

Designing for **Migraines**

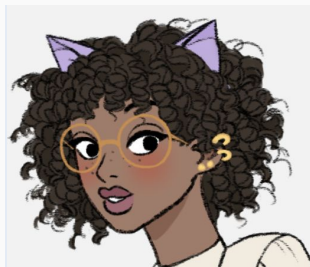
Team Headstrong



Eduardo Alfonso

Prototyping Lead

UXDG



Jasmine Attanasio

Project Lead

UXDG



Hagar Baruch

Research Lead

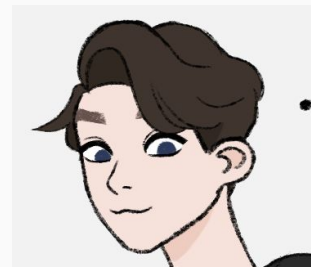
UXDG



Natalia McElrath

Visual Lead

ADBR



Max Poliseno

Ideation Lead

UXDG



Designing for **Stress & Migraines**



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.





More than **90%** cannot work or function normally during a migraine.



— Target User

Adults (18+)

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

630+
Datapoints

12
Interviews

9
HMW Categories



Research Insights

Primary Research

- Nearly all users suffer severe sensitivity to light and sound.
- Users are unable to work efficiently and effectively while suffering from a migraine.
- Users fear that coworkers may judge them during an episode.

How Might We



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



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



Daily Migraines

Unable to Work

**Sleep-it-off
Susan**

**Used-to-it
Ursula**

Willing to Work

**Unprepared
Paul**

**Pull-Through
Pat**

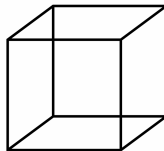
Infrequent
Migraines

Our 3 Concepts



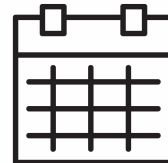
Smart Glasses

Smart glasses that adjust to the environment around you.



Black Box

A smart pod that is your escape from sensory overload.



Smart Calendar

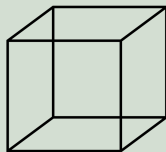
Tracks calendar without the barrier of screen.

Our 3 Concepts



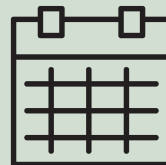
Smart Glasses

Smart glasses that adjust to the environment around you.



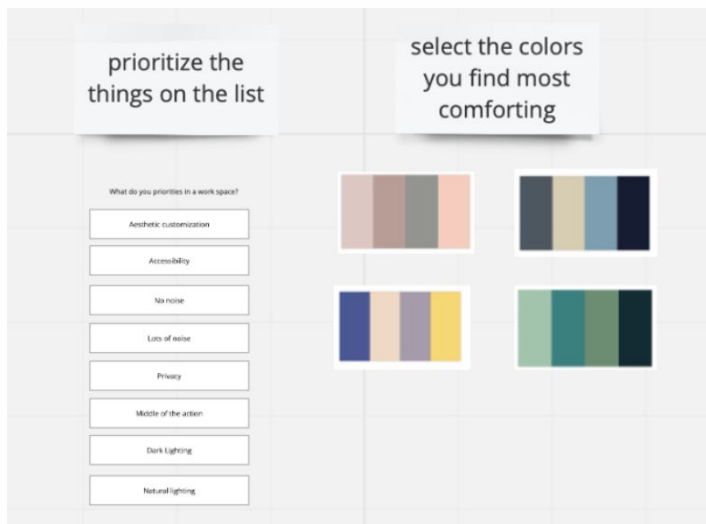
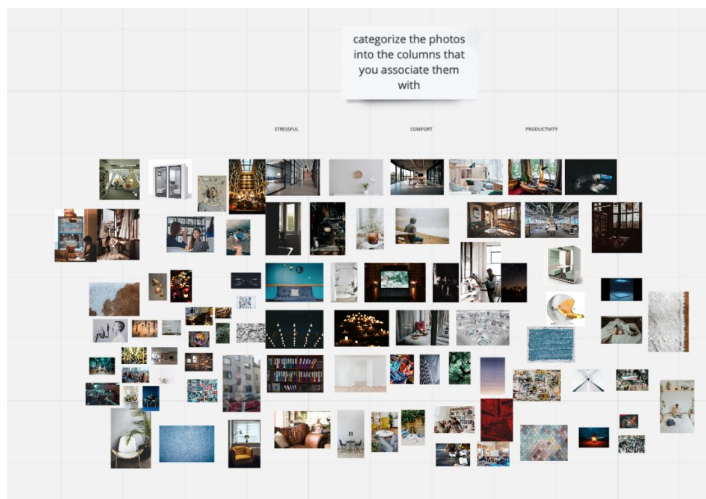
Black Box

