

HCI Project Report

Project Title :Note Application

Project Description

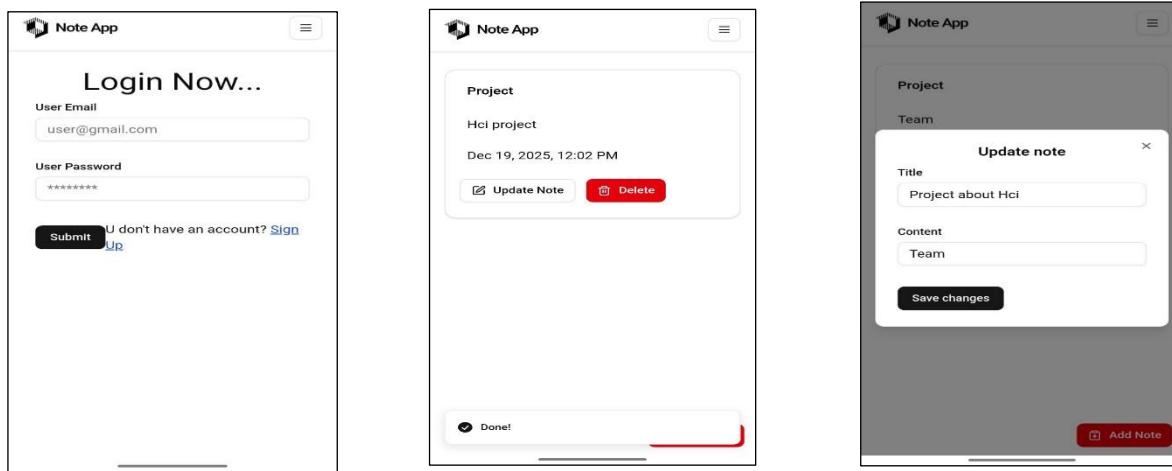
The project is a simple web-based Note Application that allows users to log in, create, view, and manage personal notes. Although the application is simple, it is designed based on **Human-Computer Interaction (HCI)** principles to ensure high usability, good user experience, and alignment with users' mental and perceptual models.

1. Usability Principles

Usability describes how effectively users can achieve their goals using the system. In this project, usability is evaluated using six key attributes: effectiveness, efficiency, safety, utility, learnability, and memorability.

