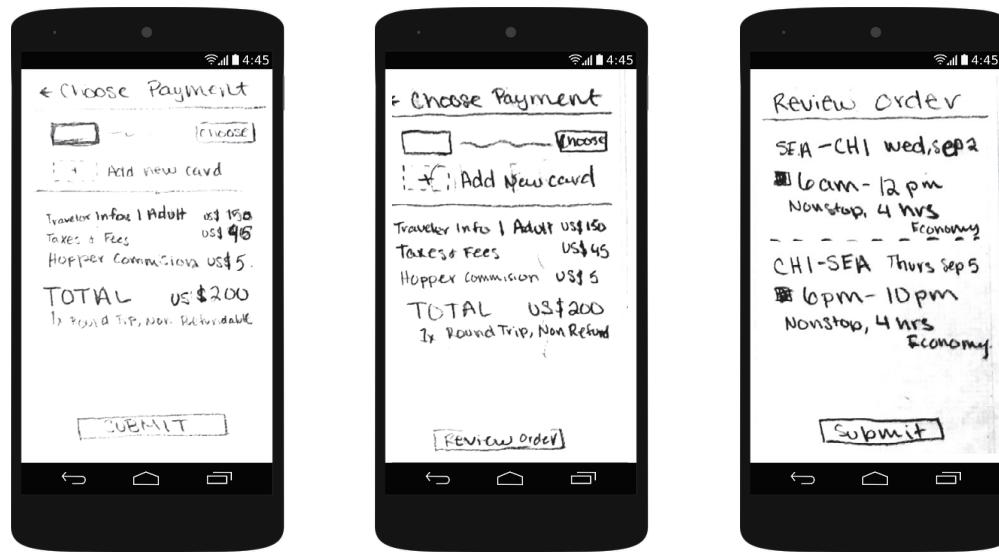
- Checked bag
- Add to wishlist
- Traveler

Stop Category

- Choose traveler
- Existing and new customer sign up
- Choose payment

PAPER PROTOTYPING AND LOW FIDELITY

Concept Sketches PAYMENT PAGE



Payment Page

- Existing card
- Add a new card
- Submit button

Payment Summary

- Review window

Review Order

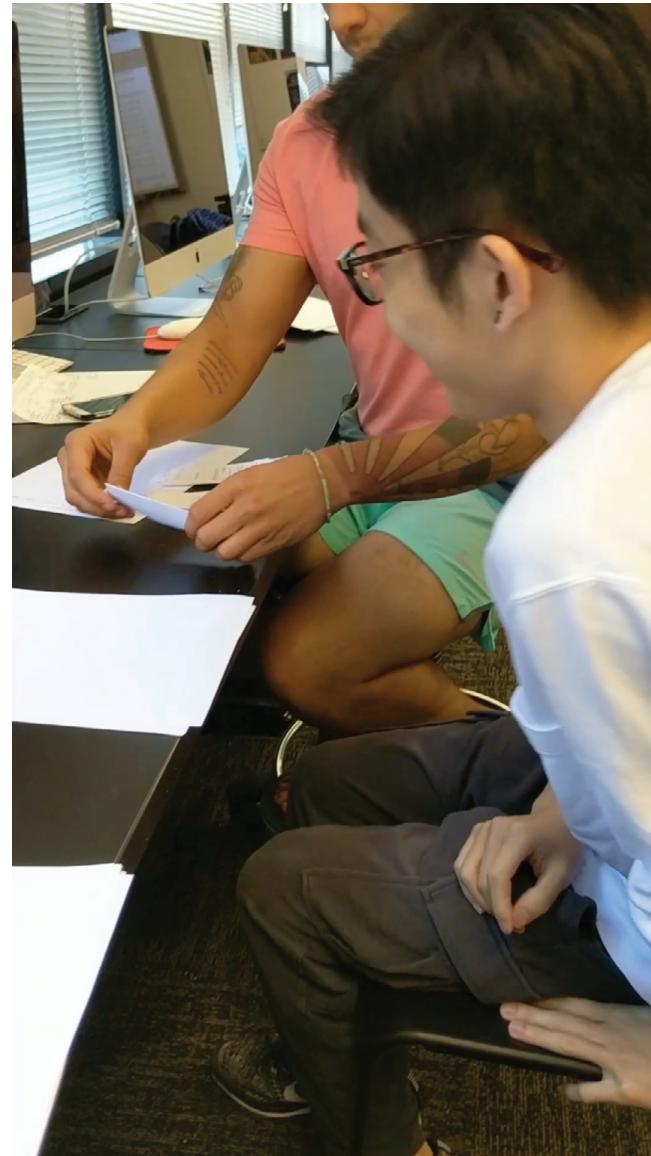
- Flight information
- Payment review

PAPER PROTOTYPING AND LOW FIDELITY

Paper Prototype Notes

Testing Script

1. You are a new user
2. You are going on a study abroad trip and need to find the cheapest flight to get you to Chicago to catch another flight out of the country.
3. Open the Hopper app and land on the homepage.



PAPER PROTOTYPING AND LOW FIDELITY

Paper Prototype Notes

Problem # 1

- When the customer landed on the FIRST LOADING PAGE, there was not enough information to have an accurate flight search.

