

Project Proposal

I intend to build a website that allows users to generate colour palettes to assist them in selecting colour sets in other projects, such as for the UI of their website, for the wall paint and furniture colours in their living rooms, or for the outfit they are going to wear today. Users will have a number of ways to generate a palette: they can individually select which colours they want to use; they can select a root colour and have the system generate a palette based around that colour; or they can have the system recommend a palette for them based on a number of constraints. After generating a palette, the user can save the palette for later (requires login), or even edit the palette at a later date. The palette can even be used to personalize the user's UI while they are logged in on the site. Users will also have the ability to search for colours based on hex code, rgb value, or hsl value to see the colour displayed along with similar colours as well as recommended colour palettes that include that colour.

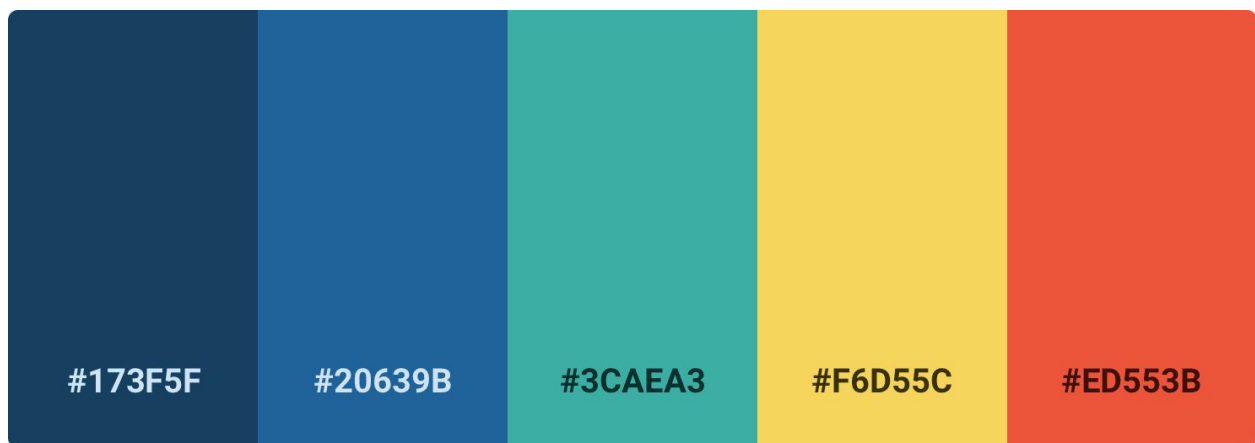


Figure 1: *Example Colour Palette*
Refactoring UI. Accessed February 10, 2019:
<https://refactoringui.com/previews/building-your-color-palette/>

A database will be used to store user login information, along with the palette information they have saved, and the currently selected UI colour theme. Further information may need to be stored regarding which colours are related to each other. The palette generation page will use responsive design to manage the layout of different input fields on different devices. All colour selection fields will provide text fields to accept hex codes, rgb values, or hsl values for browsers that don't support colour pickers. The login will properly implement salting and hashing to protect the users' password information.