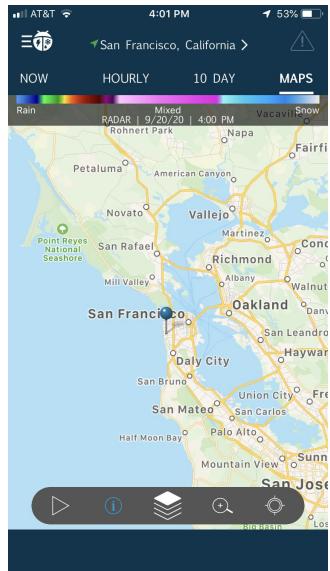
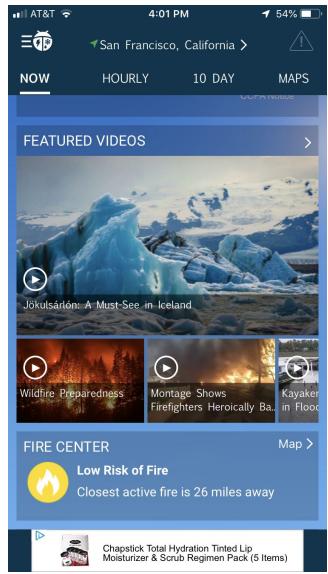


# Erica Gao

WeatherBug Redesign Project  
Fall 2020

Image source: <https://www.pexels.com/photo/concentrated-young-asian-woman-using-smartphone-in-park-4426521/>



## WeatherBug

WeatherBug is a brand based in New York City, that provides live and forecast local and national weather forecasts, temperature, live radar, lightning, hurricane alerts and more. It also contains local news and advertising for whom may be interested in.

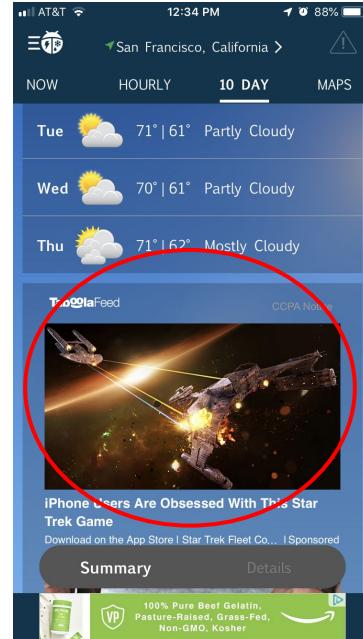
# WeatherBug Heuristic Evaluation



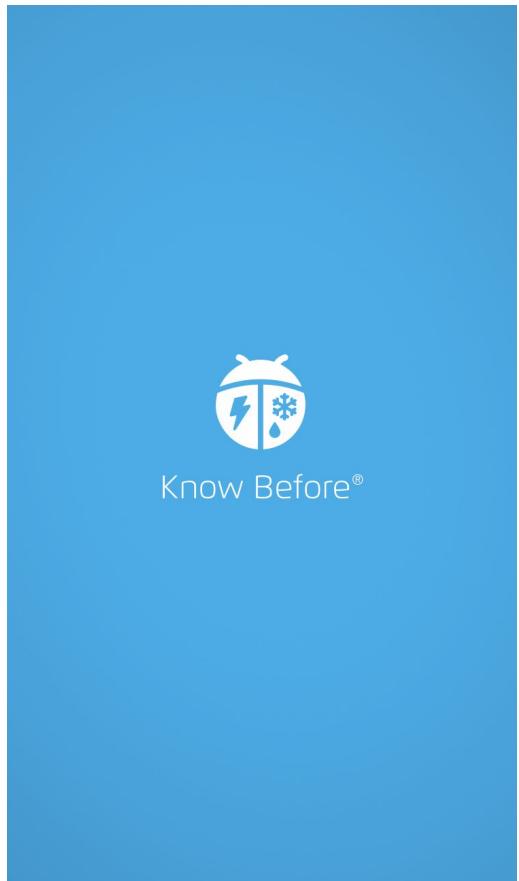
1. Had to scroll down a lot to find some important information; too much going on on one page



2. Random feed of advertising in the middle of the page makes users frustrated



3. News feed seems intruding; page layout needs to be updated



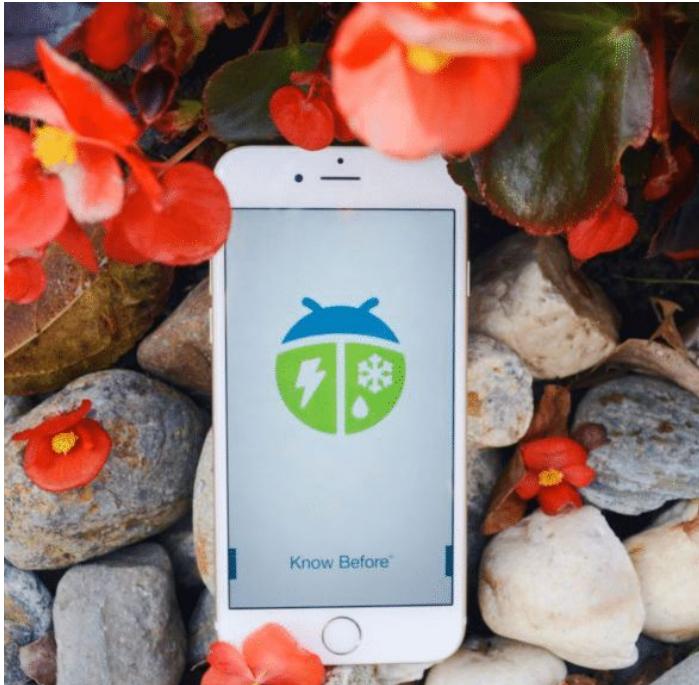
ERICA GAO WEATHERBUG REDESIGN PROJECT

The image displays two side-by-side screenshots of the Weatherbug mobile application. Both screens show a map of Northern California and the surrounding areas, with a blue dot indicating the location of San Francisco. The top screen is titled "1:06 PM" and shows tabs for "NOW", "HOURLY", "10 DAY", and "MAPS", with "MAPS" being the active tab. It includes a radar overlay for 9/29/20 at 1:00 PM, showing "Rain" and "Snow" conditions across the region. The bottom screen is titled "12:30 PM" and also shows tabs for "NOW", "HOURLY", "10 DAY", and "MAPS", with "10 DAY" being the active tab. This screen contains a news article about drivers claiming rewards, a photo of an elderly man having his eyes checked, and a product advertisement for Oribe Dry Texturizing Spray.

## Overall Page Layout

It doesn't portray a feeling or connection with users. Seems like weather reports with random news and advertising.

# WeatherBug Redesign Goals



## 1. Make visual design more aesthetic and engaging

Use color palette to measure temperature and icons for weather status: cloudy, rainy, sunny etc.

## 2. Gather all local news only on one page

Replace 10 Day weather report with all local news. Keep the interface simple and modern.

## 3. Allow sharing local weather via friends and communities

Add a camera button to allow users of different locations to take picture of local weather and share with the community.

