

Feedback Section:

1. Challenges & Solutions:

Challenge 1: Form Validation

- **Challenge:** Ensuring that the form on the Task Creation Page validates inputs correctly.
- **Solution:** Implemented client-side validation to check for empty titles and descriptions and ensure the due date is not in the past. Used conditional rendering to display error messages to users.

Challenge 2: State Management

- **Challenge:** Managing state across different components, especially when editing a task.
- **Solution:** Leveraged React's state management and props passing to ensure that the state is appropriately updated and passed between components. Utilized React Router to handle navigation and parameter passing.

Challenge 3: Responsive Design

- **Challenge:** Designing a responsive dashboard for both desktop and mobile devices.
- **Solution:** Utilized responsive design principles, including CSS media queries, to adjust the layout and styling based on the screen size. Tested thoroughly on various devices and browsers.

2. Security & Optimization:

Security Considerations:

- **Secure Input Handling:** Ensured secure handling of user inputs by validating and sanitizing inputs to prevent potential security vulnerabilities like SQL injection or XSS attacks.
- **Protected Routes:** Implemented route guards to restrict access to certain pages based on user authentication status, preventing unauthorized access.

Optimization Considerations:

- **Performance:** Used React's virtual DOM for efficient rendering and minimized unnecessary re-renders. Employed code splitting to load components asynchronously, improving initial load times.
- **Network Optimization:** Utilized lazy loading for images and assets, reducing the initial page load size. Considered implementing caching strategies for API calls to enhance performance.