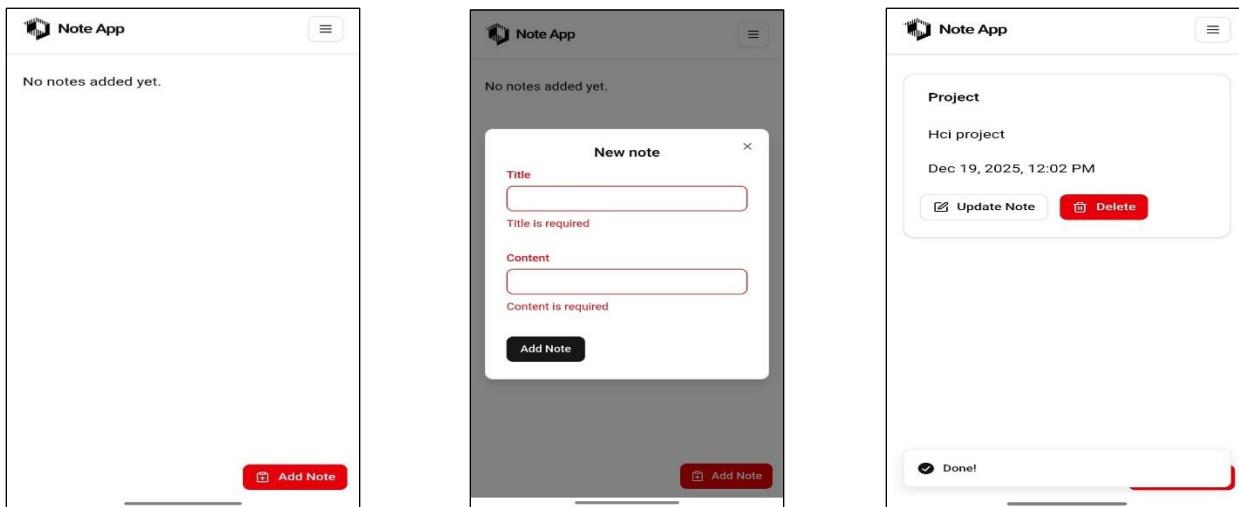
1.1 Effectiveness

Users can successfully complete their primary tasks, such as logging in, adding, editing, and saving notes. Every action produces accurate results, and newly added notes are immediately visible, ensuring task completion is reliable.



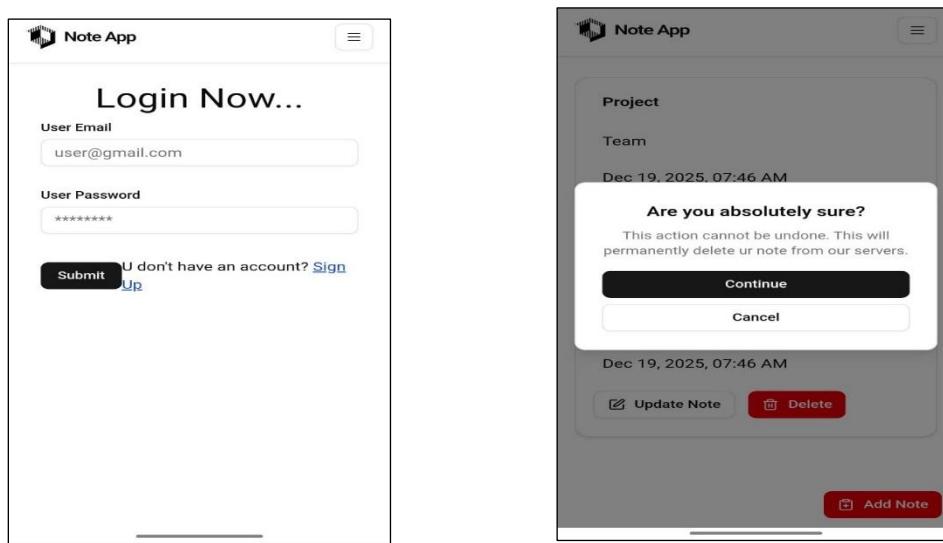
1.2 Efficiency

The application enables users to perform tasks with minimal steps. Adding, editing, and saving notes can be done quickly without unnecessary navigation, which reduces time and effort.



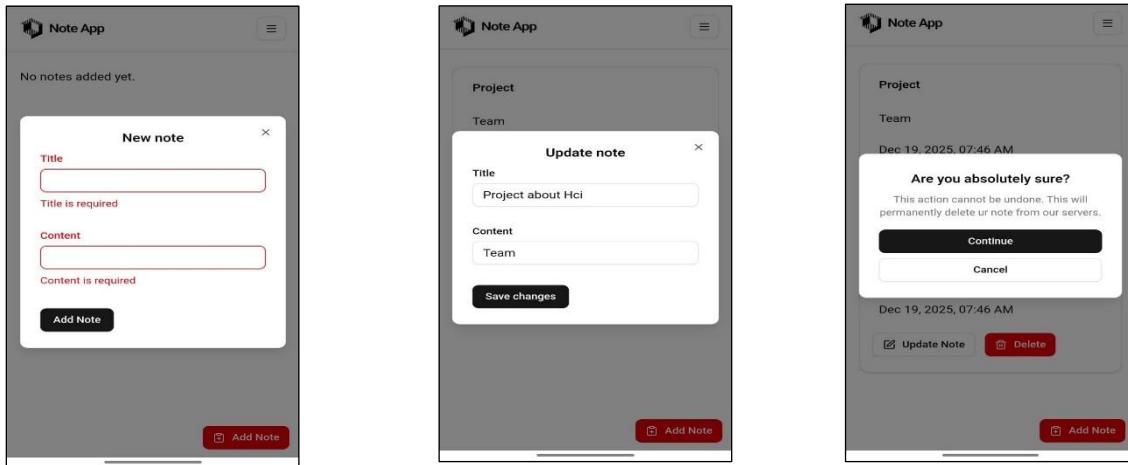
1.3 Safety

The system prevents user errors by displaying confirmation messages before important actions. These confirmations reduce the risk of accidental operations and protect user data.



