

Designing for **Migraines**



Cocoon

Executive Summary

Our Mission

Chronic migraines affect over 12 percent of the US population and is most common in adults ages 18 to 44. During migraine episodes, sufferers cannot function properly due to their increased sensitivity to light, sound, and increased fatigue causing them to miss out on work for days at a time. To help combat the symptoms of migraines and help sufferers continue with their daily lives, we created Cocoon. Cocoon is a workplace migraine haven that adjusts its environment to the user's needs to help them continue in their work and maintain workplace productivity.



Our Product

Cocoon is a portable private workspace where users can enter its soundproof walls and shut the noise and lights of the office out while maintaining their productivity and drive. Combined with its corresponding desktop app, Cocoon tracks users' usage and environment preferences to create significant insights for users' usage patterns and understanding of their migraine preferences.

Our Competitive Advantages

Cocoon is the only private workspace on the market designed to help combat migraines and adjusts itself to the user's preferences based on their migraine needs. While there are other private workspaces on the market, none have been designed to allow users to focus on their health and comfort during a chronic illness episode for long periods of time while in the workplace. Our market research showed a demand in private dark workspaces that allow users to experience their migraine while at work without feeling shame or discomfort due to their environments.

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The Challenge.

This quarter we have been given the challenge of designing for stress. We were asked to focus on specific aspects of stress and how they affect users and devise our solutions for the causes or effects of the stress. We decided to target Chronic Migraines and their effects on users. We first begin our journey by defining stress and determining its relation to chronic migraines.

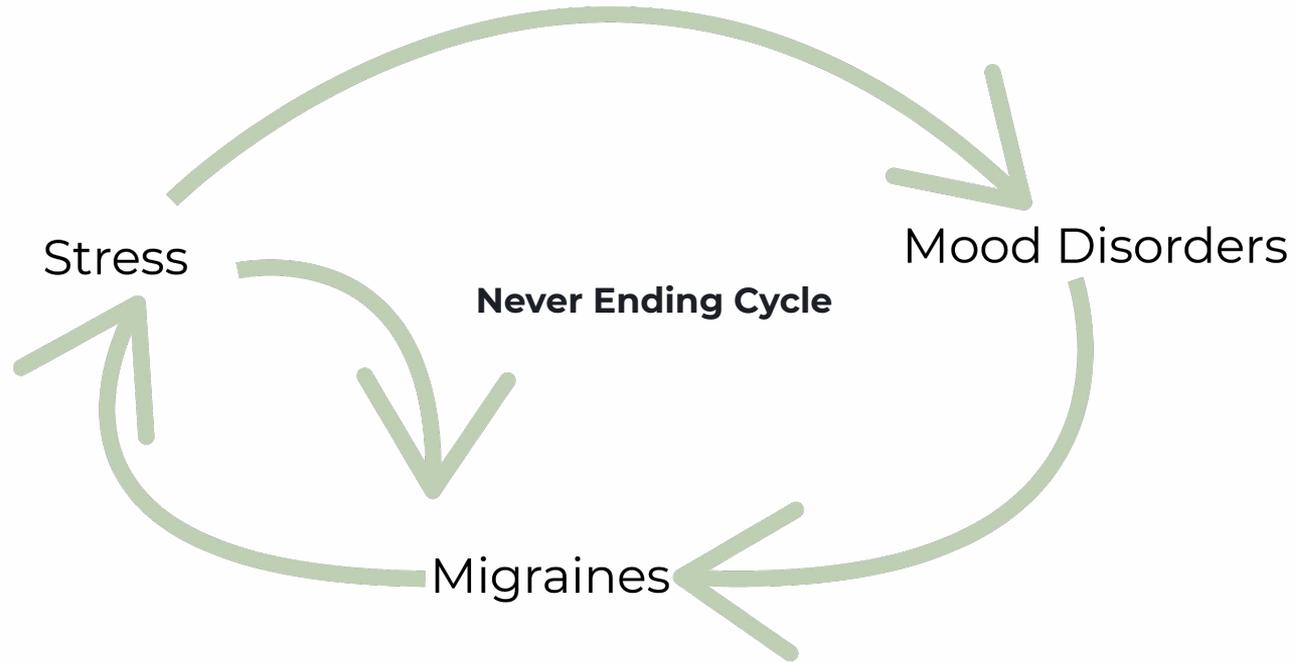




Stress.

noun.

: a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation



After thorough research we discovered that stress and migraines are directly correlated; stress tends to trigger migraines in those who suffer from chronic migraines and those migraines create increased stress and other mood disorders, causing even more stress. This leads to a never-ending cycle of pain in users.



Migraine.

(noun)

: a condition marked by recurrent moderate to severe headache with throbbing pain that usually lasts from 4 hours to 3 days, and is sometimes preceded by an aura and is often followed by fatigue



Primary Research

Migraine Research Foundation

After defining migraines and their direct correlation to stress, we furthered our research to understand just how many people are affected by migraines and how a migraine actually works.

Disabling

6th most disabling illness in the world.

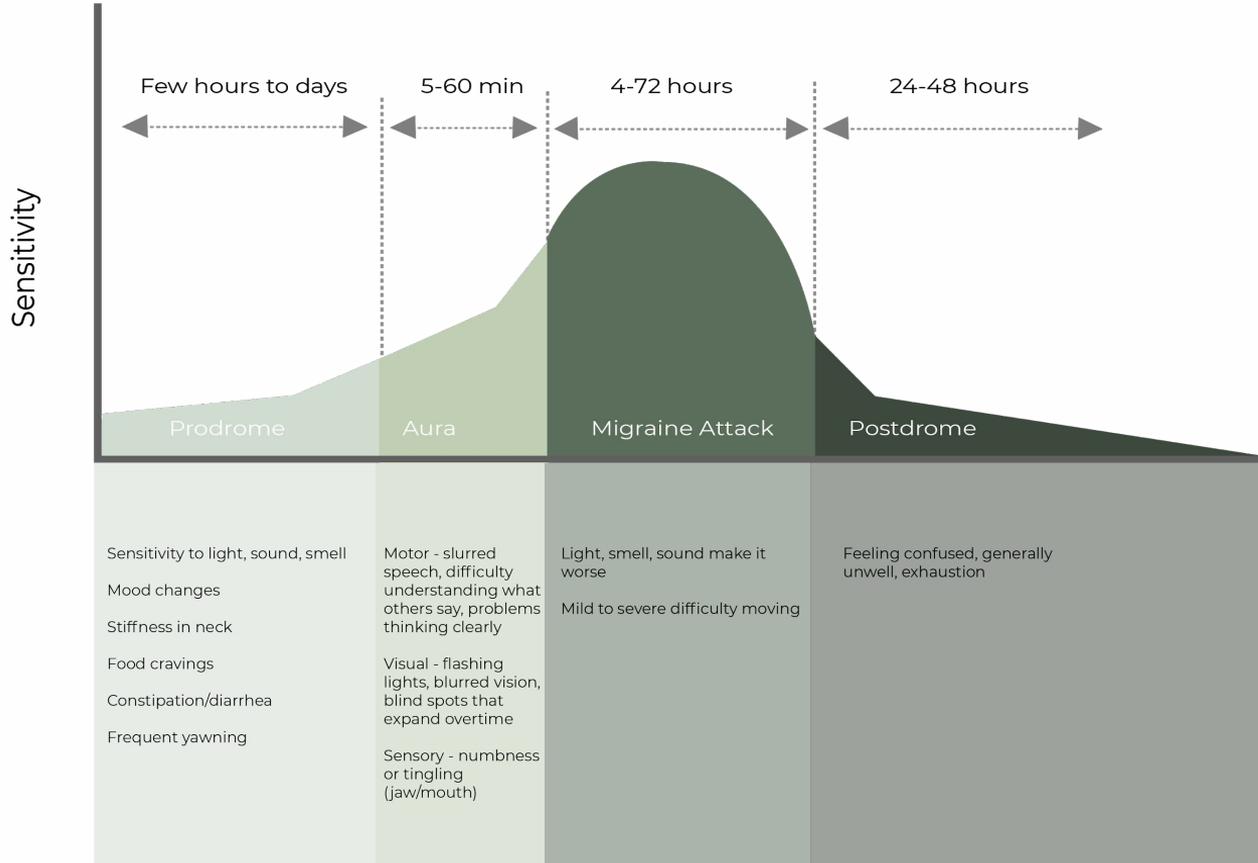
Inefficient

More than 90% cannot work or function normally during an episode.

Widespread

More than 4 million people have chronic daily migraines.

Migraine Progression



A migraine is experienced in multiple stages. In the following graph you will see an in depth analysis of the migraine process and what someone might expect to experience during each stage.

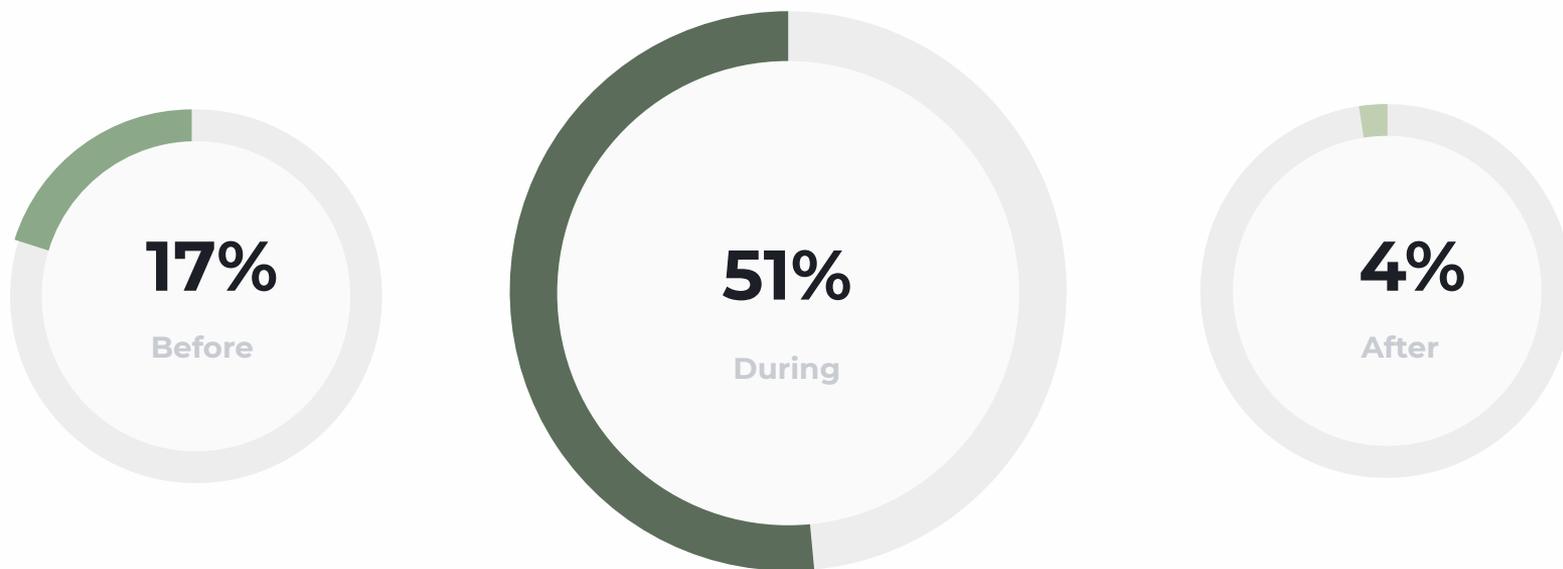


Primary Research

Surveys and Insights

Once we fully gathered an understanding of what a migraine was, we proceeded into primary research by creating a survey which we distributed into multiple migraine Facebook groups and migraine sufferers. The survey was intended to understand when our intended users experience the majority of their symptoms, to what severity, and what the symptoms were. The next few pages highlight the insights we received.

Stages where symptoms are experienced the most...



Key Survey Insights



45%

Have inhibited motor functions

100%

All migraines are experienced differently

96%

Experience sensitivity to light and sound



Migraine Frequency



5% margin of error.



UX Problem

After conducting our survey and interviews we discovered a problem. Majority of our users did not feel that the available products for their migraines catered to them. This presented us a UX problem: since all migraines are so individualistic there is no one solution to help soothe migraines.

As each migraine is different, so are the symptoms sufferers experience, this causes solutions to be varied in success rate, forcing users to continue to suffer.

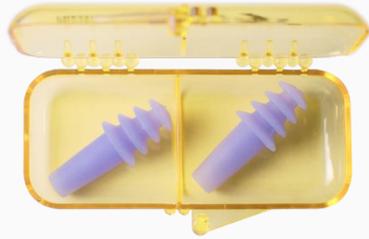




Primary Research

Market Research

Our users informed us that not only are their migraines various and different but that the solutions available are as well. To fully understand what our users have available to them, and how they feel about these products, we conducted extensive market research of both physical and virtual products designed to aid migraine sufferers.



MigraneX

Pressure regulating
earplug

Cefaly

sends mild electrical
pulses to the wearer's
forehead



Existing Inspiration

Wearable Technology

Wearable technology is booming to detect what your protectors and triggers are.

Physical Design

Identifies triggers

Track + stops migraine



Coisum Orthopedic Memory foam Pillow

Head and neck relief
pillow

Trigger Point Massage Balls

Massage pressure
points on head, neck,
and shoulders



Existing Inspiration

Pillows and massagers

There is a plethora of specialty pillows and massagers to both smooth and prevent migraines and headaches.

Physical Design

Prevents migraines

Soothes headaches and migraines



Manage My Pain

Helps you track symptoms of your migraine attacks

Migraine Insight

Help you identify triggers, combination triggers, or patterns that are correlating with your attack



Existing Inspiration

Apps

Apps are used to track and log symptoms and can be paired with a wearable technology.

Interactive

Identify triggers used for prevention

Track and record migraine

Track migraine symptoms

Learn healthy coping mechanisms



Target User

Adults (18+)

Frequent migraine sufferers who are working in an office setting or in higher education.



Design Opportunities

Educational and Healthy Coping Mechanisms

Getting to know your type of migraine

Knowing what can help before an episode starts

Having family/friends help when an episode starts

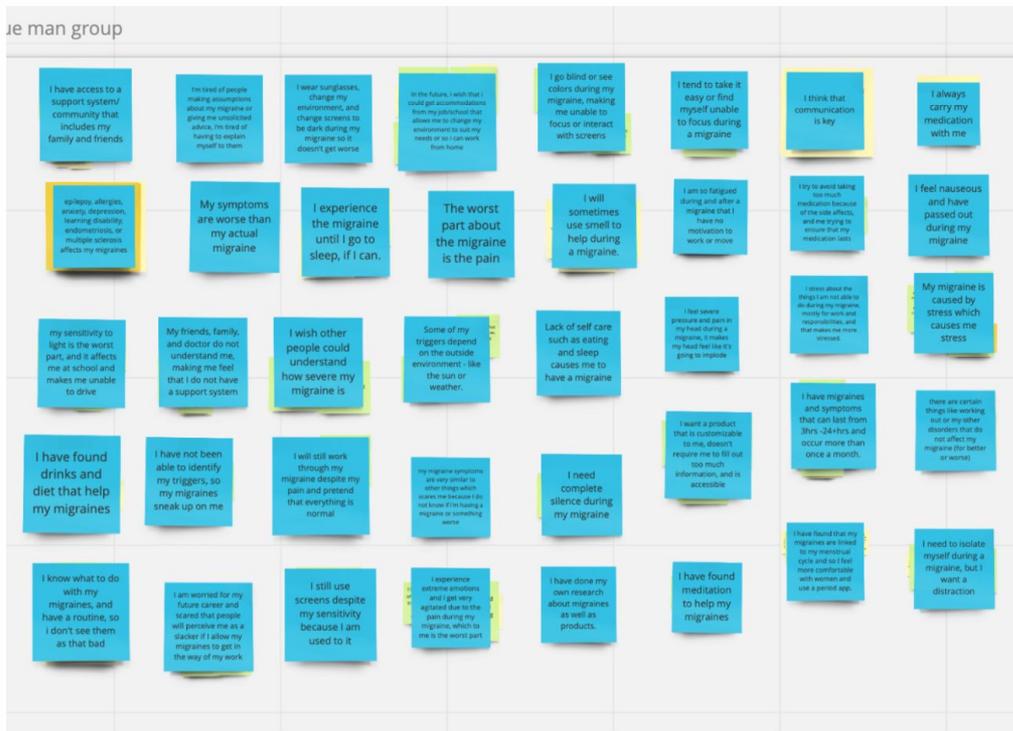
Staying calm

Learning healthy coping

Expected Outcome

A physical or virtual product that aids in the education and overall relief of migraine symptoms.

one man group



Affinitization & How Might We

To fully understand what our users told us during our interviews and survey, we conducted a group affinitization where we took every sentence said by our users during an interview and formed it into a data point. We then spent multiple days combining similar data points into larger and larger groups till we reached our How Might We statements, the statements that determine the intent of our project.



