# Improving the Mobile Flight Booking Experience

Let's be honest. Even in a "mobile first" world, some things are just easier to do on a computer.

One of those things is booking flights.

In this case study, I explored what makes users abandon their mobile devices for PCs and designed a better mobile experience for mobile flight search and booking.

## Background

As air travel expands to new destinations across the globe—and at a better value than decades past—air travel volume continues to increase. In fact, air travel represents 58% of all modes of transportation for international tourism, up from 46% in 2000.[1] The International Air Transport Association (IATA) forecasted a $29.3 billion net profit for the global airline industry in 2020, up from $25.9 billion net profit for 2019.[2]

## The Problem

While users are *claiming* to be comfortable with booking flights (and other travel plans) on their mobile devices in various reports[3-7], a Euromonitor International report predicted that the highest percentage of flights booked on mobile in 2019 would be, at best, 40% in some countries.[8]

Despite this, mobile travelers are a good target demographic because they are more likely to take trips and to "strongly agree" that travel is an important part of their lifestyle.[9]

## The Plan

Though there are many mobile apps for booking flights, I wanted to understand why people turn to their PCs for booking flights. I also wanted to complete competitive research on existing apps, and couple all these insights to design and test an improved mobile booking experience.

Additionally, I wanted to gauge users' experience with and perceptions of chatbots and possibly include this in the solution.

### My Role

I worked alone on this project, completing user research and analysis, ideation, design, testing and iteration, with excellent mentorship from Eido Gat.

## Constraints

I was working on this project alone with a small budget so the scope was limited accordingly.

# DISCOVER

## User Research

First, I needed to learn more about users' motivations, goals and attitudes when searching for and booking flights. I started with secondary research.

### Secondary Research Methods

I combed credible travel industry sources and reports online, especially those completed by Phocuswright and SITA. I discovered that American and British travelers describe mobile flight booking pain points as

- Too much information
- Time spent
- Varying prices
- Lack of useful visuals[10]

I also read about the growing implementation of chatbots by airlines. As of 2019, SITA reported that over 25% of airlines have implemented chatbots and another 55% plan to implement them by 2021.[11] However, the most common tasks for chatbots are to direct passengers to FAQs and provide flight status information.[12]

### Primary Research Plan & Methods

Next I wanted to deepen my understanding of the user experience. I developed a research plan so I could screen and interview users myself. Crafting the research plan allowed me to ensure that my research objectives were clear achievable. I sought to answer:

1. What pain points do people experience when searching for flights online?
2. What pain points do people experience when booking flights online?
3. What is most important to people when searching for and booking flights on a mobile device?
4. What are travelers' attitudes towards using chatbots during the flight search and booking process?
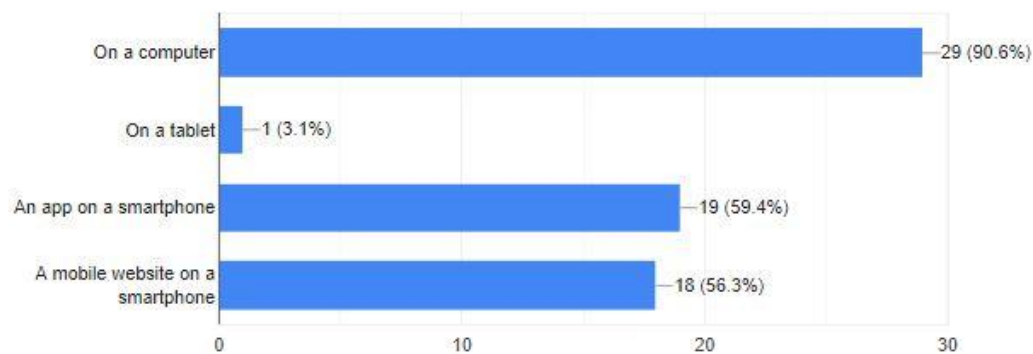
## Screener Survey

To ensure I would be connecting with people who had booked at least one flight in the last 12 months (and who may have experience with chatbots), I used a screener survey. This also allowed me to collect a bit more data myself about device use for air travel planning.

34 people completed my screen survey. The results were a reflection of the information I discovered during my secondary research.

While 90% of survey respondents shared that they had used a computer to *search* for a flight in the last 12 months, less than 60% had used their mobile device to do so (whether it was via an app or a mobile website).

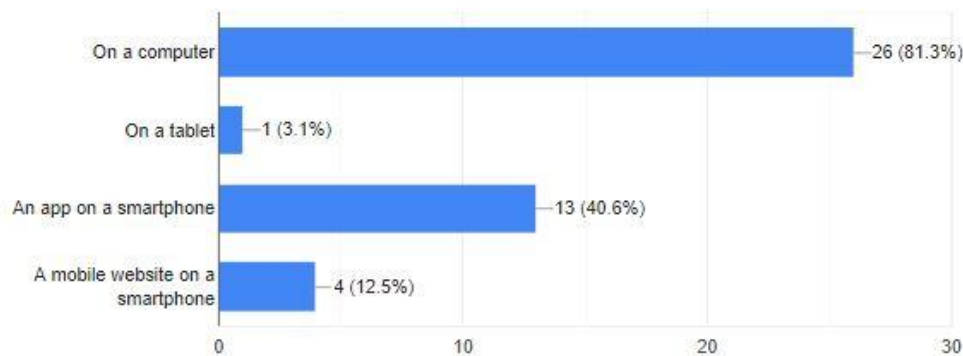How did you search for the flight? Check all that apply.

32 responses

| | |
|---|---|
| On a computer | 29 (90.6%) |
| On a tablet | 1 (3.1%) |
| An app on a smartphone | 19 (59.4%) |
| A mobile website on a smartphone | 18 (56.3%) |

It gets worse from there; less than half used a mobile app to *book* the flight while only 13% used a mobile website to do so.

How did you book the flight? Check all that apply.

32 responses

| | |
|---|---|
| On a computer | 26 (81.3%) |
| On a tablet | 1 (3.1%) |
| An app on a smartphone | 13 (40.6%) |
| A mobile website on a smartphone | 4 (12.5%) |

The next question was **why**?

3

I selected 7 people to interview and developed an interview script to guide my conversion with each user. I completed most of the interviews over Skype or on the phone, taking an audio recording of each and recording notes in a Google Sheets file. I used the script as a guide, but allowed the conversations to flow naturally.

# Define

## Research Results & Synthesis

### Interview Results & Affinity Map

*"I don't know." "It just seems easier on a computer."*

One of the most interesting observations I made during the interview process is how many people responded with an "I don't know" when asked why they opted to use a PC over mobile for booking. For many, it almost seemed as if it was the first time they really thought about it and they weren't entirely sure themselves. Some were only able to offer a vague "it just seems easier on a computer" type of sentiment. (As recorded later in the Lessons Learned section, I will probe further in future interviews and ask users to define what they mean by "easier.")

Others, however, were able to offer more specific reasons for turning to a PC for booking flights, including

- Too much scrolling on mobile
- Hard to see all the information on a mobile device screen
- Seems easier to double check their typing on a computer
- Seems faster to book on a computer

In the interviews, I also discovered that most of my participants had used chatbots before, but not for air travel planning.

Click here for the full interview notes.

### Affinity Map

After the interviews, I "downloaded" my notes into an (electronic) affinity diagram in Miro. Clustering similar comments and data revealed a few themes and areas of opportunity.

[Insert image(s)]

- Price is the most influential factor when searching for a flight
- Users aren't loyal to one airline
- Users are loyal to sites where they had found good deals in the past

- Some users perceived mobile sites and apps as less technically reliable than desktop websites (more "buggy")
- Willing to do a quick search for flights on their mobile, but may turn to PC to book

## Empathy Map

To continue synthesizing my qualitative research and better empathize with users, I created an empathy map to capture the sentiments of the users I spoke with.



## User Personas

I felt two types of users emerged from my research. Though both are concerned with finding good prices, I felt it was important to represent at least two types of motivations. Some key differences include why the user type wants to find budget flights, their comfort level with technology and mobile bookings, and their loyalty to particular airlines.

## ERIC
**Mechanical Engineer**

**ABOUT**
31 years old
Single (long term relationship)
Phoenix, Arizona

**BIO**
As a mechanical engineer, Eric works long hours but enjoys his job. He is interested in experiencing as much as he can at each new destination, usually with his girlfriend or a group of friends. While not traveling, he enjoys football, hiking and playing with his lab, Snoop.

**TRAVEL STATS**
Budget: $3K/trip
Devices used: Mobile, PC
Apps used: Hopper, Kayak
Site visited: Skyscanner, Google Flights,
Preferred destinations: Peru, Thailand, Russia, Kenya

**NEEDS**
Suggestions for interesting destinations for couples & friends

**MOTIVATIONS**
Experience new things
Visiting friends & family in Europe

**PROBLEMS**
Limited vacation time from work
Moderate budget

**GOALS**
Spend less on flights & rooms so he can spend more on experiences

**PERSONA TYPE**
Travel frequency
Tech savviness
Airline loyalty
Mobile bookings

*"I play around with dates & destinations to find the best deal."*

## MICHELLE
**Kindergarten Teacher**

**ABOUT**
57 years old
Married, 2 children
St. Louis, Missouri

**BIO**
Janet is a kindergarten teacher who adores her job. She has been honored with several Teacher of the Year awards in her county in Missouri. When she's not traveling, Janet enjoys dabbling in photography, tennis and writing restaurant reviews on her blog.

**TRAVEL STATS**
Budget: $5K/trip (family of 4)
Devices used: PC
Apps used: Airline-specific mobile apps
Site visited: Kayak, Google Flights, airline websites
Preferred destinations: Natnioal Parks, East Coast, Caribbean

**NEEDS**
Availability for group of 4
Price alerts due to inflexible travel dates

**MOTIVATIONS**
Find destinations that the whole family are interested in

**PROBLEMS**
Inflexible travel dates due to job
Low budget

**GOALS**
Maximize reward programs
Travel affordably

**PERSONA TYPE**
Travel frequency
Tech savviness
Airline loyalty
Mobile bookings

*"I like sites where I can search multiple airlines at once."*

# Problem Statements & How Might We

After synthesizing the research and developing maps and personas, I emerged with two problem statement and three "How Might We" questions.

## Problem Statements

1. I want the cheapest (but not terribly inconvenient) flight to my destination.
2. I want booking to be easy and not involve a lot of scrolling.

## How Might We?

1. How might we improve the flight search process?
2. How might we help travelers find the best flight deals?
3. How might we make booking on a mobile device more convenient?

# Ideate

## Solution Concept

After reviewing the pain points and goals of users, I decided to focus on a mobile app design concept and forego exploring the use of chatbots for flight travel. This was partially due to a resource, time and budget constraint as I was the sole designer on this project. At this time, I was still considering adding a price alert feature to my solution.

## Competitive Analysis

After deciding to focus on a mobile app, I wanted to dig deep into the strengths and weaknesses of the leading flight booking apps. I varied the types of apps in the analysis, including airline apps, online travel agency apps and Google Flights (which is currently only available as a mobile or desktop site).

I dug deep into each step of the search and booking process, noting where apps excelled or could be improved. Some examples of my analysis are below.

For a *very* detailed competitive analysis, click [here](#).

**Google Flights**

| Category | Score |
|---|---|
| Flight Search | Very Strong |
| Search Results | Very Strong |
| Flight Selection | Average |
| Passenger Information | Average |
| Payment Information | Average |
| Errors & Support | Average |

# Analysis Summary

Delta Air Lines

| Category | Score |
|---|---|
| Flight Search | Strong |
| Search Results | Average |
| Flight Selection | Average |
| Passenger Information & Seat Selection | Average |
| Payment Information | Average |
| Errors & Support | Strong |

# Analysis Summary

Kayak

| Category | Score |
|---|---|
| Flight Search | Strong |
| Search Results | Strong with caveats |
| Flight Selection | Weak |
| Passenger & Payment Information | Average |
| Errors & Support | Weak |

## User Stories

Before beginning to sketch my design, I wrote user stories, created user flows and created a site map. At the time, I was still considering a price alert feature in my solution. I also considered allowing "sticky" filters (filters which would apply to every future flight search session until the user toggled it off).

| Title | Priority | User Story |
|---|---|---|
| Search for round trip flights | Critical | As a traveler, I want to search for round trip flights so that I can find the best deal for my full journey. |
| Search for one way flights | Critical | As a traveler, I want to search for one way flights so that I can find the best deal for my journey. |
| Search for multi-city ("open jaw") flights | Critical | As a traveler, I want to search for multi-city ("open jaw") flights so that I can find the best deal for my full journey from different cities. |
| Filter flight search results | Critical | As a traveler, I want to filter flight search results so that I can more easily find and review relevant search results. |
| Sort flight search results | Critical | As a traveler, I want to sort flight search results so that I can more easily find and review relevant search results. |
| View flight information | Critical | As a traveler, I want to find details about my flight so that I can choose the best flight for me. |

## User Flows

My user flows reflect my initial idea of applying filters to the search results *before* viewing them, with the option to save them as "sticky" filters.

*[insert image]*

## Site Map
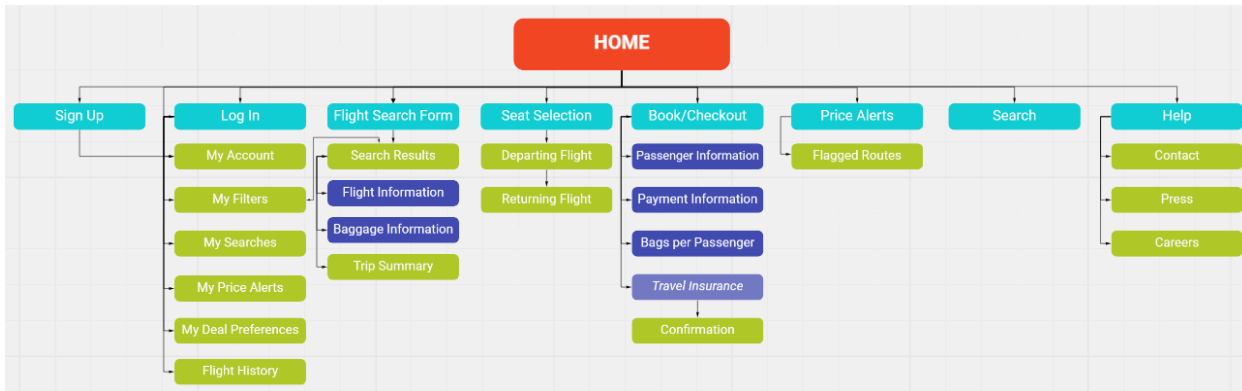


# Prototype

## Sketches & Scope Refinement

Before I began sketching, I reviewed my solution concept again with my mentor. We discussed the need (or lack thereof) for the "sticky" filter feature and the logistics of coding this.

Ultimately, we opted to forego the price alerts feature and sticky filter sto focus solely on improving the flight search and booking process in a mobile app.

I created rough sketches for the app, some of which are below.
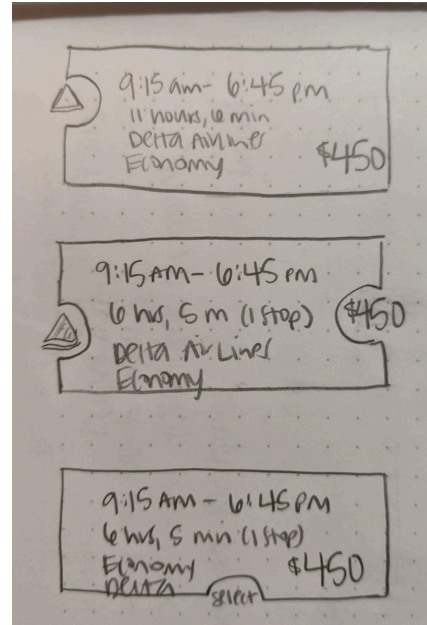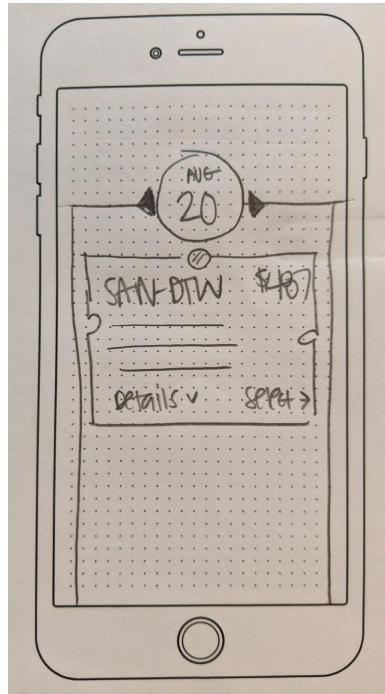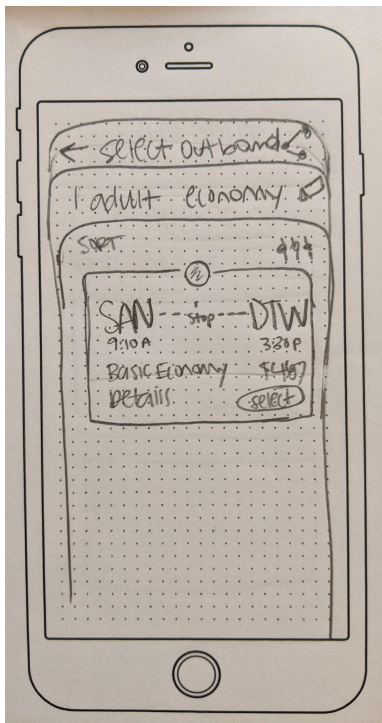
## Wireframes

Next I created wireframes in Adobe XD. This allowed me to play with the layout and flesh out the navigation and functionality of the app.

**Screen 1 — flight search**

‹ flight search

[ roundtrip ]   one way   multi city

departing from
san diego, california   SAN

arriving at
detroit, mi   DTW

depart
august 20

arrive
august 30

travelers
1 traveler

class
economy

carry-on
1 carry-on

checked
1 checked

**Screen 2 — flyght**

‹ **flyght**

**outbound: san › dtw** ✎
august 20 – august 30, 2020
1 traveler, economy
1 carry-on bags, 1 checked bag

[ price ]  [ stops ]  [ bags ]  [ more ]

prices are roundtrip per person

**9:15 am – 5:00 pm**      **$540**
6 h, 45 m (1 stop in ATL)
Delta Air Lines
Economy                    Details ⌄

**9:40 am – 9:00 pm**      **$560**
8 h, 20 m (1 stop in
United Airlines
Economy                    Details ⌄

**9:40 am – 9:00 pm**      **$560**
8 h, 20 m (1 stop in

**Screen 3 — flyght**

‹ **flyght**

**let's make this easier**

Before you scroll through tons of search
results, let's curate your results by
adding your flight preferences.   skip

