FitCast

FORECASTING YOUR OUTFITS

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Introduction to FitCast

Everyday, we wake up and get dressed to conquer our days. Everyday, whether we realize it or not, we are forced to make conscious decisions about what to wear. Our decisions might depend on how cold it is, whether it'll rain, or whether we'll be in a cold office building. In fact, according to a nationwide survey by scientists at the National Center for Atmospheric Research, close to nine out of 10 adult Americans check weather forecasts more than three times each day.

We want to introduce FitCast, your personalized outfit forecaster! Checking the weather can be fun and informational, but it can also be tiring and leave you feeling helpless. FitCast's goal is to **reduce decision fatigue when it comes to deciding what to wear/pack based on the weather**. We know that sometimes it's hard to determine what a certain temperature truly feels like for our particular bodies, and our goal is to help streamline this process. FitCast hopes to mitigate the time you blankly stare at weather forecasts and help you start your days on the right foot by **Forecasting Your Outfits**.

Value Proposition

Interpreting weather forecasts to relieve clothing decision fatigue!

Our team

Problem & Solution Overview

FitCast addresses the problem that people waste time and energy deciding to wear based on the ever changing weather. Existing weather forecasting provides a lot of information, but not much of it is truly comprehensive to everyday people. Even the "feels like" field doesn't mean anything, since people perceive temperature differently, and different temperatures feel different in differing locations. The solution we developed is FitCast, an app that simplifies the process of interpreting the weather by

directly handing you outfit suggestions based off of the current weather, weather changes, your schedule, and your feedback! Note, this solution focuses on suggestions for the level of warmth you should dress for, rather than the fashion aspects.

This is a problem and solution that our team personally found to be very relevant as the temperature/weather happened to fluctuate as we were developing the app. However we didn't start this process knowing this was a realm that we wanted to focus on. We underwent rigorous needfinding/experimentation to identify this to be a problem, and hope our solution can create some unintentional good for our users!

Needfinding

Interviews

As we began our interviews, we didn't have any specific target audience or realm. We wanted to focus more generally on how to *reduce mental overload for everyday people*, specifically how to add some "unintentional good" into their lives.

We conducted 5 initial needfinding interviews, with participants that were still in school (both high school and college), that were late in their careers, and juggled both at the same time (startup cofounder who was still a full time student). We built upon these interviews, aiming to gather some more diverse insights. We conducted 4 additional needfinding interviews with participants that generally don't plan, struggle with physical and mental disabilities, as well as a parent, which was a different perspective from the very career focused interviews we conducted prior.

Collectively, we conducted 9 needfinding interviews from a diverse range of occupations, experiences, and needs.

Synthesis

During our needfinding interviews, we were surprised to notice that despite the range of participants we interviewed, all of them preferred simple over complex. None of them used more complex planning tools like Notion, and all stuck to traditional planning tools like Google Calendar, because the new tools had steep learning curves and ultimately weren't as helpful anyways. Because of this, we knew that another event planning app would probably not help people reduce mental overload.

We wanted to focus on specific tasks that might be particularly menial in nature. We asked participants what apps they use first thing in the morning to take a look into what tasks might be most important in their days, and also asked them upfront what tasks are most mentally draining for them both in work and in daily life.

To summarize, some of our key takeaways included:

1. There is no need for another new planning app
2. People are often frustrated with tasks that cannot be skipped (ie laundry, eating dinner, getting dressed)
3. External factors stop things from getting done (traffic, other people flaking, poor time estimates for tasks)

POVs and Experience Prototypes

POV and HMW Statements

With these new insights, we moved forward to develop user "Point of Views" (POVs) to deeper understand user needs. We brainstormed a variety of POVs and narrowed down the following four. For each of these four POVs we also developed corresponding "How Might We" (HMW) questions to guide our solution brainstorming. We voted on our favorite, which is listed below its POV.

POV #1:
WE WERE SURPRISED TO NOTICE he considers repetitive daily tasks to be "useless", even choosing to build an app to mitigate a task he considered useless.
WE WONDER IF THIS MEANS that busy people focus more on the outcome rather than the process, and are unwilling to see "unrewarding tasks" as worth their time.
IT WOULD BE GAME CHANGING to find ways that mitigate repetitive daily tasks that take up energy OR *make those repetitive daily tasks more enjoyable* and seem less useless

- **HMW** Increase positive associations with chores?

POV #2:
WE WERE SURPRISED TO NOTICE that she doesn't use more complex tools for planning as a professional planner
WE WONDER IF THIS MEANS that simple tools work well for planning, as a certain threshold for complexity makes tools more cumbersome than useful.
IT WOULD BE GAME CHANGING to *find planning solutions that are as simple as possible*

- **HMW** reduce manual steps for menial tasks?

POV #3:
WE WERE SURPRISED TO NOTICE even though he orders food, he still thinks it's a waste of time to pick restaurants.
WE WONDER IF THIS MEANS people like decisions to be made for them when it comes to menial tasks.
IT WOULD BE GAME CHANGING to *decrease number of decisions / **options*** given to the person making

a decision

- **HMW** make the decision making process easier for essential tasks?

POV #4:
WE WERE SURPRISED TO NOTICE she follows her google calendar religiously even when previous task is incomplete.
WE WONDER IF THIS MEANS that people prefer compartmentalization over task completion.
IT WOULD BE GAME CHANGING to find a way to *incorporate unexpected changes/flexibility into a plan*

- **HMW** reduce flaking in scheduled group activities?

Solutions

From these four HMWs, we came up with four possible solutions.

1. Have an alarm that adapts for your commute needs
2. Automate the meal planning process (shopping lists, recipes, what to order etc.)
3. Automate the process of interpreting weather
4. Create a chatbot that helps moderate group conversations

For each of these solutions, we wanted to test our assumptions to further understand which might have the greatest impact on users and help them reduce mental overload the most.

Experience Prototypes

To dig deeper into the 4 solutions we came up with, we conducted an experience prototype for each. They are described as follows.

1. Adaptive Alarms:
    a. Key Assumption: People leave for events earlier than they truly need, to compensate for unexpected delays like traffic
    b. Methodology
        i. Have people set alarms 10 min and also for when they have to leave
        ii. Ask them how they felt during the 10 minutes between the alarms, and their stress level during the commute vs other times.
        iii. Observe how good their commute time estimate was
    c. Learnings:
        i. Participants liked the idea of multiple alarms
        ii. Participants only started thinking of their commute once the first alarm sounded → having an alarm cleared their minds prior to the action
        iii. People overplan the routes they take
        iv. Assumption is TRUE
    d. What worked/didn't work

        i. Other smaller factors (car troubles, choosing between modes of transit) were not adapted
        ii. Participants felt more on edge/stressed out commuting due to being in a study
2. Automate Meal Planning
    a. Key Assumption: Most users find compiling shopping lists annoying/mentally taxing and to keep track of
    b. Methodology
        i. Ask participants to plan out a week of meals (bfast/lunch/dinner)
        ii. Then get them to write out a shopping list as fast as possible
        iii. Get feedback on how the process made them feel
    c. Learnings:
        i. Found that both participants thought that simplifying lists would be helpful
        ii. Most people would appreciate a comprehensive solution including meal plan, shopping list and recipes
        iii. Some people find a sense of accomplishment when they make lists, buy ingredients and cook on their own, especially with new recipes etc.
    d. What worked/didn't work
        i. Hard to simulate stress from busyness (target demographic is busy people)
        ii. Both participants fully understood the problem we were trying to solve
3. Weather Interpreter
    a. Key Assumption: People rely on the weather to decide how to get dressed
    b. Methodology
        i. Ask participants to refrain from checking the weather while getting dressed
        ii. Get feedback about how that felt
        iii. Ask if there was any time they felt too hot/cold/not prepared
    c. Learnings:
        i. Key Assumption was true!
        ii. In fact, people rely on the weather for how to get dressed even when they aren't leaving their homes
        iii. Packing for trips can raise similar mental drainage
    d. What worked/didn't work:
        i. Not checking took an emotional toll
        ii. People overcompensate and still always overdress, so they weren't too impacted by the prototype physically
        iii. Some people are also just generally interested in the weather, not necessarily for getting dressed
4. Chatbot Group Chat Moderator
    a. Key Assumption: A chat bot would motivate people to engage more
    b. Methodology
        i. Individuals add a Google Voice number to their existing group chat

        ii. Google Voice number acts as a “bot” sending a couple prompts throughout the day
        iii. Measure engagement
    c. Learnings:
        i. People are unlikely to respond to a chatbot when the response requires high amounts of effort
        ii. People take bots less seriously than they take other humans, making it more difficult for a bot to impact engagement
    d. What worked/didn’t work
        i. People responded well to short prompts
        ii. If one person engaged with the bot, more people were likely to engage as well
        iii. People are unlikely to shift their group conversations to a group chat including the chatbot(may be because it’s an Android)

Design Evolution

Final Solution

Based on our needfinding interviews, we identified some specific daily tasks that were really repetitive and even caused frustration for many. We felt the experience prototype for the “weather interpreter” was the most promising, and also was the most novel/unique. Most existing apps on the market are specifically tailored to fashion rather than functionality, and the only functional temperature clothing app was not adaptable (which is arguably the most important part of this solution).

