SHRI G. S. INSTITUTE OF TECHNOLOGY AND SCIENCE, INDORE (M.P.)

"Digital Notebook"

Internet and Web Technology

Subject Code : CT20004

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A PROJECT REPORT submitted of subject
INTERNET AND WEB TECHNOLOGY

Digital Notebook Project Report

Problem Statement

In educational and professional environments, many individuals rely on paper notebooks to store their notes. However, this traditional method has multiple drawbacks:

- **Loss and Damage**: Paper notebooks can easily be misplaced, damaged by water or wear and tear, and once lost, their contents are irrecoverable.
- **Accessibility**: Users are tied to the physical presence of their notebooks. If they forget to bring their notebooks, they cannot access important information.
- **Organization**: Managing multiple paper notebooks can be cumbersome, especially for users dealing with various subjects or projects. It can be difficult to search for specific notes quickly.

With the increasing demand for remote work, studying, and multitasking, there is a strong need for a digital solution that not only stores information securely but also allows easy access across multiple devices, such as laptops, smartphones, and tablets. A cloud-based platform like the Digital Notebook addresses these issues, providing a more convenient, reliable, and efficient method for note management.

Solution

The **Digital Notebook** project provides a secure, cloud-based platform where users can store, organize, and retrieve their notes from any device. The system offers an easy-to-use interface where users can create notes, categorize them by subject or tag, and search for specific notes as needed. Some key features of the Digital Notebook include:

- **Create, Edit, and Delete Notes**: Users can easily add new notes, edit existing ones, or delete those they no longer need.
- **User Authentication**: A secure login system ensures that users' notes are private and accessible only to them.

The project ensures that all the issues related to traditional paper notebooks are addressed by offering a digital solution that is both secure and convenient for users, making their note-taking process far more efficient.

Technology Used

Front-end Technologies

The front-end of the Digital Notebook is developed using modern web technologies to ensure a clean and responsive user interface:

- **HTML** : Used for structuring the content on the web pages. It ensures that the content is accessible and well-organized.
- **CSS** : Provides styling to make the interface visually appealing and easy to navigate. CSS ensures that the notebook is user-friendly and responsive across devices.
- **JavaScript**: Enables dynamic functionality on the web pages, allowing users to interact with the notebook, such as adding or editing notes without reloading the page. JavaScript enhances the user experience by providing interactivity and responsiveness.

Back-end Technologies

The back-end of the Digital Notebook handles the server-side logic, database interactions, and user authentication:

- **PHP**: The server-side scripting language used to handle data requests from the user interface and process them on the server. PHP manages tasks such as user authentication (login/logout), note creation, editing, and retrieval from the database.

Database

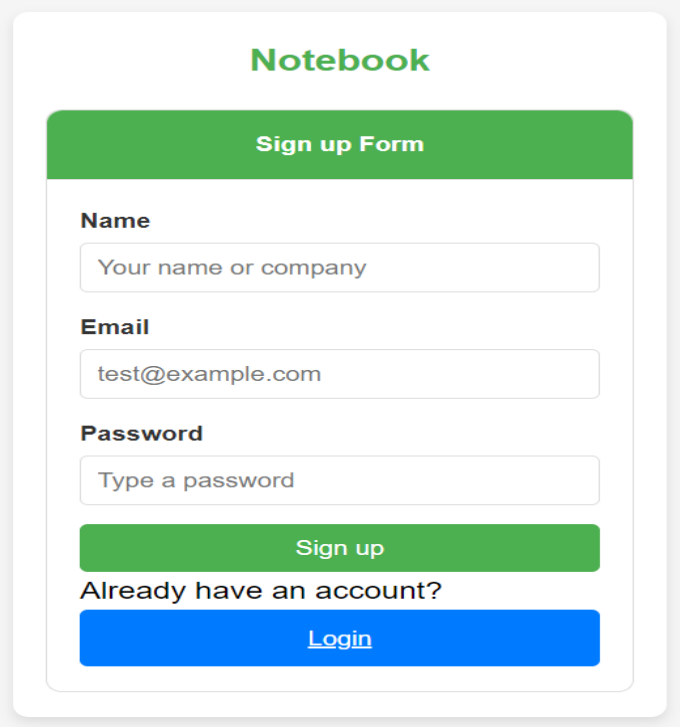
- **MySQL (via XAMPP)**: A relational database management system (RDBMS) used to store and manage user data, notes, and categories. MySQL ensures that the information is stored securely and is easily retrievable when needed. XAMPP is used as the development environment to host Apache and MySQL locally.

