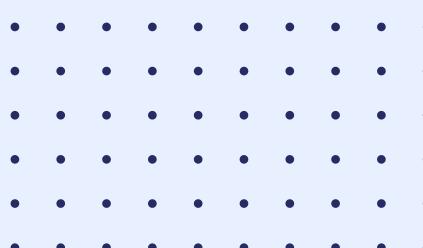


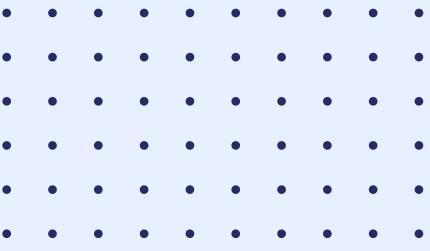
GROUP MIDNIGHT MASTERMINDS



CS465 REVISED PROPOSAL



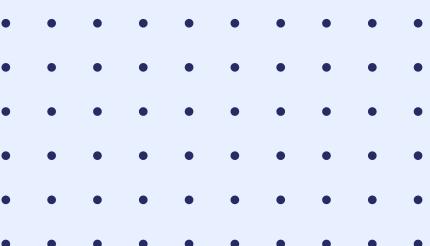
**Yi-Ju Tsai, Ziyao Zhang, Yang Zhou,
Naveen Muthukumar, Sanjit Arunkumar**



FLIGHT FILTER HELPER

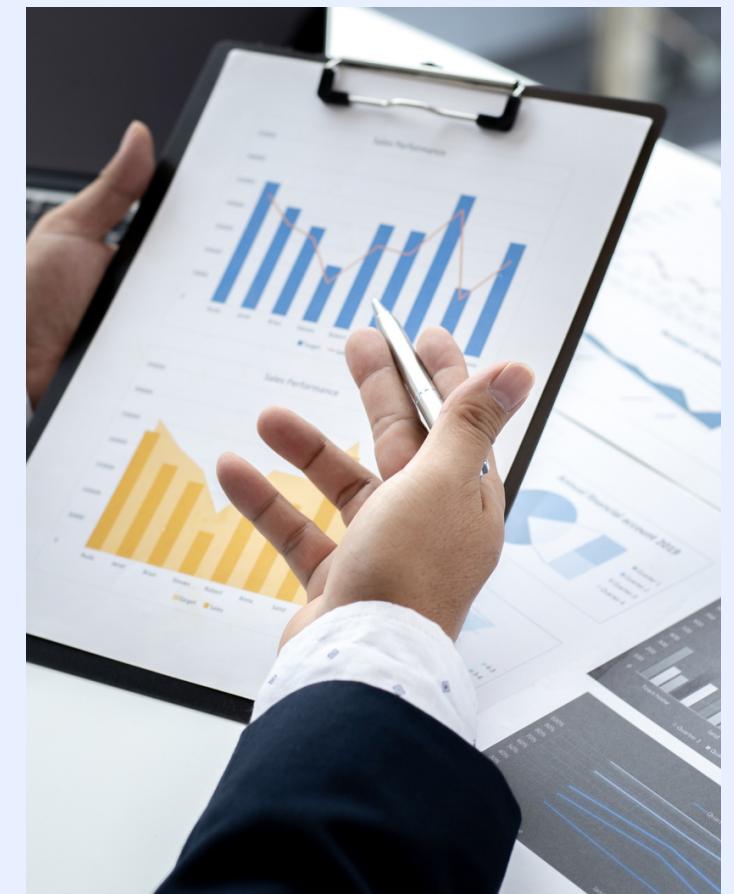
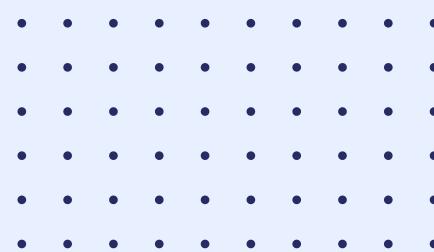
SEP. 28 2023

<https://docs.google.com/document/d/1OZZenLoOqqP3pUExsgh53rLjFSiQsxQuOPnzV-UXYbE/edit>



PROBLEMS

- Users have to re-enter search criteria each time
- Users can't temporarily save the flights they're interested in collections
- Email notifications sent to users may be ignored (plan to change to the voice notification like alarm clock, but user are allowed to turn on/off)
- User cannot apply the filter to a collection of tickets



EXISTING SOLUTIONS

1. Expedia

- a. Allows specific criteria, but requires page refresh for price updates.
- b. Users have to enter criteria again if page is closed.

