

QR Code Generator Documentation

Overview

The `QrGenerator` component is a React-based QR code generator that allows users to generate QR codes dynamically based on user input. It supports customization of background color and dimensions. The generated QR code can also be downloaded.

Installation & Usage

1. Ensure you have React installed in your project.
2. Include the `QrGenerator` component in your application.
3. Import necessary CSS files (`App.css`).

```
import QrGenerator from './QrGenerator';
```

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

```
export default App;
```

Component Breakdown

State Variables

- `temp`: Stores the temporary input value before confirming QR generation.
- `word`: Stores the final text to encode in the QR code.
- `size`: Controls the QR code dimensions (default: 400px, range: 200-600px).
- `bgColor`: Stores the background color for the QR code (default: white - `ffffff`).
- `qrCode`: Stores the generated QR code URL.

Hooks

useState

- Manages dynamic values such as input text, QR size, background color, and generated QR code URL.

useEffect

- Watches `word`, `size`, and `bgColor` state values.
- Updates the `qrCode` state whenever any dependency changes.
- Constructs the QR code URL using an external API:
`http://api.qrserver.com/v1/create-qr-code/`.

Functions

handleClick

- Updates `word` state with `temp` value upon button click.

UI Elements

1. **Input Box:** Allows users to enter text to encode.
2. **Generate Button:** Triggers QR code generation.
3. **Customization Options:**
 - Background color picker.
 - Range slider for QR code dimension selection.
4. **Output Box:**
 - Displays the generated QR code.
 - Provides a download button to save the QR code.

External Dependencies

- Uses `http://api.qrserver.com/v1/create-qr-code/` for generating QR codes dynamically.

Notes

- Ensure an active internet connection as the QR code is fetched from an external API.
- The `use client` directive at the top indicates the component runs in a React Server Component environment, ensuring compatibility with React frameworks like Next.js.

Enhancements

- Implement local QR code generation using a library like `qrcode.react`.
- Add error handling for invalid input cases.
- Provide more customization options (e.g., foreground color, margin settings).

Example:

Qr Example of google.com



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Background Color: Dimension:

