

Project Presentation

Introduction

ColorHarmony is a random color palette generator designed to inspire designers and developers with unique, customizable color schemes. The tool offers various palette styles, easy-to-use features for color customization, and downloadable formats, making it a versatile resource for creative projects.

Key Features

- Random Color Generation: Generate new color combinations at each click.
- Palette Styles: Options include monochromatic, complementary, analogous, triadic, and tetradic palettes.
- Color Locking: Lock specific colors while randomizing others for greater control.
- Palette Editing: Modify color codes (HEX, RGB, HSL) and preview changes in real-time.
- Download Options: Export as images, JSON, or CSS for easy integration.
- Favorites and History: Save favorite palettes and view previously generated ones.
- Accessibility Checker: Ensures color contrast meets WCAG standards for UI design.
- Inspiration Section: Theme-based palettes like 'Summer Vibes' or 'Retro.'

Technical Stack

Frontend: React or Vue for a dynamic and interactive user interface.

Backend (optional): Node.js or Python Flask to serve palettes via an API.

Color Library: chroma.js for color manipulation and generation.

Workflow

ColorHarmony - A Random Color Palette Generator

1. User opens ColorHarmony and clicks 'Generate' to create a new palette.
2. A random color palette appears with HEX codes for each color.
3. User can lock colors they like and re-randomize others.
4. User customizes the palette if desired and then saves or downloads it.

Potential Stretch Features

- Color Harmony Analysis: Generate palettes based on colors from an uploaded image.
- Palette Sharing: Social sharing or link generation for easy sharing of palettes.
- Browser Extension or Figma Plugin: Integrate directly with design workflows.

Conclusion

ColorHarmony is a versatile and user-friendly tool for generating beautiful color palettes. Its unique combination of random color generation, customization, and accessibility features makes it a valuable resource for designers and developers alike, fostering creativity and ease of use.