2. Google Flights

- a. Similarly allows for users to search for specific criteria.
- b. Users receive email alerts for price changes.
- c. Users can not collect and plan multiple flights

3. Hopper

- a. Lets you search for flights and "watch" them.
- b. Users receive notifications for price changes.
- c. Doesn't let users select many filters.



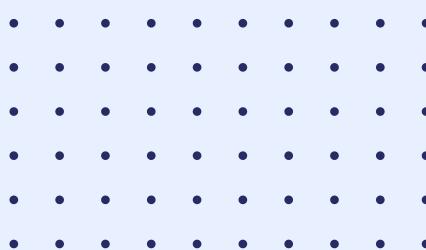
INCORPORATION OF FEEDBACK

- We did not differentiate our application from the existing flight tracking applications. Google Flight and Hopper already have some of the features we described (such as email notification, track flight change). Need some more unique functionalities.
- Better to be more detailed on how a user could possibly interact with the app. Include more detailed sketches.
- How much data will be needed to find the optimal price? How much the price changes would the user be notified?

OUR APP'S MAIN IDEA

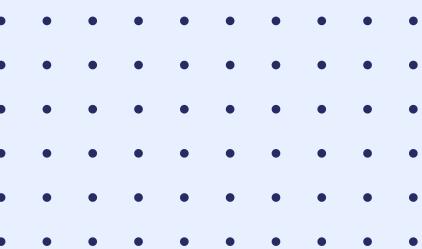


- Lets users save specific searches with given filters.
- Users can view current flight prices for flights with saved filters at any time - no need to enter details again.



PROJECT IDEA AND NEW FEATURES

- Allows users to configure filters and autofill search information using filters
- Allows users to create collections / folders to manage tickets
- Set alarm when the price falls into certain range



PROJECT IDEA SKETCH

Search for Flights

From

To

Date Oct 14 Oct 18

Roundtrip One-Way Multi-city

Autofill from filter

My Trip to New York

Christmas Trip

Hawaii Vacation

⋮

Choose Your Combinations

7:34am → 1:02 pm X
CMI JFK \$470

9:00 am → 10:30 am X
JFK BOS \$120

+ Add More

Notify when total price
is between ~

Notes:

for single flight

Expected Price ~ ON/OFF

My Collections

Trip to New York

3:01 pm → 8:00pm X
CMI JFK \$450 configuration

7:34am → 1:02 pm X
CMI EWR \$470 configuration

9:00 am → 10:30 am X
JFK BOS \$120 configuration

Create Combination Configuration: ⌂

« Trip to New York Christmas Trip Hawaii Vacation »

From
To
price range ~
Save

EXAMPLE

Lily wants to meet her friends at Los Angeles and travel to New York together!

From Champaign to Los Angeles

	7:34 AM – 12:10 PM American · Operated by Envoy Air as American Ea...	6 hr 36 min CMI-LAX	1 stop 49 min ORD	243 kg CO ₂ +29% emissions ⓘ	\$636 round trip
	3:01 PM – 7:16 PM American · Operated by Envoy Air as American Ea...	6 hr 15 min CMI-LAX	1 stop 55 min ORD	263 kg CO ₂ +40% emissions ⓘ	\$636 round trip

GREAT TIME!

From Los Angeles to New York

	5:15 AM – 3:30 PM American	7 hr 15 min LAX-LGA	1 stop 1 hr 7 min ORD	304 kg CO ₂ Avg emissions ⓘ	\$258 round trip
	5:40 AM – 5:16 PM United	8 hr 36 min LAX-LGA	1 stop 2 hr 8 min ORD	264 kg CO ₂ -8% emissions ⓘ	\$258 round trip
	8:25 AM – 4:45 PM Spirit	5 hr 20 min LAX-EWR	Nonstop	198 kg CO ₂ -31% emissions ⓘ	\$259 round trip

GREAT TIME!

Add the 5 flights to Lily's Collection — Summer Trip!

