Update

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# Introduction

Throughout our first few months of development we have overcome many obstacles, and realized some of our plans needed to be changed. The things that we have accomplished up to this point have mostly gone according to plan, and the things that are still under development are subject to change. In the beginning we anticipated some changes, due to our lack of experience using the tools needed to create a web application. For example, we anticipated we would have to use a lot of javascript/node.js, but we have kept those tools to a minimum after we realized the power of php. This has been and continues to be a great learning experience for us as a team as we continue to develop the Palette Picker web application.

# Changes and Deviations

As of the time of writing this document, there have not been many major deviations from our original plan. The biggest change was deciding to cut out the feature for recommending complimentary or adjacent colors on the palette creator page. However, if we find ourselves short on time however, we might cut features such as showing friend activity on the user’s home page or filtering search results.

# Accomplished Items

## Complete

The database, its tables, and the relations between tables have been created. We have also created the main functions for inserting and accessing data in the database. We also have multiple functions using SQL that make use of the main functions to send, get, or verify information in the database.

## Partially complete

Some of the functions for communication between the user interface and the database connection file still need to be implemented. Sending information between pages has been tricky, but is implemented for sending the username from the login page to the home page for someone that is logged in.

Another feature that is not fully implemented is the friend feature. There is a database function to get a user’s friends, but no implementation of the function in the user interface. This includes showing a user’s friends on the user’s profile and friend activity on the user’s home page.

One big feature currently in the process of being implemented is the drawing of a palette from a chosen picture. The algorithm for drawing a simple palette from a picture has been written, as well as the process for choosing a picture of the local computer. The process that links these two is currently being worked on, as soon as that is finished it will be implemented into the final product.

Another thing that can be worked on is a more robust palette system when pulling from images. The current system is fairly simple and is prone to error if the picture has a wide variety of colors. This could be improved to be more defined in the colors it puts into the palette and be less computationally extensive.

# Need to be implemented

The database is not yet on the Linode server. Database functions relating to the search feature have yet to be developed. This includes the specific functions containing the sql for searching through the database, the functions connecting the php connection file to the user interface, and any functions in the interface that will use that information. While there are functions for creating and verifying users for the login and sign up features, there is not any encryption of the password information yet.

All functionality for the search feature has not been created. The user interface on most pages will need to include the search bar, and the functions relating to getting information for the search page from the database have not been constructed. Along with this, the features relating to filtering the search results must also be created. This includes filtering by color, creator, or palette title.

Another piece of the program yet to be developed is manual palette creation. While most of this component is identical to pulling a palette from a picture or can be developed off of it, there are a few unique parts that need to be considered. First being user interaction with the color grid, saving a color based off of cursor position in relation to the grid. Another piece to consider is the hue slider that will affect the overall color of the grid.

There are multiple parts of the user interface that are still under production. Some functionality is dependent on database functions, which are in a variety of completion states, as mentioned above. Within the Top Navigation Bar these include: alerts, connection to search feature, link to user profile. On the Logged-in Homepage: friend activity, and pop-up for palette creator are still needed. Within User Profile these include: link to friends profile, linked to saved palettes. Within Palette Info page: palette and database connection, palette information, link to palette creator, ability to add palette to saved collection. The search page is pretty much all a work in progress, as mentioned above. There are also finishing touches that need to be added to all of these pages, mainly for aesthetic purposes if time allows. These include: expandable menu for saved palettes, better layout for Palette Information page, and icons instead of buttons/word links for the Top Navigation and Palette Information pages.

# Unresolved Issues

No unresolved issues as of this update.

# Design Diagram

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# Conclusion

Though we have had to make some changes to our application, we are confident that these changes are for the best. We have learned a lot during this experience and still have much more to learn. Our accomplishments have made us confident that the things still under development will go smoothly. That being said, some minor things are still subject to change. A large part of what still needs to be implemented comes from what we have already accomplished. Things like connecting all of our components, and making sure the database works in unison is what we need to spend time on.