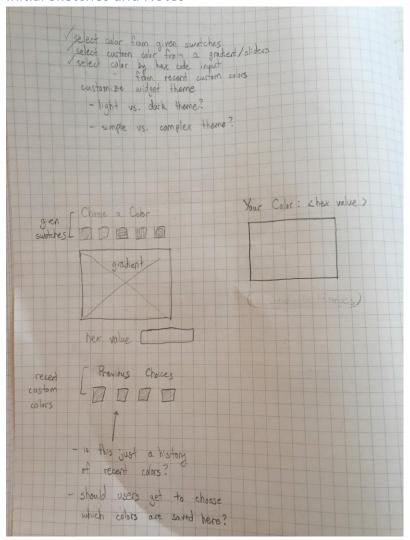
Cesium Color Picker Project Notes

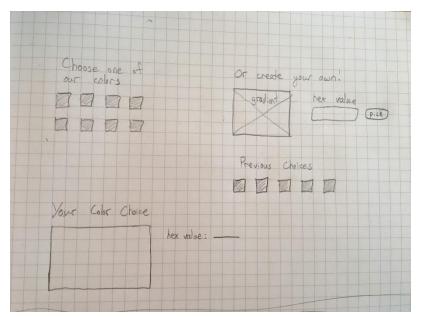
Jackson Hammond

Initial Sketches and Notes



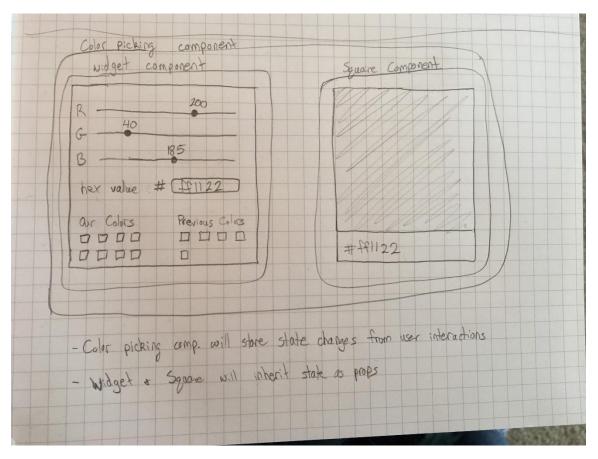
I started by writing out the requirements and checking them off as I created my first sketch.

- Questions I had at this point
 - Should I show a history of recent colors the user had picked, or let them choose which colors they'd like to save for later?
 - Should I use a simple or advanced view for customizing the widget?



Sketched more alternatives to explore the layout before I started to plan the code.

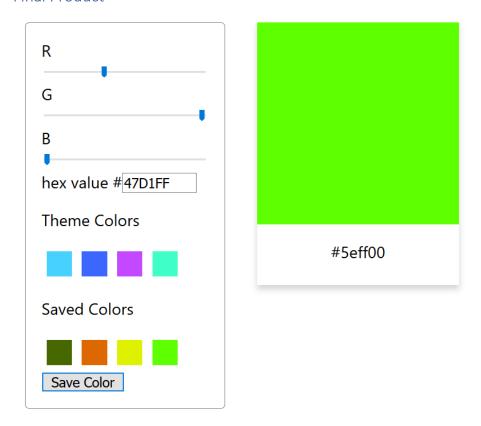
- Questions at this point
 - Which input method should be the most important?
 - In this example the "given colors" are in the top left and are the most important



I realized my previous sketches didn't look or feel very much like a widget, so I compressed them with the sketch above. I collected the user inputs together into one entity, which would control the square to the right. I also switched to using RGB sliders, rather than a gradient, because I felt it could make for a smaller and cleaner widget.

With this sketch I also started to plan out the React components I would need to create this widget (ColorPicking, Widget, and Square components) and how they would work together.

Final Product



I implemented this project using React because it would give me an easy way to keep track of user inputs from the widget and update the color square. You can run the app from the command line using "npm start", see the README file for further details.

The final product allows the user to do the following:

- 1. Create a color using the RGB value sliders
- 2. Input a color directly using its hex value
- 3. Choose one of the given "Theme Colors"
- 4. Save the current color and see it added to the "Saved Colors" section to use again later

I decided to let users "save" colors for later, rather than just showing a recent history of colors they entered or created, so that they would have more control over the colors they can use later.

If I Had More Time

This project had a three-hour time limit so I didn't get everything completed that I would have liked to. If I had more time for this project I would work on:

- 1. Adding a toggle to switch between a simple and advanced view. The simple view could just show the given color swatches, and the advanced view could show the RGB sliders, hex value input, and saved colors.
- 2. Display the numerical values from the RGB sliders for users.
- 3. Make sure the hex value input responds to the "enter" key being pressed, currently it only changes the square color when focus moves away from the text field.
- 4. Update the RGB sliders and the hex value text field anytime the color is changed. Currently the sliders don't change position if someone clicks a swatch or enters a hex value, and likewise the hex value field doesn't change if a slider is moved. I think each input should be updated whenever the user picks a new color.
- 5. Use more styling to clean up the widget. Currently the whitespace in the widget doesn't do a good job grouping user inputs with their labels (an example is how far the theme color swatches are from the "Theme Colors" label), and that can make the widget more difficult to use.