630+
Datapoints



12
Interviews



9
HMW Categories

HMW: help users find methods that are effective for their migraines (41)

users have found that their methods have no influence on their migraine what to enter (21)

users have tried past responses without methods and strategies that either did not work for them or they viewed as ineffective (20)

HMW: assist users in completing their work despite their pain (31)

users still use screens and work despite their pain to feel normal (31)

HMW: help users to discover and understand their triggers to alleviate their fear (49)

I have not been able to identify my triggers, so my migraines sneak up on me (12)

my migraine symptoms are very similar to other things which leaves me because I do not know if I'm having a migraine or something worse (6)

users' migraines are triggered by outside uncontrollable sources such as other disorders or the outside environment (31)

HMW: facilitate communication and deeper understanding with social and professional environment to create a more comfortable future (136)

users wish for their friends to have an understanding of their condition and how it affects their life so they can provide support and advice (136)

users want a professional understanding of their condition from their doctors, therapists, and other healthcare providers so they can get the best care possible (136)

I feel more comfortable speaking with someone about my migraine pain (2)

users enjoy connecting with other people who have migraines so they can share their experiences and get support (2)

HMW: help users find their routines and methods that will help them in their migraine (108)

users struggle to create their medication on their own and try to avoid taking too much out of fear of side effects (6)

users need a clear and subject treatment during a migraine but also someone to talk to when they're not (2)

users have found that certain routines and methods help them manage their migraines (108)

HMW: users handle the severity, frequency, and duration of their symptoms (33)

Once my migraine is over, my post symptoms slowly fade away (3)

My pre-symptoms are worse than my actual migraine and lasts a long time (4)

I have migraines and symptoms that can last from 3hrs - 24hrs and occur more than once a month (26)

HMW: Help the user's emotional understanding of their sensory and emotional hindrances (151)

users' migraines cause them to miss out on things and feel like they're going through hell (151)

users feel the words used to describe migraines makes them aware of their own and others' experiences (151)

users often feel like they're going through hell and that they're not alone (151)

users go blind, feel dizzy, and feel like they're going through hell (151)

HMW: help users find self care methods that keep them from having migraines (72)

users look self care methods and trying to avoid taking too much out of fear of side effects (72)

I experience the migraine until I go to sleep, if I can (5)

my worst migraine occurred as a child when I didn't know what was happening (3)

I have found that my migraines are linked to my menstrual cycle and use a period app to track it (9)

How Might We:

Focused Design Questions:

... help the user's sensory and emotional hindrances?

... help users find their routines and methods that will help them in their migraine?

... facilitate communication and deeper understanding with social and professional environment to create a more comfortable future?

...help users find self care methods that keep them from having migraines

...help users to discover and understand their triggers to alleviate their fear

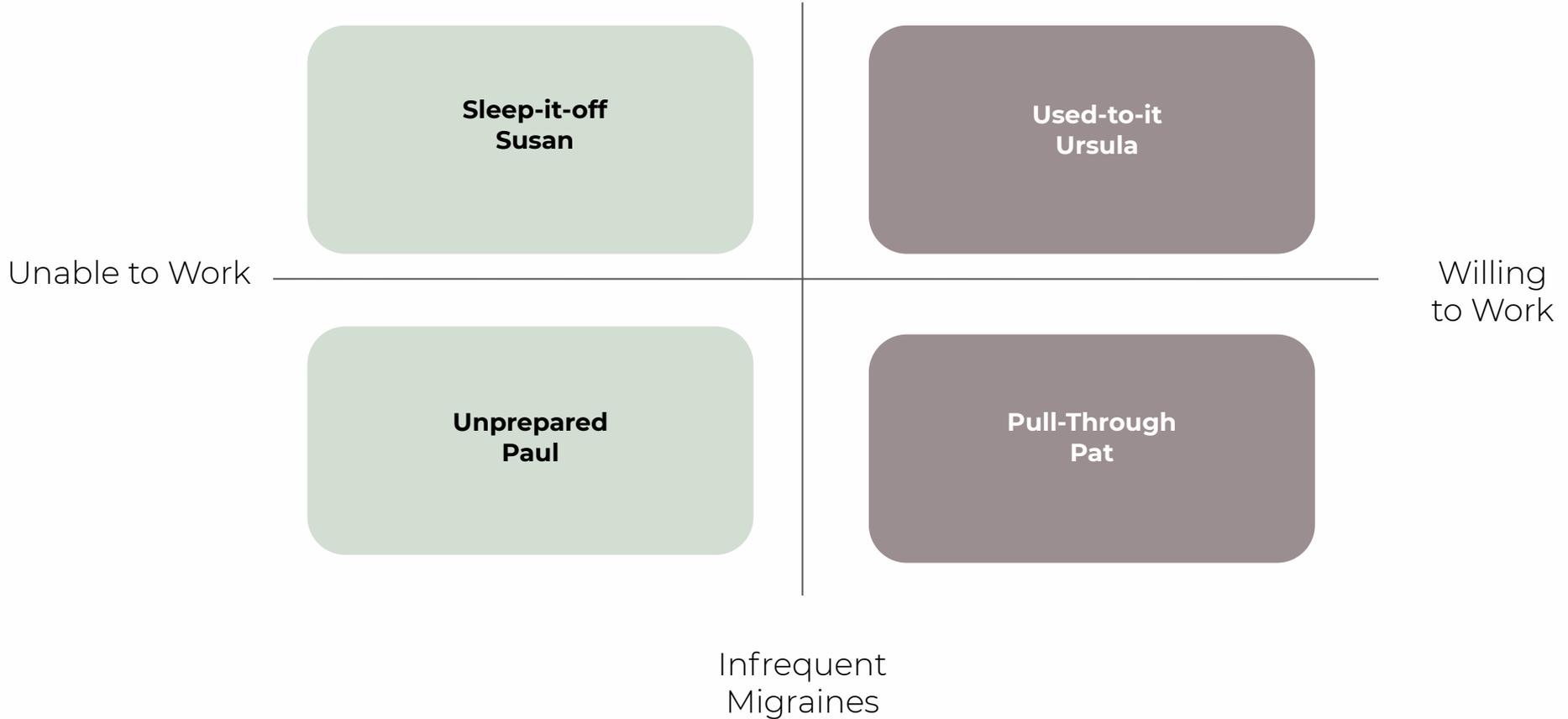


User Personas

Now that we reached an understanding of our users, the current market, and the user's needs and wants, we created user personas. User personas are designed to represent the various types of users that our product targets. We designed four major users:

Used to it Ursula
Pull Through Pat
Sleep it Off Susan
Unprepared Paul

Daily Migraines



Used-to-it Ursula

Lawyer from Israel

Having gone through her routine for years, she knows her limit and energy capacity, which allows her to continue on with her daily functions at work, even if there's a limit to how much screen time or noise she can handle. Ursa knows if she misses out on her work every time she had a migraine, she might as well be unemployed, and prefers to push through the pain to continue her daily life.

47

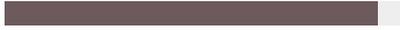
Years Old

15

Age Migraines
Started



Sensitivity 

Frequency 

Energy 

Preparedness 

Pull-Through-Pat

Construction Worker, PA

Pat isn't used to his migraines so he's not quite sure what to do with himself yet, but he knows he can't miss work. Despite the pain Pat just pulls through it and tries to continue his day. Once he gets home, Pat collapses on his bed, fully drained from his energy.

30

Years Old

15

Age Migraines
Started



Sensitivity

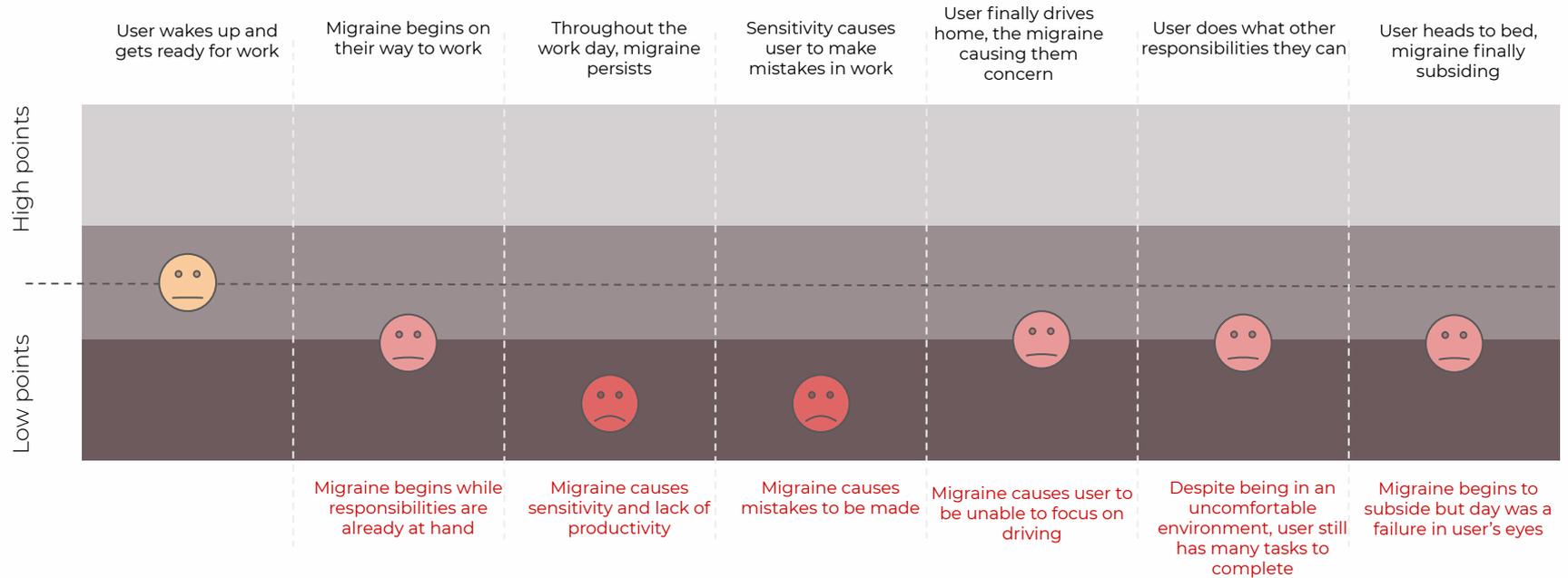
Frequency

Energy

Preparedness

Working Through the Pain

Used-to-it-Ursula and Pull-Thru-Pat



Sleep-it-off Susan

Teacher, Columbus OH.

Though her migraines come frequently now, she still can't find the energy to bring herself to teach her choir class, which she knows will make her migraine even worse. Once her migraine hits, she calls in sick from work, shuts herself in her room, and waits for the migraine to go away.



28

Years Old

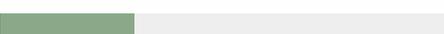
20

Age Migraines
Started

Sensitivity 

Frequency 

Energy 

Preparedness 

Unprepared Paul

Student, Puerto Rico

Paul is not sure what triggers his migraines so he feels unprepared each time they appear, so he ends up collapsing in bed the moment one comes and ends up having to skip his classes and work. He's worried that if it keeps happening he'll end up failing his classes.

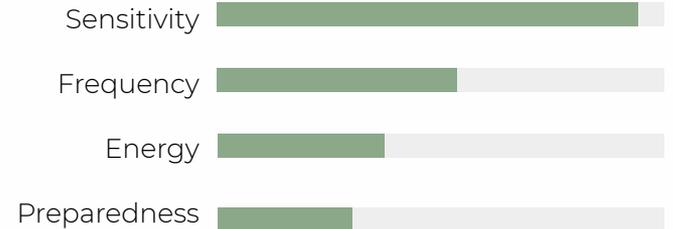


21

Years Old

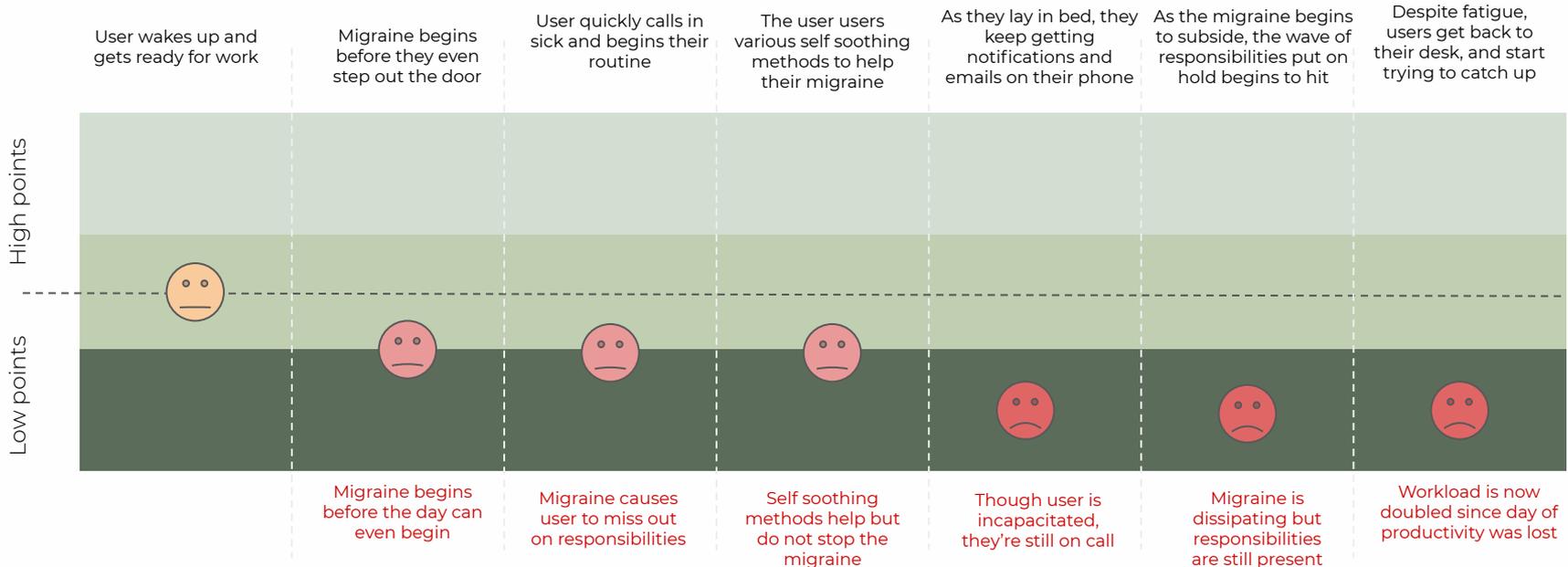
12

Age Migraines
Started



Letting the Pain Take Over

Sleep-it-off Susan & Unprepared Paul





Initial Concepts

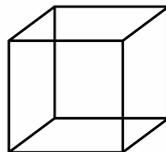
Once we reached a full understanding of our users, we designed three initial concepts to target our multiple user groups. Each concept was designed to focus on a specific How Might We statement to ensure our products reached the users' highest frequency needs and wants.