Solution # 1

- The new LANDING PAGE will have date and time, number of travelers, as well as round trip and one-way trip added to the search.

Problem # 2

- The LANDING PAGE has too many buttons to click

Solution # 2

- We will minimize the amount of buttons by adding a pop-up subpage that will disappear when an item is selected.

Problem # 3

- PAYMENT PAGE doesn't have confirmation for example " did we purchase the flight?"

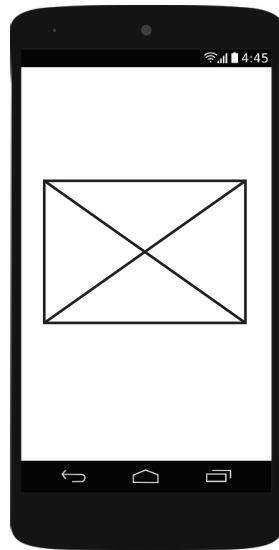
Solution # 3

- Adding a review & submit order page and then a confirmation page will be added to diffuse any confusion.

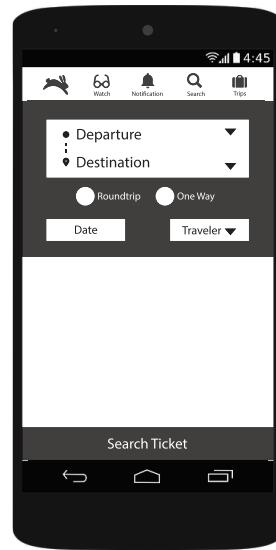
WIREFRAME

Wireframe concept HOME PAGE

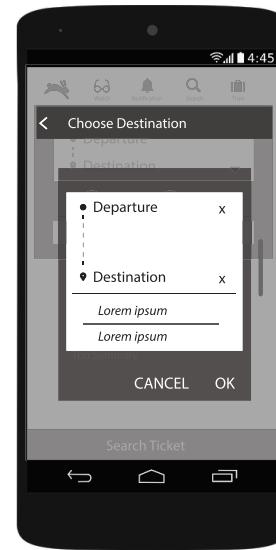
The Home screens establish the guideline for the beginning of the flight searching process.



Loading Screen



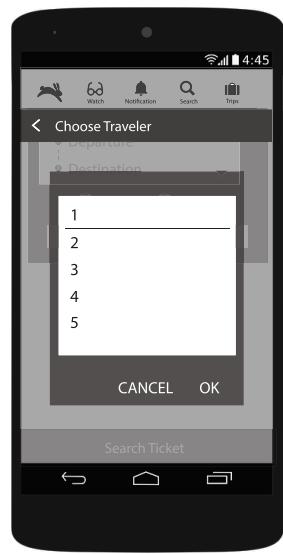
Landing Page



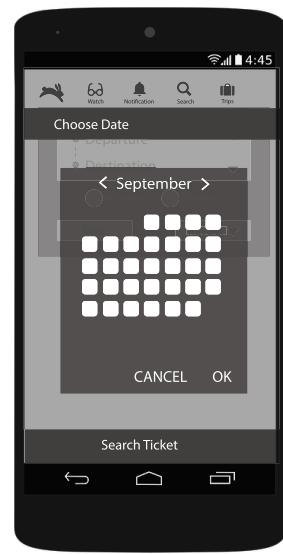
Departure Window

WIREFRAME

Wireframe concept HOME PAGE



Date Window

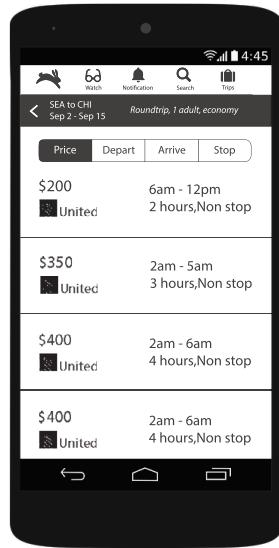


Traveler Window

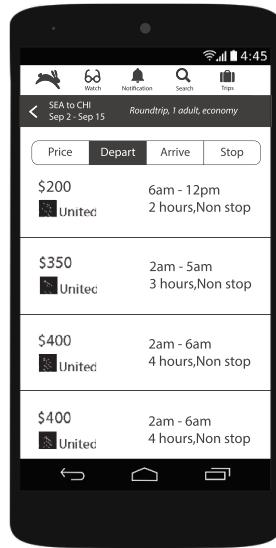
WIREFRAME

Wireframe concept FLIGHT PAGE

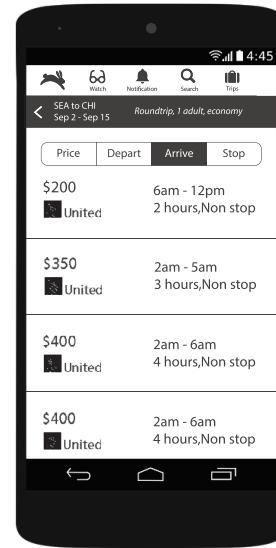
The Flight screens categorize the flight searching into different tabs based on what the user is looking for, how many bags needed and who is flying.



