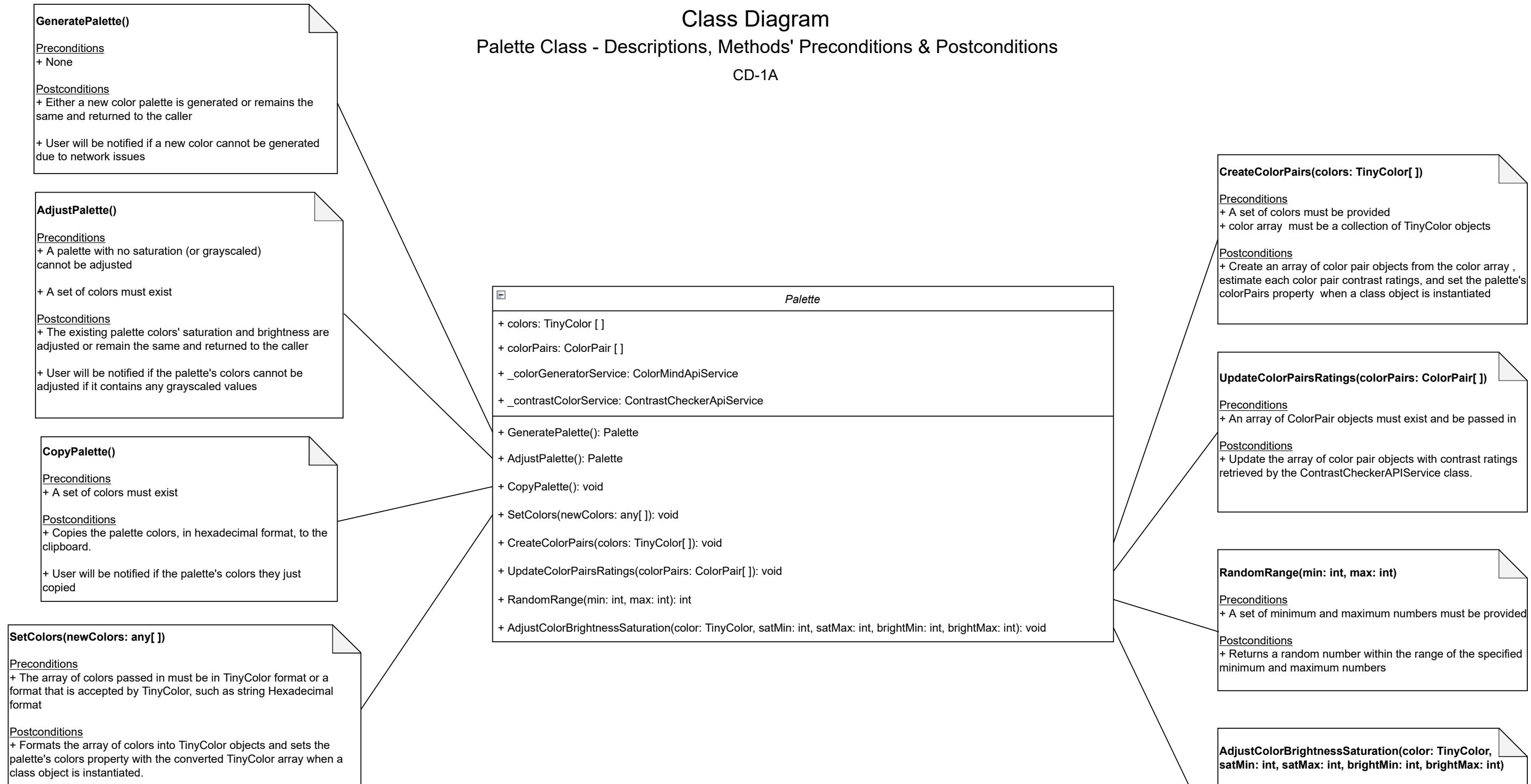


Class Diagram

Palette Class - Descriptions, Methods' Preconditions & Postconditions

CD-1A



Additional Description: Palette Class / Object

The global Palette Class/Object is a critical piece of the application. It provides all the color and paired color data needed to hydrate the content and modify the HTML element styles of various components and pages within the application. Its properties are used as arguments for multiple methods and functions in the application, and its methods are passed to close child components as props.

A global Palette object is instantiated at the start of the application and stored in as a state using React's `useState` hook. The global Palette state is located in the top parent component and accessible to other child components through React's `Context` hook.

A palette context and context provider is created for the application at the top level, and the palette state tuple, [palette, SetPalette], is assigned as the context value property.

The Palette object in the state can be set/replaced anywhere in the application using the palette context and `setPalette()` method it holds, so long as the child component consumes the context. And any child components that consume the context will subscribe to its changes.

The Palette Class/Object itself cannot update the global state from within because calling hooks are forbidden in classes, so various Palette methods return a new Palette object to the caller so that a new palette state can be set globally.