Our 3 Concepts



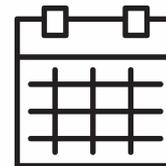
Smart Glasses

Smart glasses that adjust to the environment around you.



Black Box

A smart pod that is your escape from sensory overload.



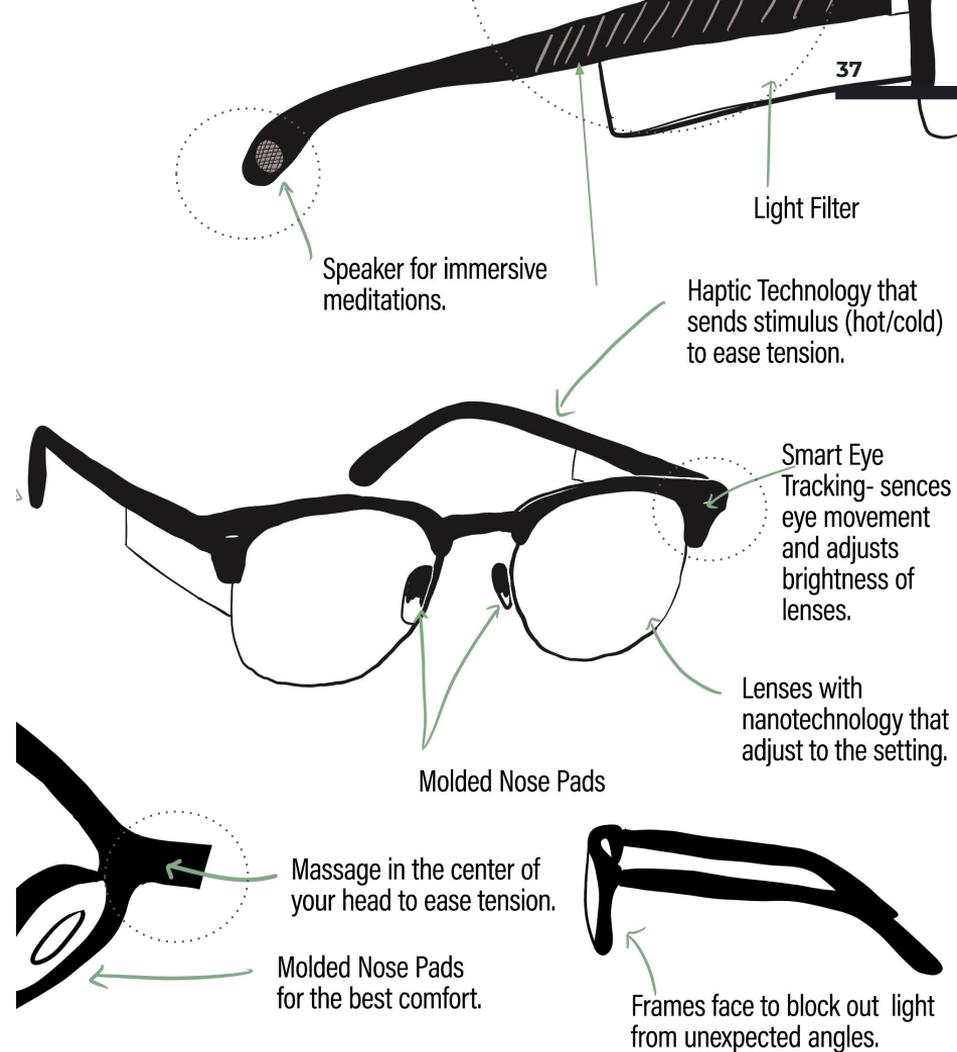
Smart Calendar

Tracks calendar without the barrier of screen.

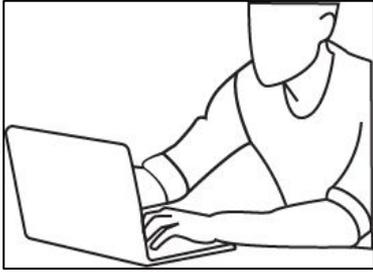
Smart Glasses

Concept 1

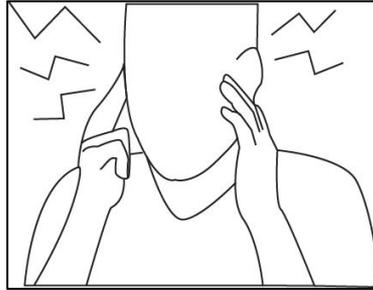
Glasses that use filter technology that tracks your eye movement adjusts settings to deal with light and sound. It also uses haptic feedback and sound to reduce the severity of symptoms.



Storyboard. Concept 1



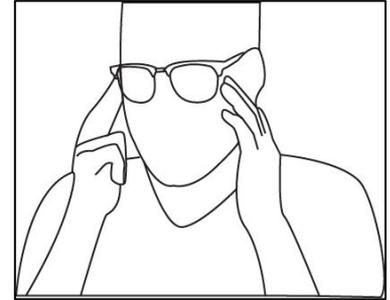
Paul's job requires him to sit at his computer all day



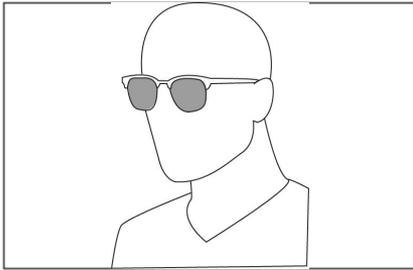
As a migraine starts to creep up on him, Paul begins to feel severe pain



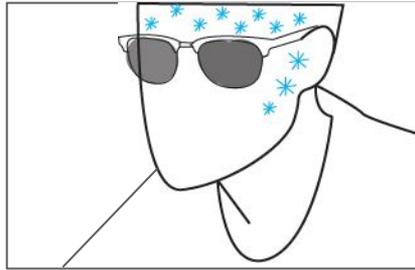
The incandescent lighting and glare from his computer start to become unbearable



Paul decides to put on a pair of migraine glasses which help lessen the severity of his surroundings



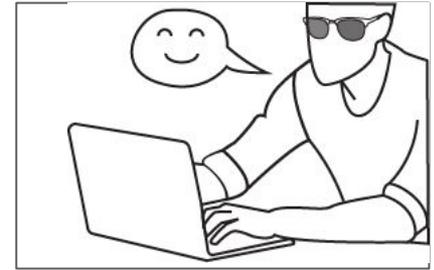
The glasses begin to tint to Paul's preference, helping darken his surroundings to suit his needs



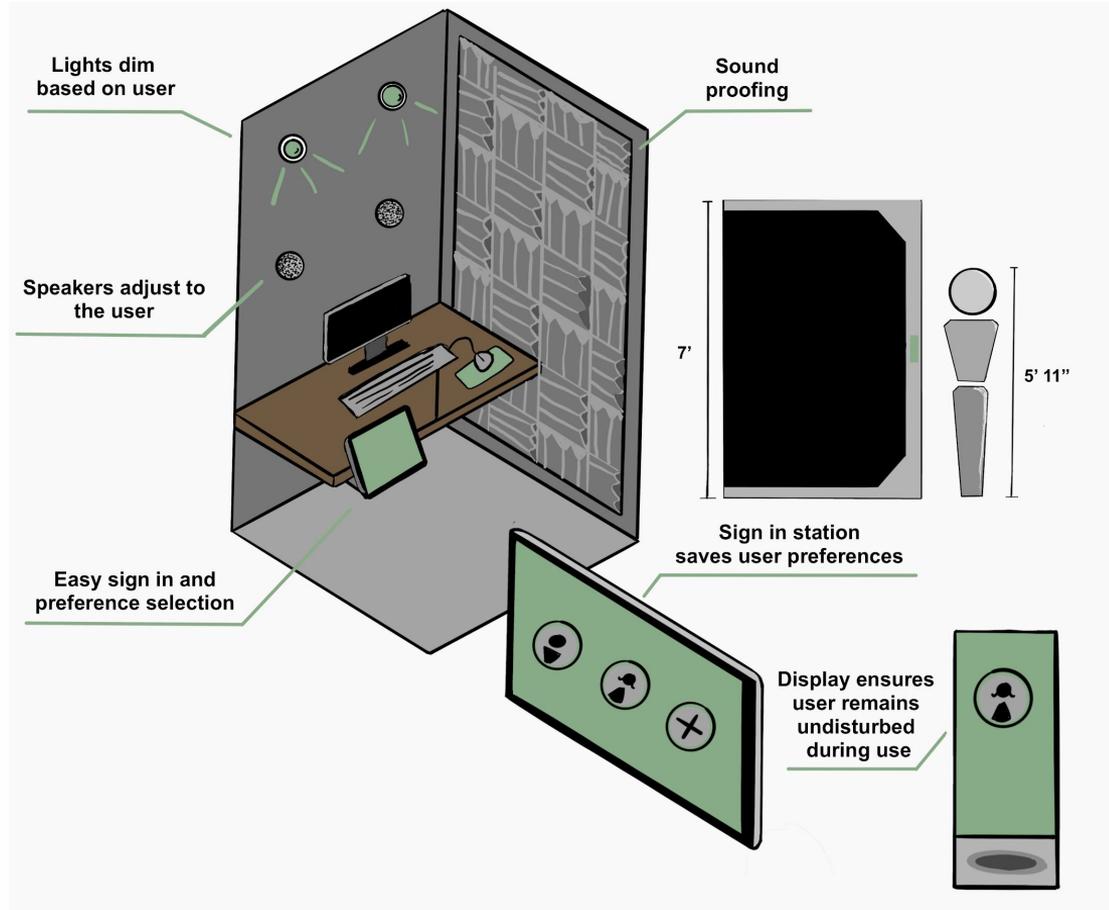
As his migraine persists, Paul activates the cooling sensors on his frames, sending cooling waves on his temple



As he continues on with his day, Paul listens to migraine meditations to help soothe him



Paul is grateful for his glasses that help adjust his stimuli to suit his needs



Black-Box

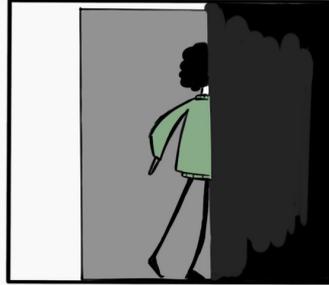
Concept 2

A fully customizable work environment that adapts lighting, sound, and privacy settings to fit the user's individual migraine needs

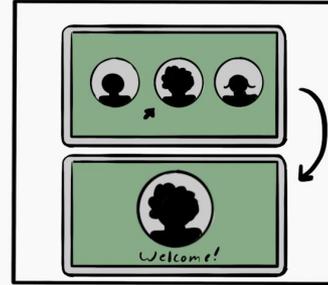
Storyboard. Concept 2



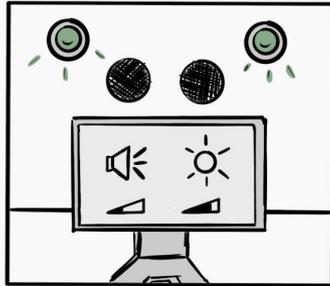
As Susan get a migraine she finds it impossible to focus on work.



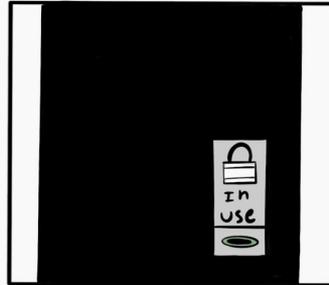
She enters the nearest Black-Box, and is immediately placed in a peaceful and controlled environment.



Susan easily signs into her personalized profile with her unique preset preferences.



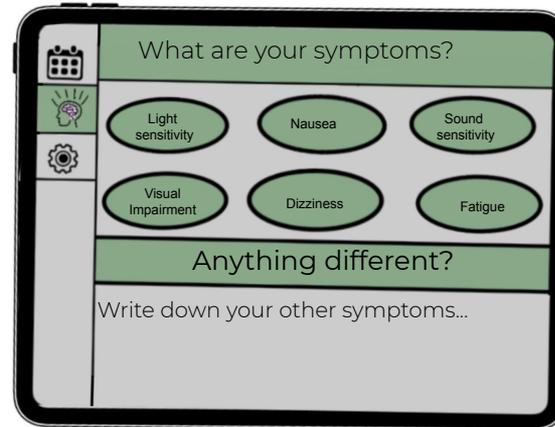
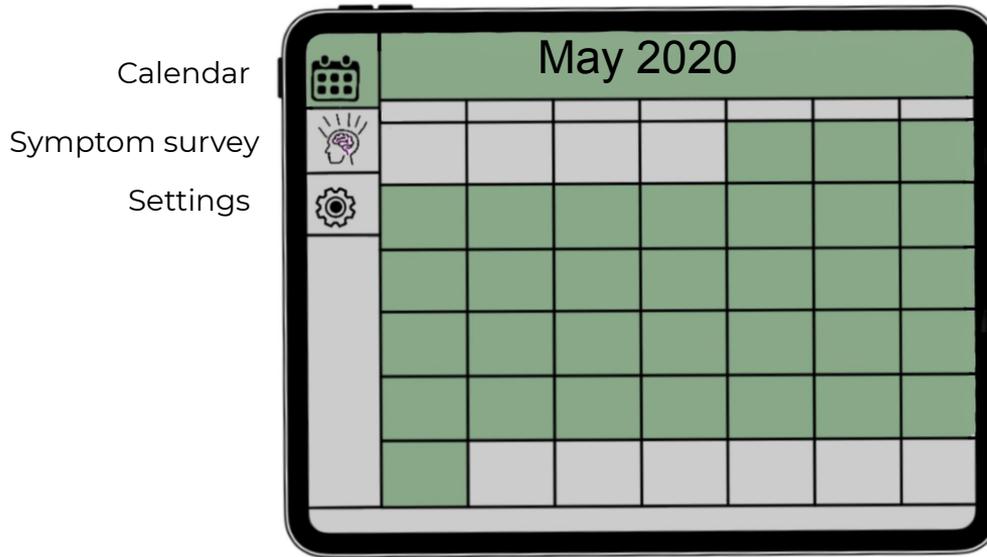
The computer and workspace automatically change to her preferences, as the lights and speakers adjust to soothe her..



Susan is now able to remain undisturbed and undistracted due to Black Box's privacy features.



The customization and controlled environment provided, help ease Susan's migraine symptoms and allow her to stay productive in her workplace.



Smart Calendar

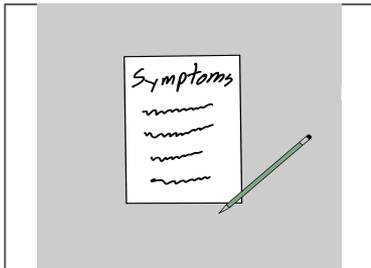
Concept 3

A wall attachment calendar tracker that allows the user to track symptoms and triggers, see patterns in between migraines and share information with support system professionals.

Storyboard. Concept 3



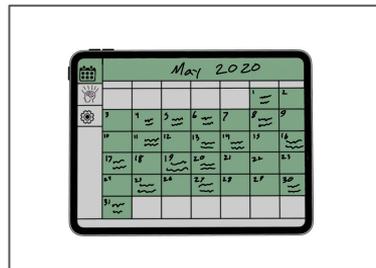
Ursula experiences daily migraines and is used to working through the pain.