A smart pod that is your escape from sensory overload.



Smart Calendar

Tracks calendar without the barrier of screen.



Sensory Cue

Insight 1

Users found interaction with others and being seen by others as stressful during a migraine.

Insight 2

Users prioritized dark lighting and no noise over aesthetic customization or accessibility.

Insight 3

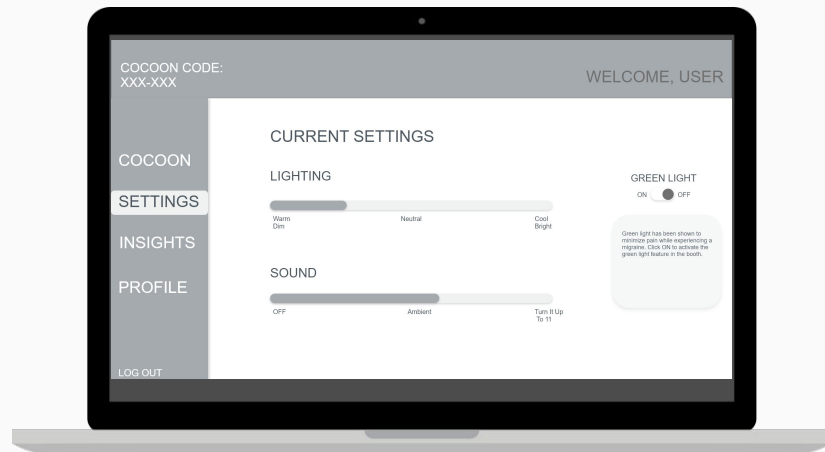
Users preferred the green and pink color palettes because of their calming effect.

15

Participants



Mid-Fi Prototypes



User Testing Insights

Round 1

Insight 1

Users expressed that they were unsure if Cocoon was intended to unwind or to work.

Insight 2

Users want the holistic experience of the Cocoon and what it has to offer to help their migraines.

Insight 3

Users wanted Cocoon to feel more spacious and comfortable.

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Users

2

Expert Interviews

System Usability Scale

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



Our Score: 90.7

N = 7

Making Adjustments

Removed speakers

Lamp moved to wall for comfort & more space

Adjust temperature control to airflow speed.

Lights only change from warm to cool & green light mode



Before

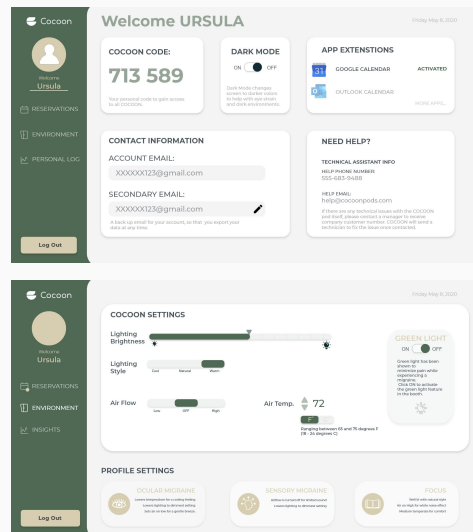


After

Before



After



Interface Adjustments

Account:

- Profile image placed in navigation menu
- Dark mode added

Settings:

- Lighting style added
- Sound removed
- Temperature added
- Airflow added
- Profile settings added

Reservations:

- Available Cocoon changed to Reserve Cocoon
- Reserved Times and Your Reservations added
- Key moved to individual floors

Insights

- Saturday and Sunday removed
- Notes added

User Testing Insights

Round 2

Insight 1

Users wanted maximum privacy with frosted door and occupied sign.