We received a lot of participant enthusiasm, and this was also the solution we as a team were most excited about. We also felt, since everyone has to get dressed in the morning, that the scope was more inclusive. Finally, we also considered mobile adaptability and practicality of this solution compared to others.

Tasks

To capture the essence of what FitCast should do, we brainstormed different key tasks that should be included in our app. We split them based on what a simple, moderate, and complex user would do. We decided on the following:

1. Simple Task:
    a. User is deciding what to wear based on the weather now
2. Moderate Task:
    a. User wants to know if/how they should prepare for indoor temperatures
3. Complex Task:

a. User is trying to adapt their clothing wearing habits more closely to their personal temperature preferences

This set of tasks includes the core functionality of FitCast, providing outfit warmth suggestions, but also gives the user the ability to give as much information as they want so that FitCast can continue to improve and iterate based on the particular user's preferences. It also captures some of the main issues when dressing for the weather: having different temperature preferences, and differences between indoor and outdoor temperatures (ex. Getting cold during lecture).

We wanted to select an interface that would allow us to most effectively complete these tasks, so we started with sketching potential concepts for mobile apps, wearables, AR, etc.

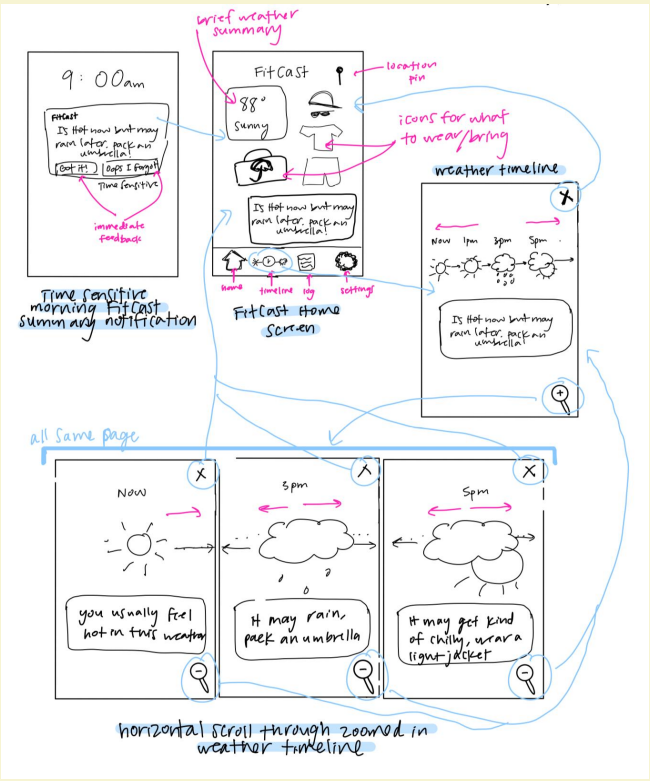
We ultimately decided that building a mobile app with some widgets would be the most realistic and effective.

Design Evolution Visualizations and Rationale

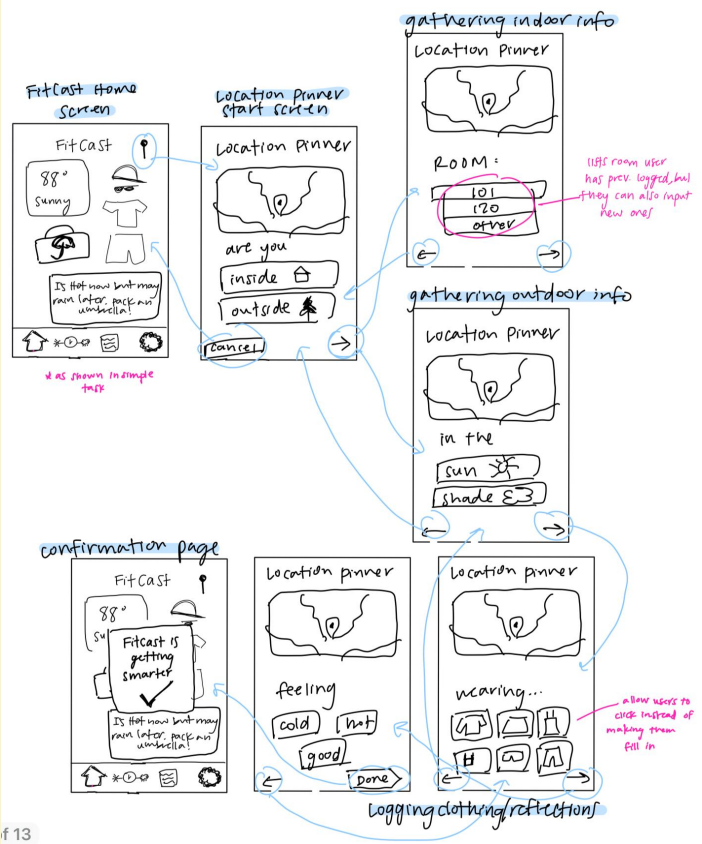
LoFi Prototype

We began by creating a LoFi prototype that covered the simple, moderate, and complex task flows.

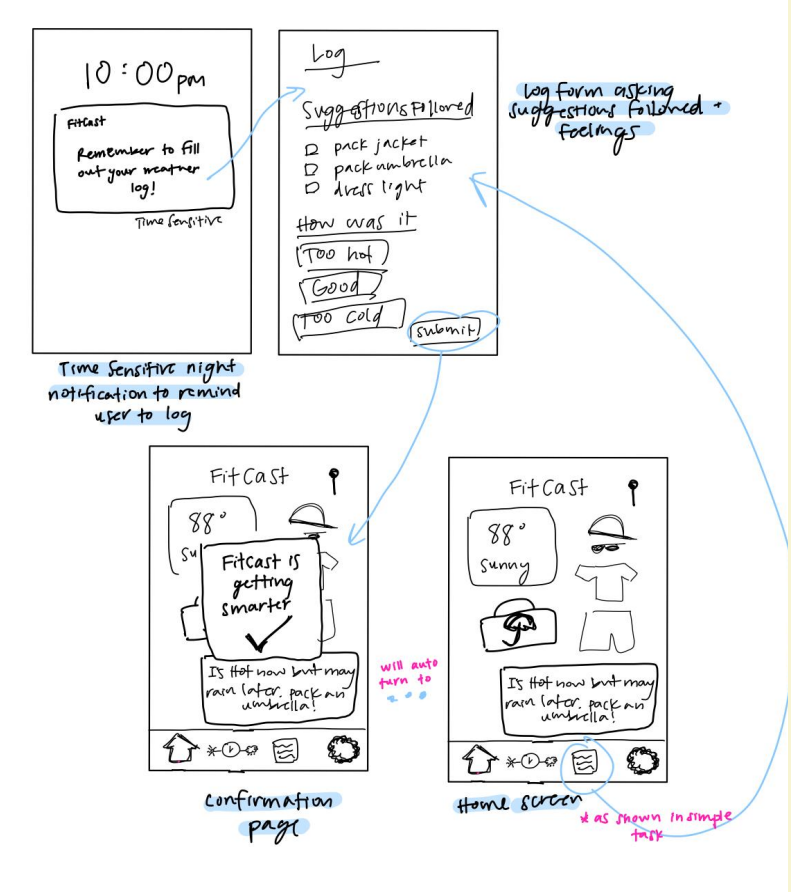
1. User is deciding what to wear based on the weather



2. User wants to know if/how they should prepare for indoor temperatures



3. User is trying to adapt their clothing wearing habits more closely to their personal temperature preferences



We drew those flows on an iPad, printed them, and cut out the paper phone screens. We conducted usability testing on four random participants. This experimentation reaffirmed our knowledge of how our target audience might not be as general as we thought, and also reminded us that most users will be “simple users”, so we should provide most functionality there. We also received very helpful feedback about our design, and iterated on that. Namely, we had some of the following takeaways.

