# **Color Grading Feature Documentation**

## **1. Introduction**

The Color Grading feature enhances website aesthetics and user experience by evaluating color choices. Here’s why it matters:

* **Visual Appeal**: Well-chosen colors make your site visually engaging.
* **Branding**: Consistent colors reinforce brand identity.
* **Accessibility**: Proper contrast ensures readability for all users.
* **Emotional Impact**: Colors evoke feelings and influence behavior.

## **2. How It Works**

1. Color Extraction:
   * Scrapes website HTML and CSS to identify colors.
   * Detects primary, secondary, and accent colors.
2. Algorithmic Evaluation:
   * Custom algorithm assesses color scheme based on:
     + **Contrast**: Readability (text vs. background).
     + **Harmony**: Coherence of color combinations.
     + **Accessibility**: Compliance with standards.
     + **Emotional Associations**: Psychological impact.

## **3. Usage Guide**

1. Assessing a Website:
   * Input URL or upload HTML/CSS files.
   * Receive color score and detailed report.
2. Interpreting Results:
   * Understand color quality and recommendations.
   * Iterate based on feedback.

## **4. Work Distribution**

Timeline: 2 Weeks

* Backend & Algorithm : Animesh
* Frontend : Vidya
* Detailing & Designing : Ankita

## **5. Technical Elements**

## **6. References**

* [7 Rules For Choosing A Website Color Scheme | Elementor](https://elementor.com/blog/website-color-schemes/#)
  + Useful to show our theory is impactful for users.
* [Testing Web Design Color Contrast | Articles | web.dev](https://web.dev/articles/testing-web-design-color-contrast)
  + Article for color improvements in websites
* [6 Tips to Choose a Stunning Website Color Scheme (wordstream.com)](https://www.wordstream.com/blog/website-color-scheme)
  + For contrast and combination.
* [How to Choose Website Color Combination (eiosys.com)](https://www.eiosys.com/blog/website-color-combination/)
* [56 Website Color Schemes (With Examples) (websitesetup.org)](https://websitesetup.org/website-color-schemes/)
  + Situational color schemes. (May be useful for designing algorithm)