## WeatherBug Competitors



**The Weather Channel** provides a national and local weather forecast with daily alerts. It also checks allergy, health and outdoor conditions.

<https://weather.com/>

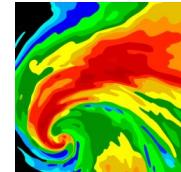
App Store Review: 4.7/5



**AccuWeather** provides in-depth forecasts, hurricane alerts with supreme accuracy. MinuteCast with 2-hour details.

<https://www.accuweather.com/>

App Store Review: 4.6/5



**NOAA Weather Radar Live** gives real-time radar images, weather alerts and forecasts.

<https://apps.apple.com/us/app/noaa-weather-radar-live/id749133753>

App Store Review: 4.4/5

# WeatherBug Audience Research



## Key Takeaways

Users from direct traffic, the main website source, are also most interested in news and media, arts and entertainment TV streaming. This shows that user age demographic is 25-54.

weatherbug.com + COMPARE Aug 2020 DOWNLOAD

Finance > Banking Credit And Lending

Also visited websites Topics

accuweather.com

underground.com

news weather food video local news sports news general travel shopping porn local news

## Audience Interests

Categories

- News And Media
- Arts And Entertainment > TV Movies And Streaming
- Adult
- Computers Electronics And Technology > Computers Electronics And Technology

Finance > Banking Credit And Lending

Also visited websites Topics

accuweather.com

reference blog breaking news newspaper

# WeatherBug Audience Research

## Gender Demographic

Both genders, but with slightly more men.

## Income Demographic

Accuweather, WeatherBug biggest competitor, has 30% users with \$25k-\$59,999k income. Presumably, WeatherBug user income demographic is middle class.

\* In America, that is \$40,500 to \$122,000

## Geographic Demographic

Most WeatherBug users are located in the US.

## Mobile & Tablet Demographics

| REACH                     |                          | GENDER           |                        |
|---------------------------|--------------------------|------------------|------------------------|
| Monthly Unique<br>43.2 MM | Daily Unique<br>17.19 MM | Males<br>48%     | Females<br>52%         |
| AGE                       |                          | HOUSEHOLD INCOME |                        |
| Under 25<br>10%           | 25-54<br>59%             | 55+<br>32%       | <\$25k<br>13%          |
|                           |                          |                  | \$25k-\$59,999k<br>27% |
|                           |                          |                  | \$60k-\$99,999k<br>25% |
|                           |                          |                  | >\$100k<br>35%         |

Source: comScore July 2019



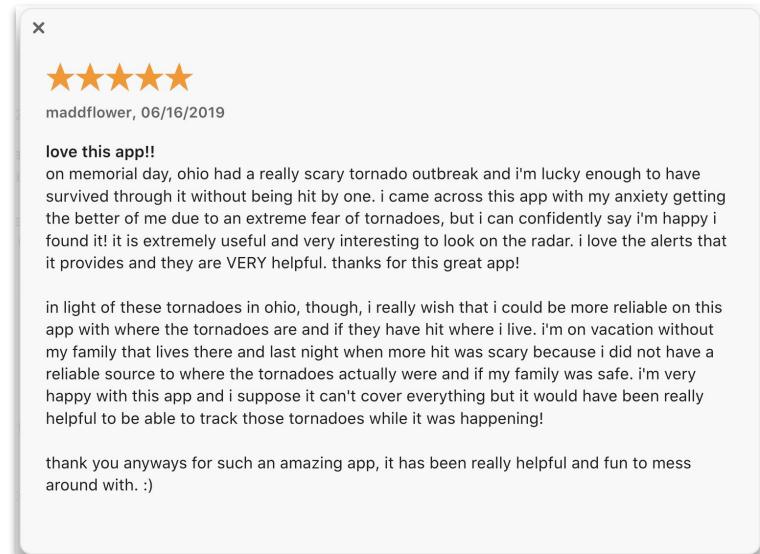
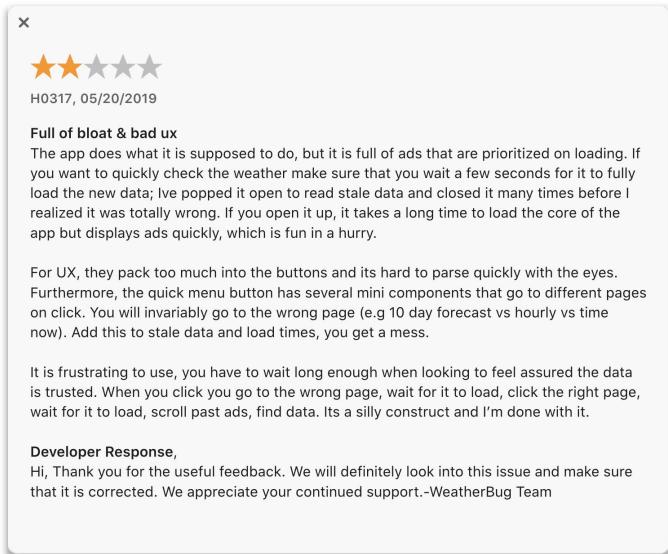
Traffic Sources for weatherbug.com

weatherbug.com's marketing strategy is focused on Direct with 76.69% of traffic coming from this channel, followed by Search with 21.68%

On desktop

# WeatherBug App Store Reviews

*Call outs of positive & negative reviews. See more examples in journal.*



# WeatherBug Research Summary

## Negative Reviews

- Delayed and inaccurate weather updates
- They got rid of push notifications which was useful
- Privacy issues
- Too much information into a single button; easy to go into the wrong page
- Too much advertising

## Positive Reviews

- Can track AQ in any part of the world
- Enjoy watching radar videos
- Stays on top of quick changes
- Fun to use; useful alerts; wish they can get tornados location
- Wish the widget is compatible with iOS 14



Image Source: <https://www.apptrace.com/app/281940292>

## WeatherBug Target Audience



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## Target Audience Statement

*WeatherBug target audience are between age 25-54, more men than women, residing in the US, who earn \$60,000/year, interested in news and media, arts and entertainment TV streaming.*

Image Source:

<https://www.pexels.com/photo/cheerful-senior-mother-and-adult-daughter-using-smartphone-together-3791664/>

## **David** - travel enthusiast

**Age:** 45

**Occupation:** Project Manager

**From:** Hayward, CA

**Income:** \$70,000/year

**Goal:** go on road trips with family and always stay informed for the weather!

### Needs

"I am a father of 3 and every month I take my family on a road trip all across Norcal and Socal. Sometimes we travel through two different cities every day and it's very important for me to receive up-to-date weather reports and alerts wherever I go!"

### Pain points

Weather updates are sometimes outdated and inaccurate  
I don't receive push notification anymore after update which was super helpful  
I'm not comfortable with others tracking my locations and I don't know if I can trust this app

*"As a travel enthusiast, I need most updated and accurate weather alerts so that I know what to expect before arriving at a new place."*



## **Sally** - working professional

**Age:** 35

**Occupation:** consultant

**From:** San Francisco, CA

**Income:** \$85,000/year

**Goal:** stay up-to-date with most recent technology including weather reports!

### Needs

"I am a working professional with a very busy schedule. Living in San Francisco and close to wildfire, there has been a strong fluctuation of weather even throughout the day. It's very important for me to stay alert of possible rainfall/lightning etc."

### Pain points

There is too much information into a single button, and sometimes i just want a quick weather update but it takes me to the wrong place

There is currently too much advertising on a single page

*"As a working professional, I need a quick and easy way to stay up-to-date with latest weather report so that I can plan for the next day in advance."*



## WeatherBug Real Target Audience

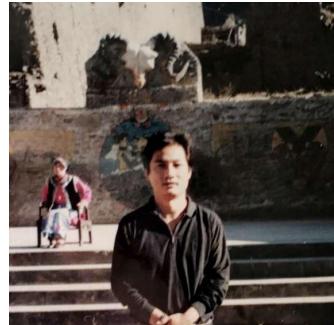


Name: Tina Chen  
Age: 25  
Occupation: Student  
Location: San Jose, CA  
Interview Date: October 5th



Name: Jeff Howard  
Age: 26  
Occupation: Marketing Specialist  
Location: San Francisco, CA  
Interview Date: October 6th

## WeatherBug Expert/Consultant



Name: John Zhang  
Age: 33  
Occupation: Creative Director  
Location: Chongqing, China  
Interview Date: October 6th

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## Audience Questions

- Tell me about the last time you needed to check up the weather.
- Are there any apps or websites you like to use to check weather? What do you like about them and what do you wish it's better?
- In what situation or scenario would you use a weather app?
- When you use the app or website you just described, what devices do you typically use?
- What are the top three aspects you are looking for when using a weather app?
- I'm redesigning an app called WeatherBug. Let's take a look. Can you try to use it on your daily life?
- What worked? What didn't? What would you fix?

---

## Expert Questions

- Please tell me a bit about your background as a designer.
- How does being a designer affect the way you view and interact with brands and interfaces in your daily life?
- In what ways do you think design affects the way people, especially millennials, choose which apps and websites they use? How important is it to the general public?
- Have you ever downloaded a weather app or something similar? Do you have a unique recommendation or do you have any experiences to share with me ?
- How do you evaluate these app from an expert perspective?
- Now, I am redesigning the WeatherBug App. Can I take a few minutes to show it to you? From your professional point of view, what do you think the WeatherBug app needs to improve, or do you have any good advice to make a better app?

## Tina - full-time student

**Age:** 25

**Occupation:** Student

**Location:** San Jose, CA

**Goal:** stay up-to-date with most recent technology including weather reports!

### Technology



### Personality



*"This seems like a cool idea and everyone nowadays use weather app to check future conditions that will closely affect our life."*



## Interview Summaries

1. Usually check the weather in the morning. Things considered: temperature, whether it's going to rain today, what clothes to wear and air quality for the day.
2. Likes the time period of iOS weather app. The icons vividly shows whether it's a windy or a sunny day. It also predicts the chance of rainfall; doesn't like the fact that to check the weather for the next 10 days, the app takes her to a different website.
4. For WeatherBug, she likes the fact that she can know all the information that she needs from this app; however, the icon seems too big and the overall design seems too confusing.
5. She wants a simpler app design without a lot of scrolling happening.



**Tina** - full-time student

Interview Date: October 5th, 4pm

[Link to video recording](#)

## Jeff - working professional

**Age:** 26

**Occupation:** Marketing Specialist

**Location:** San Francisco, CA

**Goal:** stay up-to-date with most recent technology including weather reports!

### Technology



### Personality



*"It'd be cool if people can share their stories with the local weather. People like to talk about weather and it's always interesting!"*



## Interview Summaries

1. Usually use the weather app (iOS) to check daily weather because it's convenient and relatively accurate. It's very easy to understand and users are able to switch between cities.
2. He wishes that there's a weather app that provides more in-depth and higher-accuracy weather forecasting. It's also very important for the app to be able to adapt to the change especially in the bay area where the weather is always fluctuating.
3. He uses weather app most when going somewhere new, going to be outside for a long time and/or when he's in a different situation for example nearby smoke and fire.
4. The three aspects that he values most in a weather app is accuracy, ease of use/accessibility and additional features.
5. He likes the sharing feature that I'm trying to redesign because people like to talk about weather and it'd be cool to show friends the local weather they are in.



**Jeff** - working professional

Interview Date: October 5th, 5pm

[Link to video recording](#)

## John - design expert

**Age:** 33

**Occupation:** Creative Director

**Location:** Chongqing, China

**Goal:** stay up-to-date with most recent technology including weather reports!

### Technology



### Personality



*“Weather apps can be made even more accessible by adding additional features for example voice identifier and AI assistant.”*



## Interview Summaries

1. When it comes to designing an app, the most important thing is to meet users' needs and pain points, so it's very important to start from there.
2. Sometimes users don't even know what they need, and it's the designers' job to think ahead.
3. Users choose products that are first, aesthetically pleasing from the outside, and second, functionally to use and solve their problem.
4. For weather apps, it's hard to find a niche point where nobody has even come up with before, but there could be a lot of variations, for example, to have an AI voice identifying assistant so it's accessible for more users.
5. Geo-location is very important nowadays, because it can both provide closeness between friends and family, and also cause safety and privacy concerns.



**John** - design expert

Interview Date: October 6th, 9pm

[Link to video recording](#)

# Meetup for extra credit

<https://www.meetup.com/UXinAZ/events/273413308/>

The screenshot captures a live video conference from a Meetup event. At the top, the title "A UX Guide to Typography" is displayed above the video feeds. The video feeds show three participants: a man with a beard on the left, a woman with glasses in the middle, and another man with a beard on the right. Below the video feeds, there are controls for pausing, clipping moments, and getting audio/video help. The central area displays a presentation slide with the title "What is Typography?" and a large, bold "Aa" followed by lowercase letters Bb, Cc, Dd, Ee, and Ff. The slide text defines typography as "crafting language in a desirable visual format" and distinguishes it from typeface and font. The right side of the screen features a sidebar for messaging, showing several messages from attendees like Mariellen Couperie, Christine H, and Nicole Norgren, along with their profile icons.

## WeatherBug User Story 1

It is Friday afternoon in October, David has just got home from work, and his wife is packing for family weekend road trip with their kids. They are driving from Hayward to Half Moon Bay. Knowing how unpredictable weather can be on the coast line in late October, David needs to know detailed and accurate weather reports for the places they are going to for the next three days.

He opens up WeatherBug, taps location icon on top of the Home page, clicks “+” sign to put in “Half Moon Bay, CA” to the location list and saves it. He then taps on “Half Moon Bay, CA” on the list to go to the Home page, where he could see the current weather at the destination, detailed hourly weather reports on the “Hourly” page, and weather for the next 10 days on “10 Day” page.

Next, he goes to “Commuter mapbox” on Home page, clicks on “Routes” to turns on Location access for WeatherBug and “Driving Behavior”, where WeatherBug can understand his driving style and travel patterns and automatically update him with weather alerts wherever they drive to.