1.4 Utility

The application provides all the essential features required for a note-taking system, such as creating, viewing, and managing notes. The available functions match the users' needs without adding unnecessary complexity.

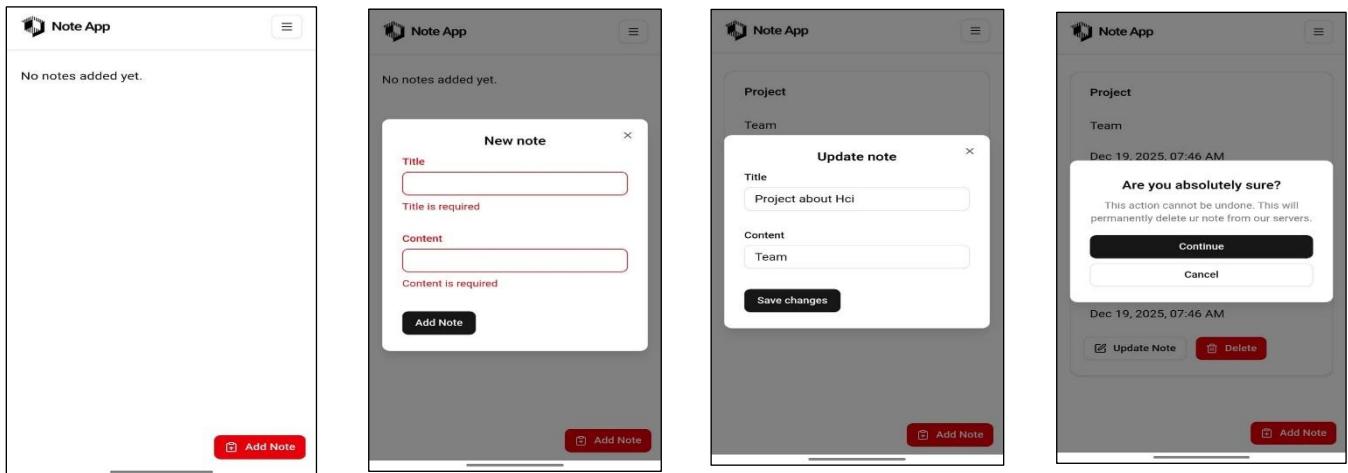


1.5 Learnability

The interface is easy to learn for first-time users. Familiar layouts, clear labels, and simple interactions allow users to start using the application without prior training.

1.6 Memorability

Because the application uses common design patterns found in similar applications, users can easily remember how to use it when they return after a period of time.