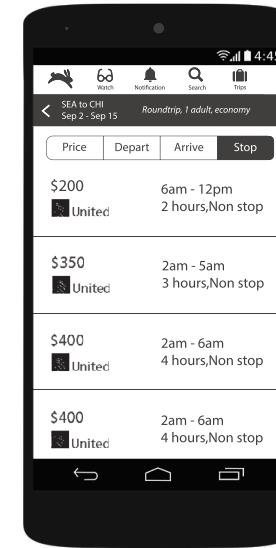
Price Category



Depart Category



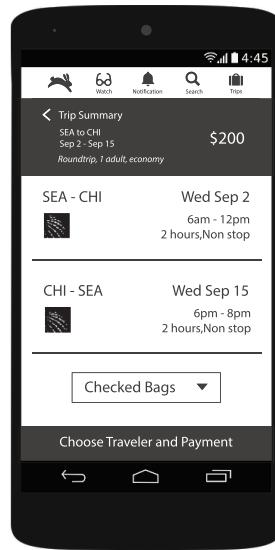
Arrive Category



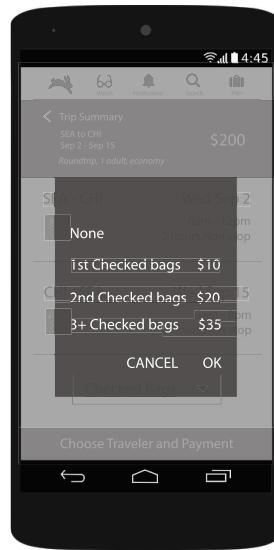
Stop Category

WIREFRAME

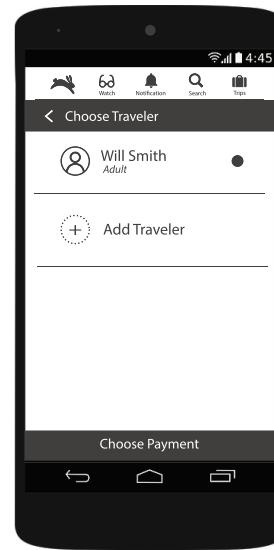
Wireframe concept FLIGHT PAGE



Trip Summary



Checked Bag

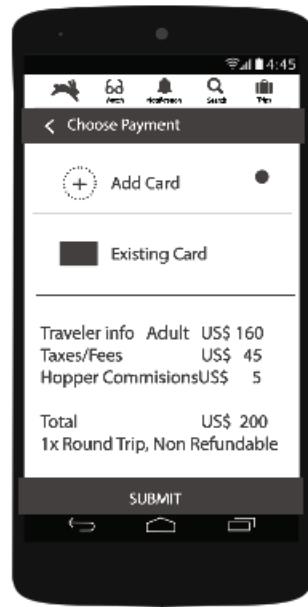


Traveler Page

WIREFRAME

Wireframe concept PAYMENT PAGE

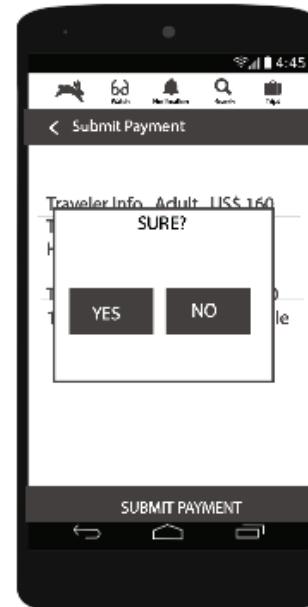
The Payment screens help the user finalize their transaction and purchase their ticket with an engaging confirmation page.