**sort by**
price ⌄

**price**
$300      $900

**number of stops**
○ nonstop    ● 1 stop    ○ 2+ stops

**total journey**
7 hrs      16 hrs

**single layover duration**
1 hr      4 hrs

**departure time**
5 am      5 pm

**arrival time**
5 am      5 pm
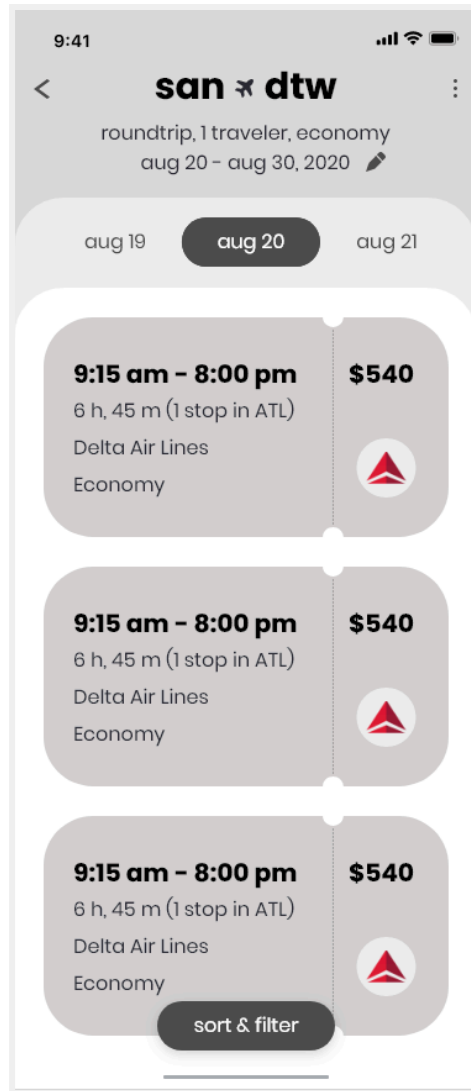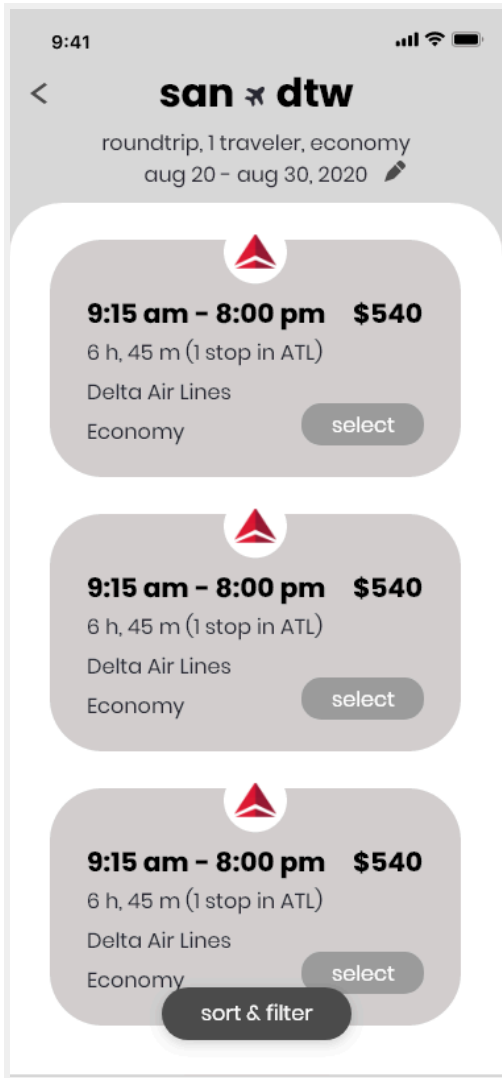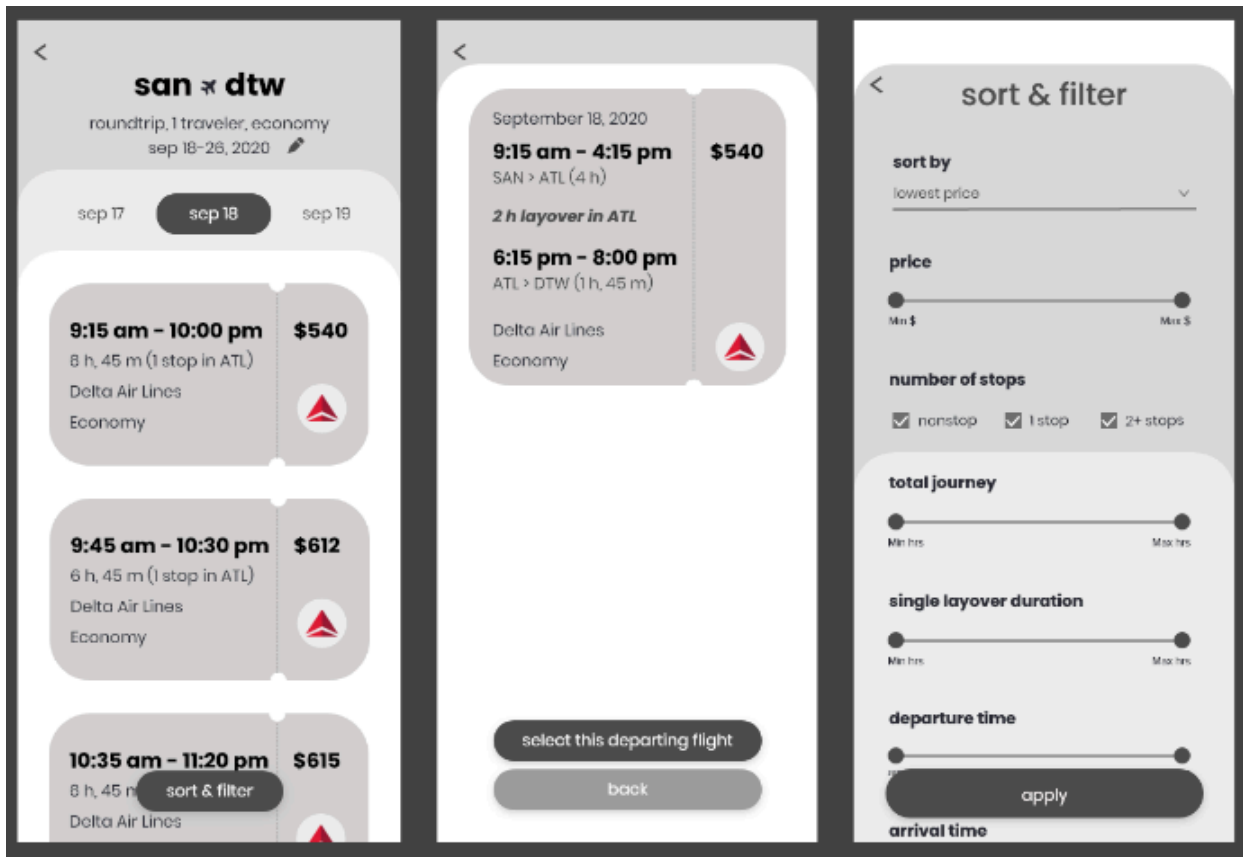
**layover cities**
select   ⌄

**airlines**
select   ⌄

## Wireframe Iterations to Low Fidelity

I continued to refine the wireframe design and functionality. I also played with the design of the search result cards.