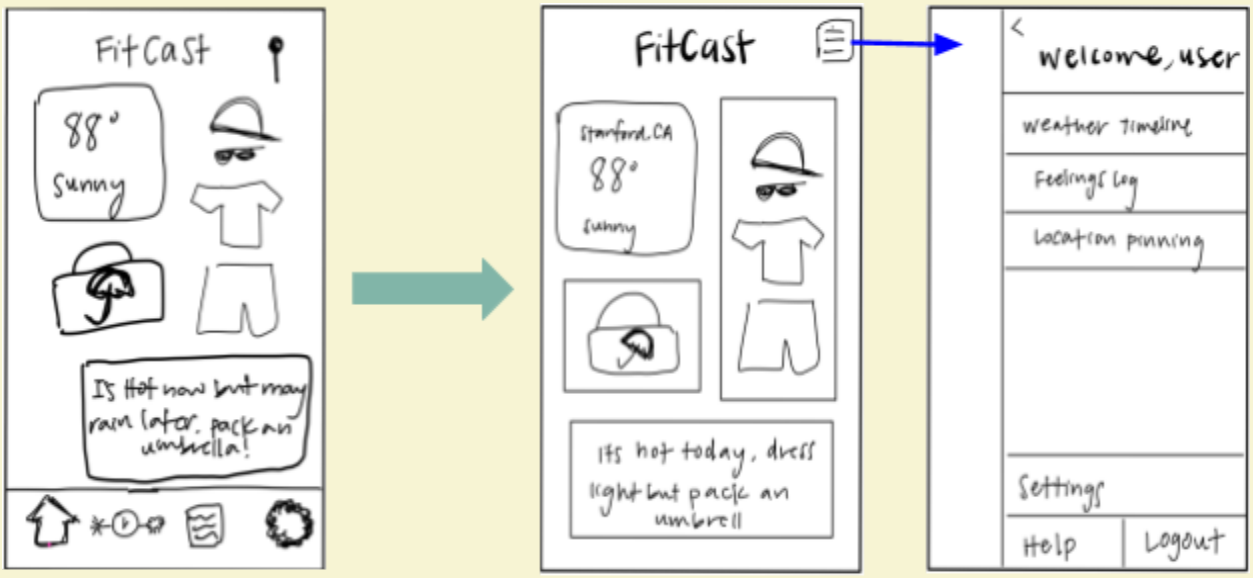
1. Users tend to want to stick to the home screen, and don’t see any reason to leave it. They don’t feel a need to log or pin.
2. Users may feel that our suggestions infringe on their autonomy in what they personally want to wear/bring.
3. Users tended to click the icons that were not actually buttons.
4. Once users got the page they needed to be on, the steps were straightforward.
5. Our audience may be narrower than we initially thought. Many older people don’t want to rely on apps to tell them what to do.

Updated LoFi Prototype

To act on some of these takeaways, we make 3 distinct UI changes.

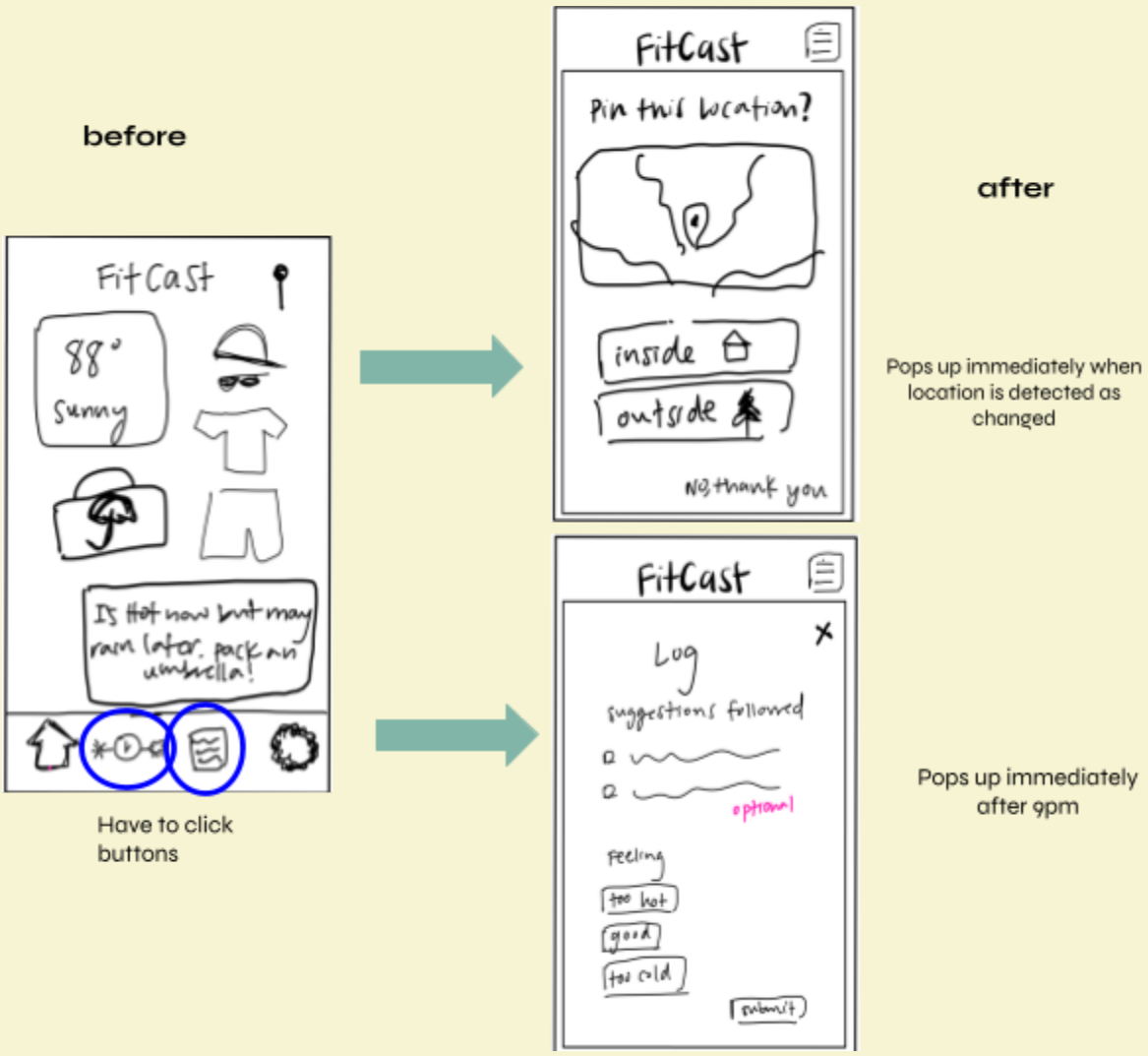
1. Home screen changes

a. Removed the bottom task bar and made the app much more centralized around the home screen
b. Make the widgets (that users kept trying to press) into buttons + simplify the home screen into very distinct and minimalistic sections
c. Consolidate other options into a hamburger menu option, so that pages are still accessible, but more hidden

