

ColorPalette Component Documentation

Overview

The `ColorPalette` component is a React class component that generates a random color palette and allows users to copy color codes and search for specific colors.

Features

- Generates a random color palette with 21 colors.
- Copies a selected color to the clipboard.
- Filters colors based on user input.
- Refreshes the color palette.

Dependencies

- React
- CSS file (`App.css`) for styling

Usage

```
import React from "react";
import ColorPalette from "../ColorPalette";
import "../App.css";
```

```
function App() {
  return (
    <div>
      <ColorPalette />
    </div>
  );
}
```

```
export default App;
```

Component Breakdown

State Properties

- `colorList`: Stores the generated color palette.
- `copiedColorIndex`: Stores the index of the last copied color.
- `searchInput`: Stores user input for filtering colors.
- `matchingColors`: Stores colors that match the search input.

Lifecycle Methods

- `componentDidMount()`: Calls `generateColorPalette()` to initialize the color list when the component mounts.

Methods

`generateColorPalette()`

Generates 21 random hex color codes and updates the `colorList` state.

`copyColorToClipboard(hexValue, index)`

Copies the selected color to the clipboard and updates `copiedColorIndex`.

`handleSearchChange(e)`

Filters the color list based on user input, matching predefined colors in `colorMapping`.

Rendered Elements

- **Search Input**: Allows users to enter color names for filtering.
- **Color List**: Displays either the generated or filtered colors.
- **Refresh Button**: Regenerates a new color palette.

Event Handling

- Clicking on a color copies its hex code to the clipboard.
- Typing in the search input filters colors dynamically.
- Clicking the refresh button regenerates the color list.

Styling

Ensure `App.css` includes styles for:

- `.search-container` for search bar styling.
- `.container` for the color list layout.
- `.color` for individual color boxes.
- `.rect-box` for color previews.
- `.refresh-btn` for the refresh button.

Notes

- The component uses the `navigator.clipboard` API, which may not work on insecure origins.
- The search functionality relies on a predefined set of color mappings.

Screenshots