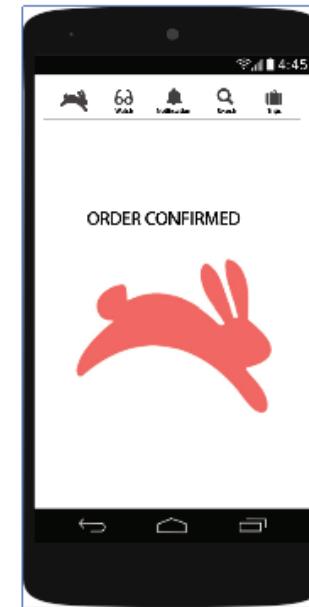
Choose Payment



Review Order

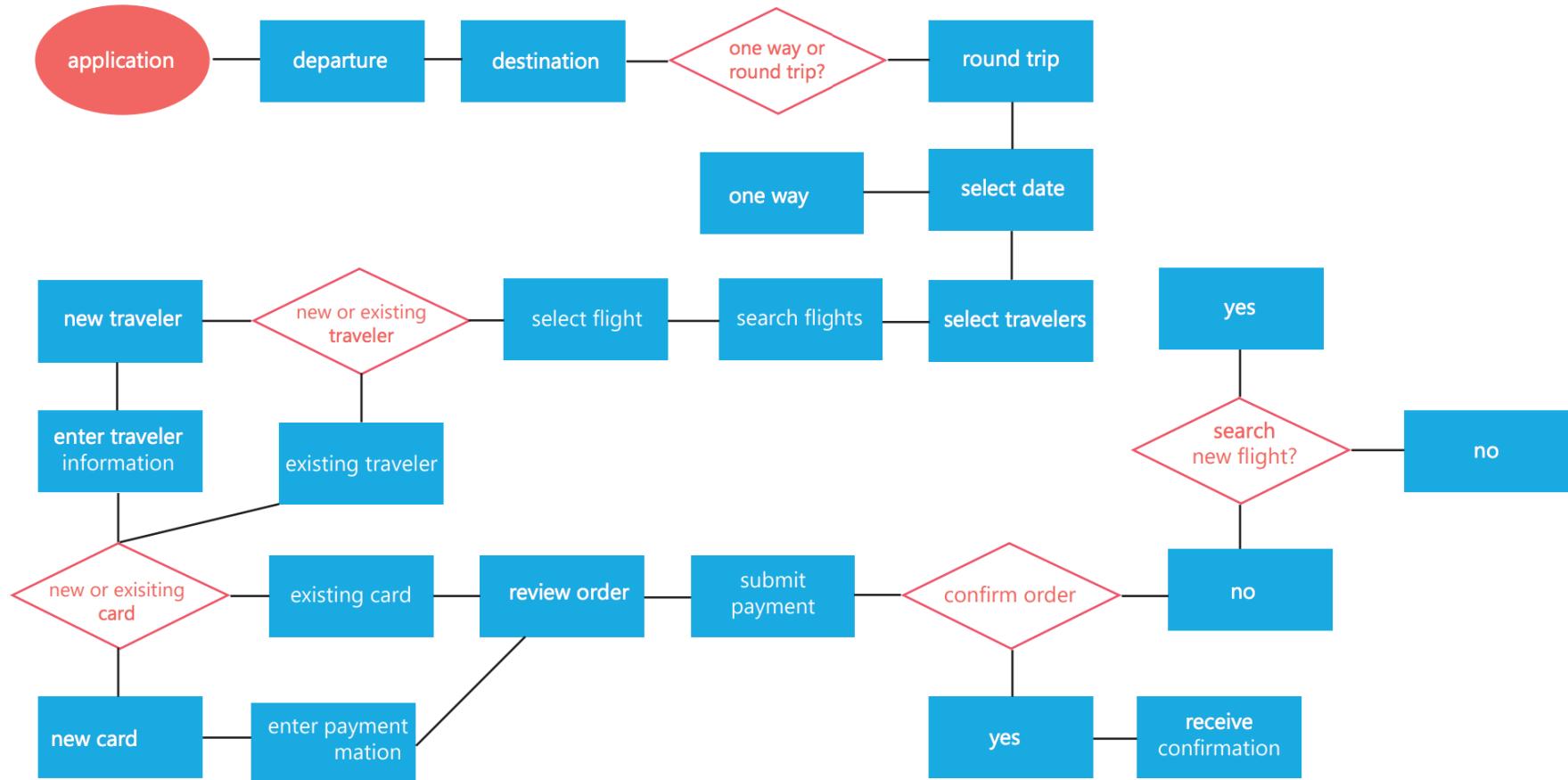


Confirmation



Final window

FLOW CHART #2



PAPER SKETCH TO WIREFRAME

How Sketches Helped Wireframe?

Sketches helped create a basic understanding of:

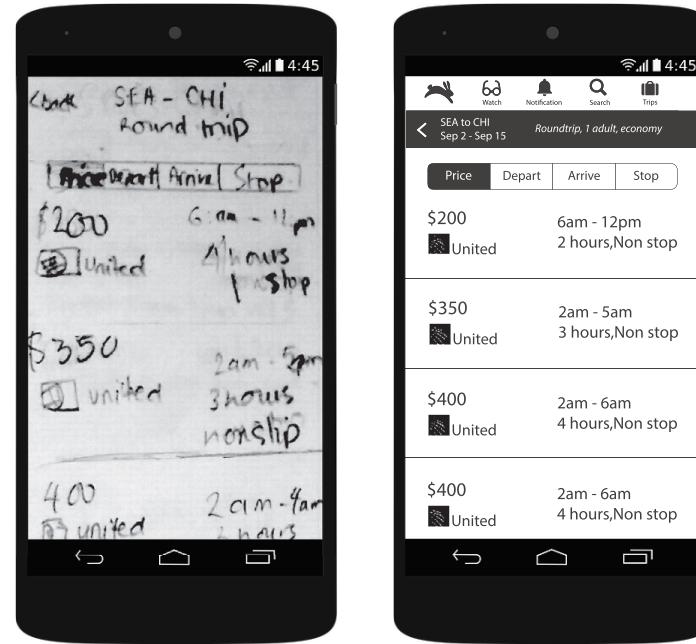
- Get a basic concept of how the app will work in user interface form
- Helped build confidence in conceptual detail and refinement
- What flight features should and should not be on the page
- Helped gather the necessary information

Intention and Arrival

Sketches intention was to get a basic concept of what user needed while the wireframe intention refined the concept further to get the visual about how users interact with the elements and how the flow feels.