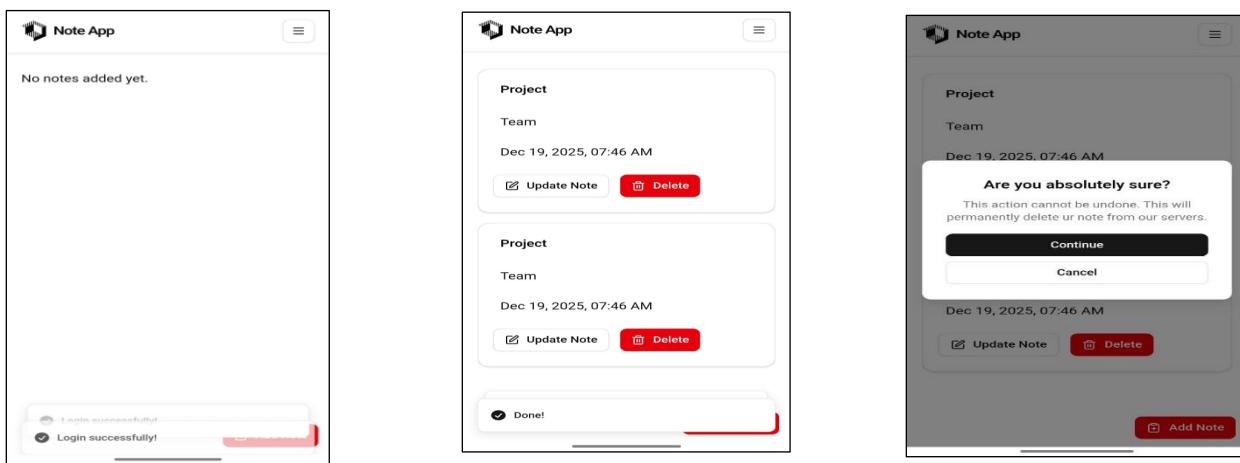


2. User Experience (UX) Principles

This section explains how core UX principles are applied in the Note Application to improve user interaction and overall experience.

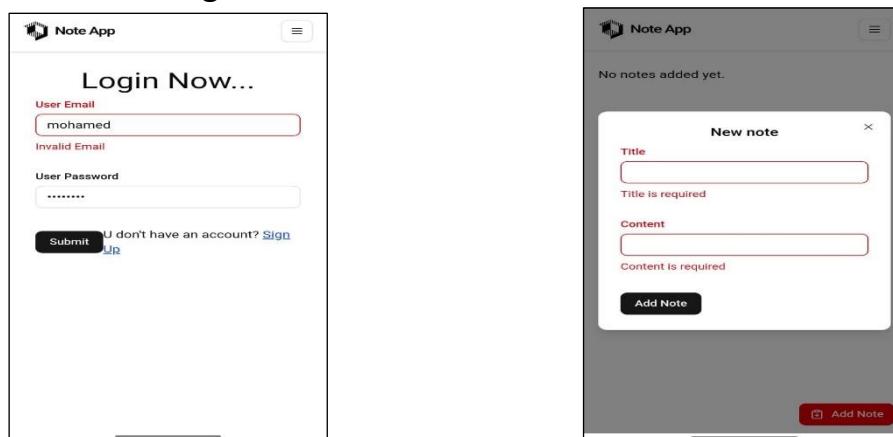
2.1 Feedback

The application provides immediate feedback after user actions. For example, success messages appear after logging in or saving a note, and confirmation dialogs are shown before important actions. This feedback keeps users informed about the system state and reassures them that their actions were successful.



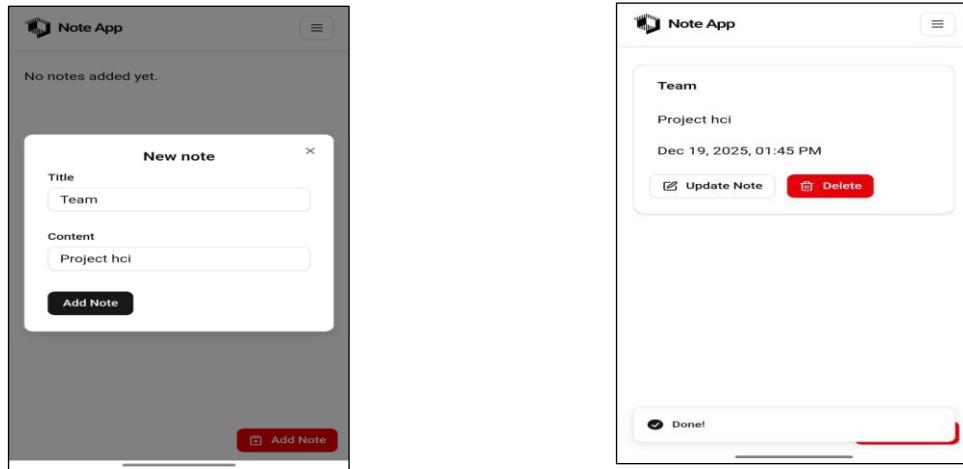
2.2 Constraints

Constraints are used to limit incorrect user actions. Input fields accept only appropriate data, and confirmation messages prevent accidental operations such as saving unintended changes. These constraints help reduce errors and guide users toward correct usage.