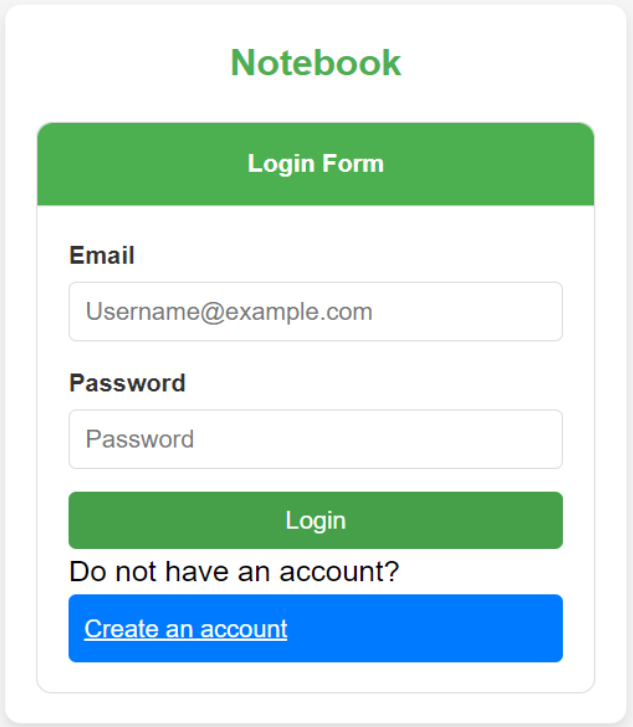
Development Environment

- **XAMPP**: Used to set up a local server environment for PHP and MySQL. It provides a complete package of Apache, MySQL, and PHP, allowing for easy development and testing.

Screenshots of UI

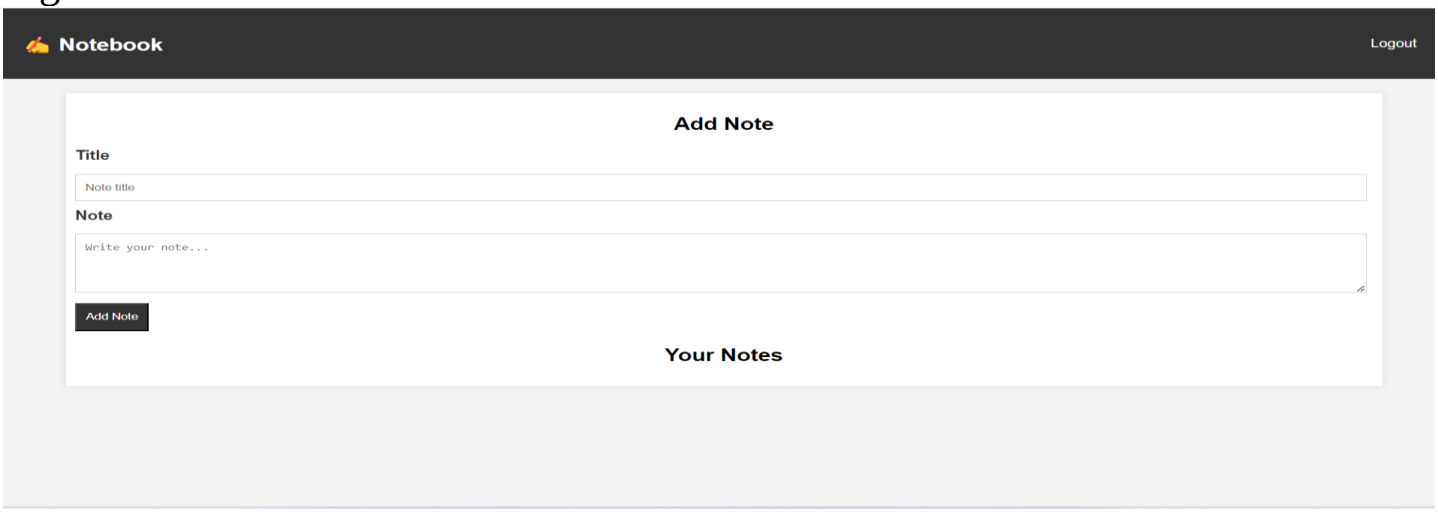
Screenshot 1: User Register/ Signup & login Screen:





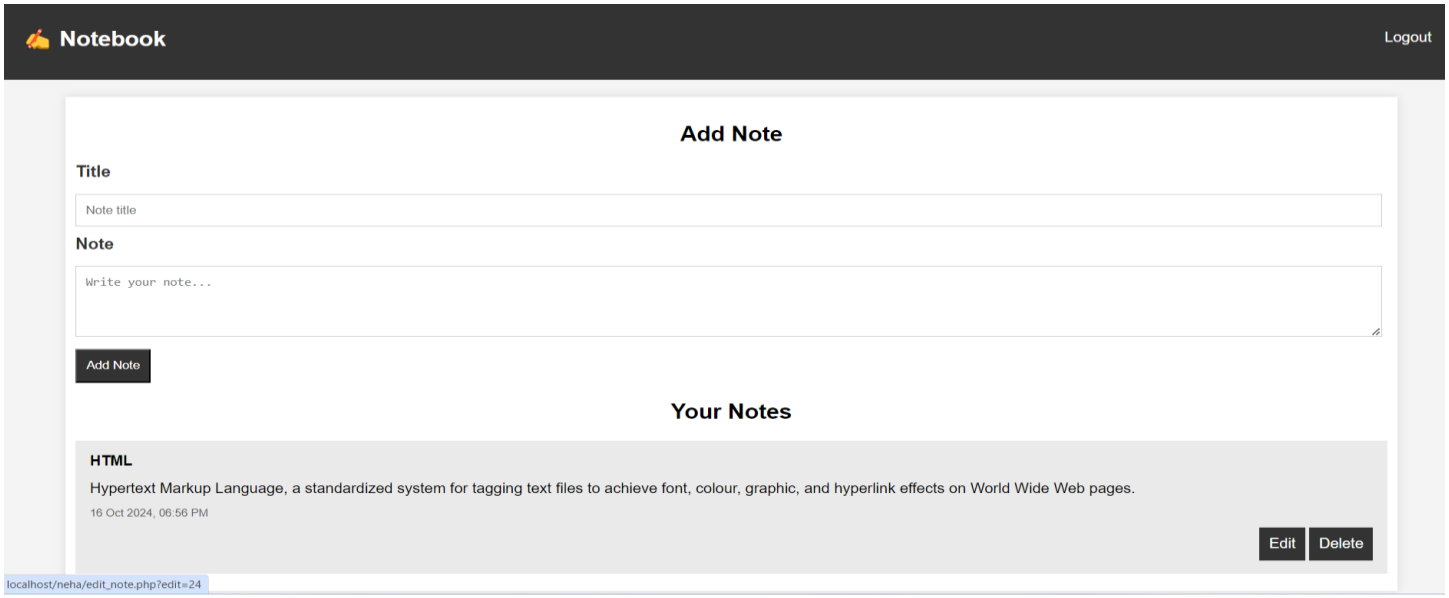
Screenshot 2: Notebook Overview Screen

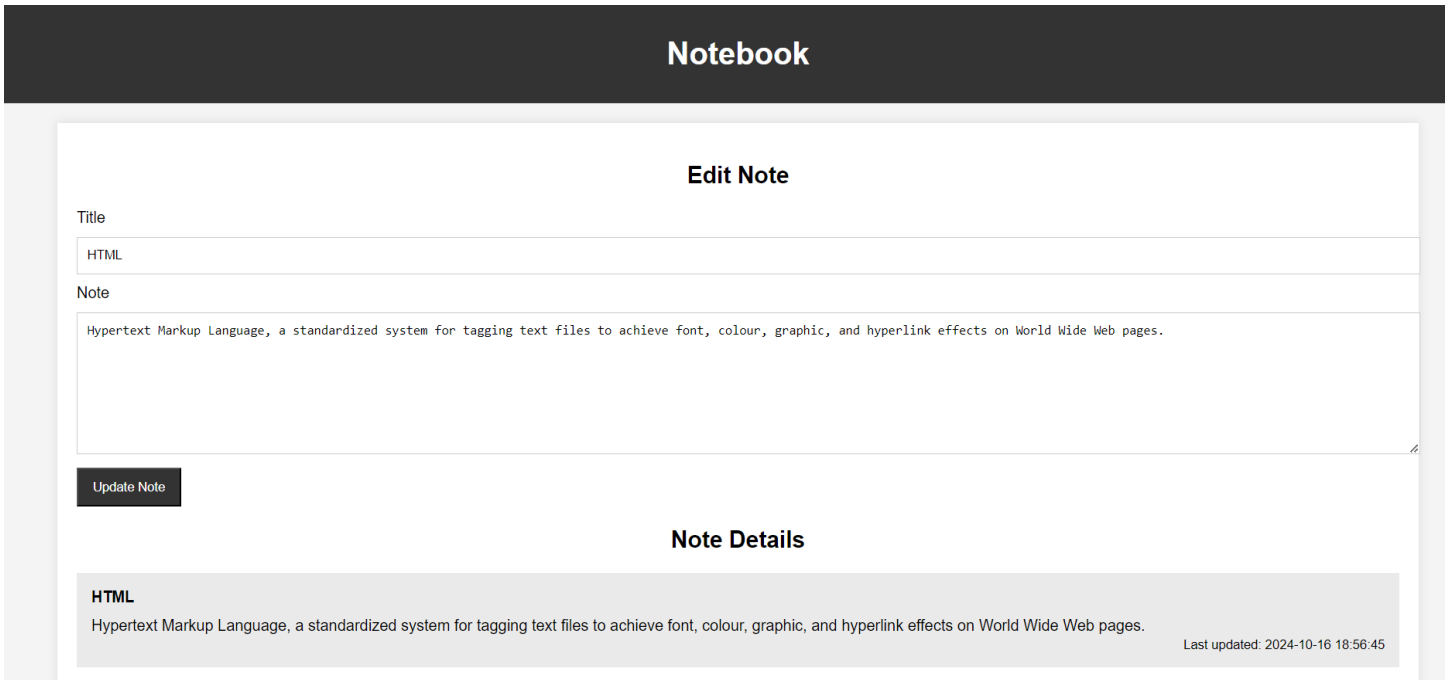
This screen provides an overview of all the notes created by the user. Each note is displayed with its title and creation date, offering a clear view of the notes' organization.



