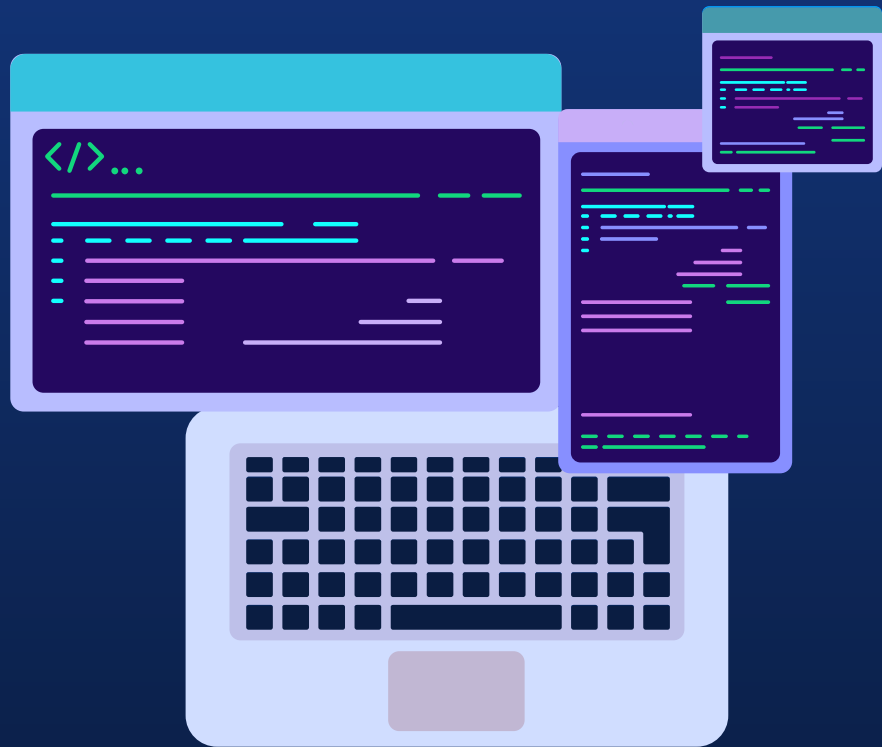# Seeing is believing

Members: James Yokley, Pokuong Lao, Alexander Voisan, Hein Htet
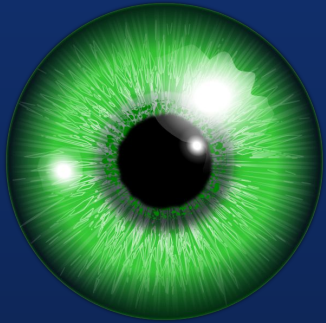
01

About

Seeing is believing

ABOUT THE APPLICATION

"Seeing is believing" web extension is a color vision assistance and simulation tool which simulates or daltonizes specific type of color vision in real-time. It can also instantly change font to OpenDyslexic.

02
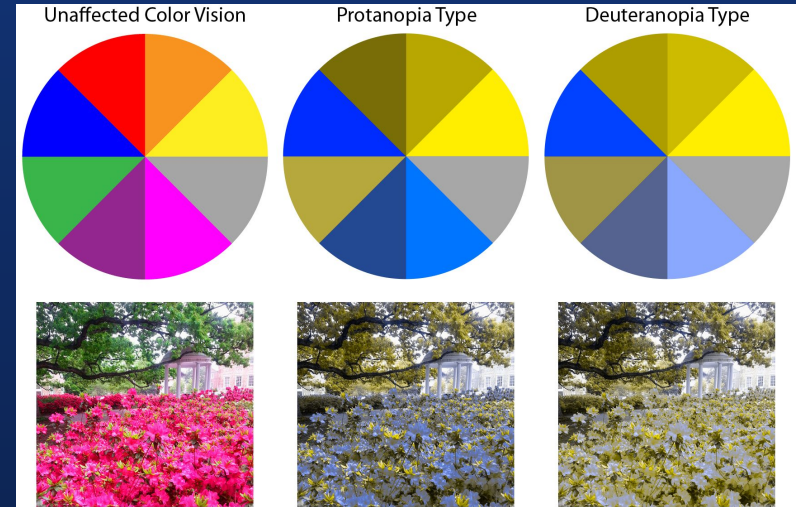
Intended Target Users

Why We Chose This Project

- Could not decide on idea with no end goal

- A web extension that matters to us

- A project that can help people with disabilities

Intended Audience/Users

- Users with color-blindness
    - Protanopia (Blindness to red)
    - Deuteranopia (Blindness to green)

- Users with dyslexia
    - Different fonts
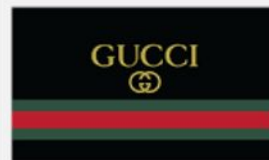
- Web developers that want to increase accessibility

Source: https://iristech.co/what-are-the-different-types-of-color-blindness/

What We Hope It Will Do

- Improve browsing experience for users with color blindness and users with dyslexia

- OpenDyslexic Font

- Daltonization for users with color blindness

- Simulation for developers or designers

03

Functionality

Technical Report

What has been built?