Arrival for set of wireframes was based off user interaction which forces us to think in higher detail changed such as:

- Order of elements
- Size of elements
- Feature placement
- Time consumption



PAPER SKETCH

WIREFRAME

USABILITY TESTING

Usability testing refers to evaluating a new website layout by testing it with representative users to make sure that the design is for the users

Participant Qualifications

- College students
- Existing Hopper users for updating testing and new potential customers
- Shopping for flight twice a year

Testing Scenario

- The resident of Seattle looking out of state for college to Chicago University.

Tasks

1. You are a new customer who are searching for round trip flight from SEA to CHI from Sep 2 to Sep 15
2. Select the cheapest flight
3. Choose the flight and review your trip , then adding your card to make a payment

USABILITY TESTING

Tasks # 1

You are a new customer who are searching for round trip flight from SEA to CHI from Sep 2 to Sep 15

Testing Steps

- Open the app and land on the landing page
- Please enter the departure and destination to Seattle and Chicago
- Select round trip option
- Pick departure date as September 25th and 15th for returning
- Selecting one traveler
- Press search for the ticket

Tasks # 2

Select the cheapest flight

Testing Steps

- Looking for the cheapest ticket and search under price tab
- Choose 6am-12pm nonstop flight with United airline for \$ 200

Under trip summary:

- Enter number on bags checked in: None
- Click "Select traveler and payment" button

Tasks 3

Choose the flight and review your trip , then adding your card to make a payment

Testing Steps

- Select " Add new user" to create a new account under " Jane Cruz"
- Fill the sign up form
- Add new payment card
- Select review payment button
- Review and press submit payment button
- To finalize purchase press "yes " to confirm
- Logo and "payment confirmed" page will appear

USABILITY TESTING

We asked four users if they are willing to test our app. Here are the results:

- Two users suggested a button that leads to the next step.
- Two users didn't understand why their information wasn't entered.
- Three users were confused on which area they had clicked on.
- Four users were confused when the app didn't go anywhere after they had received confirmation for their order.

Changes from User Testing:

- Added a "next" button
- The filled out information's icon will change to a different color.
- Made "hit boxes" bigger for clicking.
- On confirmation page, added a "home" button to guide them back to the beginning.

STYLING

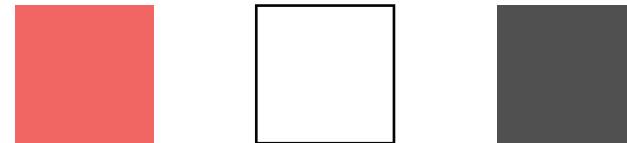
ICONS



BUTTONS STYLES



COLORS



Hot Pink HEX # F16662	Pure White HEX # FFFFFF	Dark Gray HEX #4F504F
R: 242 G: 102 B: 98	R: 255 G: 255 B: 255	R: 80 G: 80 B: 79