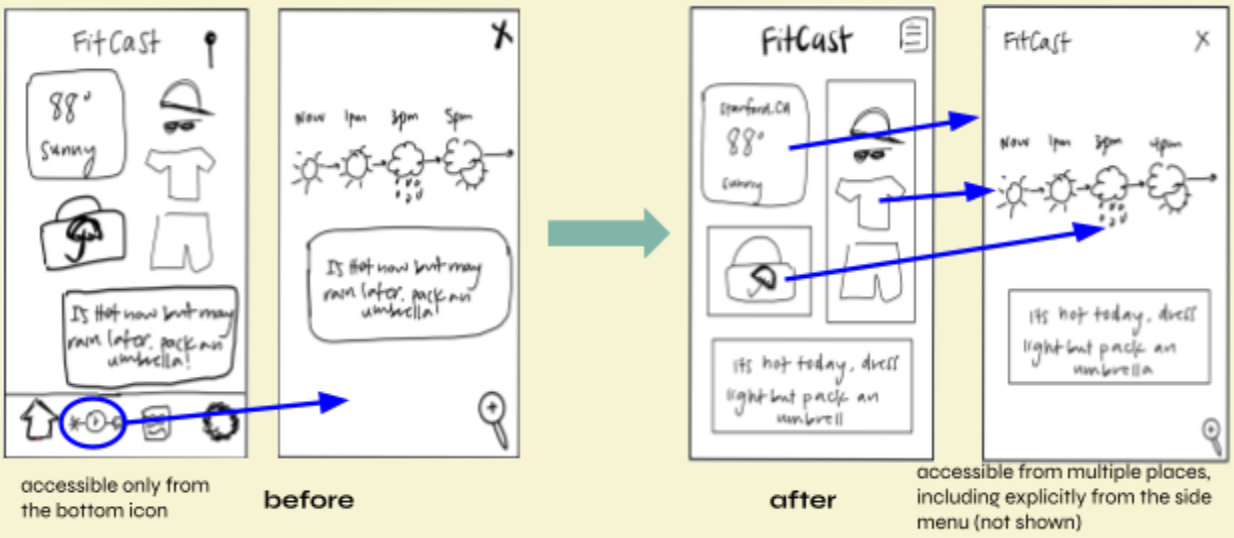


before after

2. Pop-ups
    a. Instead of the user having to manually enter the log at the end of each day, have the app automatically prompt the user to log data
        i. Takes the burden off the users shoulders, reduces need for buttons along bottom bar of home screen since they will be used rarely
    b. Send notifications about weather changes
    c. Popups for clothing suggestions based on the day's weather



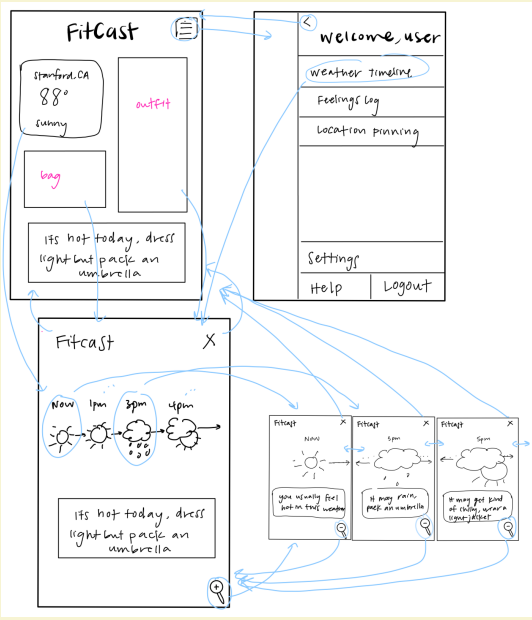
3. Interconnectivity
    a. Link up more of the graphics/screen components
    b. User can reach pages with more detailed information when they click on several intuitive places, rather than just one



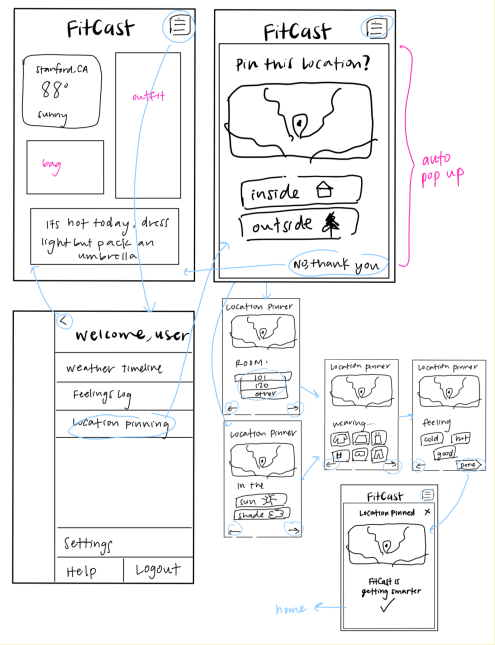
Task Modifications

In terms of our entire task flows, the modifications are shown below.

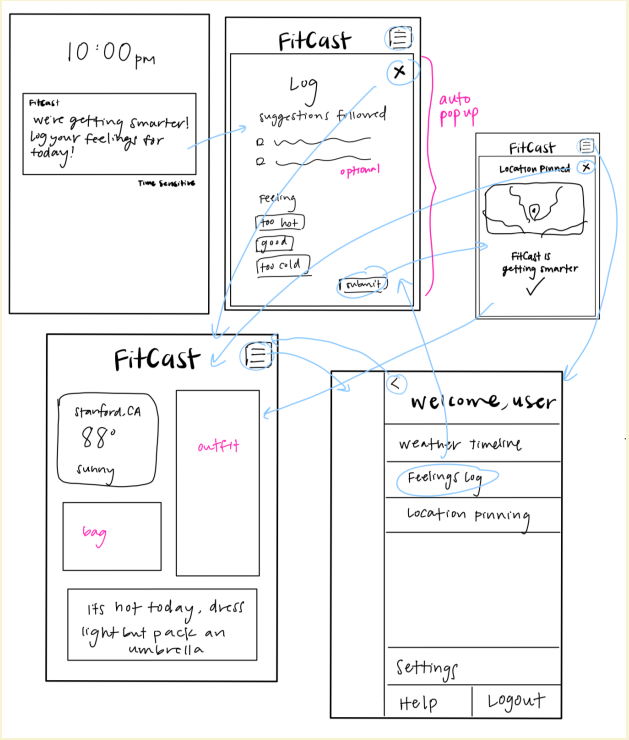
1. User is deciding what to wear based on the weather
    - Move weather timeline icon from bottom bar, and make accessible from large widget on home screen or sidebar menu
    - Make weather timeline more interactive: can click time icons to immediately zoom in, rather than pressing the zoom button



2. User wants to know if/how they should prepare for indoor temperatures
    - Weather pinning page automatically pops up upon opening FitCast if location changed
    - Move icon from bottom bar and make accessible from menu if user wants to pin after exiting the popup earlier