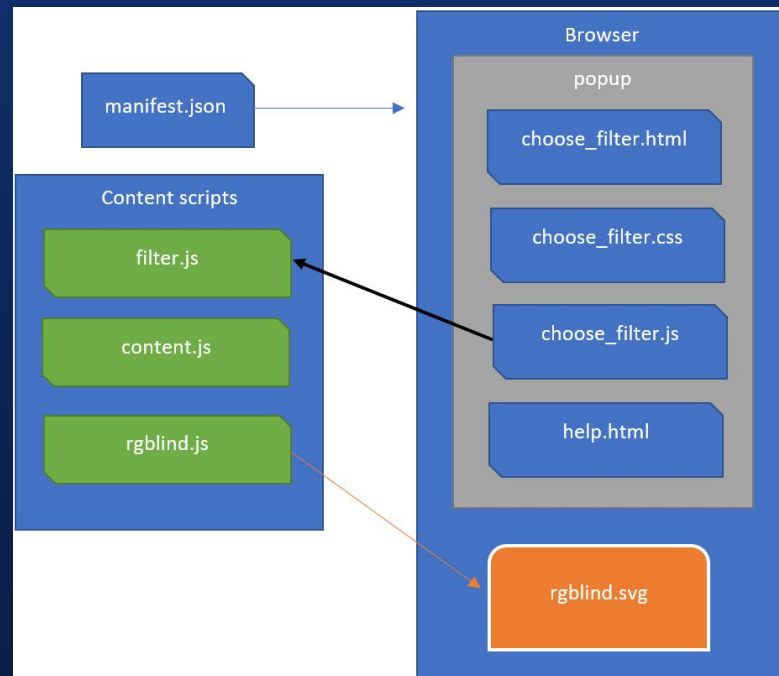Final product of Seeing is Believing

How it was built?

Visual Studio Code

What significant decision/issues?

Final UI Layout
Daltonize filter

Overall Software Architecture

UI / UX Design

Select a filter:

Protanopia
Daltonize

**Deuteranopia
Daltonize**

**Protanopia
Emulation**

**Deuteranopia
Emulation**

**Dyslexia
Readability**

Reset **Help**

UI

Easy to locate

Easy to read

High contrast

Daltonize

UX

Instant functionality

Reset

Help

HELP

How To Use

To increase contrast of a webpage, click on the daltonize filter related to your type of colorblindess. Click reset button to remove filter.

Developers: Click the emulate buttons to check the accessibility and readability of your sites!

Back

PROBLEM AND SOLUTION

PROBLEM

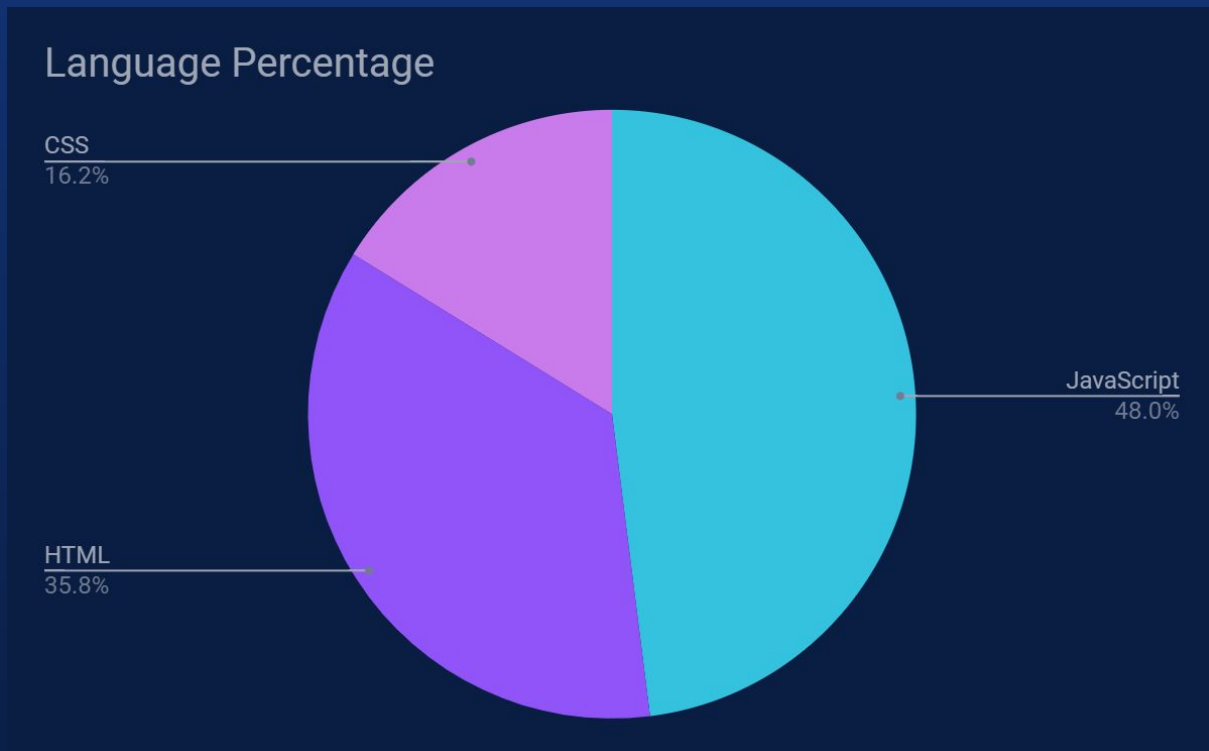- HTTP Content Security Policy
- Meeting
- Communication