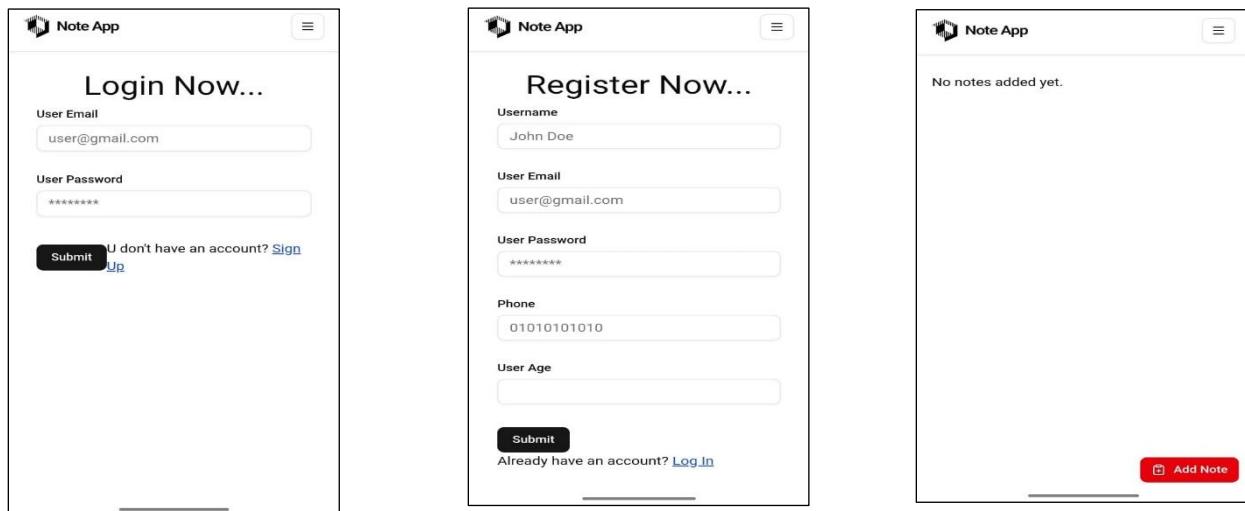
2.3 Mapping

The relationship between controls and their effects is clear. Buttons are placed near the actions they perform, such as save buttons located close to note content. This natural mapping makes the interface intuitive and easy to understand.



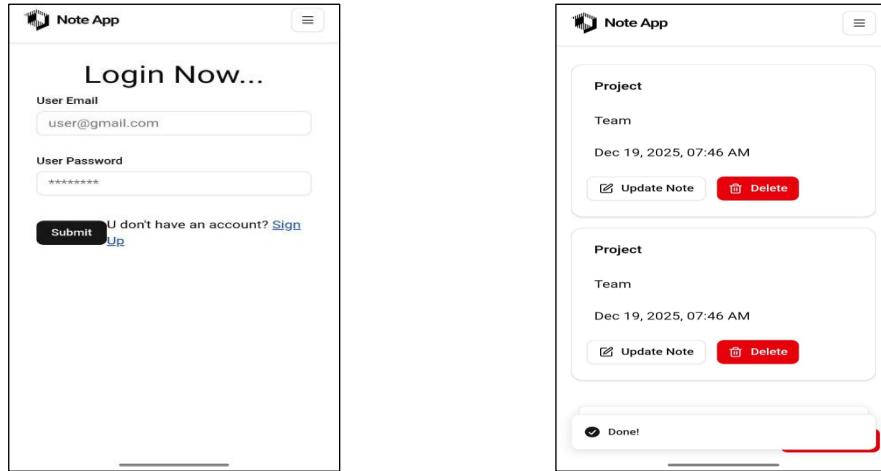
2.4 Consistency

The application maintains consistent design elements across all screens. Colors, fonts, button styles, and layouts remain uniform, allowing users to easily predict how the system behaves.