Ultimately, I went with a paper boarding pass motif, not only because it relates to air travel, but because the other design required more vertical space on precious real estate.

# san ✈ dtw

roundtrip, 1 traveler, economy
aug 20 - aug 30, 2020 ✏️

**9:15 am - 8:00 pm**   **$540**
6 h, 45 m (1 stop in ATL)
Delta Air Lines
Economy               select

**9:15 am - 8:00 pm**   **$540**
6 h, 45 m (1 stop in ATL)
Delta Air Lines
Economy               select

**9:15 am - 8:00 pm**   **$540**
6 h, 45 m (1 stop in ATL)
Delta Air Lines
Economy               select

sort & filter

# san ✈ dtw

roundtrip, 1 traveler, economy
aug 20 - aug 30, 2020 ✏️

aug 19   **aug 20**   aug 21

**9:15 am - 8:00 pm**   **$540**
6 h, 45 m (1 stop in ATL)
Delta Air Lines
Economy

**9:15 am - 8:00 pm**   **$540**
6 h, 45 m (1 stop in ATL)
Delta Air Lines
Economy

**9:15 am - 8:00 pm**   **$540**
6 h, 45 m (1 stop in ATL)
Delta Air Lines
Economy

sort & filter

12

## Usability Testing - Wireframes

Once my wireframes were at a medium-high fidelity, I wanted to do a quick round of testing to gain some feedback. I first drafted a usability test plan to clarify my objectives, research questions and approach.

# Flight Booking App Usability Test Plan

| | |
|---|---|
| Author: | Kelly Funk, UX Designer, kelly.l.funk@gmail.com |
| Date: | December 1, 2019 |
| Background: | This flight booking app was designed to create a fast, effective and delightful flight search and booking experience via a mobile app. |
| Goals: | Uncover issues within flight search and booking. |
| | Understand user expectations when using a date picker with flexible dates, viewing flight search results, selecting a flight card and entering payment information. |
| | Observe initial impressions of flight search results design, including size. |
| | Identify areas for improvement in the user experience. |
| Research questions: | How do users respond to a minimalist, but large and easy-to-read flight search results? |
| | Do users encounter any roadblocks throughout the flow? |
| | Do you users understand how flex dates work with designed date picker? |

## Round 1A Test Results

After only 2 tests, it became clear that my initial design of the checkout process was confusing. I originally planned for users to "add" a traveler to their account as they checked out that could be saved for later.

I decided to make the changes to the traveler and checkout process after only 2 tests. I feel confident that this was the right call because it allowed me to test the new process with more users.
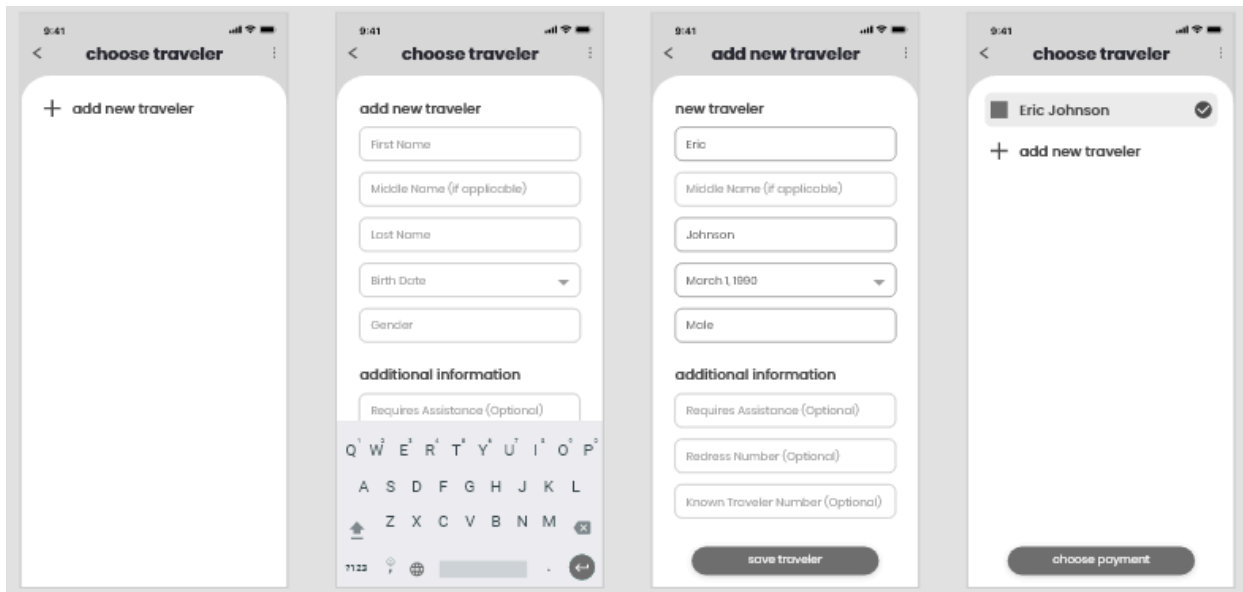
## Round 1A Usability Issues

| Priority | Location | Issue | Recommendation |
|---|---|---|---|
| Critical | Checkout | Users were confused about the "Add Traveler" button. | Remove "Add Traveler" button and simply display the traveler information form. |

Round 1B Test Results

I continued testing after changing the traveler information & checkout process. I worked on facilitating valuable usability tests with all types of users and gained a lot of great insights as to what was working and what wasn't.