**David** - travel enthusiast

**Age:** 45

**Occupation:** Project Manager

**From:** Hayward, CA

**Income:** \$70,000/year

## WeatherBug User Story 2

It is a Sunday night in July, Sally is packing for business trip with her boss to Chicago next week. They are staying in Chicago for a few days. First, she needs to know how the weather is going to be compared to the weather in San Francisco.

She opens up WeatherBug, taps location icon on top of the Home page, clicks “+” sign to put in “Chicago, Illinois” to the location list and saves it. He then taps on “Chicago, Illinois” on the list to go to the Home page. She realizes that it is around 20 degrees cooler in Chicago, so she makes sure she bring warm jackets, and when she scrolls down the page, there is “very Low Risk of Fire” in where she will be, and she clicks the map to see where the closest fire is, so she can be aware to stay out of the fire area.

However, when she goes to detailed hourly weather reports on the “Hourly” page, she sees that there is 60% chance of rain next day at 8pm. She makes sure to bring rain coats and sweaters, as most of the day next week is going to be cloudy with chance of rain according to the “10 Day” page.



**Sally** - working professional

**Age:** 35

**Occupation:** Business Consultant

**From:** San Francisco, CA

**Income:** \$85,000/year

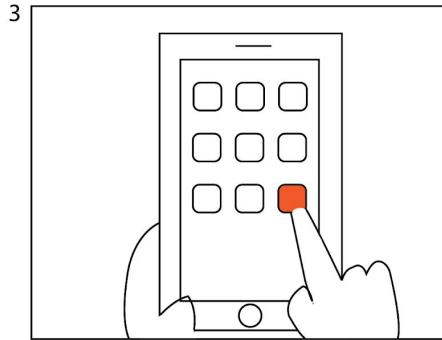
# Storyboard



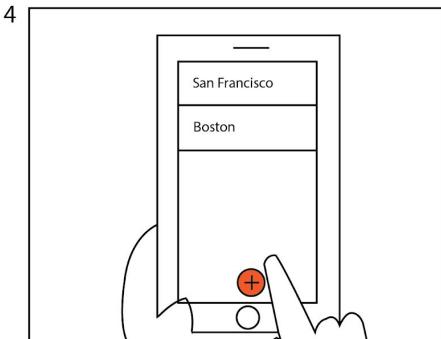
David wants to take his family on a trip. However, he's worried that the weather might go wrong.



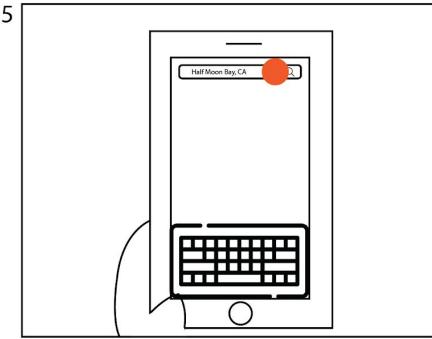
His wife Jenny notices something is bothering, and downloads WeatherBug for David.



First, they open the app from home screen.



They tap "plus" icon at homepage.



They type in "Half Moon Bay, CA", the place they want to go to.

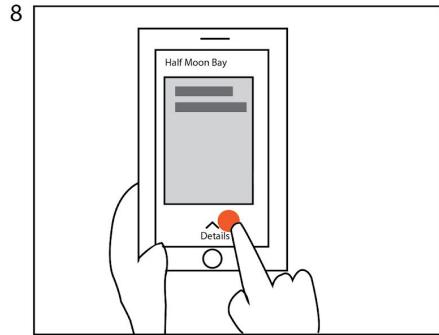


They turn on the alerts to make sure they receive weather notifications.

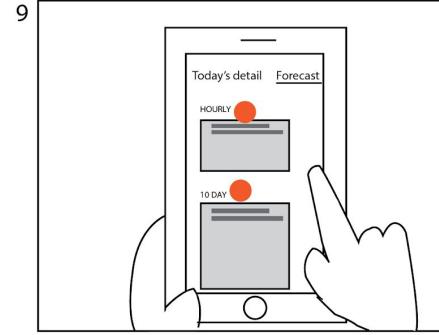
# Storyboard



They tap "Half Moon Bay" at homepage.



They slide up "Details" icon.



Hourly weather forecast for the next week is showing up. Who knew knowing about weather can be so easy!



Jenny and David feel so good now that they know how the weather is going to be!

---

## List of User Task

| Persona | Task Name  | Measurable Outcome  |
|---------|--|---|
| David   | <i>Save future weather reports for HMB</i>                   | <i>Weather info for future trip is saved</i>  |
| David   | <i>Explore weather situation from SF to HMB</i>              | <i>David now knows how the weather is going to be like from SF to HMB next week</i> |
| David   | <i>Share weather at his current location during his trip</i> | <i>His friend receives pictures about the weather at his current location</i>       |