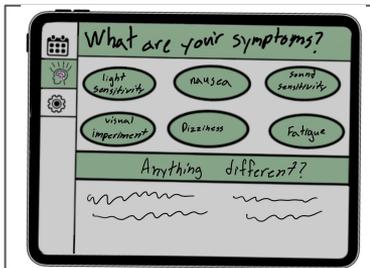
She wants to track her symptoms and triggers to understand changes overtime.



Having frequent symptoms or triggers suggested each time helps with consistency and wording.



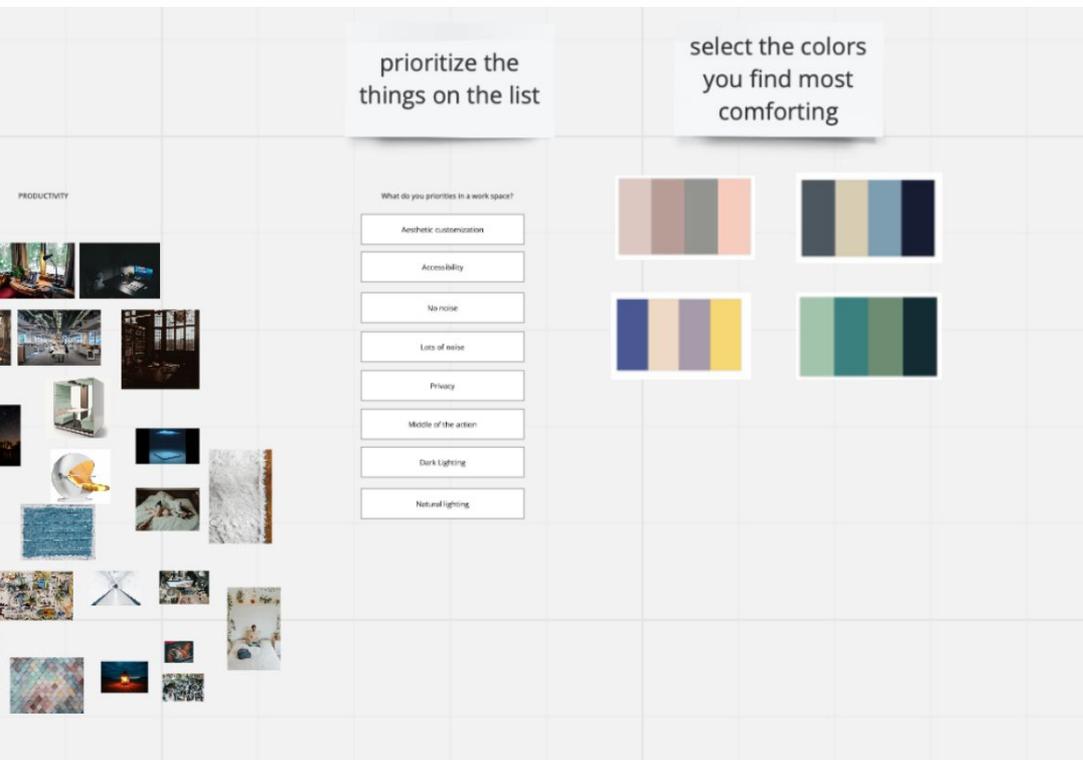
Smart Calendar allows Ursula to see patterns within her migraines when looking back on them.



Ursula is also able to share her symptom and trigger trends with her neurologist and other professionals.



Altogether, Ursula and her support team can see her unique trends over time as her symptoms, triggers, and overall migraines change.



Refining the Concept

After thorough deliberation and concept analysis, our group decided to continue refinement of our Black box. We conducted analysis of the current competitor market to understand what our product needs to both stand out and benefit a wide set of users; in addition, we conducted a Sensory Cue Kit¹ to understand our user's aesthetic and environmental preferences.

1. Sensory Cue Kit copyright of Lextant. All rights reserved.

How Might We

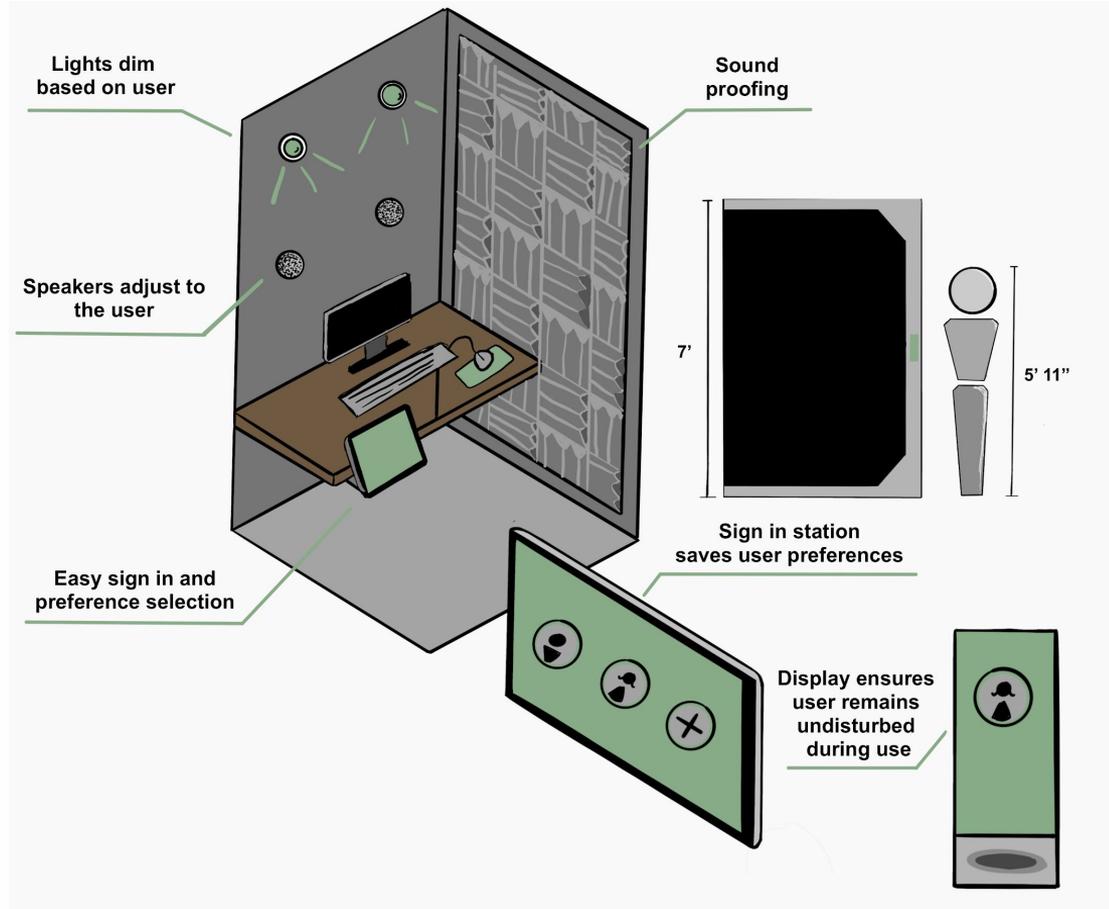


... help the user's sensory and emotional hindrances?



... facilitate communication and deeper understanding with social and professional environment?





Black-Box

Concept 2

A fully customizable work environment that adapts lighting, sound, and privacy settings to fit the user's individual migraine needs

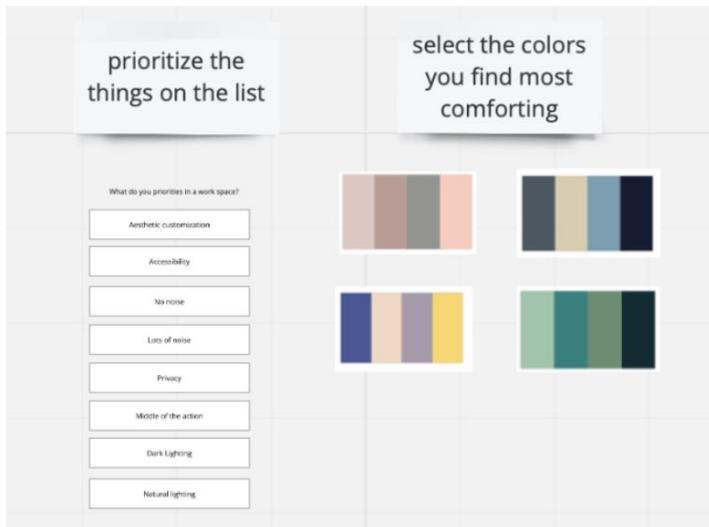
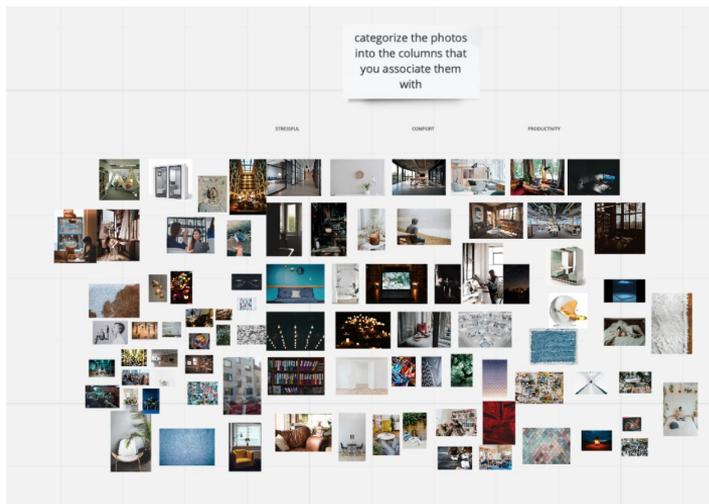
Competitor Analysis

	Features	Screen Provided	Wheelchair Accessible	Storage	Chair	Speakers	Adjustable Desk	Dimmable Lighting	Charging Station	Sound Proof	AC
Company	Hush	X	X	✓	X	✓	X	✓	✓	✓	✓
	Emagispace	X	X	X	X	X	✓	✓	✓	✓	✓
	Zenbooth	X	X	X	X	X	✓	✓	✓	✓	✓
	Framery	X	X	X	✓	✓	X	X	=	✓	✓
	Spaceworx	X	X	X	X	X	X	✓	✓	✓	✓
	Officebricks	X	=	X	X	X	✓	X	✓	✓	✓
	Room	X	X	X	X	X	X	X	✓	✓	✓
	Studiobricks	X	=	X	X	X	X	X	✓	✓	✓

X = Does not include

✓ = Included

= = Can be included



Sensory Cue

Image Sorting
Feature Prioritizing
Color Palette Options

15
Participants

categorize the photos
into the columns that
you associate them
with

High
Frequency

Medium
Frequency

Low
Frequency

STRESSFUL

4 of 9
users



3 of 9
users



COMFORT

4 of 9
users



3 of 9
users



PRODUCTIVITY

5 of 9
users



4 of 9
users



3 of 9
users



Sensory Cue Insights

- Interaction with others to be the most stressful
- Loud spaces to be stressful
- Dark rooms with natural or low warm lighting to be comfortable
- Clean and low naturally lit places as productive

prioritize the
things on the list

What do you priorities in a work space?

Dark Lighting

No noise

Privacy

Accessibility

Aesthetic customization

Natural lighting

Middle of the action

Lots of noise

High
Frequency

Medium
Frequency

Low
Frequency

Sensory Cue Insights

- Prioritized dark lighting and no noise
- 2nd in priority were privacy and accessibility
- Lowest priority was aesthetic customization, natural lighting, middle of the action, and lots of noise

select the colors
you find most
comforting



Sensory Cue Insights

- Green as an ideal palette with pink second
- In the future, the green should have more similar shades and not go as dark





Refined Concept

Initial Design

Based on our data from our Sensory Cue Kit² and market research, we created Cocoon, a unique workplace haven for migraines that allows users to customize its interior environment to their needs both within its walls or through its corresponding app. In the next pages you will see Cocoon's full features and design.

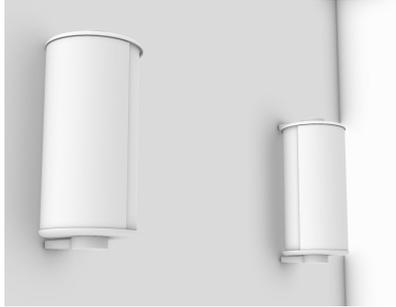


Cocoon

The Workplace Haven for Migraines

Cocoon is the ideal way to stay productive while customizing your space to your migraine needs.





Dimmable RGB lights

Adjustable standing desk
Ventilation for fresh air
Sound-proof walls

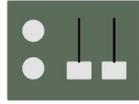
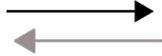


Cocoon Features

- Fully Adjustable Environment
- Privacy Blinds
- Personalized account sign in

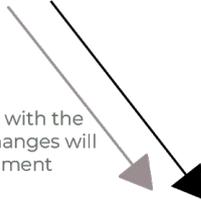
Interaction Model

Desktop App



Control Pad

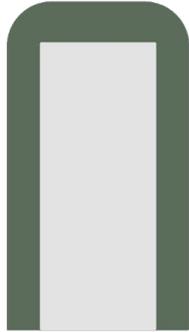
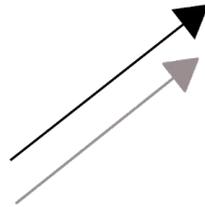
When user interacts with the control panel, the changes will be made to the environment



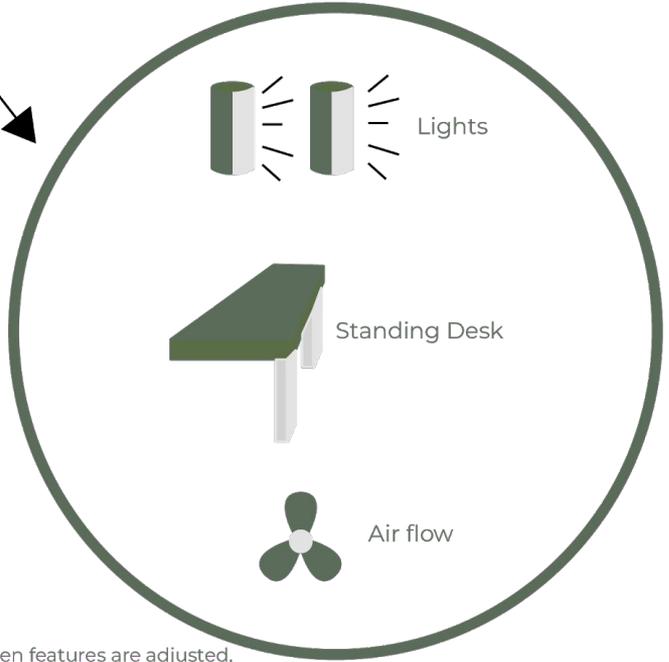
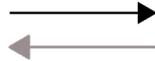
Changes in the Cocoon from the control panel will be logged into the desktop app. This allows users to see their usage and settings.