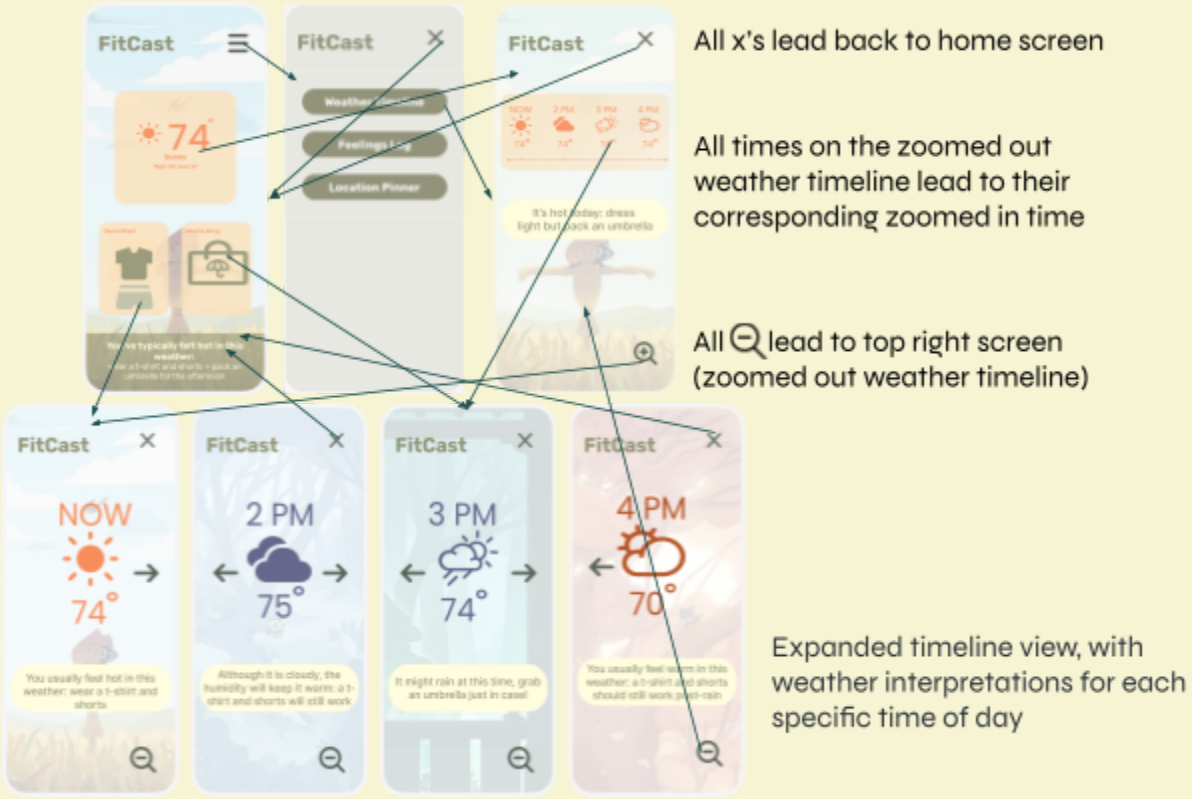
3. User is trying to adapt their clothing wearing habits more closely to their personal temperature preferences
    - Have the log auto pop up upon opening the app after 9pm, as long as it hasn't already been filled out
    - Move icon from bottom bar and make it accessible from sidebar menu



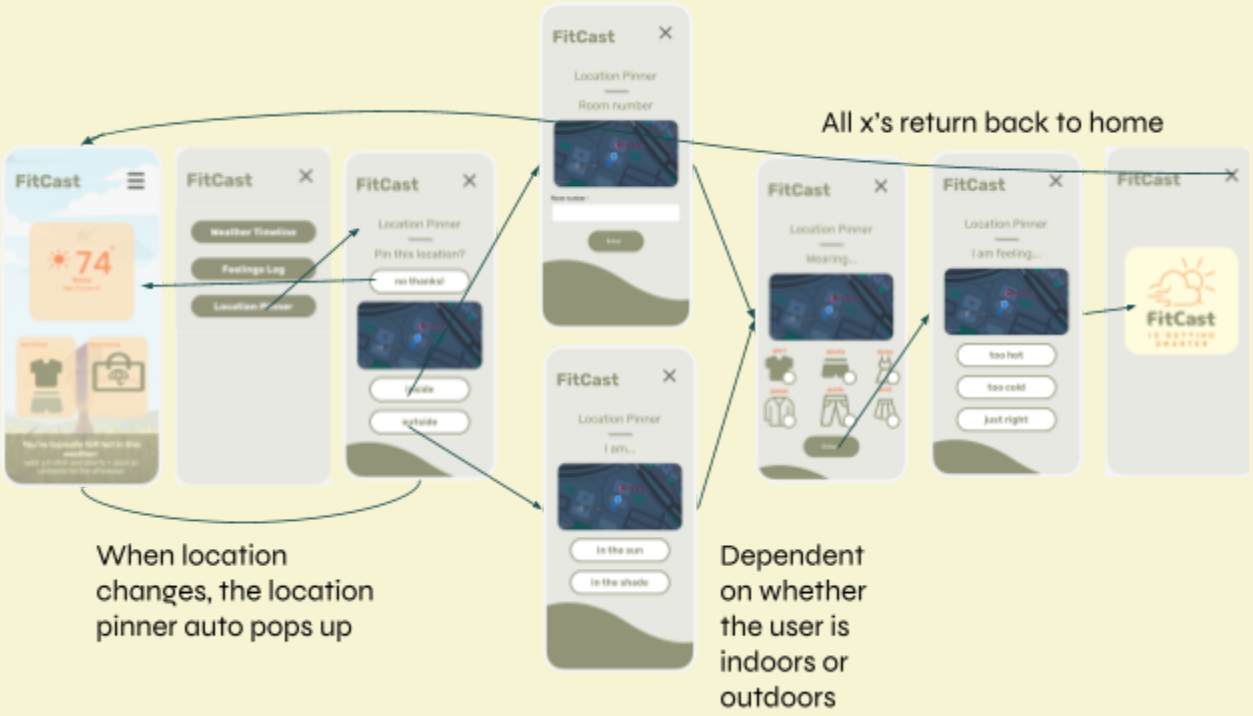
Transformation into MedFi

We then transformed our task flows into medium fi prototypes on Figma.

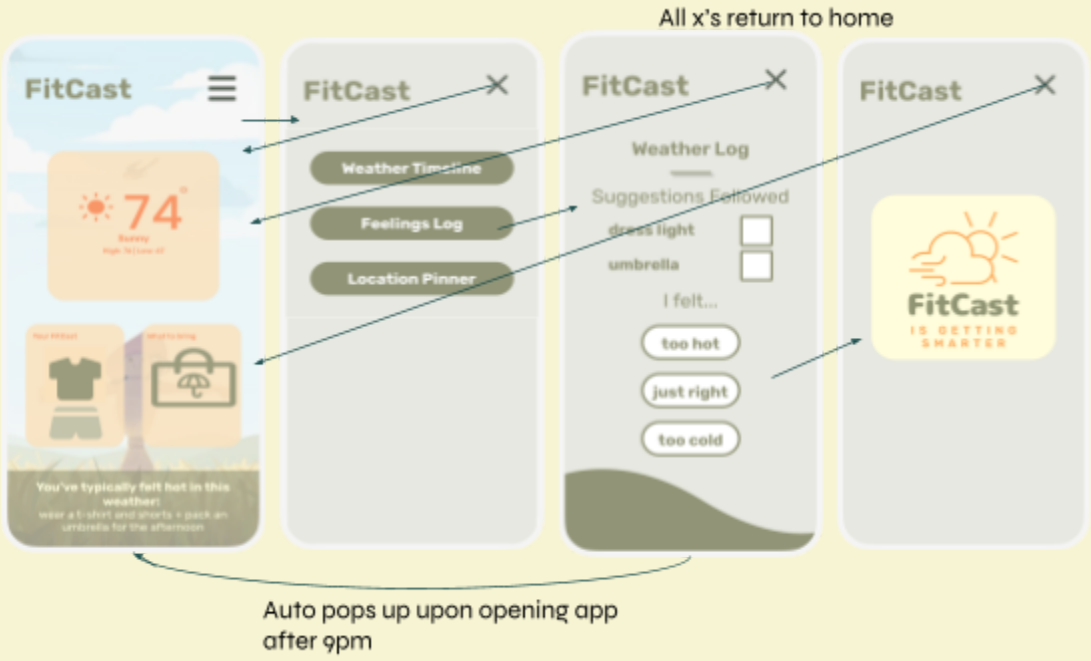
1. User is deciding what to wear based on the weather now
    - User can decide what to wear from just our homepage, but can access the timeline for additional information (by clicking the widget or navigating through the sidebar)
    - Background changes based on time/weather



2. User wants to know if/how they should prepare for indoor temperatures
    a. User can choose to remind themselves of the weather at a specific location, whether indoor or outdoor.
    b. FitCast will use this information to build better recommendations.



3. User is trying to adapt their clothing wearing habits more closely to their personal temperature preferences
    - Note that we plan for most of this to done using a wearable device alongside the voluntary input from the user
    - *pops up immediately upon app opening, also accessible from side menu



Heuristic Evaluation Results on Med Fi

Overall there were 65 heuristic violations that pertained to our three tasks, login/onboarding and the general UI/Design of the app. As you can see below, all violations were concentrated in a select amount of buckets. More specifically, we saw that high severity violations were also concentrated in certain buckets. As such, we decided to hone in on addressing issues within categories that had high frequency and high amount of high severity violations (we also carefully considered other violations in other categories). As you can see below we found that most violations/high severity violations occurred in the H2, H4, H5, H6 and H8 buckets. Hence we made sure that our med-fi revision and hi-fi prototype would address these areas especially well.