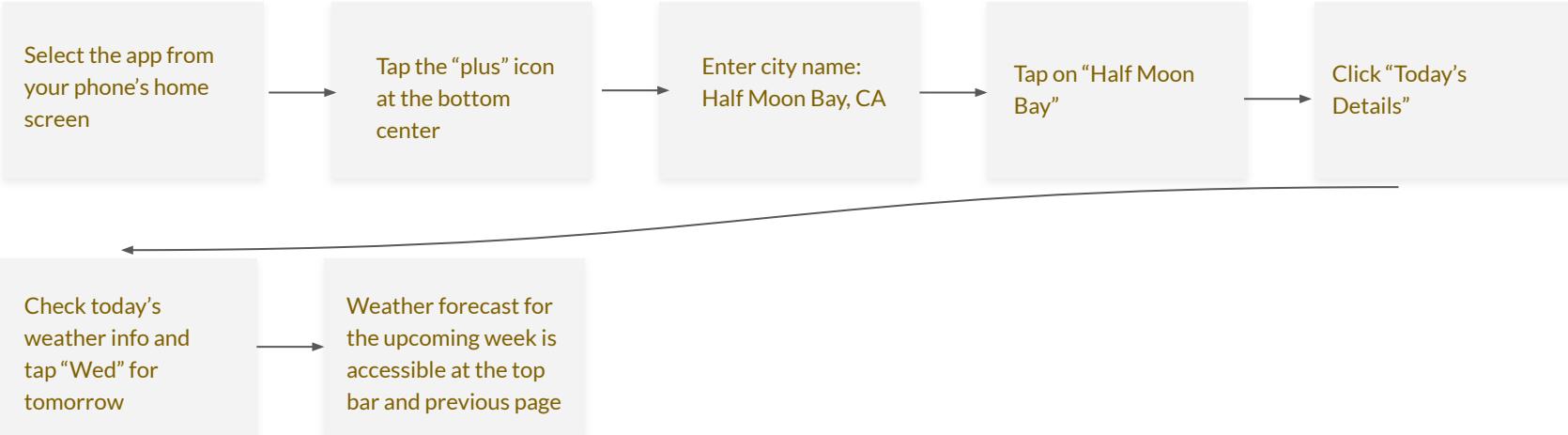
## User Flow 01



**Task:** "I want to add Half Moon Bay to my location list and check its weather for today and the upcoming week."

David Jones | Project Manager, 45, Hayward CA

**Outcome:** David now has weather forecast about Half Moon Bay for the next week



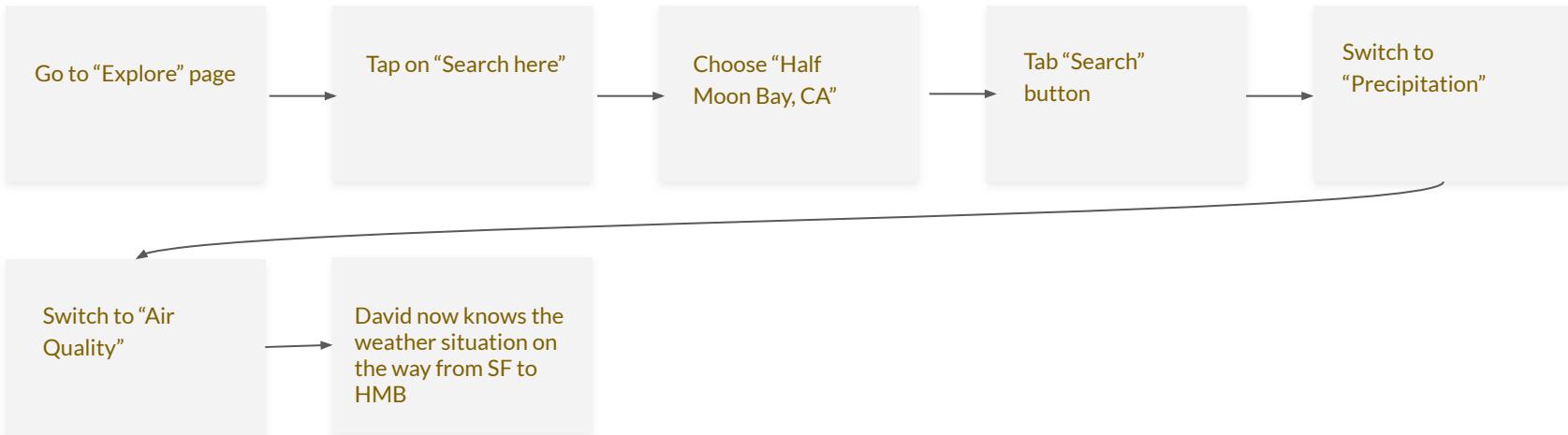
## User Flow 02



**Task:** "I want to explore weather situation from San Francisco to Half Moon Bay."

David Jones | Project Manager, 45, Hayward CA

**Outcome:** David now knows the weather on the way from SF to HMB.



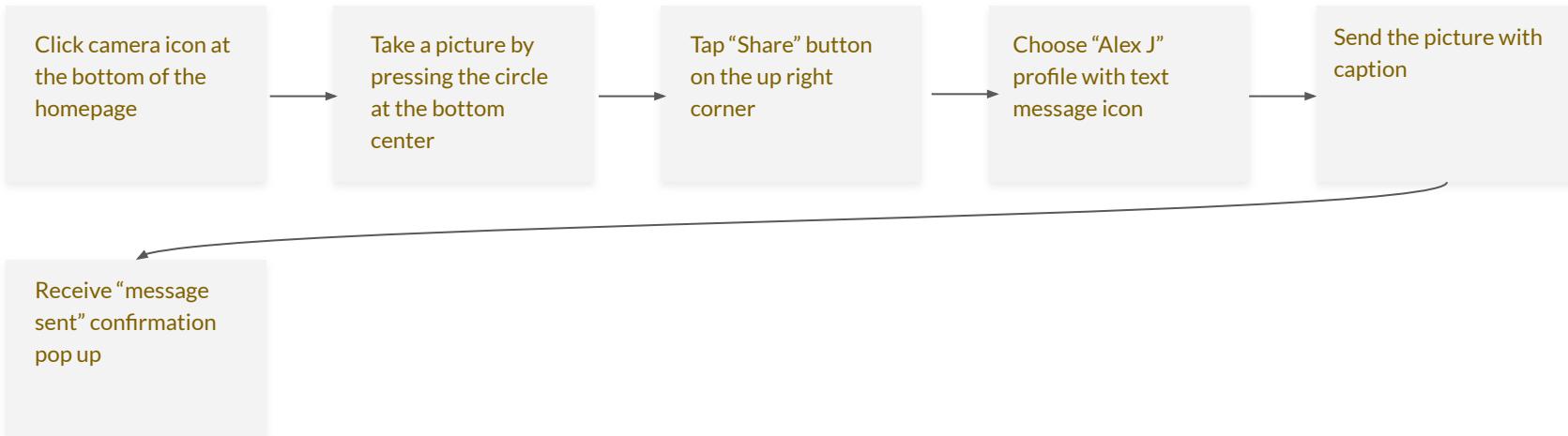
## User Flow 03



**Task:** "I want to share the weather at my current location with Alex by taking a picture."

David Jones | Project Manager, 45, Hayward CA

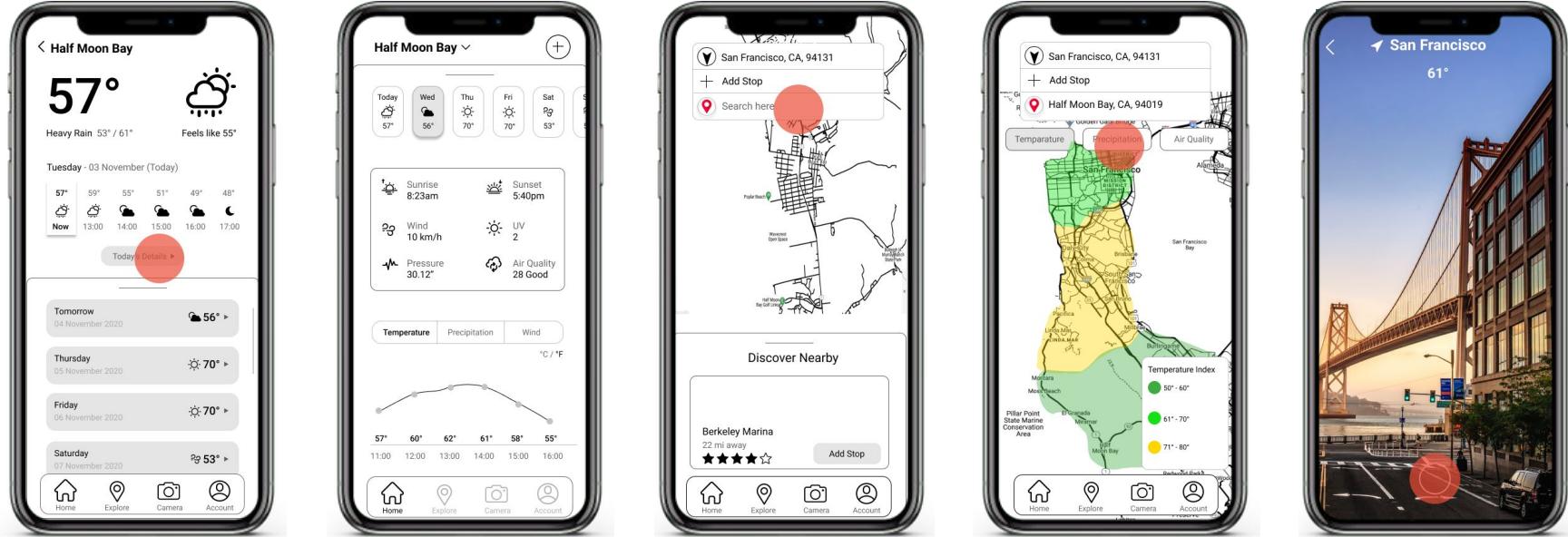
**Outcome:** **David stays in touch with his friend Alex by sharing his current weather status**