User



Cocoon Pod



Lights

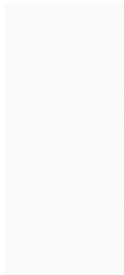
Standing Desk

Air flow

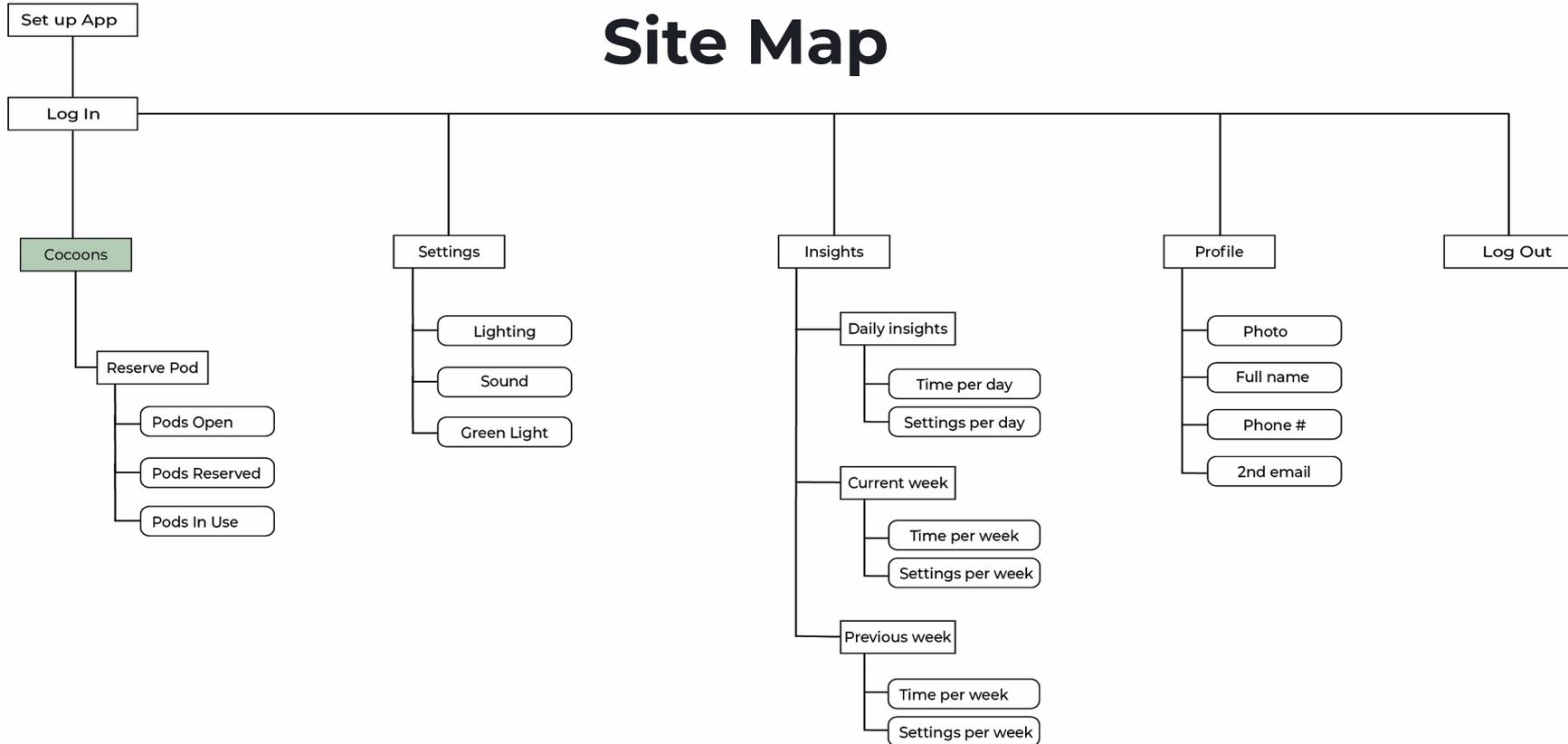
When features are adjusted, it will change the environment of the Cocoon itself.

Interactions

Communication between users and users

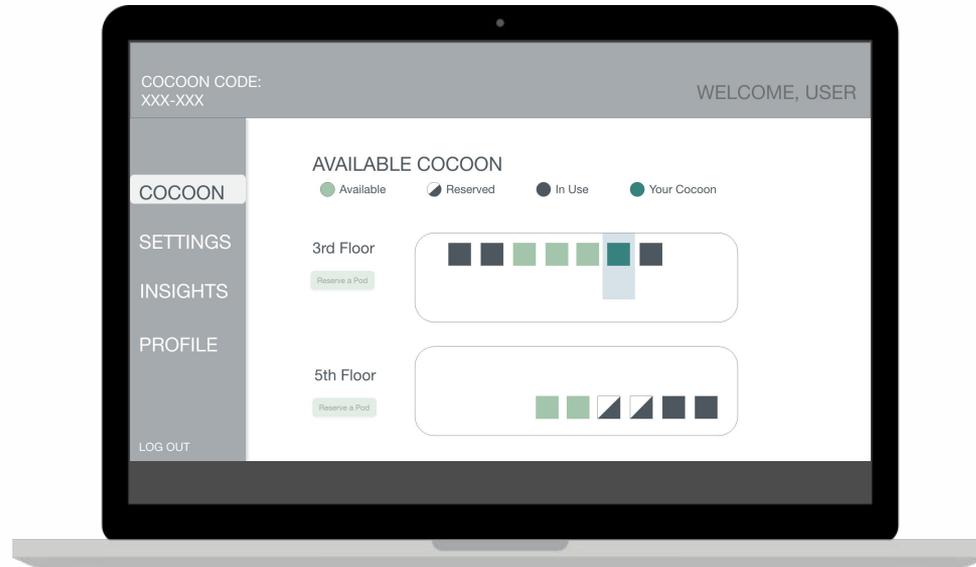


Desktop Initial Site Map



App Features

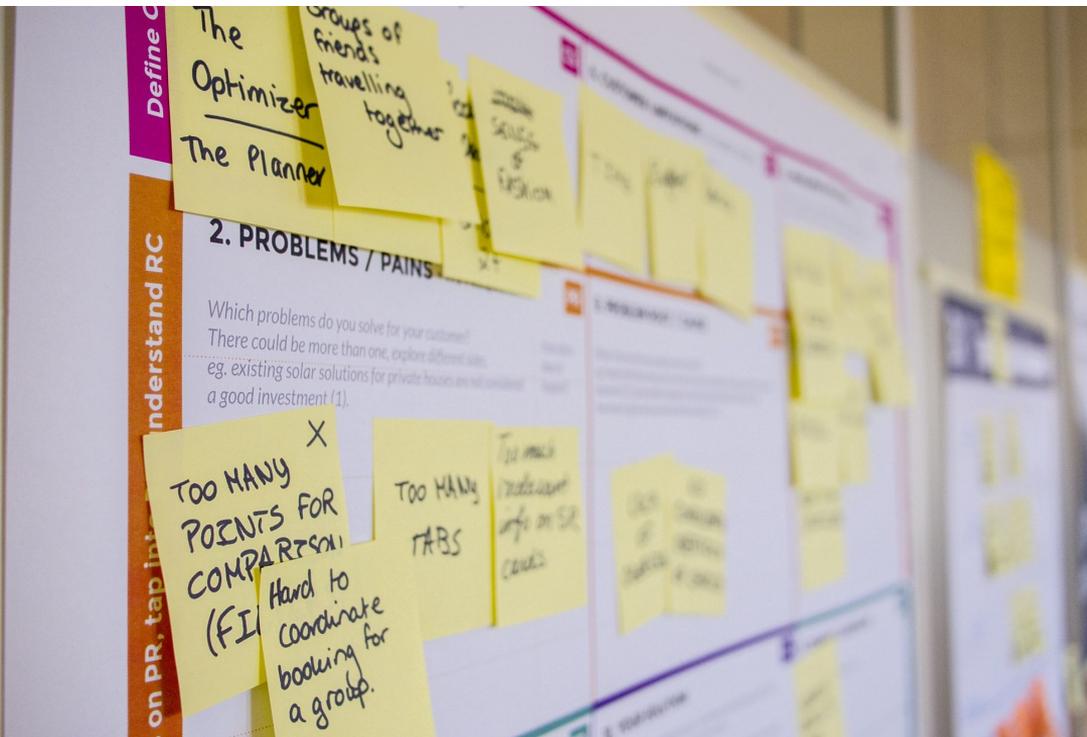
With Cocoon's companion app, users are able to see pod availability, change their settings from their desk and look at their personal data usage.



Reserve or use on the go

Adjustments for you

Analyze your usage



Evaluation Methods

To fully flesh out our idea, we conducted various evaluation methods including Quasi empirical design questions, expert user testing, system usability scale. Through these methods we asked our users to evaluate our designs in order to increase user flow, comfort, and effectiveness.

Migraine Users and Expert Testing

Physical product & Desktop Application



Quasi Empirical Design Questions

Physical product



System Usability Scale

To measure application against industry standard



Evaluation Questions

- How can we design a space that is both approachable, comfortable, and focus minded for our users?
- Does the flow and usability of our app correspond seamlessly with our product?
- How effective is our product at easing migraines and maintaining productivity in our users?



User Testing.

Round 1

Users were then given access to the Cocoon desktop app prototype and were asked to conduct tasks.

6

Users

2

Expert Interviews



Scott McElrath

Architect - Dangerous Architects

Physical Form:

- Doesn't look much different than a tiny office/cubicle
- Look into ADA compliance/electric/HVAC fixtures
- Be more intentional with our features, design for holistic experience around the name "Cocoon"
- How will business set it up in office spaces?

"It would be nice to see some designs that "dress" it up a little so it's not just a box."

Taylor Dunley

UX UI Designer - RADIO SYSTEMS ; PetSafe

General:

- The analog is nice, especially for when dealing with migraines
- Space could potentially be too small for some
- Could potentially have a stigma around it [cocoon pod]
 - Questioned if it is a place to work or a place to unwind

“I'd live in here.”

UI interface:

- Settings for different profiles
 - Focus, Migraine
- Separate reserve button is a little unintuitive
- Most people associate account/ profile and logging out, so they don't need to be separate

System Usability Scale

<https://www.usability.gov/how-to-and-tools/methods/system-usability-scale.html>



Our Score: 90.7

N = 7

System Usability Scale

SUS Evaluations

Questions with largest variety of answers:

I found the app interface unnecessarily complex.

I thought the app interface was easy to use.

Improvement

More emphasis on the relation and use of Cocoon and companion app

Trimming down personal information & rewording to be more organic

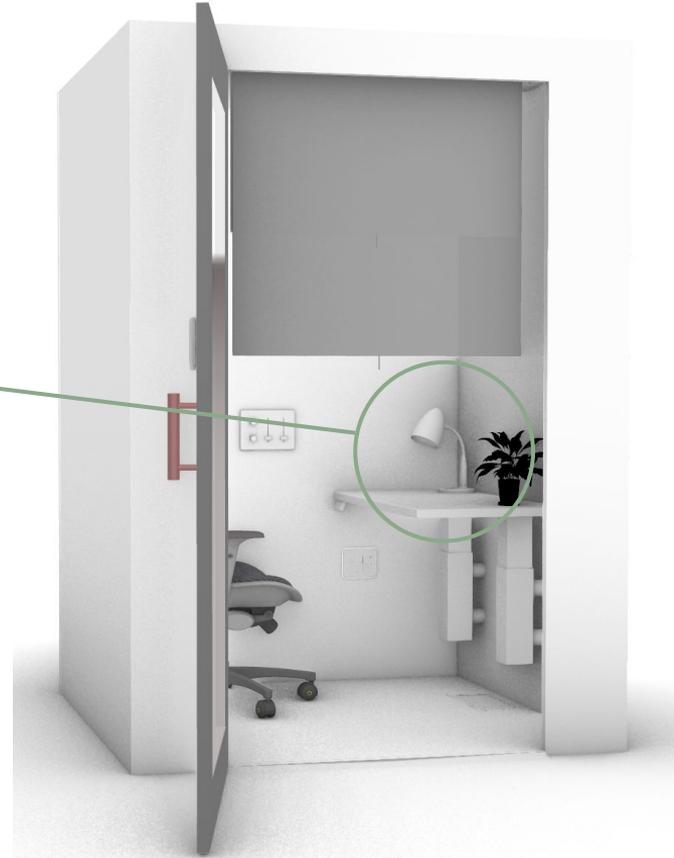
Physical Form

Problem

- People found Cocoon approachable but not inviting
- Users didn't believe they would use the desk lamp with a migraine

Potential Solutions

- Redesigning pod to be more organic and approachable
- Redesign lighting system above the desk

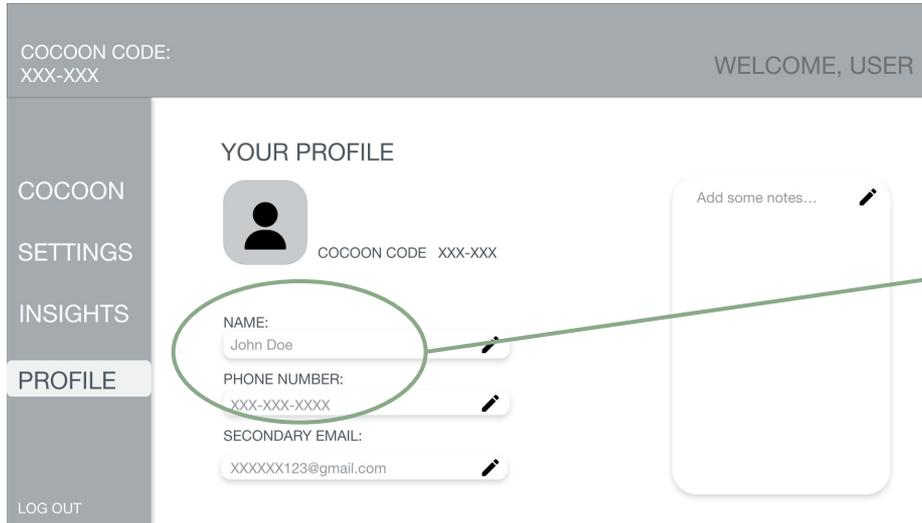


Physical Form

User Preferences

- Frosted door for natural light
- Hidden soundproofing
- Card sign-in
- Users prefer analog over interface
- Users wanted control over the warmth of the light, but didn't care about changing the color





