Shareable Notes - README

Project: Shareable Notes

The **Shareable Notes** project is a web application built with React for the frontend, designed to enable users to create, manage, and share notes seamlessly. Users can format their notes, categorize them, and generate shareable links for collaboration.

Features

1. **Rich Text Editor**
   o Supports formatting (bold, italic, underline, strikethrough).
   o Text alignment options (left, center, right, justify).
   o Insert lists (ordered, unordered) and horizontal lines.
   o Indentation and clear formatting options.
2. **Note Management**
   o Create, edit, and delete notes.
   o Organize notes into categories.
   o Auto-save and live content updates.
3. **Shareable Links**
   o Generate unique links for sharing notes.
   o Secure access with link expiration options.
4. **User-Friendly Design**
   o Responsive layout.
   o Browser spell-check integration.

Folder Structure

```plaintext
Copy code
src/
├── components/
│       ├── RichTextEditor.js  # The editor component
│       ├── NotesList.js     # Note creation and listing
│       └── NoteEditor.js   # Generate and display shareable links
├── styles/
│       └── editor.css         # Styling for the editor and toolbar
├── App.js                  # Root component
└── index.js                # Entry point
```

Setup and Installation

Prerequisites

- Node.js (v14 or higher) and npm/yarn installed on your machine.

Steps

1. **Clone the Repository**
   Clone the project to your local system:

```bash
Copy code
git clone <repository_url>
cd shareable-notes
```

2. **Install Dependencies**
   Install the required packages using npm or yarn:

```bash
Copy code
npm install
```

   or

```bash
Copy code
yarn install
```

3. **Start the Application**
   Run the development server:

```bash
Copy code
npm start
```

   or

```bash
Copy code
yarn start
```

   The app will be accessible at `http://localhost:3000`.

Usage

Rich Text Editor

The Rich Text Editor allows users to:

- Format text using a toolbar.
- Live preview the styled content.

Note Creation

Create a new note using the "New Note" option. The editor autosaves changes and synchronizes data with local storage or the backend API.

Generate Shareable Links

Generate unique shareable links to share notes with collaborators. Links are visible in the **Shareable Links** section and can be copied or revoked.

Key Files and Functions

1. **RichTextEditor.js**
   o Handles all text formatting and state synchronization for content.
   o Key methods:
      ▪ `handleInput`: Updates content on user input.
      ▪ `handleStyle`: Applies styles using `document.execCommand`.

2. **App.js**
   o The main container component.
   o Manages the routing and layout of the application, integrating `NotesList` and `NoteEditor` components.

3. **NotesList.js**
   o Displays all the created notes in a list.
   o Allows deleting notes and selecting a note to edit.
   o Fetches and updates the notes from the backend (or local storage).

4. **NoteEditor.js**
   o Provides a rich text editor to create and edit notes.
   o Updates the note content in real-time and supports text formatting.

Testing

Manual Testing:

1. Launch the app locally.
2. Test features like note creation, formatting, and link sharing in a browser.

Future Enhancements

- Add user authentication for secure access.
- Cloud synchronization for notes.
- Advanced link sharing with permissions (view/edit).