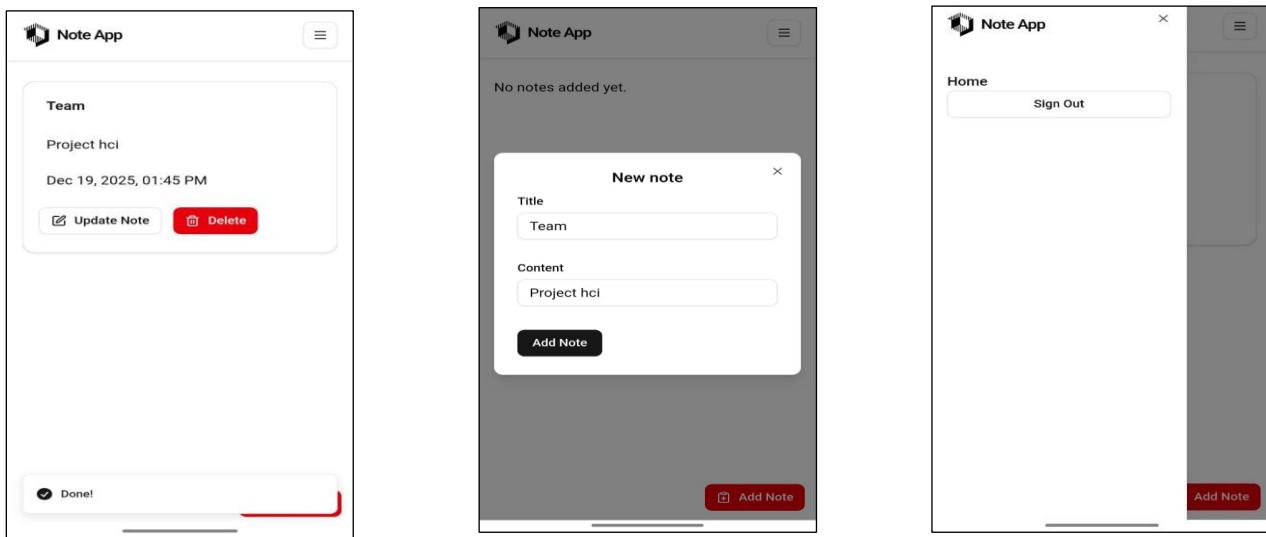
2.5 Affordance

Interface elements visually suggest how they should be used. Buttons look clickable, input fields clearly indicate where users can type, and icons represent their functions. This helps users interact with the system without confusion.



2.6 Visibility

Important actions and system states are clearly visible. Primary buttons stand out visually, and updated content (such as newly added notes) appears immediately on the screen. This ensures users can easily find and understand available actions.