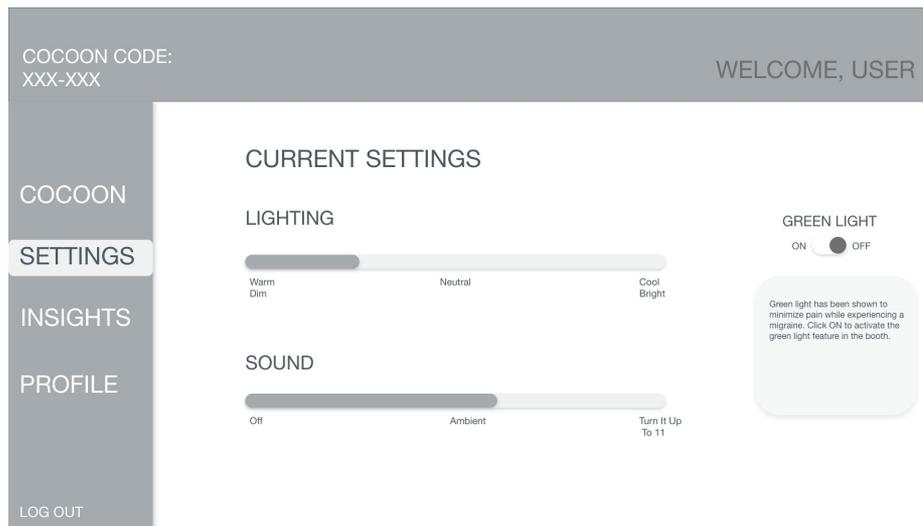
Desktop App

Problem

- Users were uncomfortable with having personal information on app

Potential Solution

- Re-evaluate the need for a profile/contact page and information



Desktop App

Problem

- Users want to be able to adjust preferences for all components within the app

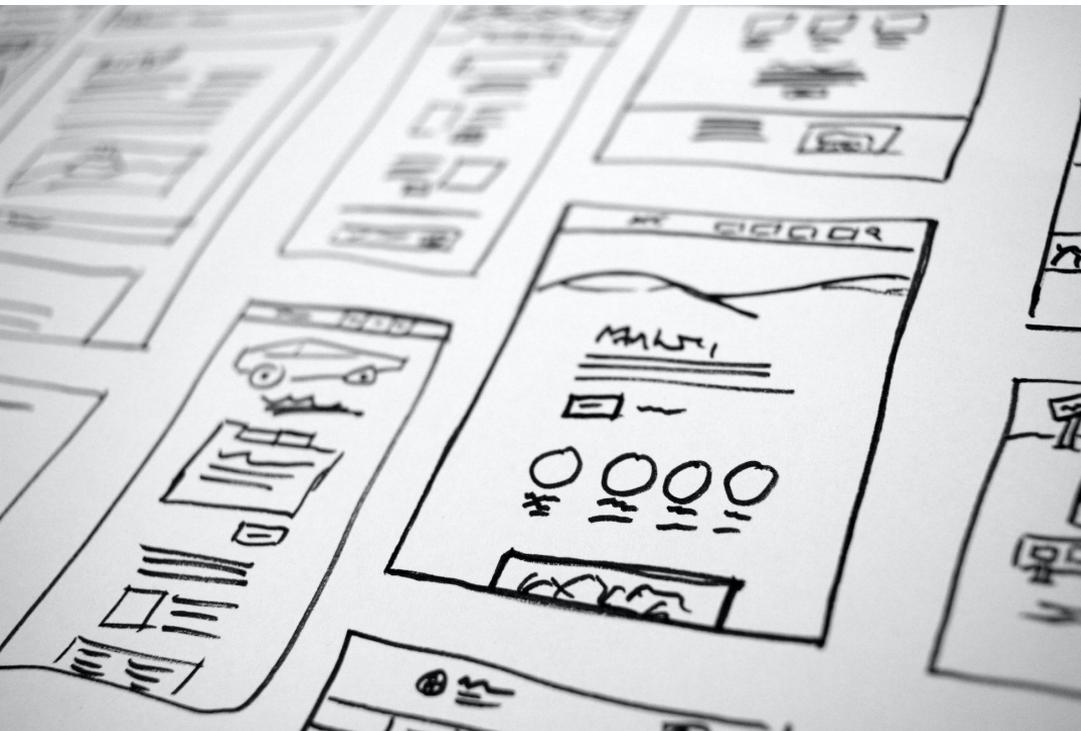
Potential Solution

- Adding all settings from physical Cocoon Pod into the app
- Creating categories for different modes - focus & migraines
- Many users were intrigued by the green light definition and benefits.



Requested Changes Summary

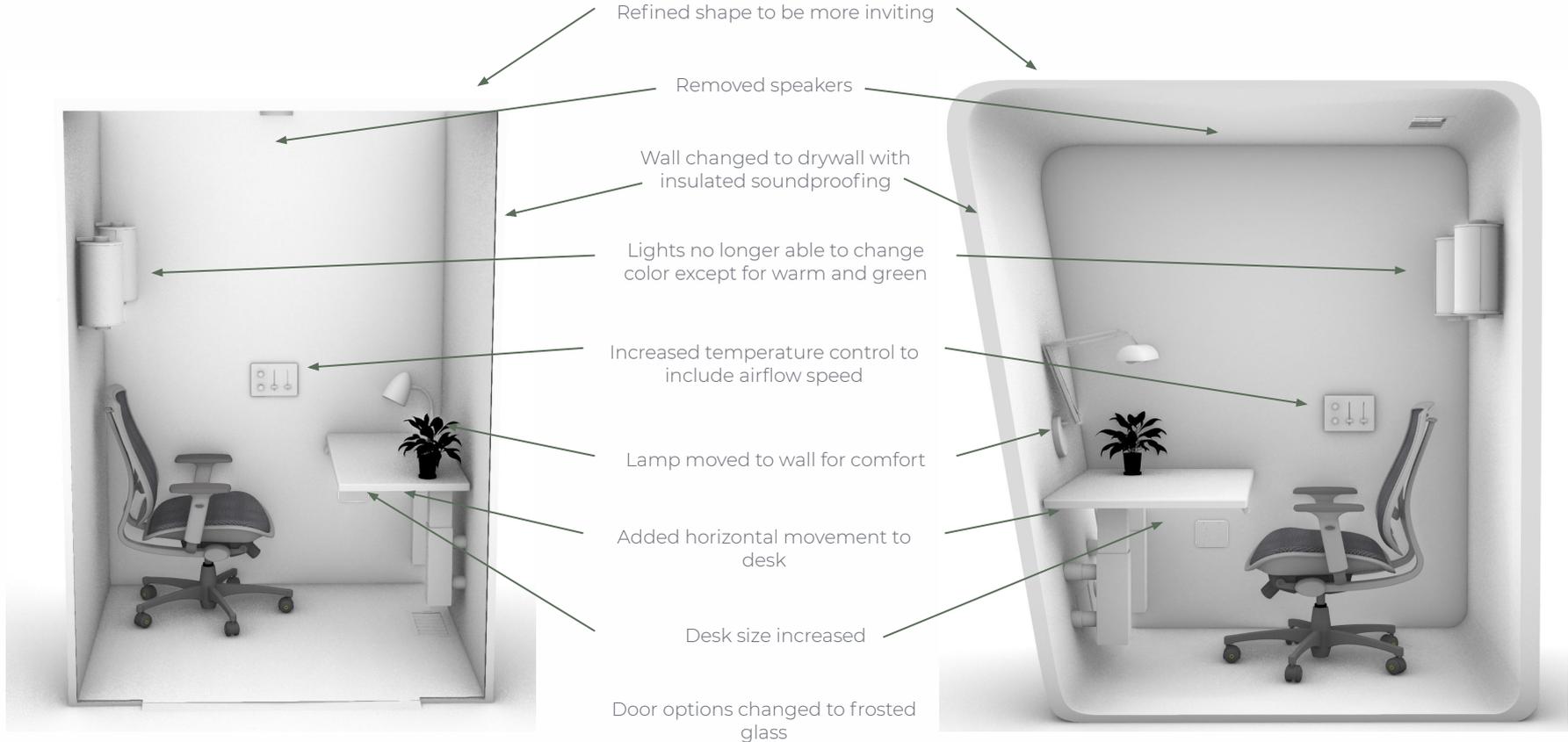
- Adding all settings from physical Cocoon Pod into the app
- Creating categories for different modes - focus & migraines
- Re-evaluate the need for a profile/ contact page and information,
- Redesigning pod to be more organic and approachable
- Redesign lighting system above the desk

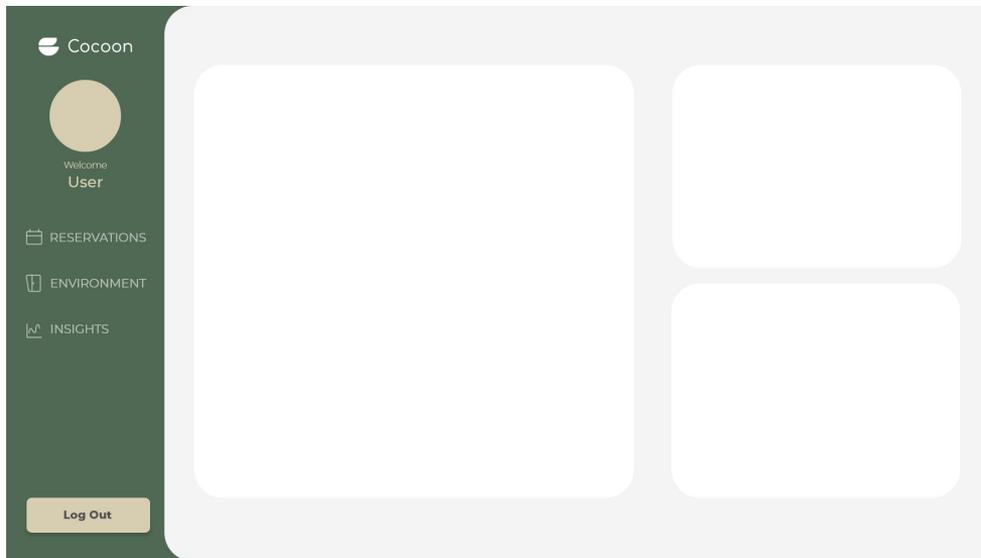


User Tests Pt. 2

Based on our initial user testing we conducted a second round with our refined design and app. While the first round of user testing focused on usability and flow, the following user tests were strictly expert testing focusing on the aesthetic of the product and its branding.

Physical Changes



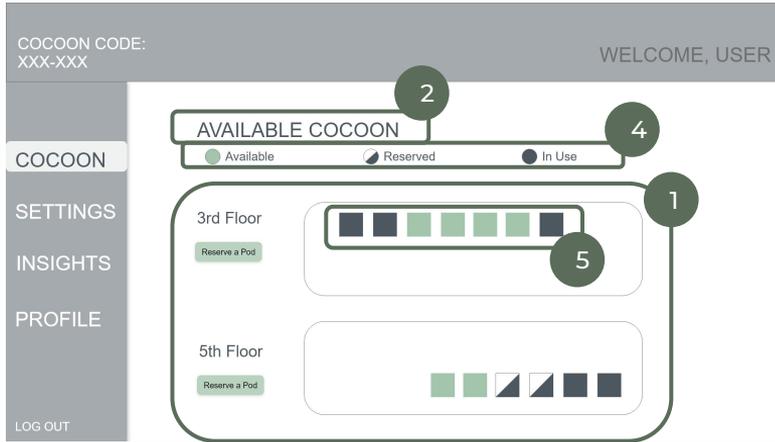


Virtual Changes

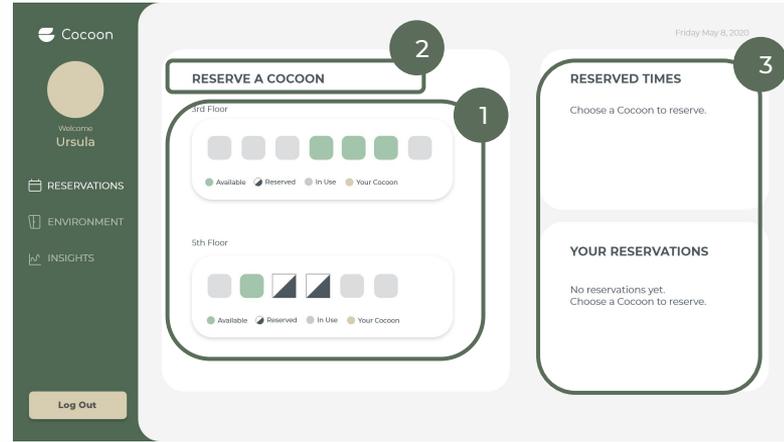
Layout Changes

- Navigation menu moved to side
- Categories changed from:
- Home -> Reservations
- Settings -> Environment
- Profile -> User's Name
- Insights remains same

Virtual Changes



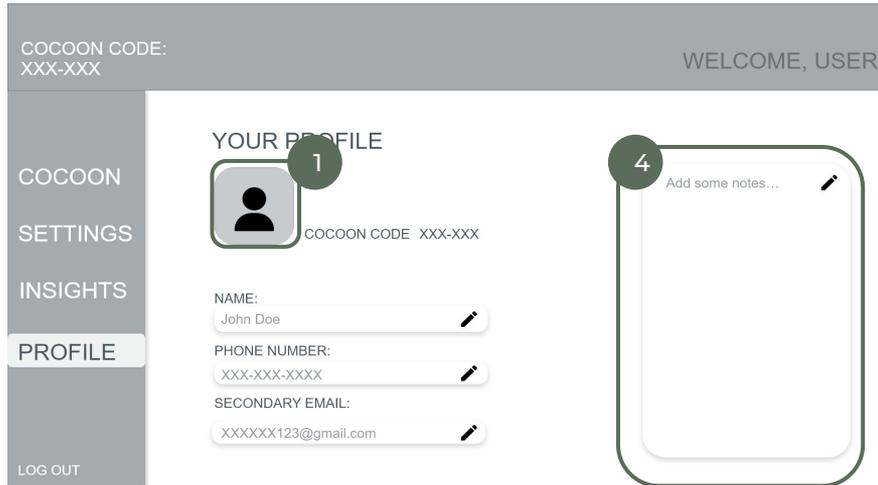
Before



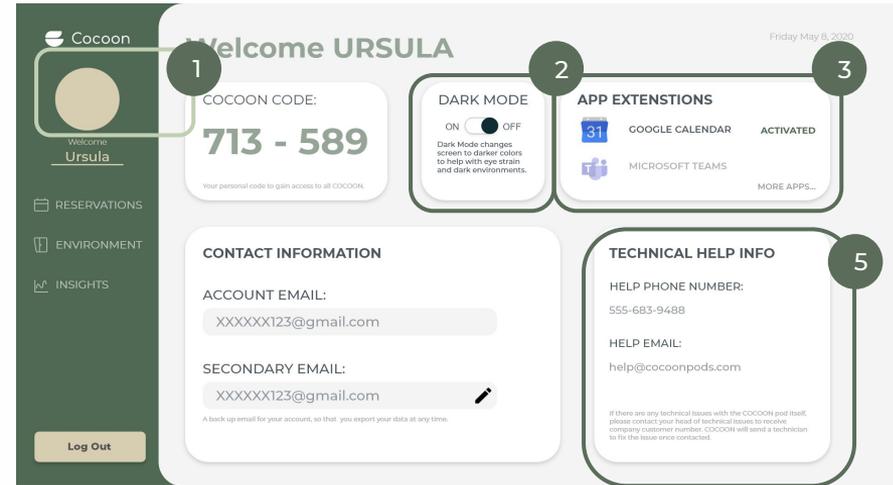
After

1. Floor format changed
2. Available Cocoon changed to Reserve Cocoon
3. Reserved Times and Your Reservations added
4. Key moved to individual floors
5. Pod indicators rounded

Virtual Changes



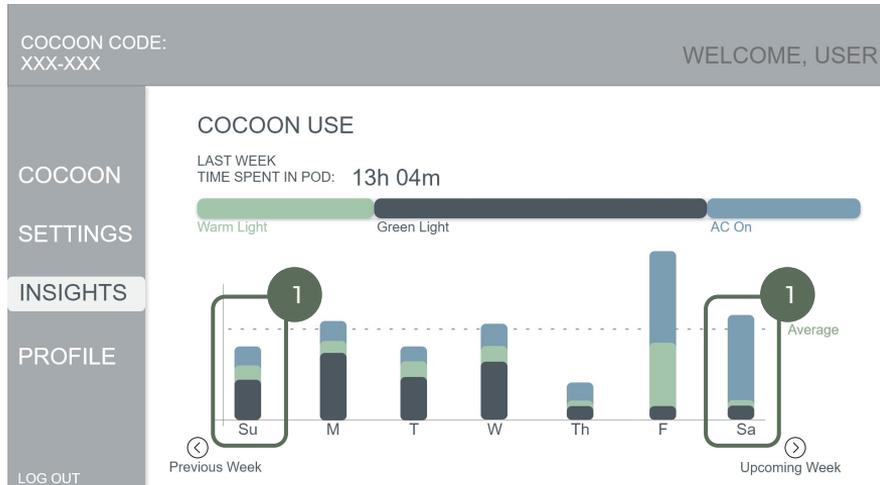
Before



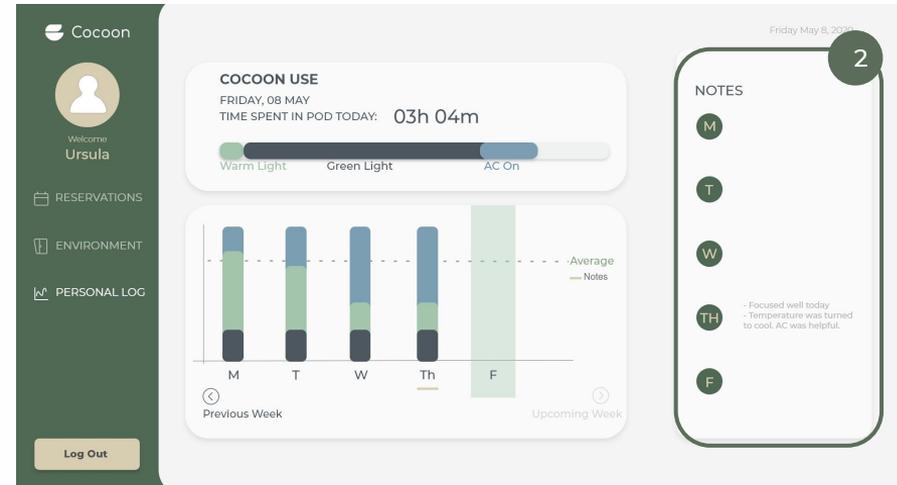
After

1. Profile image placed in navigation menu
2. Dark mode added
3. App extensions added
4. Notes removed
5. Technical information added