## san ✈ dtw

roundtrip, 1 traveler, economy
sep 18-26, 2020

○ traveler info ─── ○ payment info ─── ○ confirm

### traveler information

Eric

Middle Name (if applicable)

Johnson

March 1, 1990

Male

### additional information

Requires Assistance (Optional)

Redress Number (Optional)

**save**

Known Traveler Number (Optional)

## san ✈ dtw

roundtrip, 1 traveler, economy
sep 18-26, 2020

○ traveler info ─── ○ payment info ─── ○ confirm

### secure payment method

Eric

Johnson

1234 5678 9123 4567

01/2022 | 123

USA ▼ | 54321

**save**

---

# Round 1B Usability Issues by Priority

| Priority | Location | Issue | Recommendation |
|----------|----------|-------|----------------|
| High | Flight search results | Can only see 3 search results on the screen. Some users noted they like the clean design, but may want to see more search results. | Display more search results on the screen by redesigning or decreasing the size of the flight cards |
| High | Date picker | Some users were not aware of what the +/- x days menu options meant. | Add additional information about how this relates to flexible dates or consider another design. |
| High | Checkout process | No ability to save payment for the future. | Add "Save payment" option. |

# High Fidelity Design

Mood Board

Once the first round of usability tests were complete, I focused on transforming the wireframes into a high fidelity prototype. I first created a mood board with two directions; one featured inspiring photography and the other interesting illustrations.
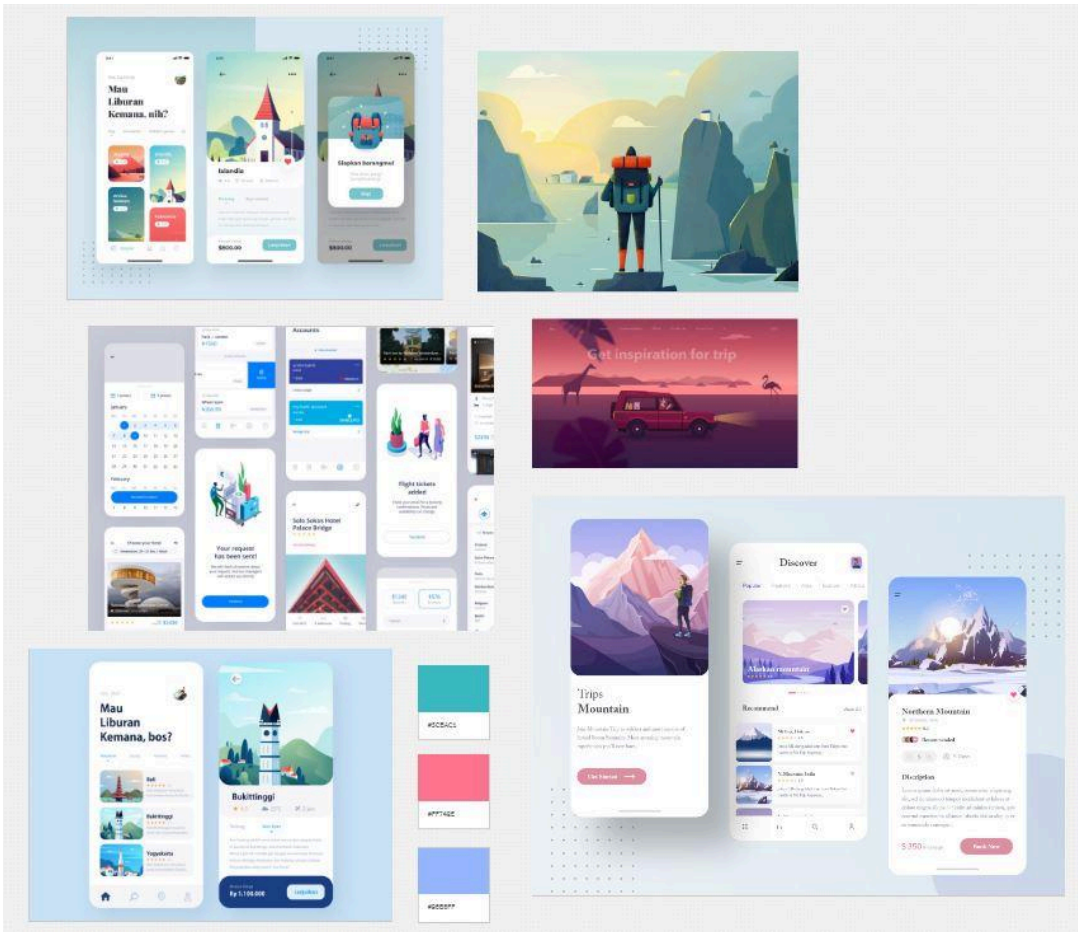
Direction 1 | Photography

*Rich colors, energy-filled shots, earth colors, aspirational.*
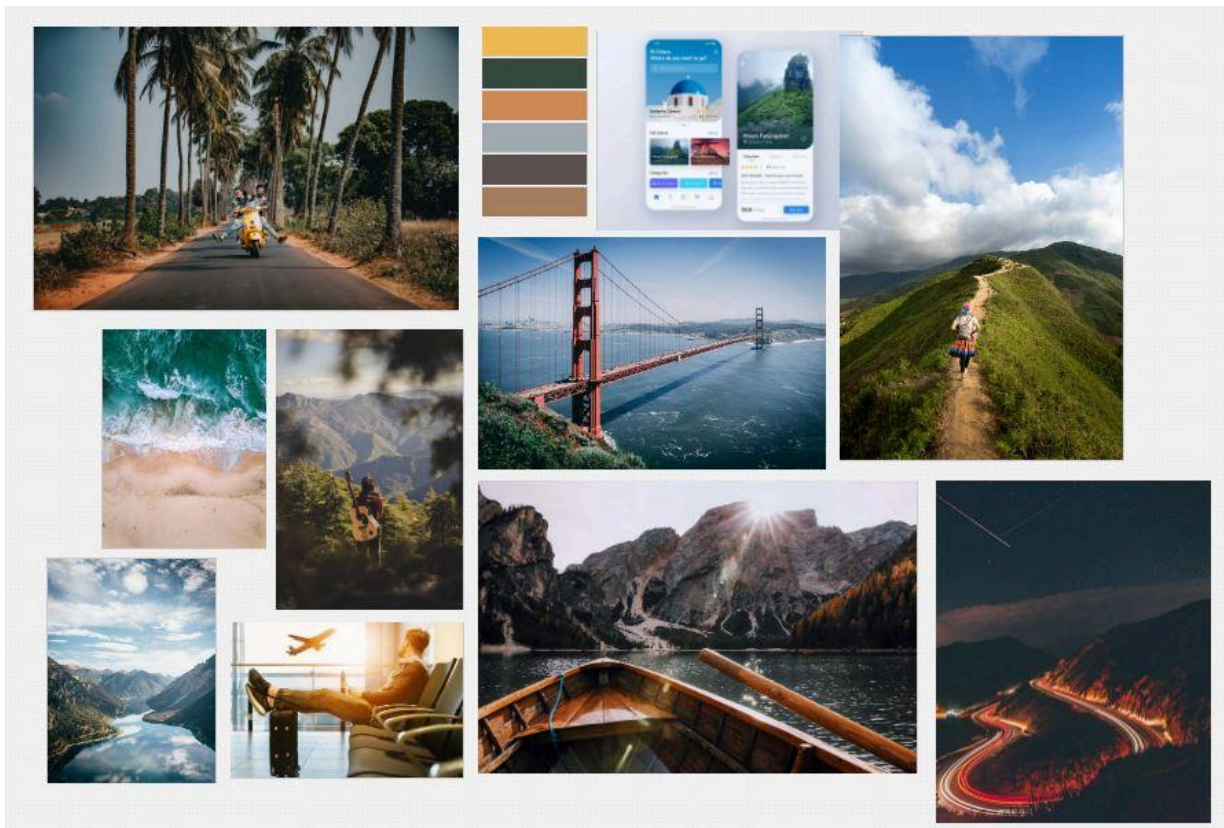