Category	**# Viol. (sev 1)**	**# Viol. (sev 2)**	**# Viol. (sev 3)**	**# Viol. (sev 4)**	**# Viol. (total)**
H1: Visibility of Status	1	4	1	0	**6**
H2: Match Sys & World	**1**	**8**	**3**	**0**	**12**
H3: User Control	0	1	1	0	**2**
H4: Consistency & Standards	**8**	**4**	**2**	**0**	**14**
H5: Error Prevention	**0**	**0**	**1**	**2**	**3**
H6: Recognition not Recall	**0**	**2**	**3**	**0**	**5**
H7: Efficiency of Use	0	2	0	0	**2**
H8: Minimalist Design	**12**	**2**	**1**	**0**	**15**
H9: Help Users with Errors	0	0	0	0	**0**
H10: Help & Documentation	1	0	0	0	**1**
H11: Accessible	2	2	0	0	**4**
H12: Value Alignment & Inclusion	0	1	0	0	**1**
Total Violations by Severity	**25**	**26**	**12**	**2**	**65**

Moreover we found that much of these violations could be partitioned thematically. There are 6 themes that we have delineated below along with the related med-high severity violations associated with them. This made the HE provided to us much easier to follow and identify where our weakest points were. The themes and the specific violations that fell under them are as follows:

1) General Functionality

- Navigation is confusing
- Need to ensure X's and back buttons are consistent
- Buttons unclear
- Names of "Location Pinner" and "Feelings Log" not helpful

2) Onboarding

- Should not be able to exit onboarding survey
- Unable to go back on questions in the onboarding survey
- Make screens look more FitCast Specific

3) Location Pinner

- Pinned locations don't seem to be stored anywhere
- Navigation is clunky and interface is repetitive
- One page is titled "Wearing" while another is titled "I am feeling"

4) General Aesthetics

- Buttons aren't clear
- Background is not consistent + widget opacity hard to read
- Misalignment across the board
- Colours aren't working well together

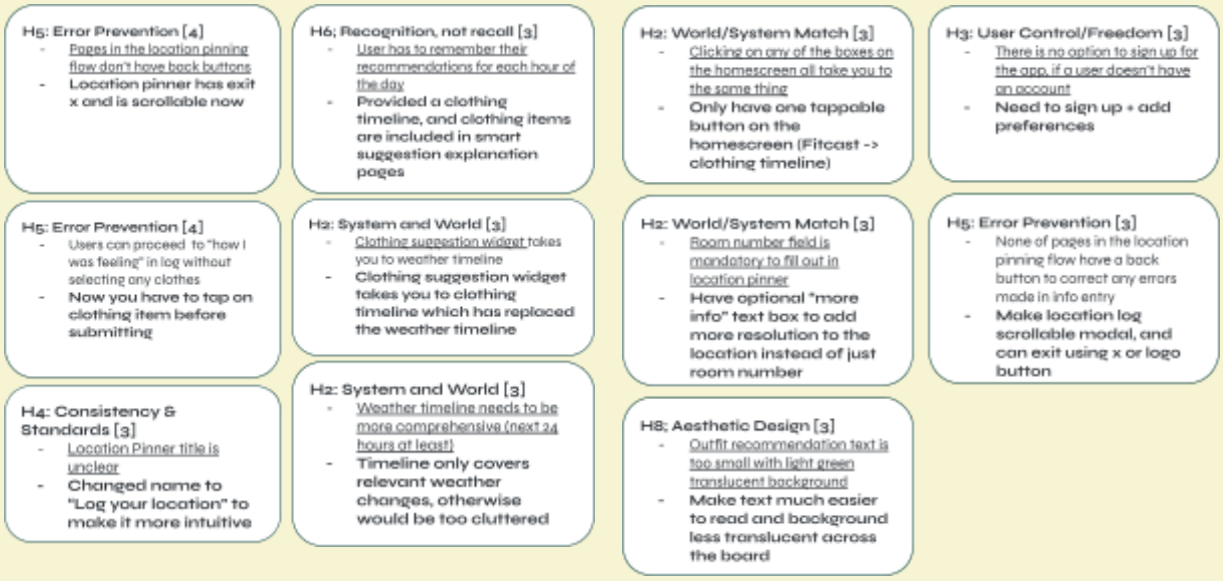
5) Weather Timeline

- Language is inconsistent (user/weather dependent)
- Icons inconsistent
- Need to cover more hours ahead of time (we decided only to cover times that call for changes in clothing)

6) Weather Log

- Colors are not indicative of whether or not someone has followed a suggestion
- No culturally diverse clothing icons
- Indicate that the log was already filled out/give option to update it

We looked specifically at the high severity violations and made sure to implement those changes, or find strong justification why not to. All of these violations were addressed in the medfi/hi fi prototype. **Please see the most important high severity violations below along with solutions in bold - we incorporated these along with others into our HiFi prototype:**



Updated MedFi (from HE)

Home Screen

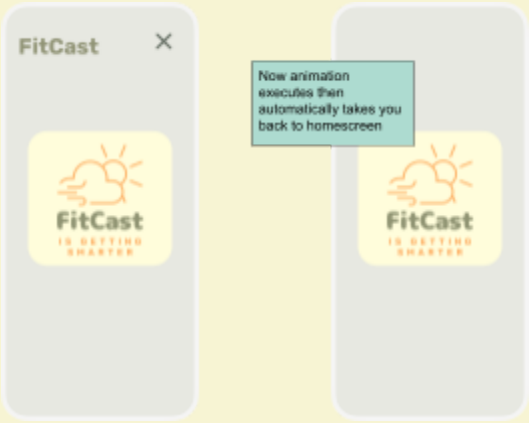
- Consolidated widget buttons and navigation, to make it less confusing

Timeline

- Weather timeline now a clothing timeline, such that users can better remember suggestions and also leans more into the main functionality of the app (we don't just want to make another weather app)
- Now we see what clothes are relevant for which times, and when new clothing is required while also preserving weather information

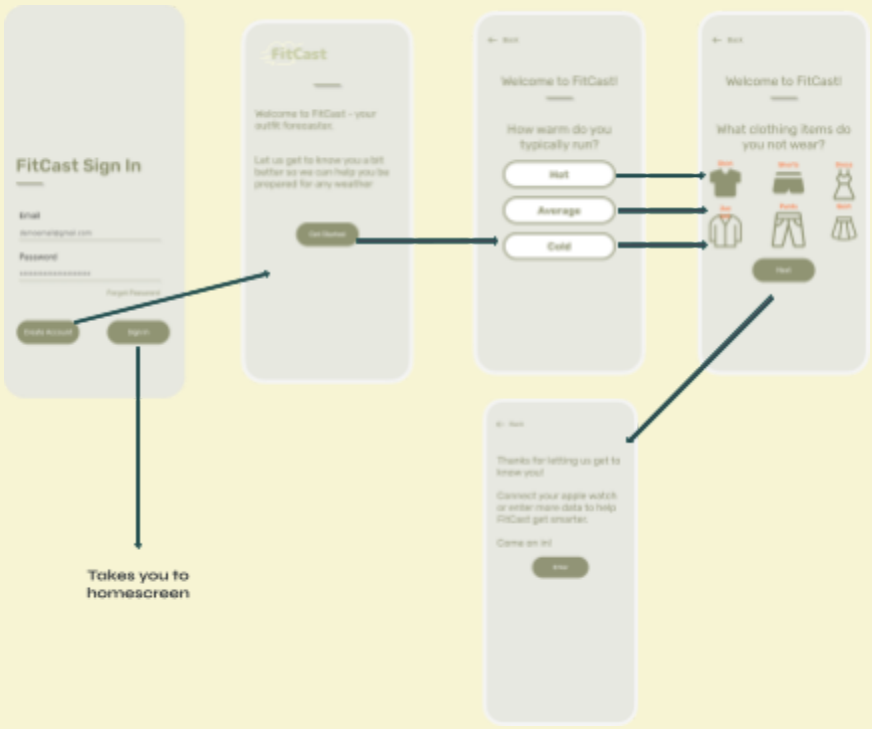
FitCast is Getting Smarter Animation

- Instead of having to tap out of the popup screen, the animation executes automatically and takes you back to the homescreen



Onboarding

- Added a create account page as suggested by feedback from HE
- Made screens more FitCast specific, colors now align with Fitcast scheme
- Be able to go back on questions in onboarding survey



Transformation into HiFi (from HE)

Based on the HE and our second iteration of the med-fi, we started implementing the hi-fi. Below are the integral changes.