SOLUTION

- HTTP CSP guideline
- Shared Calendar
- Discord

Extension Code Breakdown

Language Percentage

CSS
16.2%

JavaScript
48.0%

HTML
35.8%

04

Insights & Highlights

Seeing is Believing Technical Insights

- Realized that we wouldn't be able to invent our own colorblind filter

- Spent a lot of time learning how to inject css into a webpage

- Researched open source projects that weren't fully implemented solutions and turned them into one

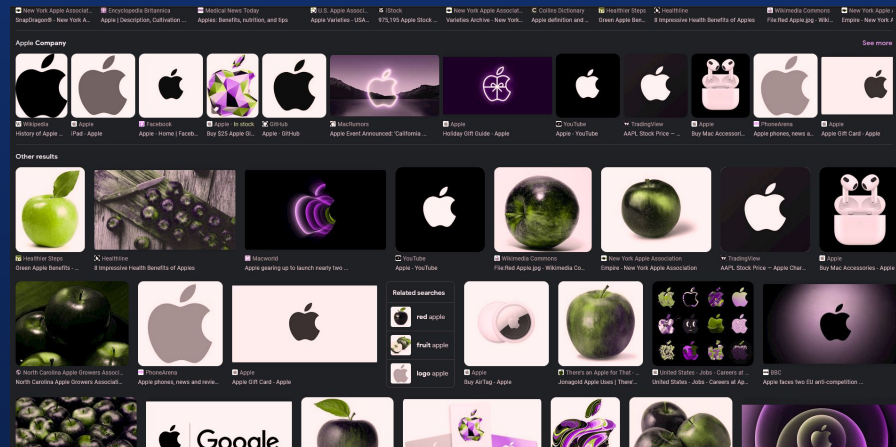# Teamwork Makes the Dream Work

- [Discord](#)
- [LettuceMeet](#)
- [Github](#)

Daltonization

Before

After

OpenDyslexic Font

Before

After

A **wiki** (/ˈwɪki/ (listen) WIK-ee) is an online hypertext publication collaboratively edited and managed by its own audience, using a web browser. A typical wiki contains multiple pages for the subjects or scope of the project, and could be either open to the public or limited to use within an organization for maintaining its internal knowledge base.

Wikis are enabled by wiki software, otherwise known as wiki engines. A wiki engine, being a form of a content management system, differs from other web-based systems such as blog software, in that the content is created without any defined owner or leader, and wikis have little inherent structure, allowing structure to emerge according to the needs of the users.[1] Wiki engines usually allow content to be written using a simplified markup language and sometimes edited with the help of a rich-text editor.[2] There are dozens of different wiki engines in use, both standalone and part of other software, such as bug tracking systems. Some wiki engines are open-source, whereas others are proprietary. Some permit control over different functions (levels of access); for example, editing
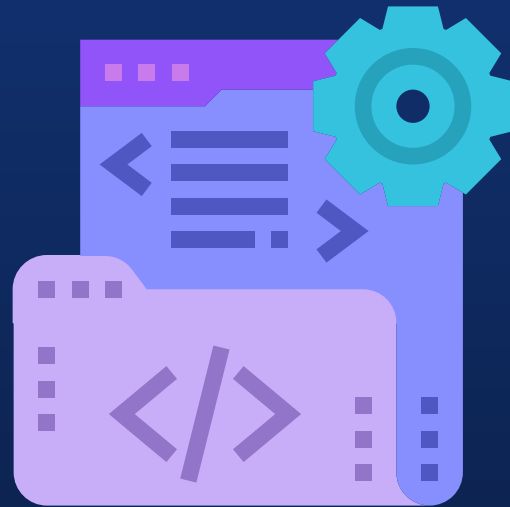
05

Live
Demonstration

Questions?

THANK YOU

RESOURCES

- https://slidesgo.com/
- https://opendyslexic.org/
- https://www.vischeck.com/daltonize/
- https://www.rgblind.se/
- https://developer.mozilla.org/en-US/docs/Mozilla/Add-ons/WebExtensions

Fonts & colors used

This presentation has been made using the following fonts:

Oswald
(https://fonts.google.com/specimen/Oswald)

Roboto
(https://fonts.google.com/specimen/Roboto)

#cef3f5 #c8aef8 #878fff #9154f8 #35c2df #ca7beb #972cb4 #0a1d42