Direction 2 | Illustrations

*Bright colors, energizing, playful.*

## Exploring Design Directions
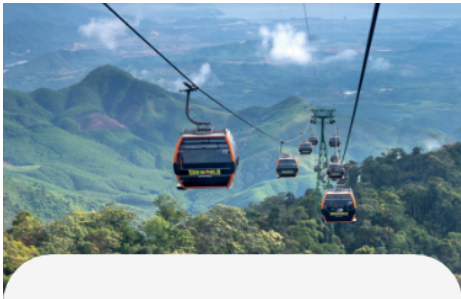
I added color, images and refined the design of several elements and screens. I tested both directions (photography and illustration) on the flight search form screen.

*Photography Direction*

*Illustrations Direction*

*Other Screens*

## Design Refinement/Decision

I opted to go with the illustrations, a rounded button and card style and Poppins font. After applying some of the visual design decisions, I was ready for my first round of testing with a high fidelity prototype.

Click here for the High Fidelity A prototype.

**Roundtrip**   One Way   Multi City

From
To
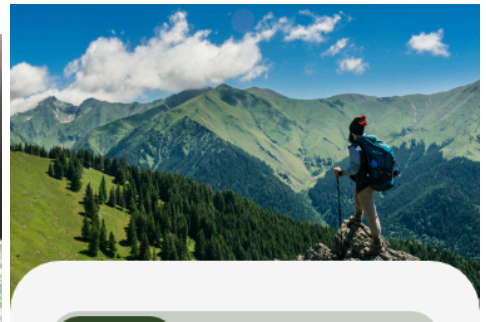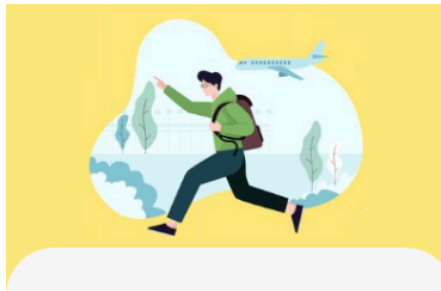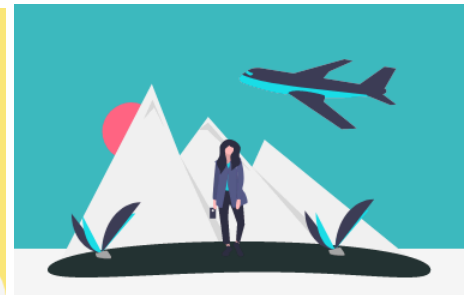
Depart

Return

1 Adult

Economy

**Search Flights**

---

From
To

Include nearby airports ☐

Current location

Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
?123

---

Depart: Sep 18 +/- 1 day 📅

Return: 📅

| SUN | MON | TUE | WED | THU | FRI | SAT |
|---|---|---|---|---|---|---|

**September 2020**

| 30 $601 | 31 $588 | 1 $499 | 2 $497 | 3 $588 | 4 $547 | 5 $564 |
| 6 $667 | 7 $601 | 8 $598 | 9 $503 | 10 $503 | 11 $540 | 12 $540 |
| 13 $611 | 14 $565 | 15 $540 | 16 $540 | 17 $540 | 18 $577 | 19 $579 |
| 20 $601 | 21 $540 | 22 $540 | 23 $540 | 24 $540 | 25 $540 | 26 $588 |
| 27 $601 | 28 $598 | 29 $542 | 30 $542 | | | |

Exact day
-1 day
+1 day
+/- 1 day
+/- 2 days
+/- 3 days

**October 2020**

| 27 $601 | 28 $598 | 29 $542 | 30 $542 | | | |
| 4 $667 | 5 $601 | 6 $598 | 7 $503 | | | |
| 11 $611 | 12 $565 | 13 $540 | 14 $540 | | | |
| 18 $601 | 19 $540 | 20 $540 | 21 $540 | $540 | $540 | $588 |
| 25 $601 | 26 $598 | 27 $542 | 28 $542 | 29 $499 | 30 $555 | 31 $579 |

**November 2020**

| 1 $601 | 2 $588 | 3 $499 | 4 $497 | 5 $588 | 6 $547 | 7 $564 |
| 8 $667 | 9 $601 | 10 $598 | 11 $503 | 12 $503 | 13 $540 | 14 $540 |
| 15 $611 | 16 $565 | 17 $540 | 18 $540 | 19 $540 | 20 $577 | 21 $579 |
| 22 $601 | 23 $540 | 24 $540 | 25 $540 | 26 $540 | 27 $540 | 28 $588 |
| 29 | 30 | 1 | 2 | 3 | 4 | 5 |

## SAN ✈ DTW
Roundtrip, 1 Traveler, Economy
Sep 18-26, 2020

### Flight 1 of 2 on Sep 18:
### SAN to ATL

|     | A | B |   | C | D | E |   | F | G |
|-----|---|---|---|---|---|---|---|---|---|

Flight DL2628
SAN --> ATL

Seat selected:

**7E**

- First Class
- Available
- Unavailable

**Next Flight**

---

## SAN ✈ DTW
Roundtrip, 1 Traveler, Economy
Sep 18-26, 2020

**Add Traveler**     Add Payment     Confirm Trip

### Traveler Information

Eric

Middle Name (if applicable)

Johnson

March 1, 1990

Male

### Additional Information

Requires Assistance (Optional)

**Save**

Known Traveler Number (Optional)

---

## SAN ✈ DTW
Roundtrip, 1 Traveler, Economy
Sep 18-26, 2020

Add Traveler     **Add Payment**     Confirm Trip

### Payment Information

Eric

Johnson

Credit Card Number

Expiration (MM/YYYY)     Security Code

USA ▼     Postal Code

**Save**

# Usability Testing (High Fidelity A)

I recruited participants and tested with them in person. I learned a lot with just 3 testers in my first round of high fidelity testing. I felt this was enough to iterate on my design and make changes to address the most critical issues, which are listed below.