Virtual Changes



Before



After

1. Saturday and Sunday removed
2. Notes added

Eliezer Baruch

VP of Solution Engineering - Commscope

Cocoon Pod:

- Frosted door preferred
- Would be fun if walls were customizable for company (or just offered in various customized options)
- Wall material should be soundproof
 - Specify what that material is
- Screen should show if it's occupied or reserved

Cocoon Interface:

- Date type is too faint
- Ocular migraine description text too small
- Friday highlight too faint
- Clicked on date not on back to return in insights page
- Outlook instead of Teams
- Doesn't understand what app extension means in this context
- Fonts differ in account page
- Go over text grammar
- Add #'s or names to squares in reserve
- Floor plan on side of reserve screen and highlight pod's location when pod is chosen
- Change insights to "personal log" so users know it's just their insights not the entire company

Taylor Dunley

UX UI Designer - RADIO SYSTEMS ; PetSafe

Cocoon Pod:

- Blinds should be connected to door
- Lamp will get hit by desk when desk is lifted to standing
- Maybe make base higher or narrower
- Adding frosted glass to door could be alternative to blind?
- Want pod to indicate that it's been reserved or occupied, not just on the app

Cocoon Interface:

- Spacing needs to be continuous throughout all boxes
- Settings for temperature - would not expect conversions to be there.
 - Maybe in account settings is where I would find that
- Add weekly notes
- Daily highlight for insights in light mode is too subtle (dark mode = ok)
- Click on a day to see the notes/times spent & click again to go back to normal
- Swap placement of your reservations and reservation times

Scott McElrath

Architect - Dangerous Architects

Cocoon Pod:

- Make switches at 3' level so people with wheelchairs can do it without struggling
- Add more glass to make space less claustrophobic
- Also a person with a wheelchair would be hard to get in and out with bump
- Desk should fold in to give more room to the space
- Make this an oasis, a retreat for people, a special space- it feels just like an extra space right now
- Angled wall helps with claustrophobia
- modular door that allows you change the amount of light let in by door handle

Cocoon Interface:

- It's confusing to have a reserve and in use space.
- No success page after reservation of Cocoon.
- What if I want the lights completely off?
- I like the settings panel
- I like the green light/and changing those settings



Ryan O'Quinn

Engineer- Process Results, Inc.

Cocoon Pod:

- Material unclear
- Desk connection to wall is too heavy for thin walls
- Vent on the ceiling should be a diffuser instead of grill.
- We should move the grill that is below the feet to the back and potentially add a couple more on the sides to get more fresh air in.
- Instead of two bulky lights behind you, use led strip lights that surround you so there is no shadows and you can turn on and off which wall you want.

Cocoon Interface:

- Add a floor plan to it instead of just the pods.
- Most people don't really know what airflow they want
- What does notes mean? Notes on what?
- Where is settings?

Physical Changes

Problem

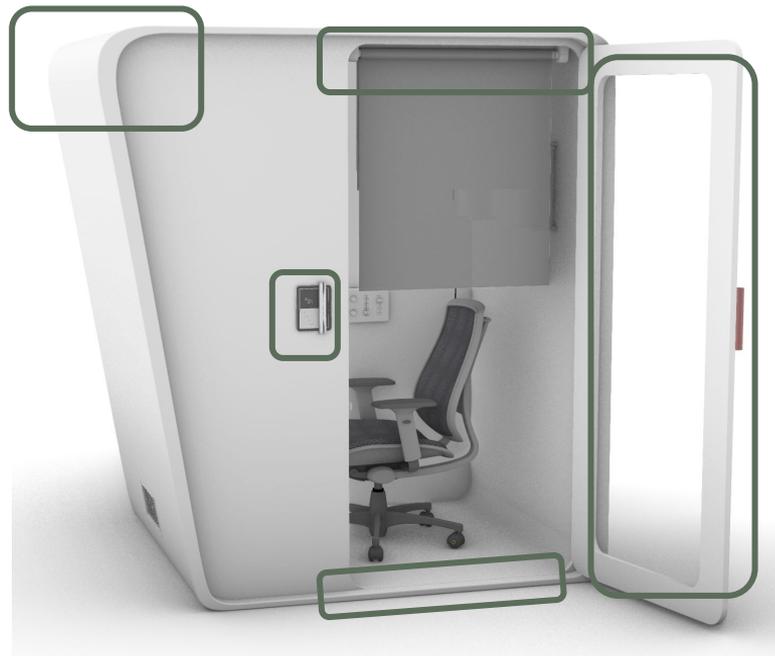
- Vent on the ceiling should be a diffuser instead of grill.
- Lamp will get hit by desk when desk is lifted to standing
- Move the grill that is below the feet to the back and potentially add a couple more on the sides to get more fresh air in.
- Instead of two bulky lights behind you, use led strip lights that surround you so there is no shadows and you can turn on and off which wall you want.
- Make switches at 3' level so people with wheelchairs can do it without struggling
- Desk should fold in to give more room to the space
- Desk connection to wall is too heavy for thin walls

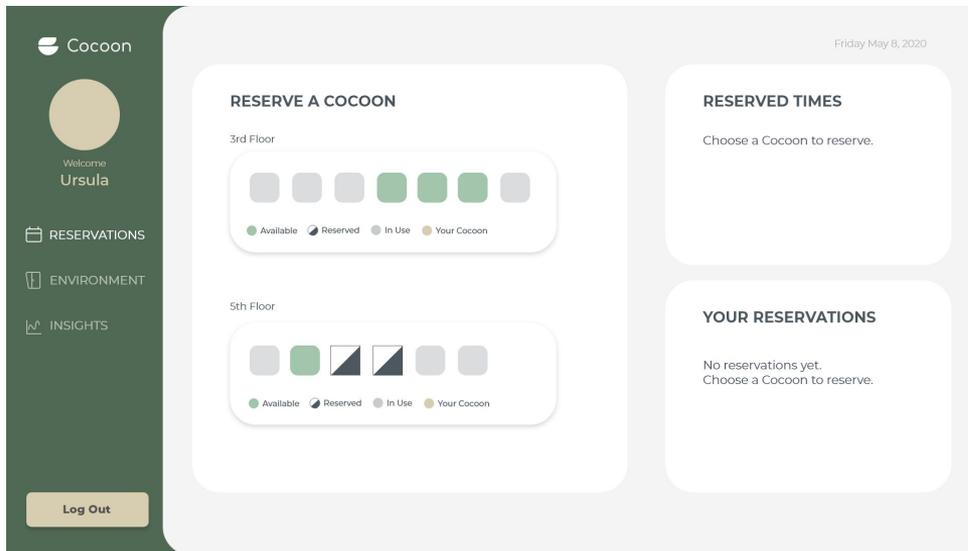


Physical Form

Problem

- Blinds should be connected to door
- Screen should show if it's occupied or reserved
- Frosted door preferred
- Also a person with a wheelchair would be hard to get in and out with bump
- Angled wall helps with claustrophobia





Virtual Changes

Reservation Changes

Problem

- Add numbers or names to pods
- Add floor layout so users can see where pods are located
- Reserve vs in use is confusing
- Swap placement of “Reserved Times” and “Your Reservations”

Cocoon

Welcome Ursula

RESERVATIONS

ENVIRONMENT

INSIGHTS

Log Out

Friday May 8, 2020

COCOON SETTINGS

Lighting Brightness

Lighting Style

Air Flow

Air Temp.

GREEN LIGHT

ON OFF

Green light has been shown to minimize pain while experiencing a migraine. Click ON to activate the green light feature in the booth.

PROFILE SETTINGS

OCULAR MIGRAINE

Lowest temperature for a cooling feeling
Lowers lighting to dimmest setting
Sets air on low for a gentle breeze

SENSORY MIGRAINE

Airflow is turned off for limited sound
Lowers lighting to dimmest setting

FOCUS

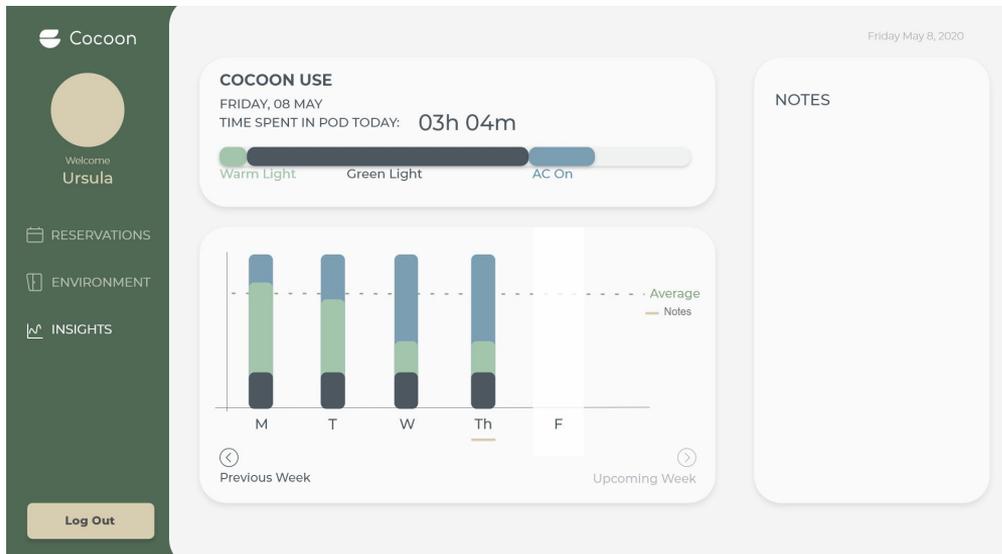
Well lit with natural style
Air on High for white noise effect
Medium temperate for comfort

Virtual Changes

Environment Changes

Problem

- Ocular migraine description text too small
- Settings for temperature - would not expect conversions
- Most people don't really know what airflow they want

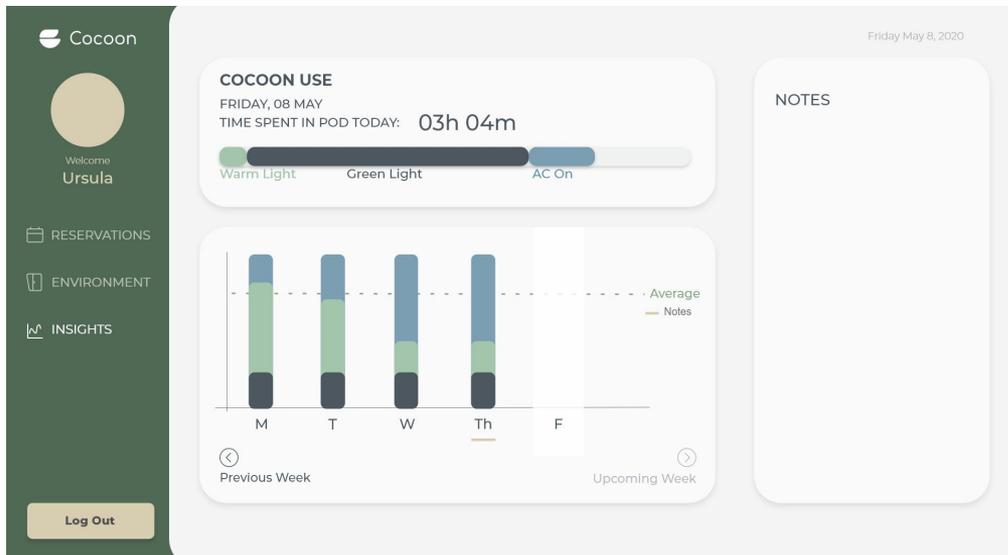


Virtual Changes

Insight Changes

Problem

- Name changed to “Personal Log”
- Add weekly notes
- Daily highlight for insights in light mode is too subtle (dark mode = ok)
- Click on a day to see the notes/times spent & click again to go back to normal
- Friday highlight too faint
- Clicked on date not on back to return in insights page



Virtual Changes

Account Changes

Problem

- Teams needs to be replaced with Outlook
- Users confused by need for app extension
- Check for consistency in typefaces

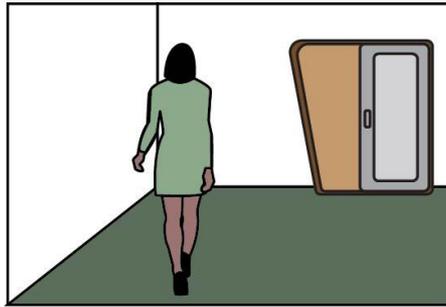


Final Delivery

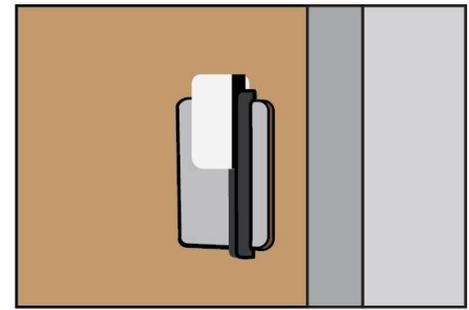
Cocoon is a portable private workspace where users can enter its soundproof walls and shut the noise and lights of the office out while maintaining their productivity and drive. Combined with its corresponding desktop app, Cocoon lets users track their usage and preferences to help adjust their environment to their exact needs



Ursula begins to feel a migraine starting while she's at work.



She quickly goes to the closest Cocoon before her migraine becomes unbearable.



She swipes her employee card and enters the Cocoon.



Ursula makes herself comfortable in the Cocoon.



As her migraine continues, she changes the environment of the Cocoon to be darker to maintain her comfort.



Despite her migraine, Ursula continues to maintain her productivity in comfort.



The Workplace Haven for Migraines

Cocoon is the ideal way to stay productive while customizing your space to your migraine needs.



Key Features



Backlighting for indirect light with dimmable and hue changing ability.



Keypad that tracks time spent in the pod, as well as, allows for easy entry.

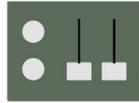


Adjustable settings to create the perfect environment to get stuff done. .



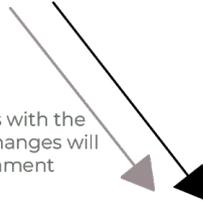
Adjustable desk lamp for any position and height for better and more precise work.

Desktop App



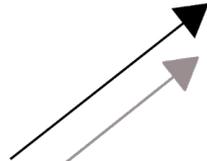
Control Pad

When user interacts with the control panel, the changes will be made to the environment

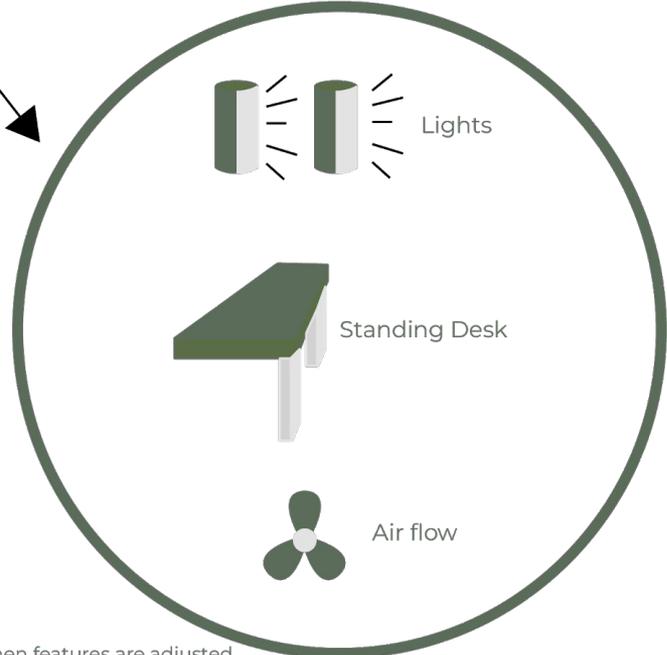
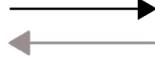


Changes in the Cocoon from the control panel will be logged into the desktop app. This allows users to see their usage and settings.

User



Cocoon Pod



Lights

Standing Desk

Air flow

When features are adjusted, it will change the environment of the Cocoon itself.

KEY.



Basic Interactions



Communication between products and users



Cocoon Desktop App

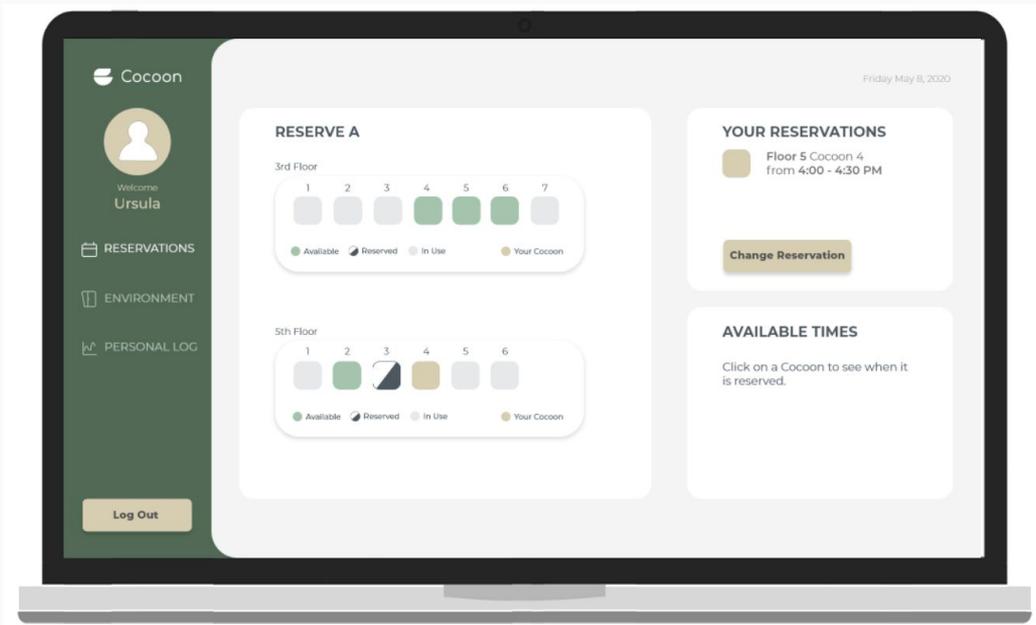


Cocoon Desktop App

Reservations

See which pods are readily available.

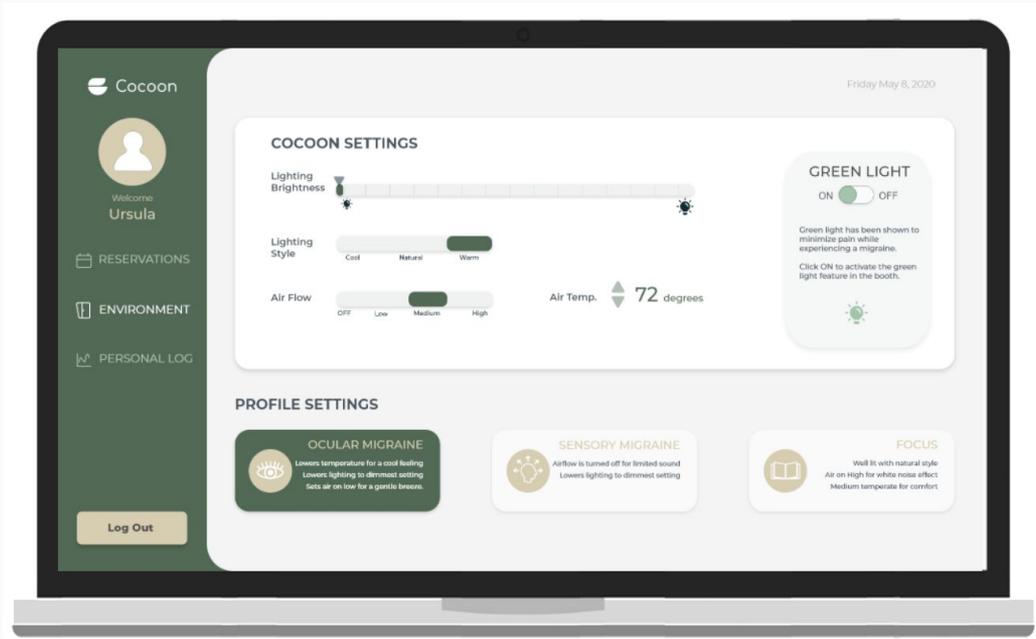
Reserve on the go with the app and have the ability to change the times later.



Cocoon Desktop App

Environment

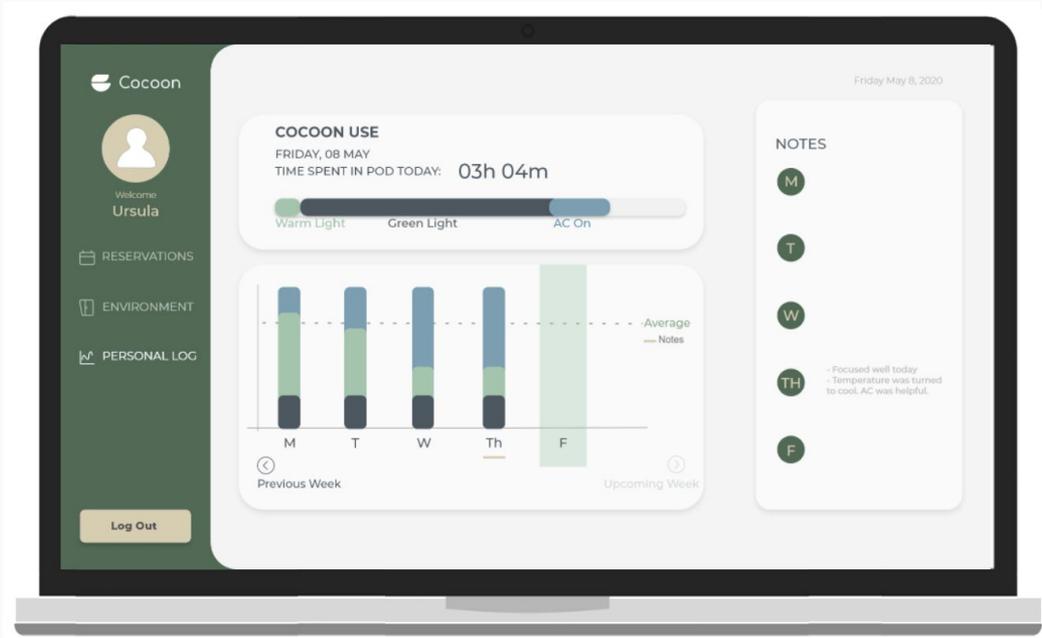
Command central for the Cocoon environment settings.



Cocoon Desktop App

Personal Log

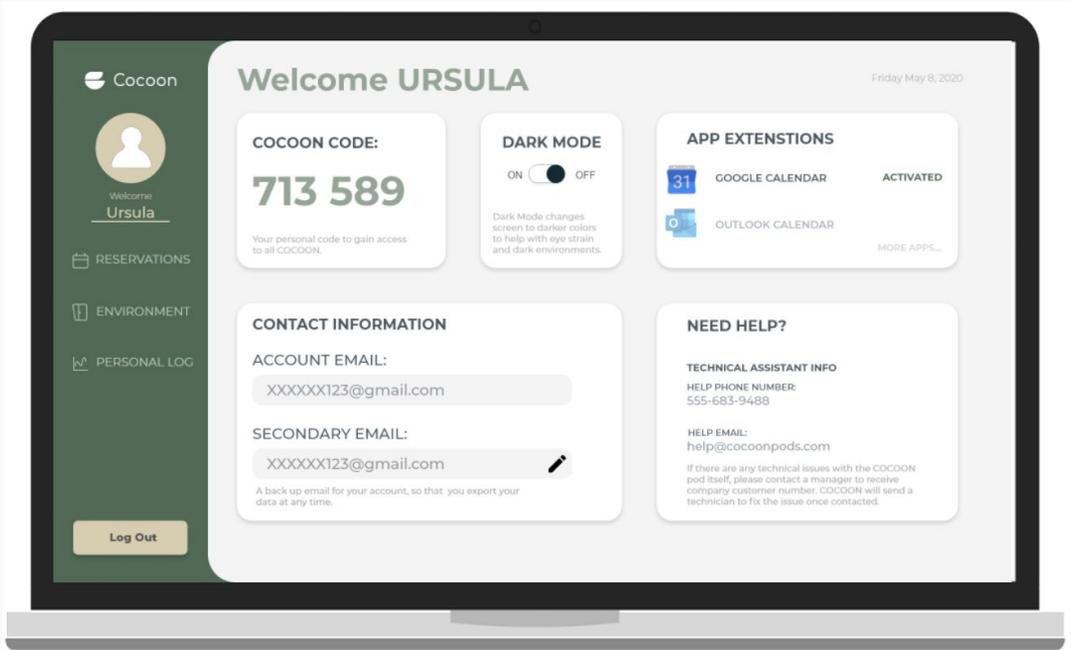
Insights for personal Cocoon use and ability to document notes .



Cocoon Desktop App

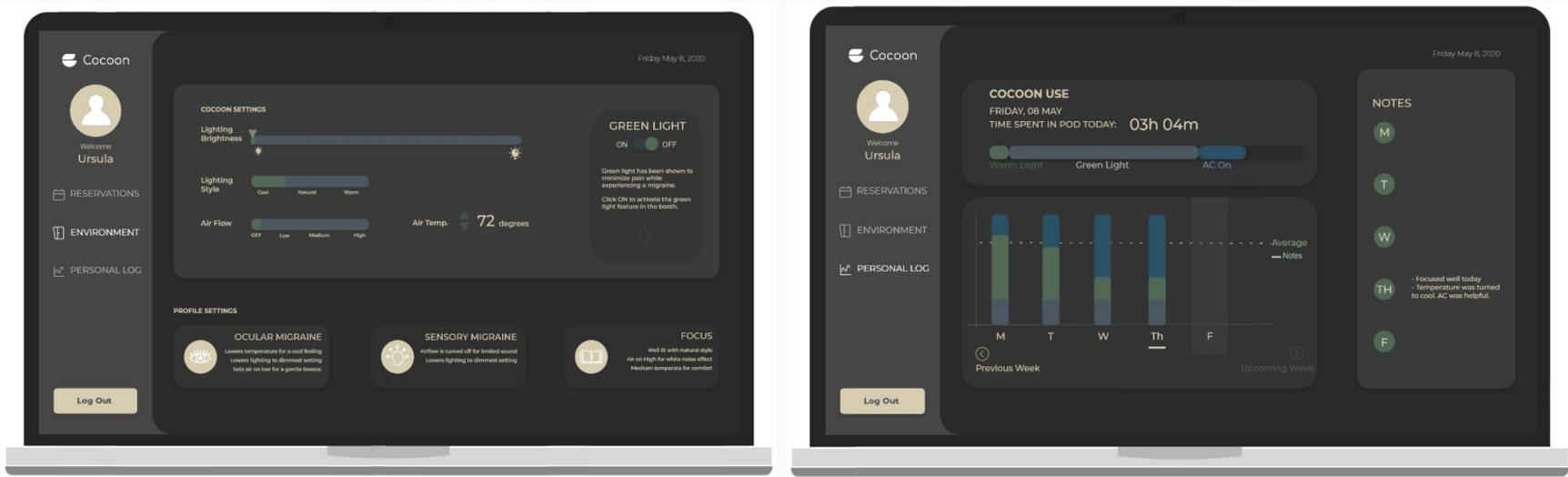
Account and Settings

Insights for personal Cocoon use and ability to document notes .



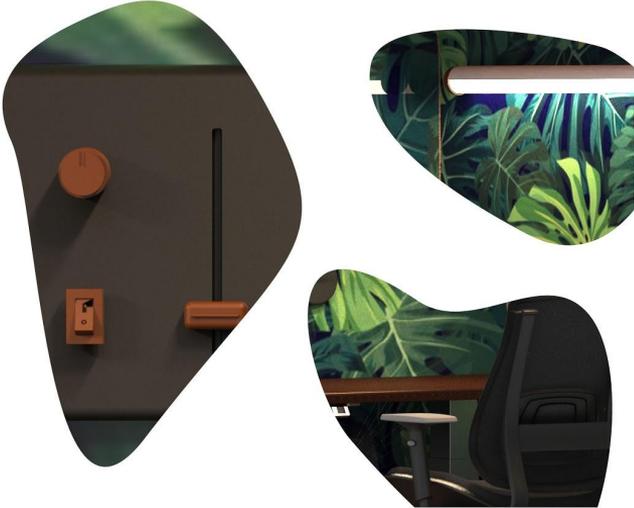
Dark Mode

Command central for the Cocoon environment settings .



Cocoon

The Workplace Haven for Migraines





Cocoon

The Workplace Haven for Migraines

Over 4 million people push through chronic migraines in order to continue living their everyday lives on a daily basis. Sufferers struggle through blaring offices, blinding fluorescent lights, and constant pain just to complete a day's work. With Cocoon, those daily office struggles are no more. Cocoon is the workplace haven for your chronic migraines. Enter its soundproof walls and sit in comfort while maintaining your productivity. Change Cocoon to suit your needs by changing the light brightness, hue, and interior airflow. Keep your migraines at bay while living your life, only with Cocoon.

Cocoon is a portable private workspace designed specifically for migraines. Enter its walls and shut out the office lights and noise to maintain your productivity and overcome your migraine.



Multiple sources of light allow you to personalize your workplace setting and adjust for shadows.

Low sound & breezy ventilation for continuous fresh air.

Optimized acoustic experience that keeps the sounds of the busy office out.

Combined with its corresponding desktop app, Cocoon lets you track your usage and preferences to help adjust your environment to your exact needs. Enter Cocoon with your personal code and Cocoon will set itself to your exact preferences you had programmed prior without you having to lift a finger.



Sources

- A. Migraine data from American Migraine Foundation.
- B. Images courtesy of Unsplash.com.
- C. Sensory Cue Kit copyright by Lextant, All rights reserved.
- D. System Usability Scale created by John Brooke (1986).