STYLING

TYPOGRAPHY

Title

- 28pt
- Segoe UI / Regular

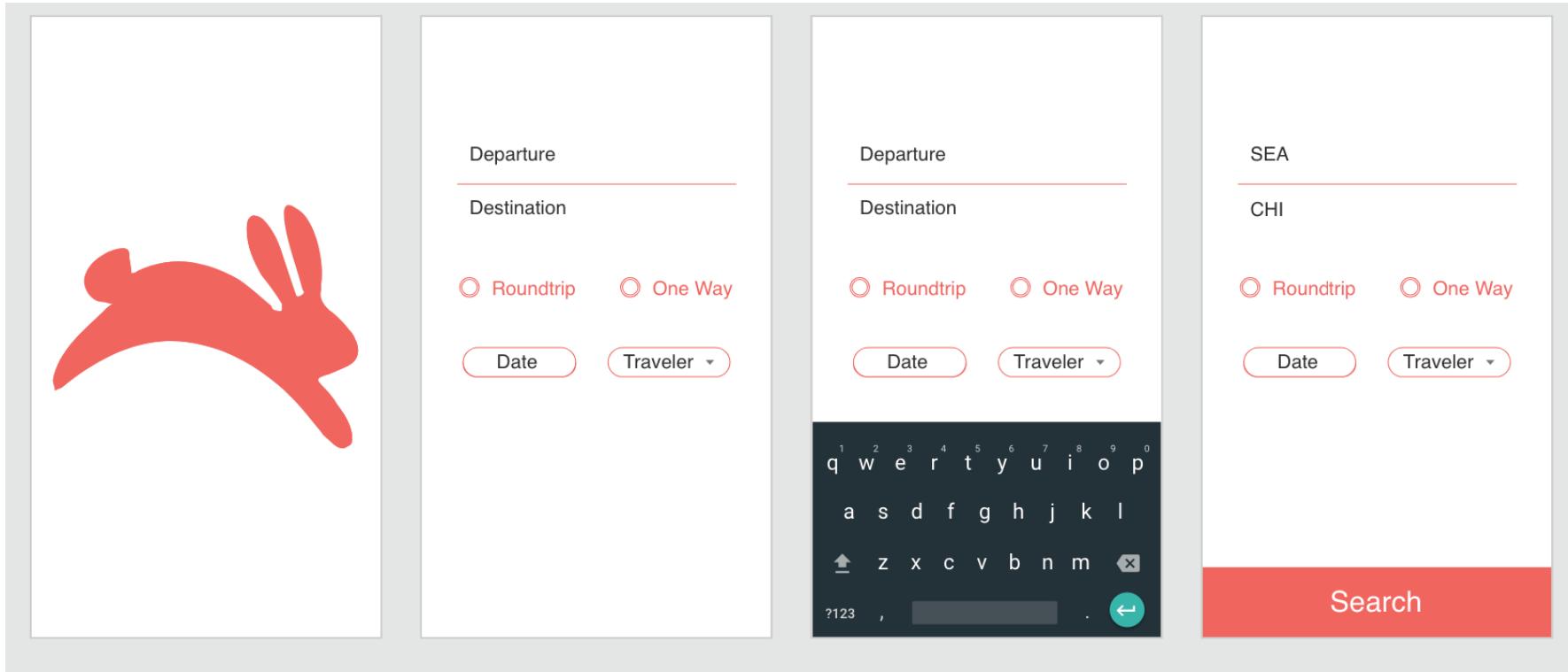
Body text

- 20pt
- Segoe UI / Regular

Caption

- 20pt
- Segoe UI / Regular

FINAL DESIGN



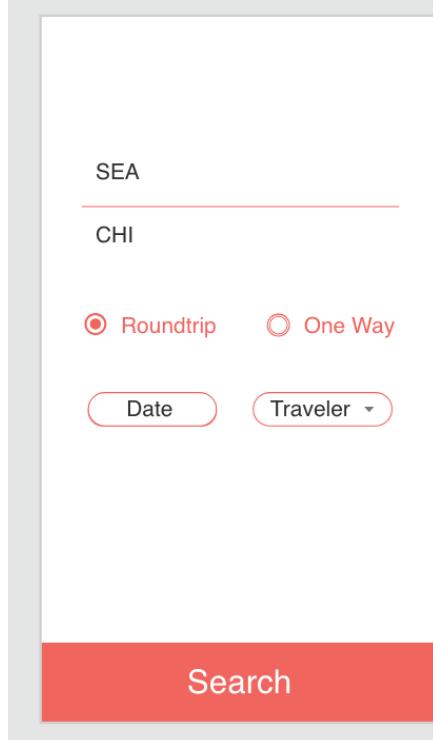
Landing Page

Search Fight

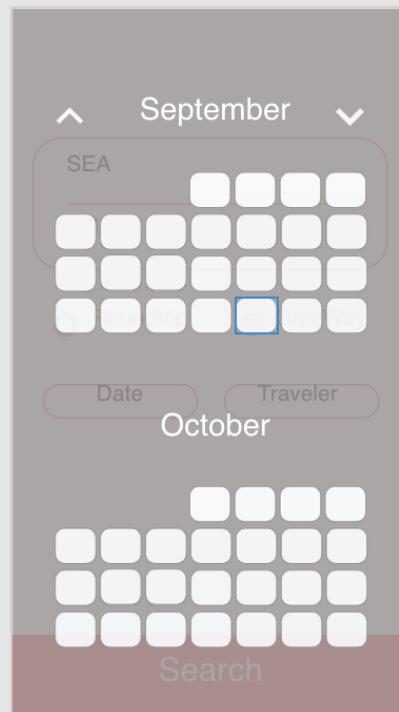
Search Fight

Search Fight

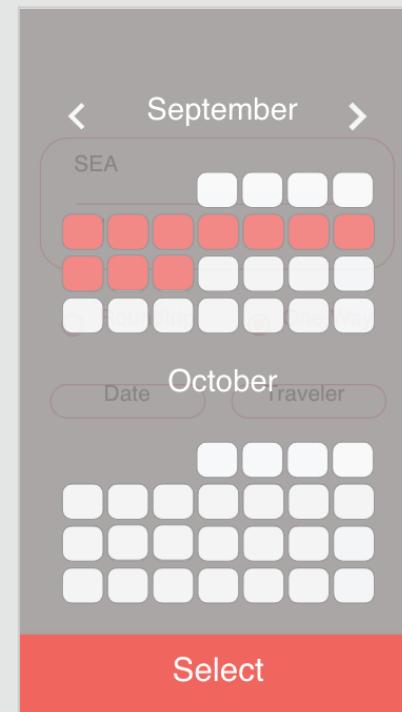
FINAL DESIGN



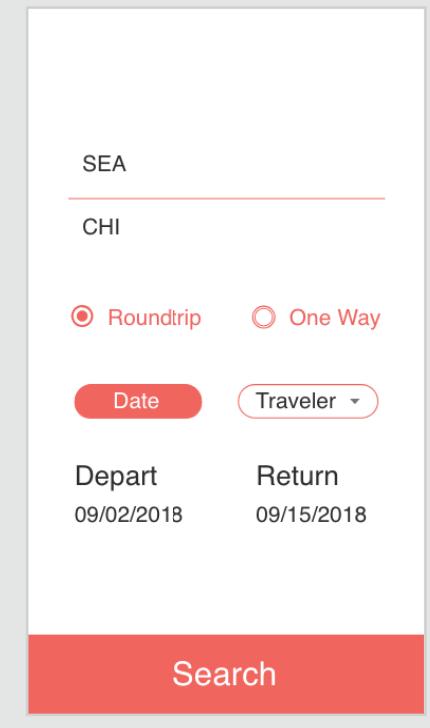
Search Flight



Choose Date



Choose Date



Choose Date

FINAL DESIGN

The image displays four wireframe prototypes of a flight search interface, arranged horizontally. Each prototype is a light gray box with a red header bar.