Insight 2

Users wanted back lights to be less bulky and more directional.

Insight 3

Users liked that Cocoon was becoming more comforting and wanted to see customization options for companies.

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Users

4

Expert Interviews

Physical Form

Exterior

- Blinds should be connected to door
- Screen should show if it's occupied or reserved
- Frosted door preferred
- Angle helps with claustrophobic feelings and more approachable



Physical Form

Interior

- Vent on the ceiling should be a diffuser instead of grill.
- Change bulky lights to singular light.
- Lower control panel



App Interface

Adjustments



Before

Reservations Page

- Add numbers or names to pods
- Reserve vs in use is confusing
- Swap placement of “Reserved Times” and “Your Reservations”

Insights Page

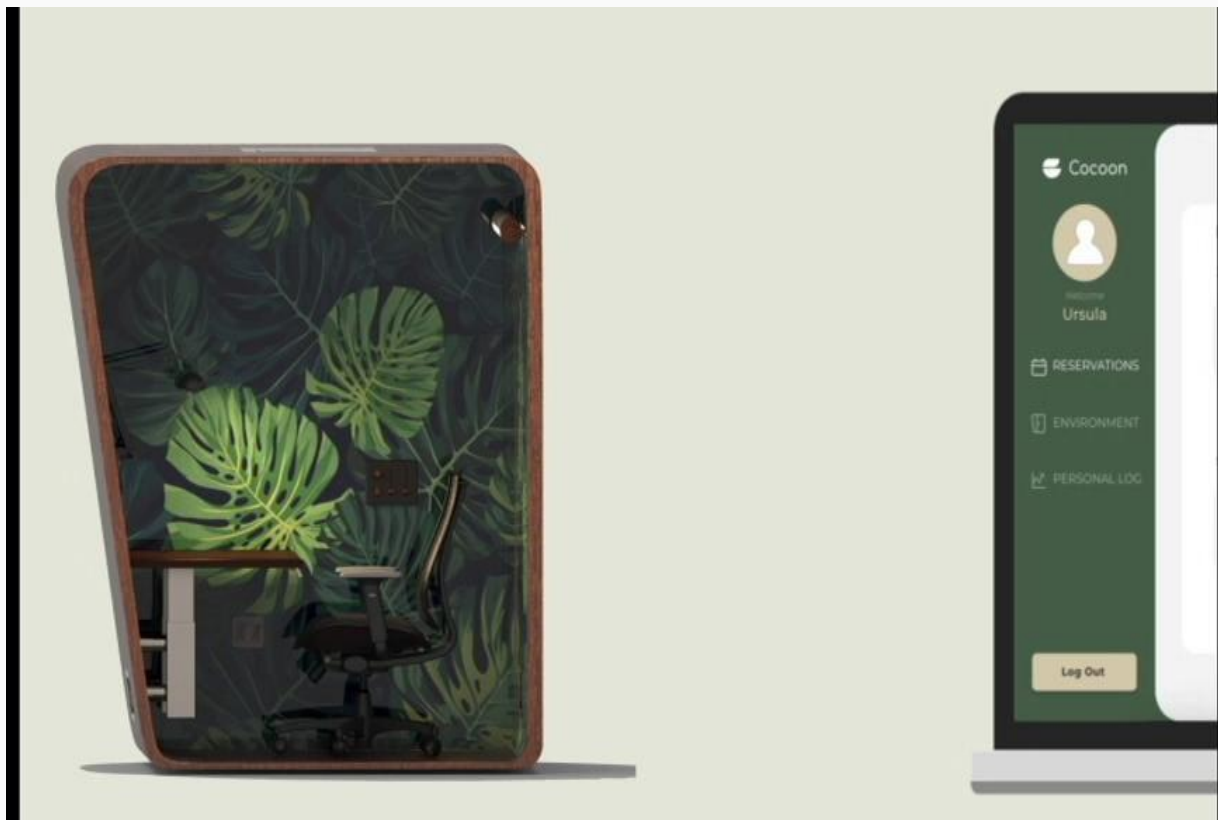
- Name changed to “Personal Log”
- Add weekly notes
- Click on a day to see the notes/times spent & click again to go back to normal