EXAMPLE

Lily has a limited budget and she wants to know what is the best time to buy tickets



- ticket price (Champaign - Los Angeles)
- ticket price (Los Angeles - New York)

Use our collection notification function!

You can freely combine any flights in a collection and set the alarm reminder standard for any combination!!!

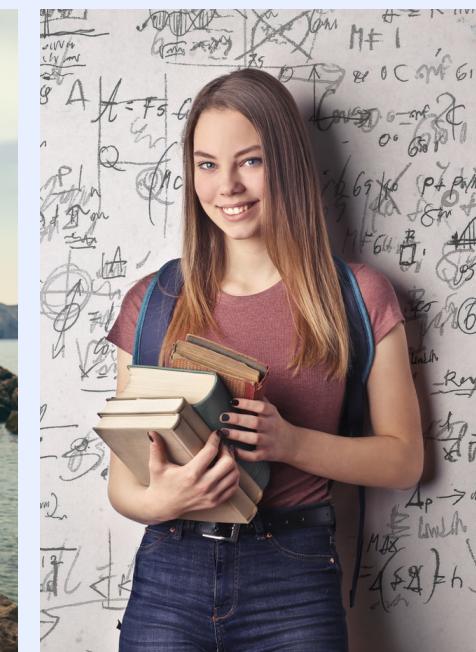
AUDIENCE

- Our main audience are adults who can afford the price of tickets
 - since children are less likely to buy flight tickets alone)
- Any passenger who has a demand for flight tickets
 - Out-of-state students
 - Businessmen
 - Backpackers

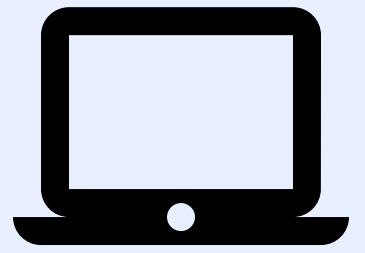
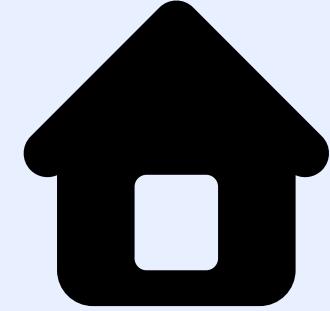
Some statistics

Expedia: 30% of its audience are

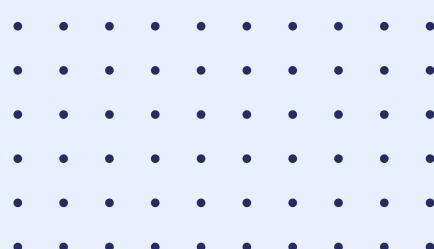
- between the ages of 25 and 54
- earning more than \$100,000.



CONTEXT

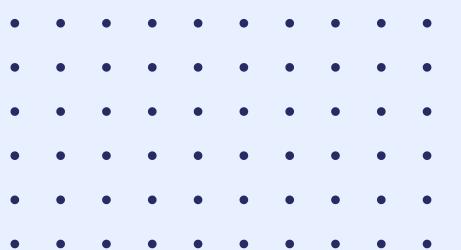


Locations of use could naturally be anywhere as not much attention is required when setting the filters. You could do it at home, when on a walk, while in the car, in the office discussing with colleagues while planning a trip together, etc..



CONTEXT (CONTD.)

- Attention required would be minimal, as it is based on notifications. Short bursts of attention required when looking at the prices after receiving an notification
- Frequency of use would be based on when you get a notification, and will involve a short burst of attention until the point when the user decides to actually purchase the ticket.



FEASIBILITY

Duffel's Flights API can do it !

- Duffel's Flights API enables everyone to access the flights' information by offering search, book, seat reservation, and paid extra additions from 150+ airlines seamlessly through a developer-friendly platform!



**Start selling flights
online today**

Leave the complexity of building a travel business behind.

FEASIBILITY

Plan B: Aviationstack API

- Aviationstack API provides an extensive set of aviation data, including real-time flight status, historical flights, schedules, airline routes, airports, aircrafts, and more.

Free, Real-time Flight Status Global Aviation Data API

Flight tracker & airport timetable data web service
trusted by 5.000+ of the smartest companies



250+ countries and 13.000+ airlines



Scalable REST API infrastructure

THANK YOU