Home Screen

- Background changes based on time and weather
- Changed colours and opacity
  - Made components easier to read - received HE feedback here
- Updated logo
- Pathways simplified, only "Your Fitcast" takes you to the timeline
  - Reduces redundancy, followed HE feedback
- Non clickable components are no longer widget looking
  - Ensures users know where they can click
- Bag removed

Weather Timeline

- Made the weather timeline more of a clothing timeline
  - Emphasizes the purpose of FitCast
- Only provides detailed info on weather when a user will need to adjust clothing
  - Reduces clutter, ensures users get the info they mainly need
- Emphasize AI functionality for determining a person's temperature profile

Navigation

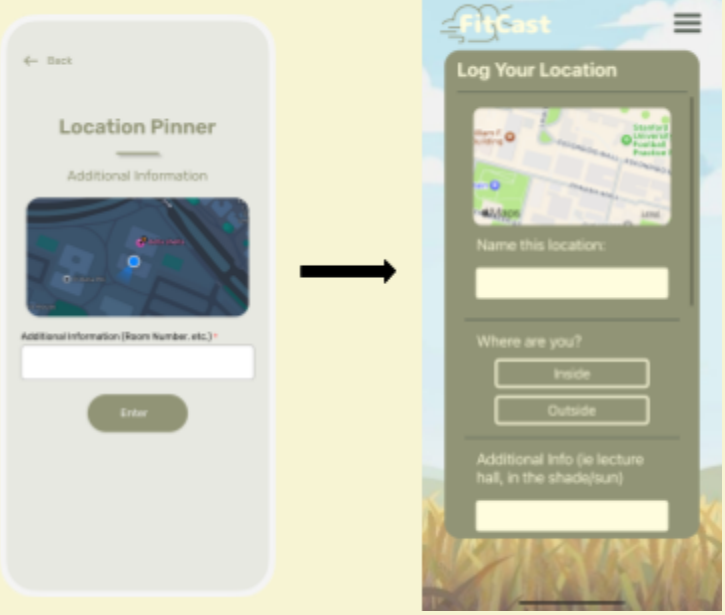
- Overall made navigation much more simple between screens
- Only the Your Fitcast widget takes you to the clothing timeline instead of having multiple paths
- All screens are accessible via a simple/straightforward pathway or the hamburger menu
- Logo will always take you back to the homescreen, and x will take you back to previous screen

Smart Suggestions

- Describes average temperature, among other metrics in simplistic terms
- Has clothing suggestions tied to weather
- ONLY FOCUSES ON TIMES WHERE ONE NEEDS TO CHANGE CLOTHES - otherwise would be unneeded extra information
- Reminder of suggestions included
- Explanation of smart suggestion for this particular weather condition in the day

Location Log

- Scrollable menu with a much more intuitive name
- Can exit out at any time and also go directly back to home screen by tapping on the logo
- The description box is now open ended instead of being restricted to room number
- Pops up automatically when using app in a new location
- Locations are saved (You can see drop down of other locations when typing in location)
- Integrated into home screen background + getting smarter animation



Suggestions Log

- Changed to more intuitive name
- Very simplistic design to minimize frustration with filling it out
- Integrated into the homescreen
- Pops up automatically at the end of the day
- Added a submit button which refreshes the log upon being pressed
- Animation of fitcast getting smarter appears for two seconds after filling it out

**Note that when opening the app it will either open straight to the home screen, to the location log pop up, or to the suggestions log pop up (simulate automatic pop ups at the end of the day or when a user is in a new location)*

Smart Feedback Animation

- Animation now shows that the app is getting smarter after filling out either the suggestion or location log
- The animation disappears after two seconds and appears as a modal not a new screen like in the med fi

See our final hifi prototype here. As a followup to our hifi, we actually integrated a real weather API to give real time suggestions that were not hard coded. See this version here.

Values in Design

Simplicity

- We want the design to be as simple as possible to improve the user experience/enjoyment along with reducing mental overhead associated with using FitCast
- A user can gather all information needed just from the home screen

Adoptability

- Avoid a steep learning curve, make tasks and user calibration as easy as possible such that a user understands what is happening but also is incentivised to use the app regularly
- Ease of use, aesthetics, usefulness of the app (using AI to tailor suggestions to the user and determine the true feel of the weather app) will all incentivise users to adopt the app
- The user can easily see everything on the home screen. The user can also calibrate to their own preferences on their own regards, whether through the location log or the suggestions log.

User autonomy

- Although we want our suggestions to be accurate, we want to preserve the user's ability to make their own choices when it comes to what they wear -> we will provide more vague suggestions as opposed to suggesting specific pieces of clothing
- We want to provide enough information on the weather such that a user still feels like they are making their own decision or at least understands why a certain suggestions is being made
    - In fact, the user can see why every suggestion is given to them, and they have complete freedom to choose whether or not to follow it.

Inclusion

- Be inclusive of all people based on how they perceive the weather (e.g. they might run hotter or colder than the average person)
- Be inclusive of different cultures, genders and preferences which may make someone more likely to wear certain pieces of clothing or have aversions to other pieces of clothing

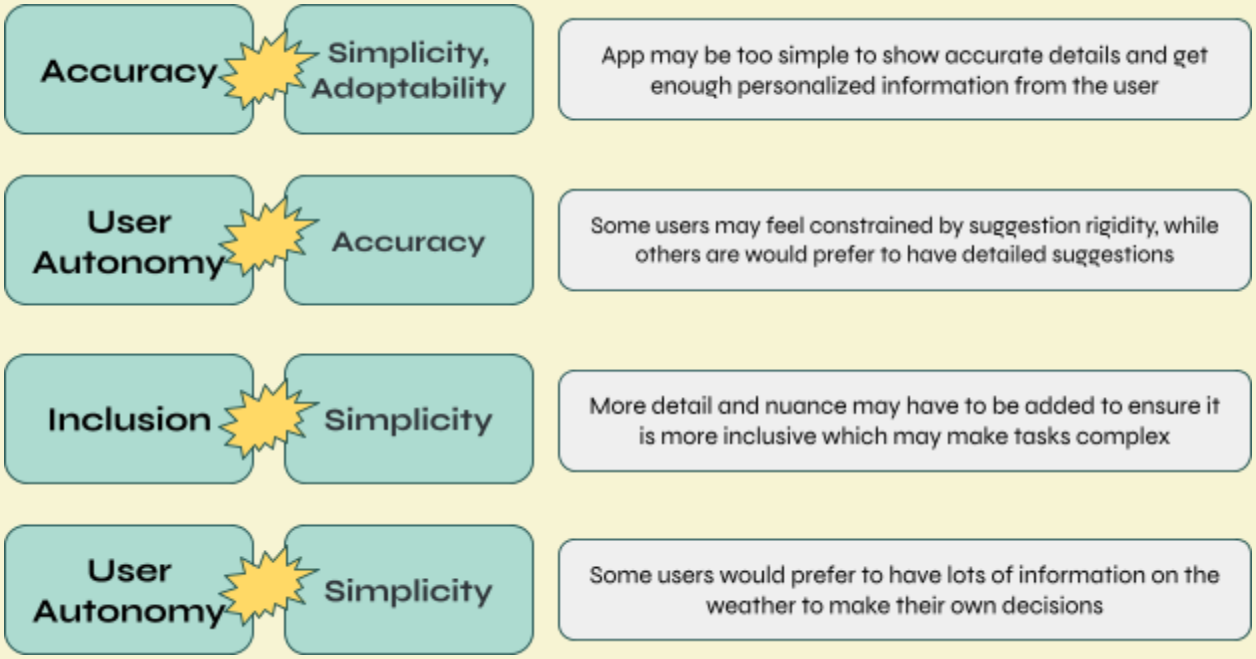
Accuracy

- Ensure that on the back-end we use a learning algorithm based on aggregated user data from smart watches and weather logging that is accurate
- If suggestions and determination of weather feel for a person is perceived as inaccurate by the user it would essentially render the app useless

Empathy

- The primary goal of this app comes from empathy, we want to reduce the mental overhead associated with deciding what to wear each day
- Moreover we have experienced being unprepared for weather changes, just so, we will
- We give our suggestions based on the struggles that we all have. We also are empathetic in choosing what to suggest.