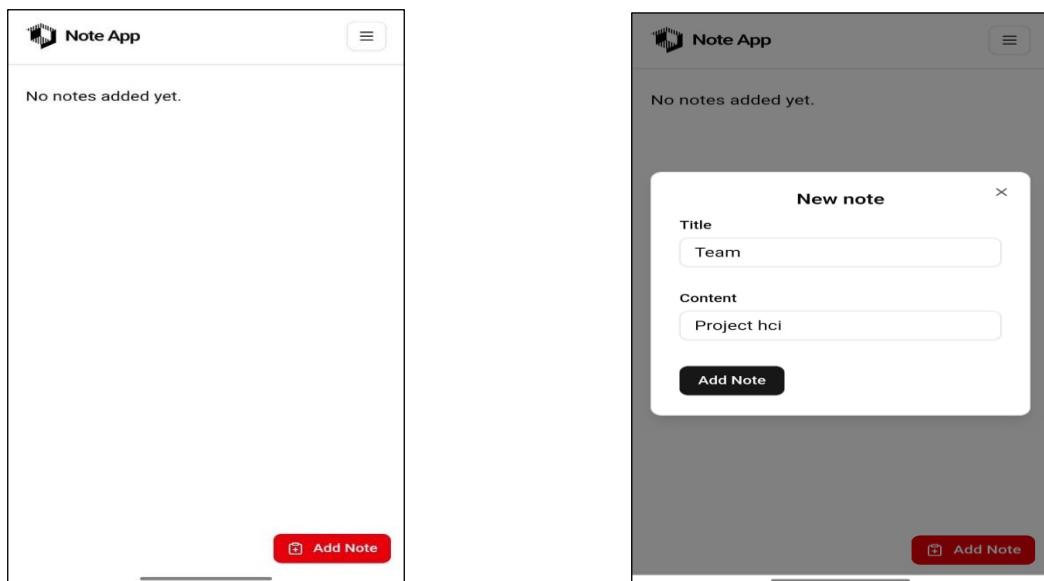
3. Conceptual Design

The conceptual design defines how the system is structured and how users understand its main concepts and interactions.

In the Note Application, the conceptual design is based on a simple and clear model:

- The user logs in to access personal notes.
- Notes are represented as individual items that can be created, viewed, edited, and deleted.
- Actions such as add, save, and edit are clearly separated and directly related to notes.

This clear structure helps users understand how the system works and what actions are available at any time.



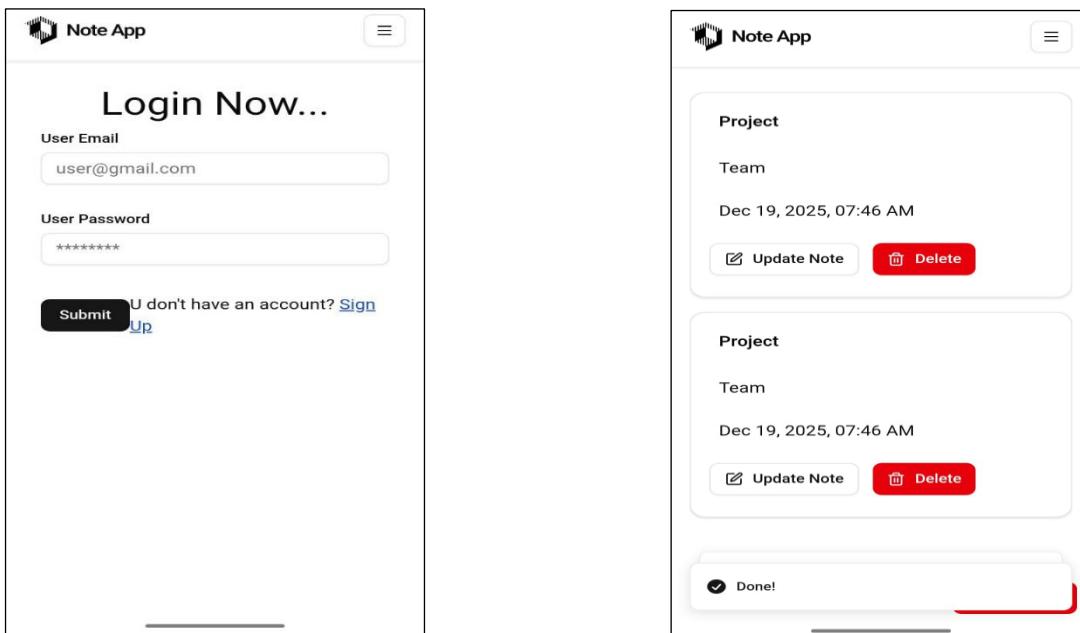
4. Mental Model

The mental model describes how users expect the system to work based on prior experience.

The Note App aligns with users' mental models by:

- Using a familiar login interface similar to common web applications.
- Presenting notes in a list format, which users commonly associate with note-taking apps.
- Placing action buttons (Add, Save, Edit) in expected and predictable locations.

By matching these expectations, the application reduces confusion and learning time.



5. Prototyping and Design Inspiration

Although a formal prototyping phase was not conducted using wireframes or design tools, the design process was still guided by analysis and improvement based on existing applications.

6. Conclusion

The Note App effectively applies HCI principles. It demonstrates high usability with clear effectiveness, efficiency, safety, utility, learnability, and memorability. Users benefit from predictable workflows, immediate feedback, and intuitive design, showing that thoughtful HCI integration enhances interaction quality even in simple applications.