It was interesting that many people noted that round trip pricing was confusing, even though this is somewhat conventional in many flight search apps. However, this was a great opportunity to improve upon what exists in the market today.

| Priority | Location | Issue | Recommendation |
|---|---|---|---|
| Critical | Many | Round trip pricing is confusing. | Change prices to one-way pricing, even for round trip journeys. |
| High | Many | Flexible travel dates may be unnecessary as pricing is displayed on the calendar. | Remove the +/- days menu. Retain the tabs to view nearby days on the search results screen and just automatically display them for all searches. |
| High | Payment Confirmation | Payment confirmation screen does not include traveler and payment information for review before purchase. | Add traveler and payment information to the final confirmation screen. |

# Iteration & Amelioration (High Fidelity B)

I iterated on my design, updating the pricing from round trip to one way pricing, which was the number one complaint about my first design.

I also removed the flexible dates menu from the date selection screens. I made this decision because

- Including the pricing on the date selection calendar makes a flexible date selection somewhat superfluous
- The flexible date menu was confusing to users
- I would still offer the option to easily view search results of nearby dates via the date tabs at the top of the search results list

## Screen 1: Calendar

Friday, September 18, 2020 📅

Saturday, September 26, 2020 📅

| SUN | MON | TUE | WED | THU | FRI | SAT |
|-----|-----|-----|-----|-----|-----|-----|

**September 2020**     *Prices are for one way only*

| 30 $301 | 31 $293 | 1 $250 | 2 $247 | 3 $249 | 4 $299 | 5 $301 |
|---|---|---|---|---|---|---|
| 6 $302 | 7 $295 | 8 $248 | 9 $243 | 10 $284 | 11 $290 | 12 $302 |
| 13 $305 | 14 $281 | 15 $250 | 16 $233 | 17 $233 | **18 $248** | **19 $299** |
| 20 $299 | 21 $282 | 22 $270 | 23 $235 | 24 $235 | 25 $265 | **26 $295** |
| 27 $300 | 28 $285 | 29 $265 | 30 $235 | 1 $230 | 2 $290 | 3 $305 |

**October 2020**     *Prices are for one way only*

| 27 $300 | 28 $285 | 29 $265 | 30 $235 | 1 $230 | 2 $290 | 3 $305 |
|---|---|---|---|---|---|---|
| 4 $305 | 5 $282 | 6 $262 | 7 $245 | 8 $231 | 9 $285 | 10 $299 |
| 11 $305 | 12 $281 | 13 $240 | 14 $230 | 15 $240 | 16 $277 | 17 $301 |
| 18 $303 | 19 $285 | 20 $251 | 21 $225 | 22 $254 | 23 $280 | 24 $305 |
| 25 $299 | 26 | 27 | 28 | 29 | 30 | 31 $299 |

**Done**

*November 2020*     *Prices are for one way only*

## Screen 2: Flight List

# SAN ✈ DTW
Roundtrip, 1 Traveler, Economy
Sep 18-26, 2020 ✏

Sep 17    **Sep 18**    Sep 19

**6:15 am – 8:00 pm**    **$248**
7 h, 45 m (1 stop in ATL)
Delta Air Lines
Economy

**9:15 am –8:00 pm**    **$248**
6 h, 45 m (1 stop in ATL)
Delta Air Lines
Economy

**10:35 am – 11:20 pm**    **$275**
6 h, 45 m (1 stop in ATL)
Delta Air Lines
Economy

**Sort & Filter**

6 h, 15 m (1 stop in ATL)
Delta Air Lines

## Screen 3: Departing Flight

# Departing Flight
Friday, September 18, 2020

**9:15 am – 4:15 pm**
SAN > ATL (4 h)
Delta Air Lines
DL1532, Airbus A321

*2 hr layover in Atlanta (ATL)*

**6:16 pm – 8:00 pm**
ATL > DTW (1 h, 45 m)
Delta Air Lines
DL1816, Airbus A321

Main (Economy)
1 checked bag included
Learn more about Delta's luggage

**$248 one way**
includes taxes & fees

**Select This Departing Flight**

**Back**

6 h, 15 m (1 stop in ATL)
Delta Air Lines

26

## Usability Testing (High Fidelity B)

Again, usability testing was very effective at confirming what was working and what needed work in my design. I recruited and tested with 5 people. Two tests were remote, one of which was with an international participant (from the Netherlands).

The use of boxes to separate information (on the expanded flight information card, the trip summary and confirmation screen) really helped users feel confident they had successfully reviewed all the information they needed to; this directly addressed a pain point from the research.

Other positive comments included

- "I love how many dates I can see at once and that all the prices are included. It helps me pick a date so much quicker. Especially as I'm usually looking at prices for several days because my dates are flexible."
- "I like the little boxes and how that makes it easy to scan the information."

27

- ○ "I like the edit button at the top in case I want to change my search."
- ○ "It's clean and easy to see what you need to fill in."
- ○ "This trip summary is great. I could even screenshot it really easily."
- ○ "I like that I can scan through the important stuff. I like that the layover time is included so I don't have to calculate how long the layover is."

Issues were also included in a usability report. A sample is pictured below.

| Priority | Location | Issue | Recommendation |
|----------|----------|-------|----------------|
| Critical | Many | Users won't receive an email confirmation. | Add email input field into checkout process. |
| Critical | Checkout | No way to upgrade or add luggage, including special luggage. | Add place to upgrade luggage or include special luggage. |
| High | Search results | Many users noted that it would be nice to see if they were viewing departing flight search results or returning. | Add departing flight and returning flight verbiage to search results screens. |

# Final Solution

After the second round of high fidelity usability tests, I made a few changes to the final design. There are also some action items for the future if I were to continue working on this app.

## Action Items for Future

[insert screenshots]*

## Lessons Learned

- Probe deeper in initial user interviews (ex: words like "easier"...what does that mean to you?)
- Check accessibility color contrast sooner

28

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## Miscellaneous

## Summary of Steps

- User research
  - Secondary research
  - Primary research (survey and user interviews)
- Define
  - Affinity map
  - Empathy map
  - User personas
  - Problem statements
  - How Might We questions
- Ideate
  - Solution Concept
  - Competitive Analysis
  - User Stories
  - User Flows
  - Site Map
- Design & Iterate
  - Sketches
  - Wireframes
  - Mid fidelity wireframe testing
  - High fidelity prototype design
  - High fidelity prototype testing
  - Iterate and retest