

REPORT OF INDUSTRY ORIENTED HANDS ON EXPERIENCE (IOHE)
ON
NOTES APPLICATION (NOTLY)
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Submitted by:

Rakshit Chauhan (2110991133)

Suraj Dutta (2110991411)

Sparsh Yadav (2110991383)

Raghav Khattar (2110991112)

Supervised By:

Mrs. Simar Virk



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CHITKARA UNIVERSITY INSTITUTE OF ENGINEERING AND TECHNOLOGY
CHITKARA UNIVERSITY, PUNJAB, INDIA

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1. Abstract

Notely is a React-based web application designed to offer an intuitive and feature-rich note-taking experience. Inspired by Google Keep, this application allows users to create, edit, delete, archive, and manage notes effectively. Additional functionalities include reminders and label-based categorization, enhancing user productivity.

The project follows a structured development process, including UI design using Material UI (MUI), API integration with Axios, and routing using React Router DOM. This ensures a seamless and responsive user experience. The goal is to provide an efficient, organized, and visually appealing note management system that can be accessed across devices.

2. Introduction

In today's digital era, efficient note-taking applications play a crucial role in productivity. Users require a system that allows them to capture ideas, organize thoughts, and retrieve information effortlessly. While traditional note-taking methods exist, modern applications like Google Keep offer a streamlined and interactive approach.

Notely is developed as a **feature-rich note-taking application**, enabling users to:

- **Create and Manage Notes** – Add, edit, and delete notes.
- **Organize Notes** – Categorize notes using labels for easy retrieval.
- **Archive & Trash Management** – Move notes to an archive or trash before permanent deletion.

- **Reminders** – Set reminders for important tasks.

By leveraging React.js and Material UI, Notely provides an intuitive and responsive user interface. The project also incorporates authentication features, ensuring secure access to notes.

3. Methodology

The development of Notely follows a systematic approach, ensuring efficient implementation and optimal user experience. The key steps involved are:

1. Requirement Analysis

- Identify essential features such as note creation, deletion, organization, and reminders.
- Research user experience design to ensure ease of use.

2. UI/UX Design

- Design a **responsive** and **user-friendly interface** using Material UI.
- Implement a **navigation system** using React Router DOM.

3. Frontend Development

- **Component-Based Architecture:** Break down UI into reusable React components.
- **State Management:** Use React hooks (`useState`, `useEffect`) to manage state efficiently.
- **API Handling:** Integrate APIs using Axios for backend interaction.

4. Feature Implementation

- Implement **CRUD operations** for note management.
- Enable **archiving and trashing** functionality.

- Develop a **reminder system** using Day.js for date and time management.
- Implement **label-based organization** for better categorization.

5. Testing and Optimization

- Perform **unit testing** using Jest for component validation.
- Optimize performance by reducing unnecessary re-renders and improving API calls.

6. Deployment

- Host the application on **Netlify or Vercel** for public access.
- Ensure cross-device compatibility and responsive design.

4. Tools and Technologies

To build a **scalable and efficient** note-taking application, the following tools and technologies were used:

1. Programming Languages & Frameworks

- **React.js** – Core frontend framework for building UI components.
- **JavaScript (ES6)** – For logic implementation and interactivity.

2. UI/UX Design

- **Material UI (MUI)** – Provides pre-built React components for a responsive interface.
- **SASS** – For styling and maintaining a modular CSS structure.

3. API Handling & State Management

- **Axios** – Handles API requests for data fetching and manipulation.

- **React Hooks** (`useState`, `useEffect`) – Manages application state efficiently.

4. Utility Libraries

- **React Hot Toast** – Provides real-time notifications.
- **FontAwesome & Lucide Icons** – Enhances UI with interactive icons.

5. Development & Deployment

- **React Router DOM** – Manages navigation within the application.
- **Netlify / Vercel** – Deployment platforms for hosting the web app.

By integrating these technologies, Fundoo Notes ensures an efficient, visually appealing, and feature-rich note-taking experience.

5. Project Plan

The project follows a structured development process, divided into six phases:

Phase 1: Project Planning & Research

- Define project objectives and essential features.
- Study existing note-taking applications for inspiration.

Phase 2: UI/UX Design

- Design a responsive interface using Material UI.
- Create wireframes and UI prototypes.

Phase 3: Frontend Development

- Develop React components for **notes, labels, reminders, archive, and trash**.
- Implement state management and API integration.

Phase 4: Feature Implementation

- Develop **CRUD operations** for notes.
- Implement **authentication, reminders, and search functionalities**.

Phase 5: Testing & Optimization

- Perform unit testing using Jest and React Testing Library.
- Optimize API calls and reduce unnecessary re-renders.

Phase 6: Deployment & Finalization

- Deploy the project on **Netlify or Vercel**.
- Prepare documentation and conduct project demonstrations.

Conclusion

Notely is a powerful **React-based note-taking application** designed to enhance productivity by providing a seamless and organized user experience. With features like **note creation, archive & trash management, reminders, and labels**, it serves as an efficient alternative to Google Keep.

By leveraging **React.js, Material UI, Axios, and other modern web technologies**, the project demonstrates the potential of **frontend development** in building intuitive and feature-rich web applications. The structured approach ensures **scalability, responsiveness, and usability**, making Notelys a valuable project in the field of **web development**.