Header Bar: Each prototype has a red header bar with icons for suitcase, bookmark, search, and user profile. Below the icons, the text "SEA to CHI" and "Sep 2 - Sep 15" is displayed.

Search Filters: Below the header, there are four buttons: "Price" (red), "Depart" (blue), "Arrive" (red), and "Stop" (blue).

Flight Options: Each prototype lists five flight options from United Airlines, each with a price, time range, and duration.

Flight Option	Price	Time Range	Duration
1	\$200	6am- 12pm 2 hours	Non stop
2	\$350	2am- 5am 3 hours	Non stop
3	\$400	3am- 6am 3 hours	Non stop
4	\$200	6am- 12pm 2 hours	Non stop
5	\$520	8am- 10am 2 hours	Non stop

Buttons: At the bottom of each prototype is a large red button labeled "Continue Booking".

Labels: Below each prototype, there are labels indicating its purpose: "Date/Traveler" for the first, "Flight Option" for the second, "Flight Option" for the third, and "Flight Option" for the fourth.

FINAL DESIGN

The image displays four wireframe prototypes of a flight search interface, arranged horizontally, illustrating the progression of trip configuration:

- Date/Traveler (Leftmost):** Shows a summary of the search criteria: "Roundtrip, 1 adult" and the route "SEA to CHI Sep 2 - Sep 15". Below this, there are five flight options listed by price, each with a "Stop" button.
- Trip summary (Second from Left):** Shows a summary of the trip: "Trip summary" and "Round trip, 1 adult". It lists two segments: "SEA- CHI" and "CHI - SEA", both by United, with flight times and durations. A "Bag check" button is present.
- Trip summary (Third from Left):** Shows a summary of the trip: "Trip summary" and "Round trip, 1 adult". It lists two segments: "SEA- CHI" and "CHI - SEA", both by United, with flight times and durations. A dropdown menu for bag selection is open, showing "None", "1 bag", and "2+ bags".
- Trip summary (Rightmost):** Shows a summary of the trip: "Trip summary" and "Round trip, 1 adult". It lists two segments: "SEA- CHI" and "CHI - SEA", both by United, with flight times and durations. A dropdown menu for bag selection is open, showing "1 bag".

Date/Traveler

Trip summary

Trip summary

Trip summary

FINAL DESIGN

The image displays four mobile application screens arranged horizontally, representing the final design of a travel app. Each screen has a red header bar at the top and a red footer bar at the bottom.

- Add Traveler:** The header is "New traveler". It contains fields for "Jane", "Cruz", "10/04/1992", and "1234 2nd st, Seattle, WA, 98112". At the bottom is a red "Add" button.
- Account:** The header is "Account". It lists three items: "Jerry Cruz" (radio button), "Jane Cruz" (radio button, selected), and "New traveler" (radio button). At the bottom is a red "Next" button.
- Card Payment:** The header is "Process a payment". It lists two items: "Saved card" (radio button) and "New card" (radio button). At the bottom is a red "Next" button.
- Card Payment:** The header is "Process a payment". It lists two items: "Saved card" (radio button, selected) and "New card" (radio button). At the bottom is a red "Next" button.