Account Page

- Users confused by need for app extension



Vision video



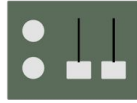
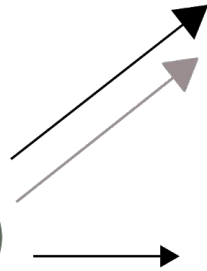
Desktop App



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

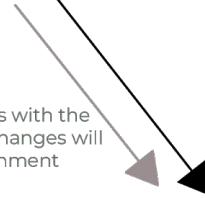


User

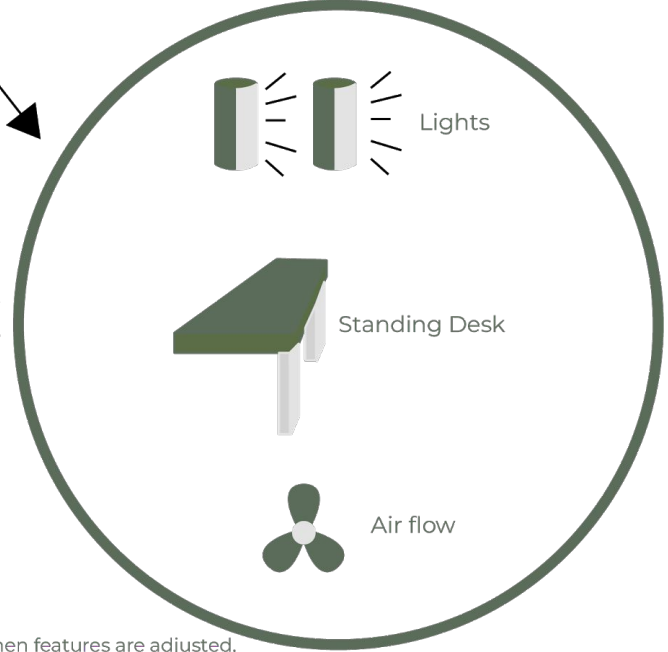
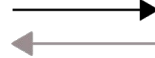


Control Pad

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



Cocoon Pod



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

Interactions

Communication between users and users



The Workplace Haven for Migraines

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

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.



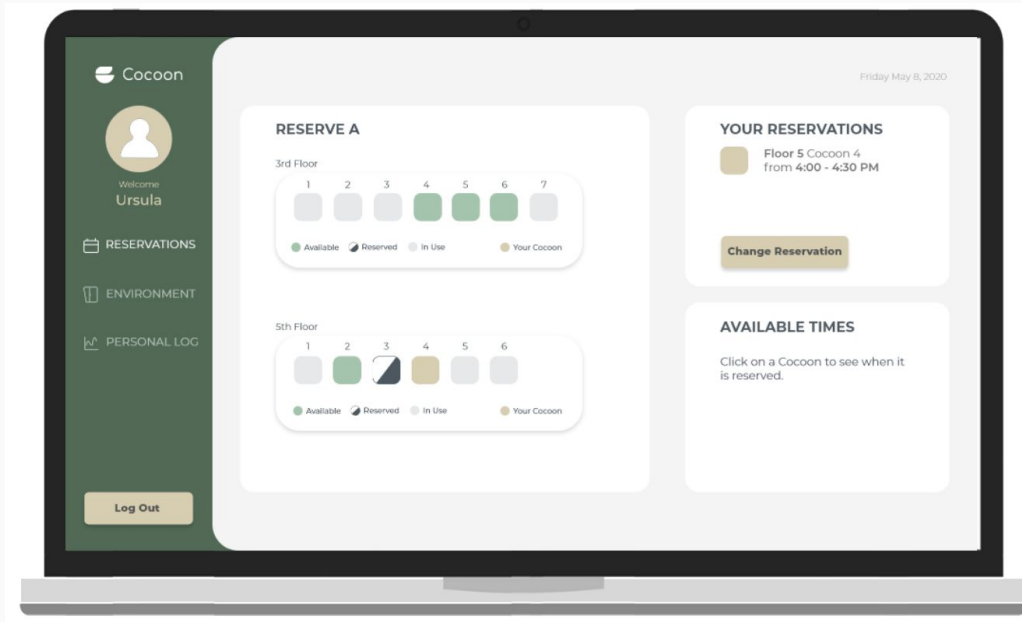
Adjustable settings to create the perfect environment to get stuff done.