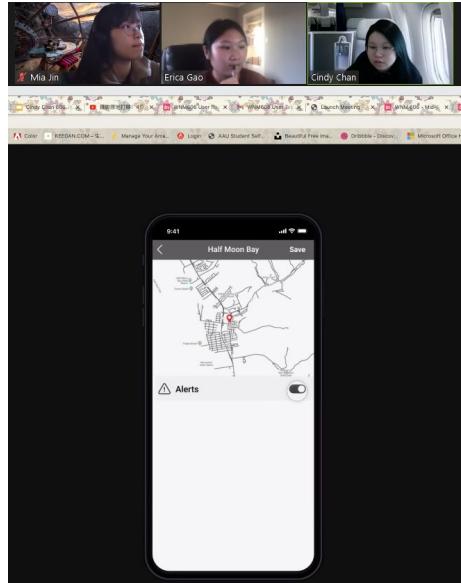
ERICA GAO WEATHERBUG REDESIGN PROJECT

# Design Process | Mid-Fidelity



# Prototype Testing

## Usability Test 1



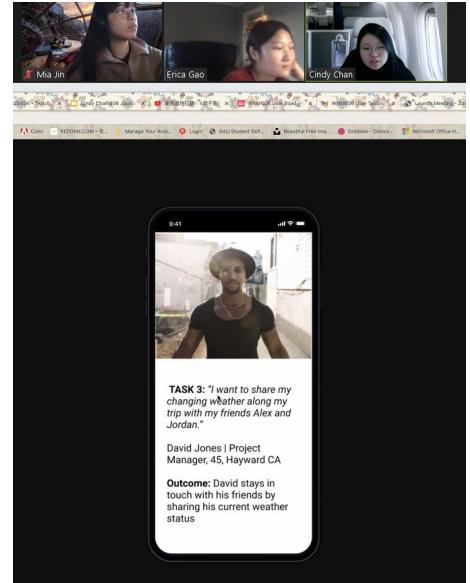
November 16th, 2020

ERICA GAO WEATHERBUG REDESIGN PROJECT

## A/B Test



## Usability Test 2



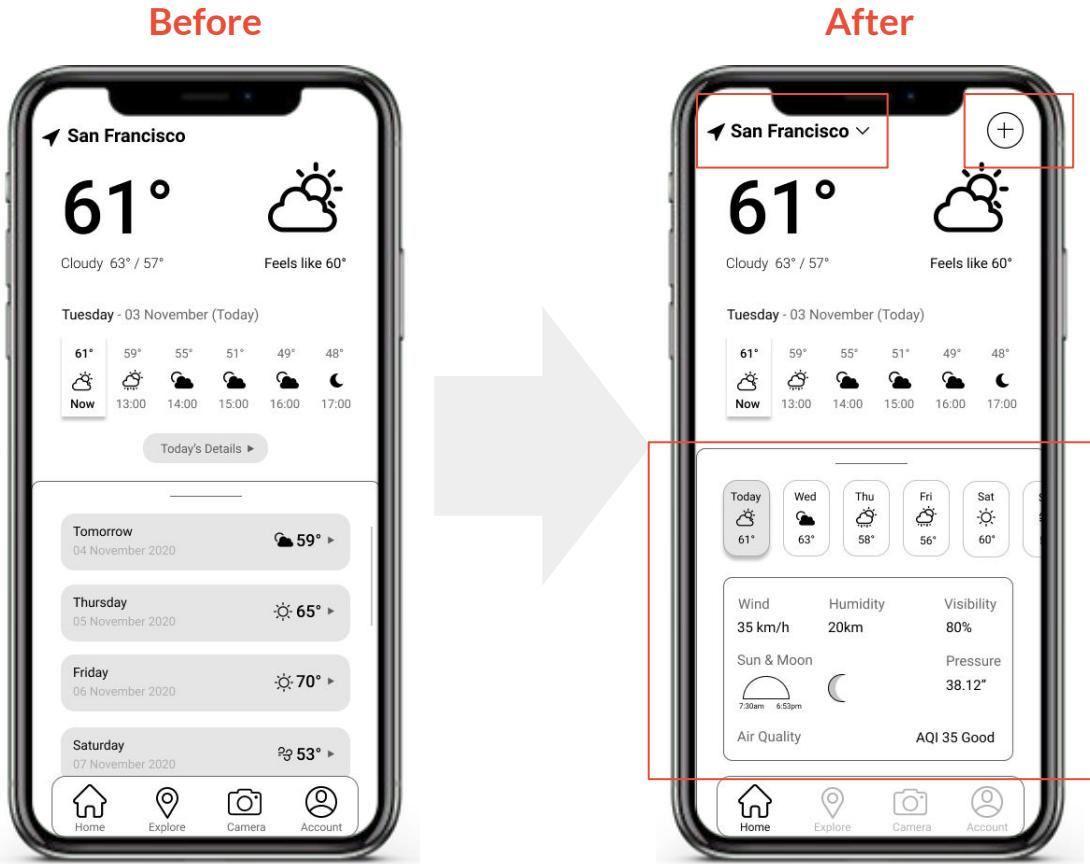
December 6th, 2020

[Link to testing results](#)