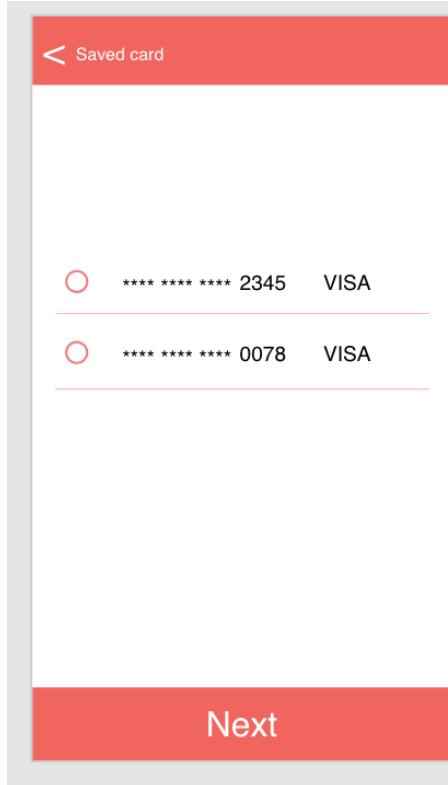
Add Traveler

Account

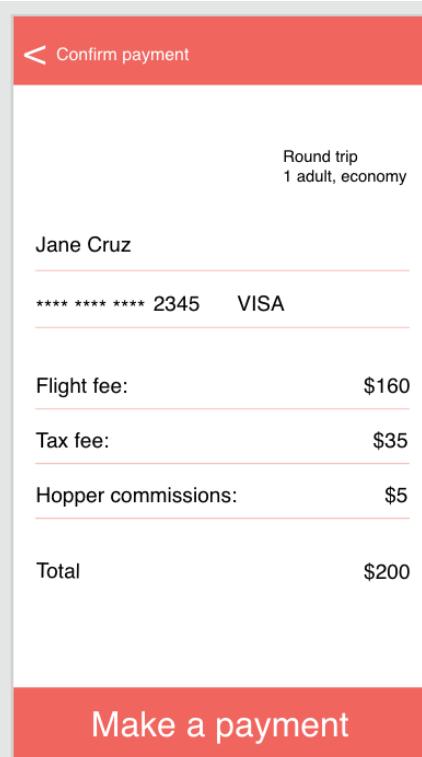
Card Payment

Card Payment

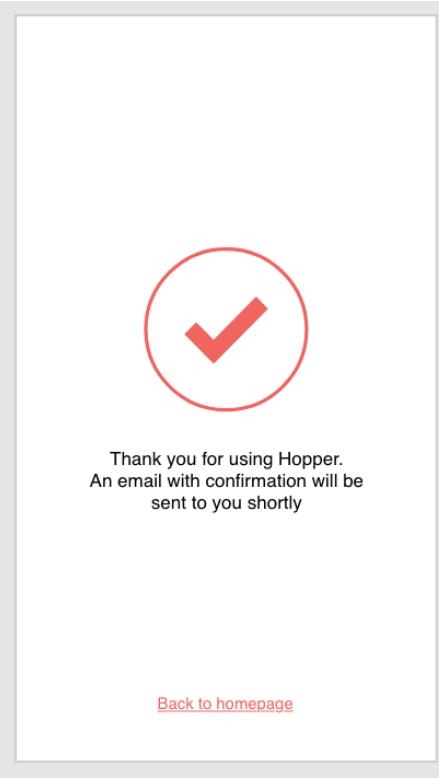
FINAL DESIGN



Card Payment



Payment



Confirmation

IMPORTANCE OF PROCESS

Client Research

Understanding clients help us go through each design step effectively.

Content Strategy

That will help us decide which to include and exclude from our mobile experience.

Competitive Analysis

Explore the design pattern and interaction features to meet user needs

User Scanerio and Path

Think about the user to create a design path

Paper Prototyping

Get a basic concept of how the app will work in user interface form before working on the wireframe.

Wireframe

Low fidelity wireframe help us build the basic layout for the Hopper app

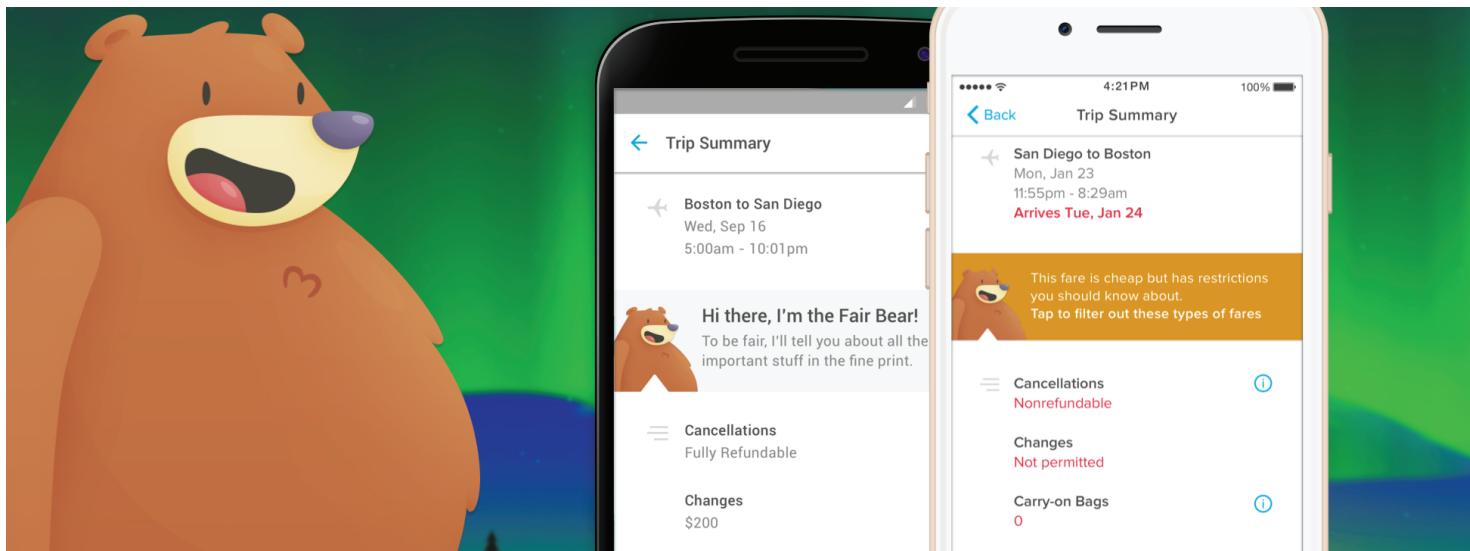
Usability Testing

Identify the problems and solutions for the current design and collecting feedbacks from the users for the final design.

Hi Fidelity Design

The visual designs bring to the users the hi fidelity the version that improves the user experience.

PROTOTYPE



<https://xd.adobe.com/view/79d72545-f3d5-4ff1-5501-5adf82c4332c-0fe6/>