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



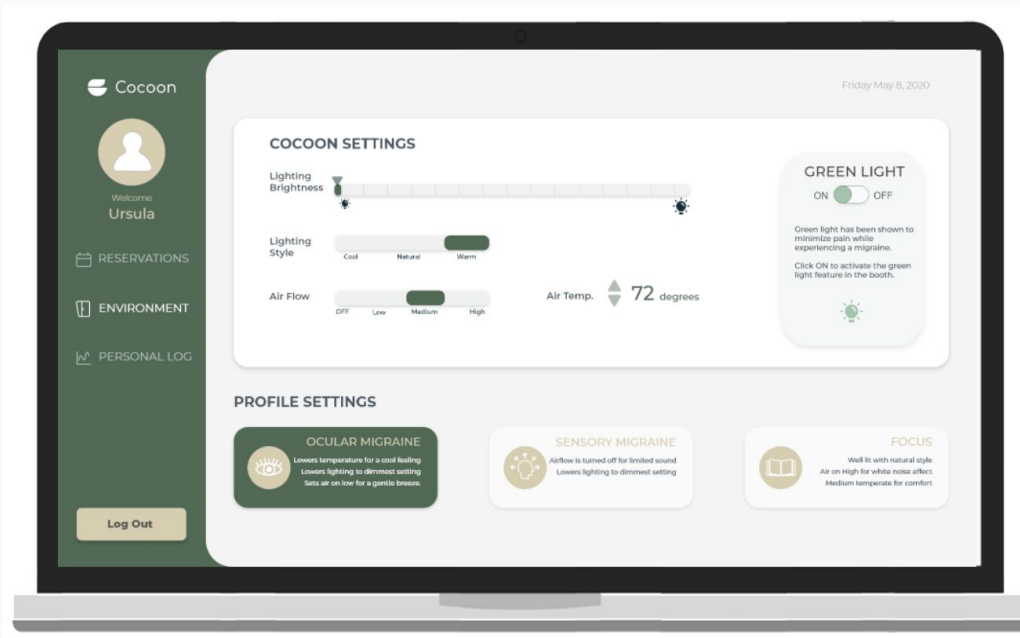
Cocoon Desktop App



Cocoon Desktop App

Reservations

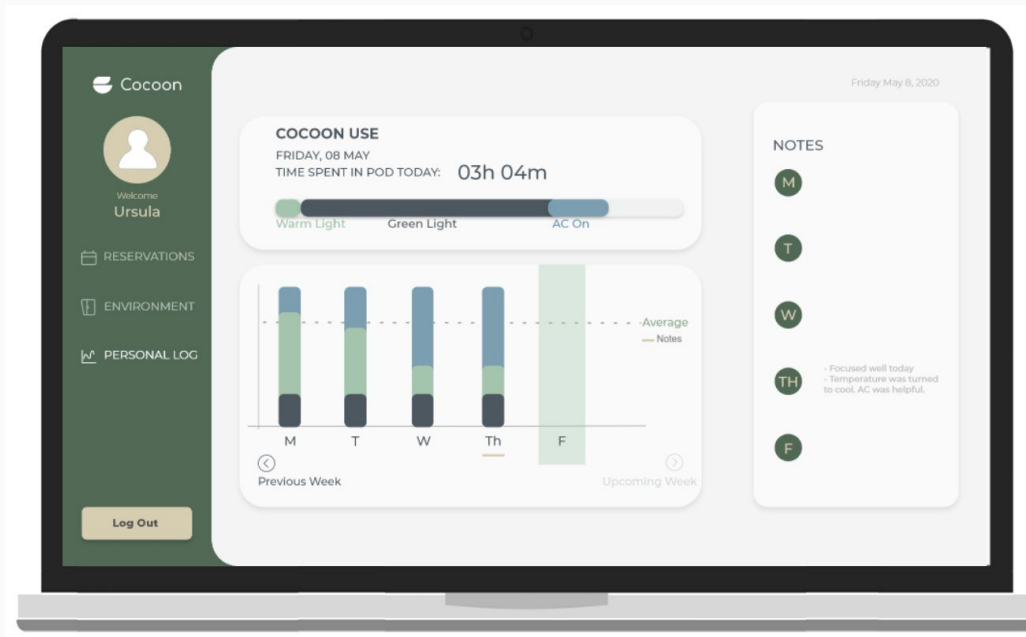
See which pods are readily available.
Reserve on the go with the app and have the ability to change the times later.



