

## **Deveshi Modi**

HCDE 438: FP1

### **Project Title:** Color Palette Generator

#### **Description:**

This web application will generate color palettes based on the user's input about mood and description. The user will type in how they want the palette to feel (such as calm, energetic, or vintage) and add a short description (for example, "for a cozy cafe website"). The application will then display a set of colors that match the given mood and description.

#### **Problem it Solves:**

Many designers, developers, and artists struggle to create color combinations that match the tone of their projects. This tool makes it easier to quickly get a starting palette that fits their needs.

#### **Key Features:**

- Input fields to enter mood and a short project description
- Button to generate a new palette
- Visual display of 5 to 6 colors
- Option to copy hex codes or download the palette

#### **Target Audience:**

The application is designed for designers, developers, students, and creative professionals who need color inspiration for websites, art, branding, or other visual projects.

#### **User Stories:**

- As a freelance designer, I want to generate mood-based color palettes so that I can quickly find inspiration for client projects.
- As a student, I want to use the app to create color themes for my HCDE assignments so that I can spend less time choosing colors.
- As a developer, I want to copy color codes easily so that I can use them in my front end code without extra effort.

#### **Meeting User Needs:**

The application supports users by providing a fast, simple way to generate mood-based color suggestions. It helps users who may not have design knowledge or time to create color schemes manually.

### Frontend:

- React for building the user interface
- CSS for styling
- Use of React hooks such as useState and useEffect

### Backend and Data Management:

- Use OpenAI to generate color palettes based on the user's input

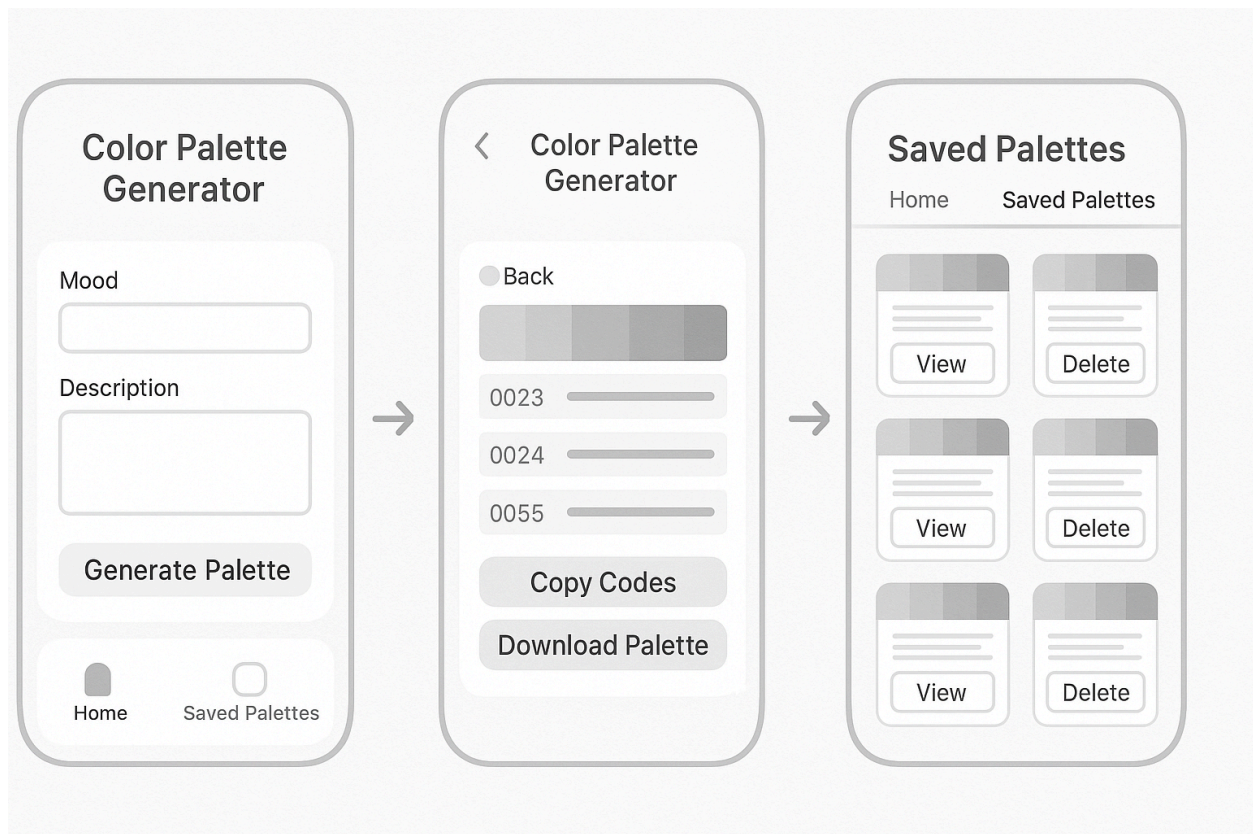
### Authentication:

- Not needed in the first version, but may be added if we let users save palettes

### External APIs:

- OpenAI API (for text to color logic)
- TheColorAPI (color code to color box)

### Screens to Include:



1. Home Page – Input form with two fields (mood and description) and a generate button

2. Palette Display Page – Shows the resulting colors as swatches with hex codes
3. Saved Palettes Page (optional future feature) – Allows users to view their favorite palettes

#### **Annotations to Include in Wireframes:**

- Where the user types mood and description
- What the generate button does
- How the palette is displayed
- How navigation works between screens

#### **Navigation Flow:**

Home Page → Generate → View Palette

Timeline:

**Week 1:** Finalize features, design wireframes, and set up the React environment

**Week 2:** Build input form and connect to the palette generation logic

**Week 3:** Display palettes and add copy/download features

**Week 4:** Final polish, test on different browsers, and prepare demo