# Usability Testing Changes

## Homepage

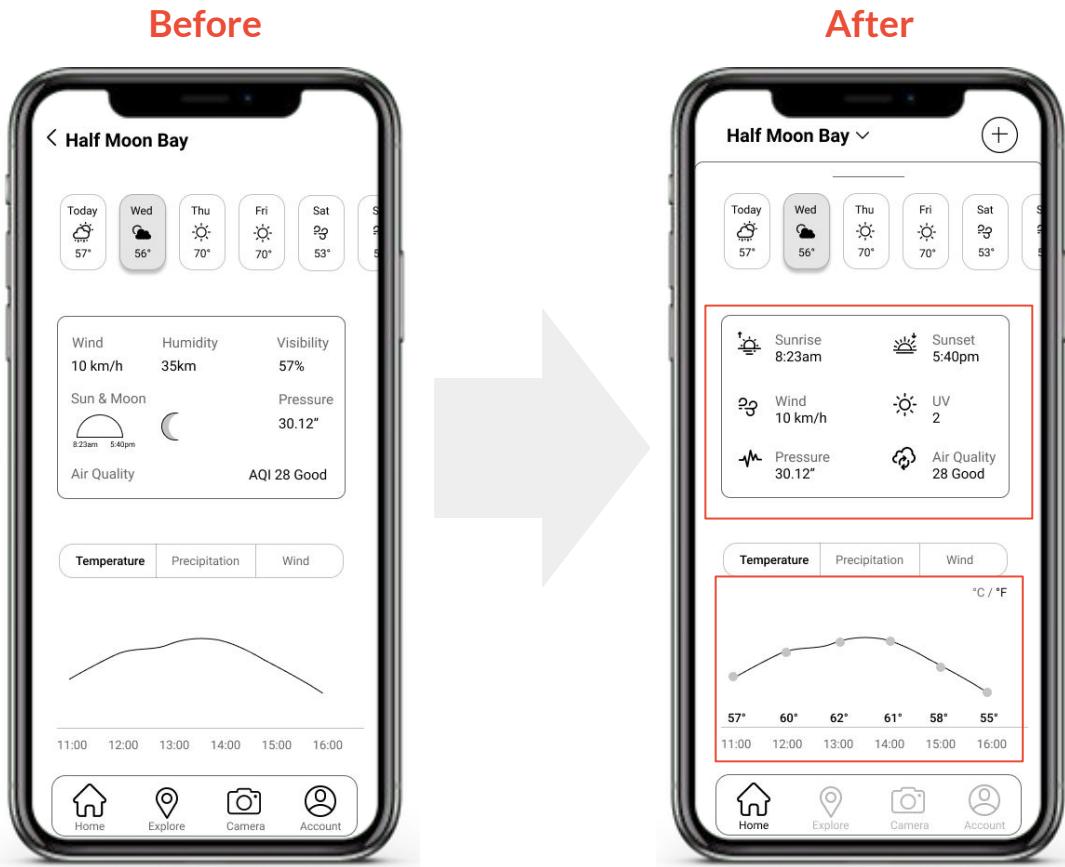
- Set this page to be homepage instead
- A plus button on the top to add location
- Got rid of the location page and replaced it with a slidedown bar next to location name
- Changed future days to a horizontal list of taps and show today's details on the slide-up window



# Usability Testing Changes

## Weather Details Page

- Replaced weather description with all icons + texts
- Added indications of temperature fluctuations
- Added temperature numbers in the chart
- Added °C/°F conversion

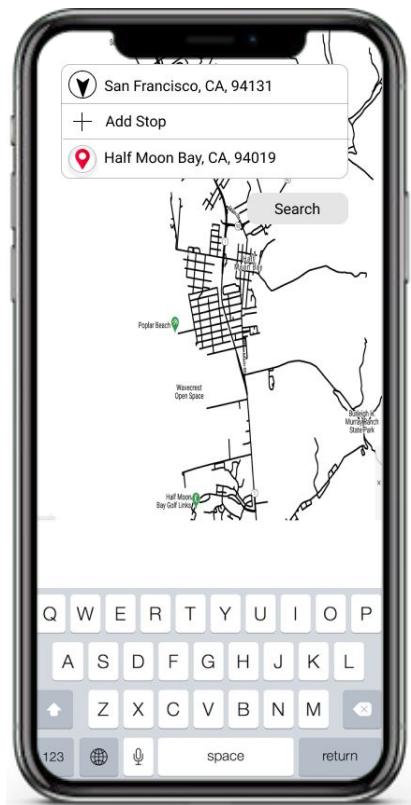


# Usability Testing Changes

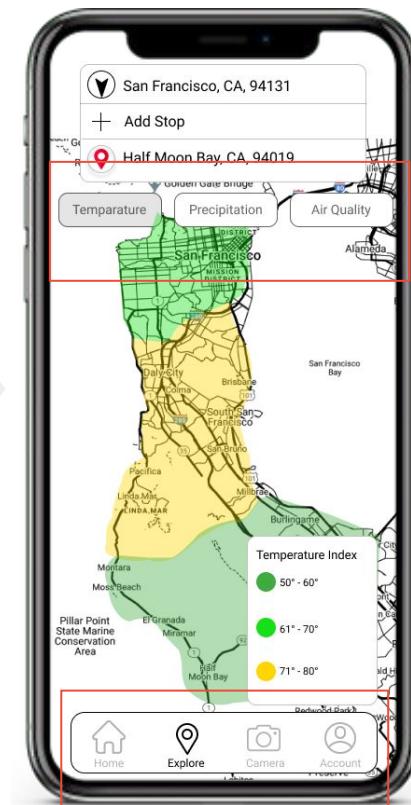
## Homepage

- Added visual hierarchy on the navigation bar
- Make search result available directly after user put in destination

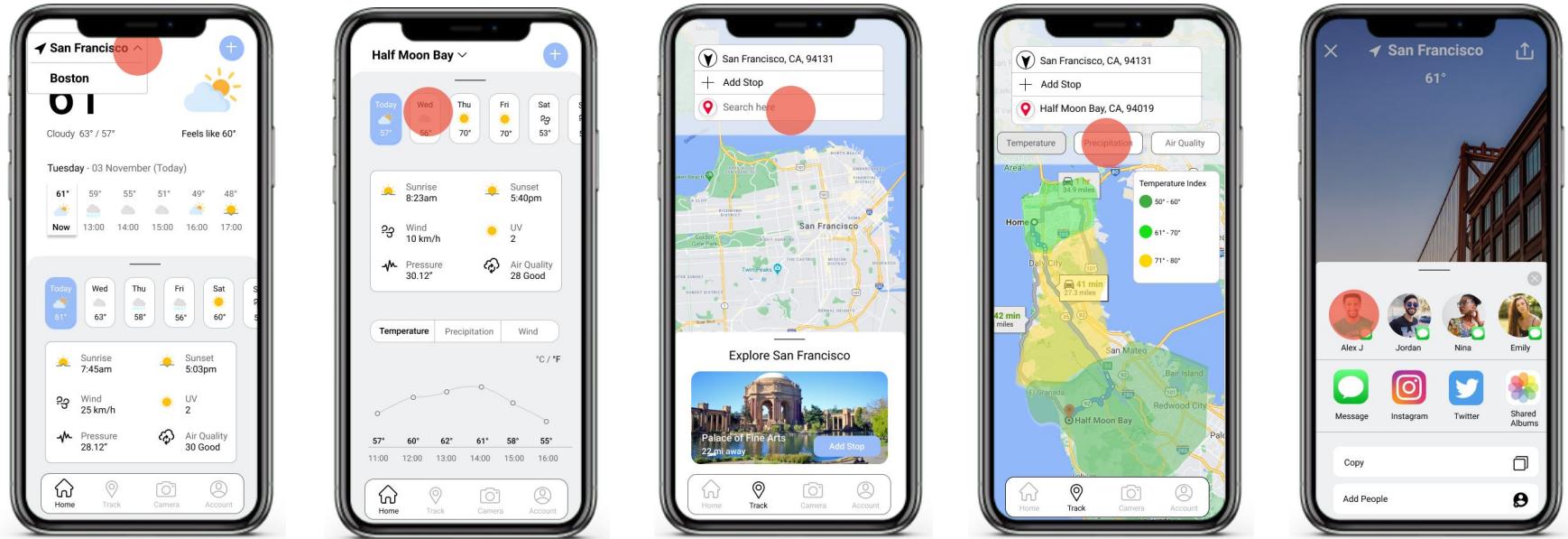
Before



After



# Design Process | High-Fidelity



[Link to high-fidelity POC](#)