There are some unavoidable value tensions.



At this point, since our accuracy is bound to fall (we don't have a fully implemented backend), we want to focus on simplicity and user autonomy. Our design value of inclusion is also at our forefront, and something that definitely cannot be traded for simplicity. We are sure to keep the app as simple and accurate as possible, while still preserving user autonomy and not excluding anyone.

Ethical implications

In the development of our app, we want to uphold our values of inclusion and user autonomy. In doing so, we want to address some of the ethical implications. In this realm, there exists an underlying value tension: dressing for the weather vs modesty vs fashion. We acknowledge and are aware that there are personal limitations for users when it comes to how people dress. Whether this is medical, religious, or just personal preference, we want users to feel that everyone belongs on the app and can benefit from it. We aim to gather as much information about each user as possible, and adapt their FitCast accordingly. We realize that although the system may not be perfect, asking questions about what the user does and does not wear helps prevent this.

Additionally, we acknowledge that there exists an entire industry surrounding weather that may get affected by apps like FitCast. Our goal is to streamline the process of checking the weather in the morning in order to determine what to wear. However, we want to reaffirm that our goal is not to replace weather apps, but to add onto their functionality. Additionally, we hope to emphasize that our app is not to give fashion suggestions, but simply practical suggestions to prepare for the temperatures. Also, since this is not a fashion app, and, rather, suggests categories of clothes, there are less barriers of entry to use (such as not having an extensive closet).

Throughout all of these, we need to be mindful of those who do not have the ability to dress for weather, or may not have access to the technology needed to benefit from an app like FitCast. Additionally, we feel that our app creates low friction and are hopeful that it will not raise large ethical implications.

Final Prototype Implementation

Tools

We built our high-fidelity prototype with React Native and Expo. All navigation was done with Stack Navigation and Drawer Navigation through Expo Router. We used Apple's Xcode Simulator to test the app as we developed it. We also used Git for version control. See here for our Git repository.

We had a great experience with Expo and being able to see real time changes. Some of the expo packages, like MapView, were very helpful and easy for us to install and use. GitHub was also very helpful for us to share code and ensure we could all work independently but still at the same time.

The only issues we ran into were small finicky things. Sometimes expo would glitch out and we would have to exit and reload the app completely. The error message and warning messages are sometimes also very broad and hard to pinpoint. Other times, the error messages are there but you can't find exactly where the errors are occurring. We also ran into some weird merge issues, especially since we had to keep a version of code for 147L. Overall, we had a rather pleasant experience.

Wizard of Oz Techniques and Hardcoding:

Randomized Pop-ups

Our prototype randomly decides when and if to display a suggestion log/location log pop up. Since their true triggers (moving locations/being nighttime) are unlikely to happen while testing the app itself, we currently have it set up to randomize whether something pop ups and which log pops up.

Hard Coded Features for this Technique:

- Pop ups are randomly decided
- Clothing icons on location log → would usually be adapted ot user needs/preferences
- Map location is set to Stanford d.school

AI Capabilities

Our prototype magically reveals clothing suggestions that a frequent user might see if they have already calibrated how they feel around these weather conditions. This is as we have hard coded a user's weather and clothing preferences.

Hard Coded Features for this Technique:

- User information → necessary so the rest of the hard coding aligns
- User weather preferences -> all interpretations of the weather based on 'previous' user interactions with the app
- Suggestions themselves → the text and the icons

Live Weather Updates

Our prototype simulates specific weather conditions in a hard-coded area. Upon opening the app, the user is shown simulated weather conditions in a hard-coded city, as well as hard coded weather statistics.

Hard Coded Features for this Technique:

- Current location
- Current local weather/statistics
- Current time
- Blocks of temperature and weather change

Note: we actually implemented a functional version of FitCast without many of these Wizard of Oz/hard coded components! Again, look here.

Reflection & Next Steps

Takeaways

Reflecting on this quarter, we have found a deeper understanding of what 'Unintentional Good' really means, and the importance of each step of the design process to support our final product.

Our studio's theme, 'Unintentional Good', definitely differentiated our approach from some of the other studios. We strived to pinpoint a common daily inconvenience that significantly impacts people's lives. Our specific domain was to find something that generated " mental overhead". We feel that FitCast strongly embodies our studio's essence by simplifying the menial (yet often unnoticed) task of interpreting weather forecasts to decide what to wear.

Throughout the quarter, we were surprised to notice how often us and people around us would benefit from FitCast. We noticed how often people talked about the weather, asked others what to wear, or regretted what they decided to wear. That being said, we have reflected a lot on how successful our needfinding process was.

More than that, this experience was really fun for us especially in understanding the power of teamwork and diverse perspectives. Incorporating feedback from the TAs, classmates, friends, and test

users really enriched our project, allowing us to aggregate a wide range of insights. We were able to improve and iterate our prototypes several times through several types of feedback.

In conclusion, this quarter has not only enhanced our skills in design thinking and problem-solving but has also deepened our appreciation for the design process and collaborative effort.! We are really proud of our app and feel very strongly that FitCast has great potential! We are excited to see where this leads us. Lastly, we as a team didn't all know each other before this class, and we are super grateful we got randomly chosen together and even became friends beyond this class!

Next Steps

We are excited to already see the impact of FitCast within this class. People around us tell us that they would definitely use our app. We see the need for it all around us. Looking ahead, we are even more enthusiastic about the potential to enhance and evolve our application. Below is a roadmap which includes key initiatives we are considering:

- **Implementing the Onboarding Survey**: We hope to launch a detailed survey, which is critical for establishing a baseline of personal temperature preferences and typical clothing choices. We had this implemented in our med-fi prototype, but plan to thoroughly implement the onboarding survey process during account creation. This will be a foundational step in offering truly tailored clothing suggestions.
- **Lock Screen Widget**: We would also like to implement a lock screen widget feature. This will drastically reduce the time it takes for users to decide their outfits each morning, as they can receive suggestions directly on their lock screen, bypassing the need to open the app.
- **Lock Screen Notifications**: Along the same line, we hope to implement automated time sensitive notifications to remind the user to open the app to log weather/location. This was included in our low-fi prototype but we didn’t get a chance to implement it in the med-fi and hi-fi due to platform constraints. This would come hand and hand with the existing pop ups that we have implemented, but with an extra nudge by sending a reminder while the user isn’t even on the app.
- **Advancing Back-End Data Storage**: Building upon our existing user interface for Location and Suggestion logs, we would need to implement some sort of sophisticated back-end storage system. This will ensure efficient handling and retrieval of user data, and the ability to iterate and build suggestions based on true user feedback.
- **Leveraging AI for Smart Personalization**: We currently have this hardcoded, but we hope to integrate advanced AI algorithms to transform the personalization of clothing suggestions. This includes integrating in user interactions and feedback, context about weather and occasions, and continuously improving and iterating feedback. This falls hand in hand with gathering that back end data storage so we can use that data to make improvements.
- **Introducing Secure Authentication**: Personalization demands privacy and security. Therefore, implementing a robust authentication protocol is crucial for associating data

securely with individual users.

- **Calendar integration**: Personalized suggestions based on your schedule and what rooms/ buildings you will be visiting that day/ how long you will be out. This will be improved by logging your location.
- **Seamless Integration with Wearable Tech**: Enhancing personalization with real-time data from wearable devices like temperature preferences and activity levels. Especially with real time temperature data, we can take some burden off the users to log their temperature feelings, rather we can gather that from the wearable.

We're hoping we can take some or all of these steps in the future, and are excited to see what FitCast can become!

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