Reusable Date Picker Component

OVERVIEW

This documentation outlines the implementation of a reusable date picker component in React, designed to allow users to select recurring dates. The component mimics functionality, enabling various customization options for recurring dates, visual previews, and flexible date ranges.

Technical Requirements

1. **Framework**: Next.js
2. **Styling**: TailwindCSS, Shadcn UI
3. **State Management**: Redux Toolkit
4. **Development Environment**: Project Idx

Functionality

The date picker component will feature the following functionalities:

1. **Recurring Options**: Users can select from different recurring patterns:
   - Daily
   - Weekly
   - Monthly
   - Yearly
2. **Customization Options**: Users can fine-tune the recurrence:
   - Select every X days/weeks/months/years.
   - Choose specific days of the week.
   - Specify the nth day of the month (e.g., the second Tuesday).
3. **Visual Preview**: The component will display selected recurring dates on a mini calendar.
4. **Date Range**: Users can set a start date and (optional) end date for the recurrence.

Testing

Testing is a crucial part of development to ensure the reliability of the component. The following tests will be implemented:

1. **Unit Tests**:
    - Write unit tests for individual components (e.g., testing that the `RecurrenceOptions` component correctly dispatches actions).
    - Use Jest and React Testing Library for testing.
2. **Integration Tests**:
    - Include at least one integration test to ensure all components work together as expected (e.g., testing that selecting a recurrence option updates the preview calendar).