Cocoon Desktop App

Environment

Command central for the Cocoon environment settings.



Cocoon Desktop App

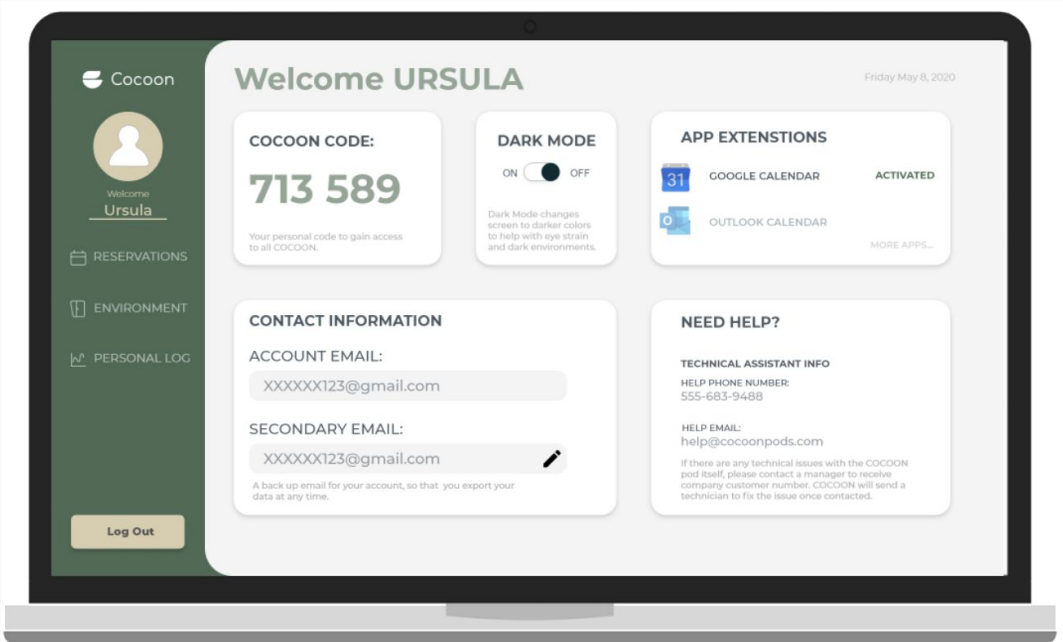
Personal Log

Insights for personal Cocoon use and ability to document notes .

Cocoon Desktop App

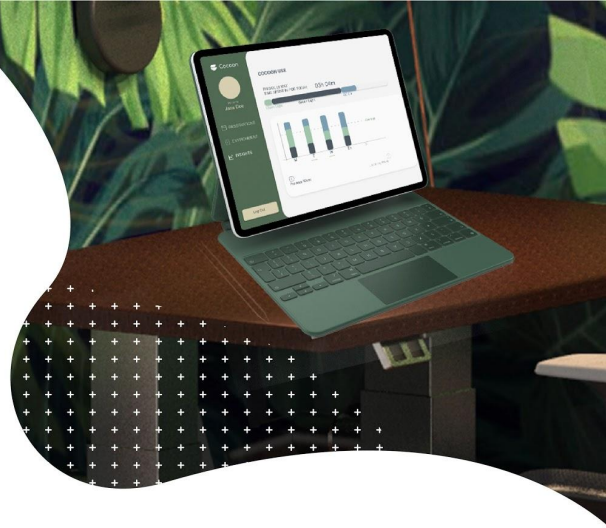
Account and Settings

Cocoon code, dark mode and app extensions are all available. .





The Workplace Haven for Migraines





Comments and Questions?

Thank you.

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).