## Screen Comparison 1

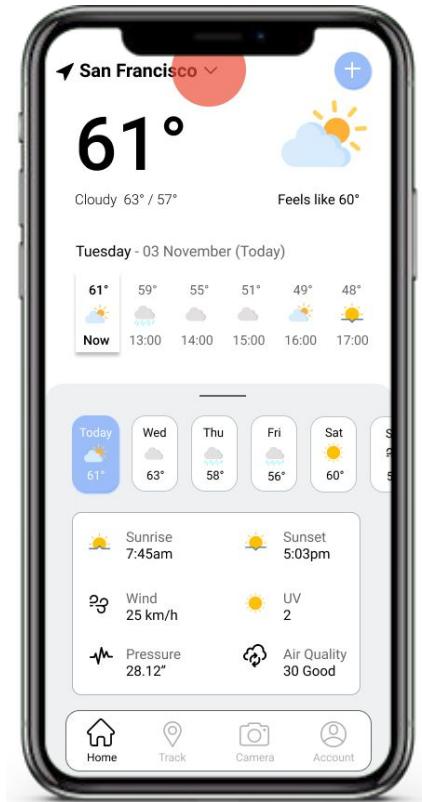
### Homepage

- Improved visual hierarchy and consistency by using minimalist color palette design
- Made future weather forecast more accessible by adding taps
- Added a navigation bar with increased functions
- Incorporated weather icons to give app a clean and modern style

Current



Redesign



## Screen Comparison 2

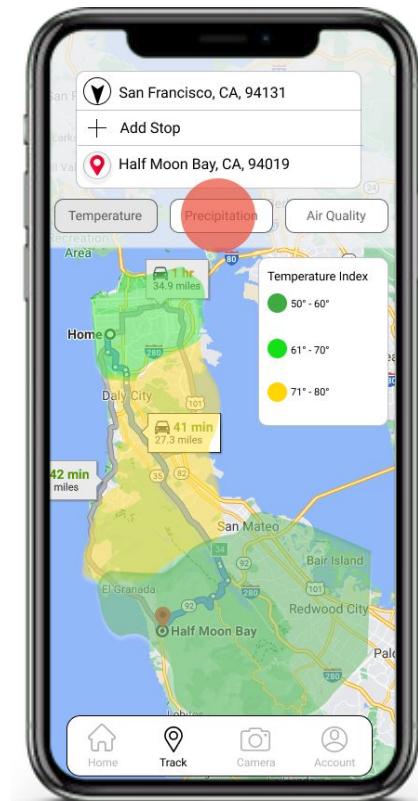
### Track Page

- Major weather factors are listed in a scrollable horizontal tap instead
- Colors and shapes are used to clearly indicate location of stated weather status
- Navigation bar is included
- Index form is attached

Current



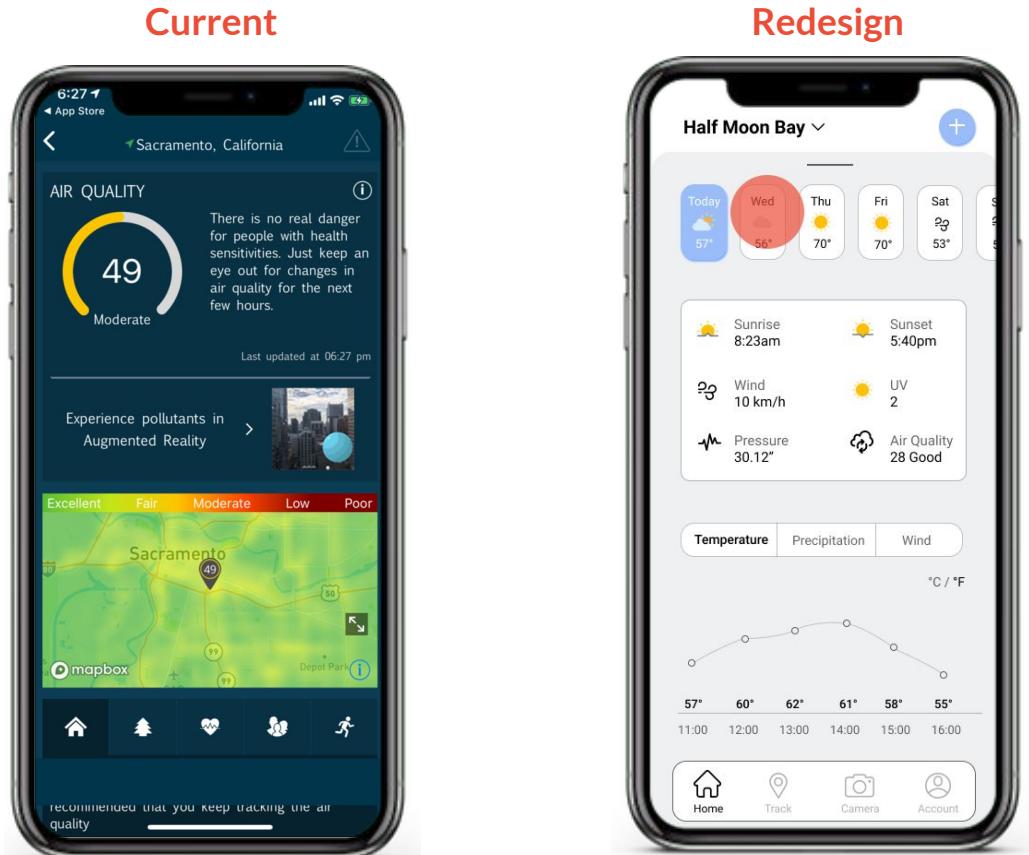
Redesign



## Screen Comparison 3

### Weather Details Page

- Weather conditions are listed as text and icons in a box which is visually more direct
- Used graphs to represent key weather factors
- Future weather forecasts are easily scrollable at the top bar



# Link to Proof of Concept

[Erica's high-fidelity POC](#)

# Link to Prototypes

[Prototype 1](#)

[Prototype 2](#)

[Prototype 3](#)

---

## Source Cited

1. Weather forecasting system market, <https://www.marketsandmarkets.com/Market-Reports/meteorological-weather-forecasting-systems-market-29645152.html>
2. Weather category apps are the most profitable in Android Market, <https://research2guidance.com/weather-category-apps-are-the-most-profitable-in-android-market/>
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<https://www.userzoom.com/blog/what-are-the-differences-in-how-age-demographics-search-the-internet/>
5. Mediakit, Accuweather, <https://mediakit.accuweather.com/mobile-tablet-demographics>
6. Apptrace, WeatherBug, <https://www.apptrace.com/app/281940292>
7. Weather, <https://weather.com/>
8. Accuweather, <https://www.accuweather.com/>
9. Apple Store, <https://apps.apple.com/us/app/noaa-weather-radar-live/id749133753>
10. Apple Store, <https://apps.apple.com/us/app/weatherbug-weather-forecast/id281940292>