Screenshot 3: Add/Edit Note Screen

This screen allows users to create new notes or edit existing ones.





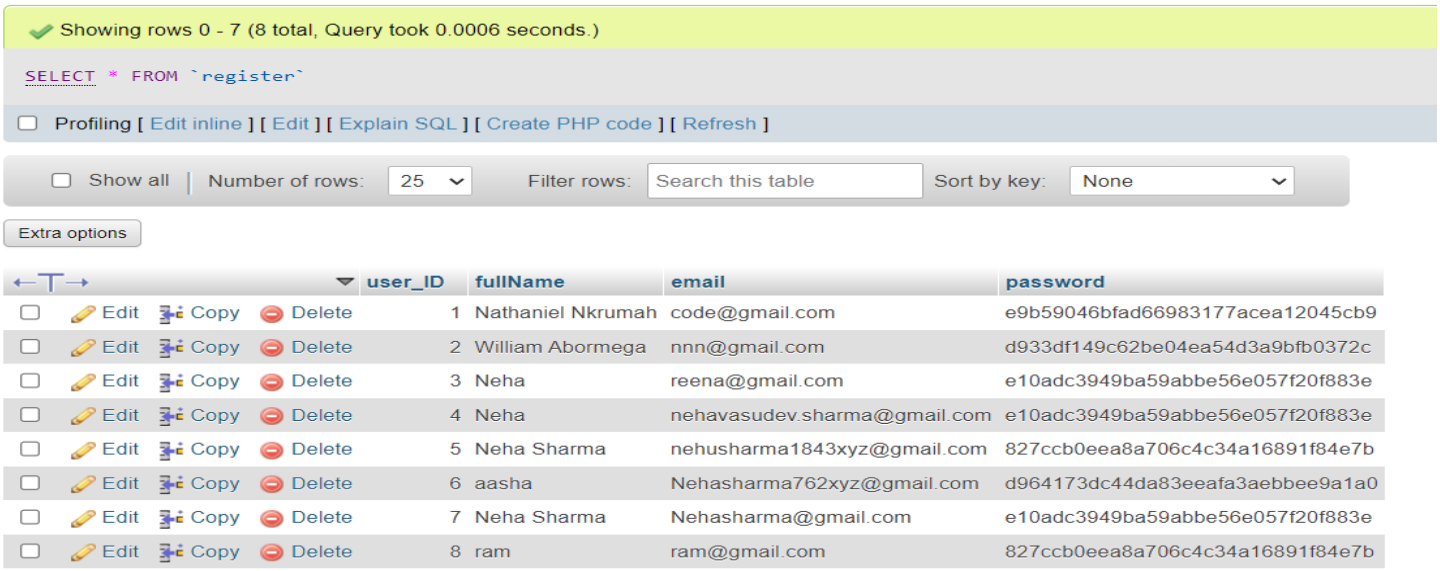
Database Screenshot

The database structure consists of multiple tables that organize user information, notes, and categories. The following screenshot shows the layout of the database:

Database Screenshot : Tables in the Database:

- **Registe**: Contains the user information such as user ID, username, email, and password.
- **notes**: Stores the content of the notes along with metadata like the creation date and the assigned category.

Register Table :



Showing rows 0 - 7 (8 total, Query took 0.0006 seconds.)

```
SELECT * FROM `register`
```

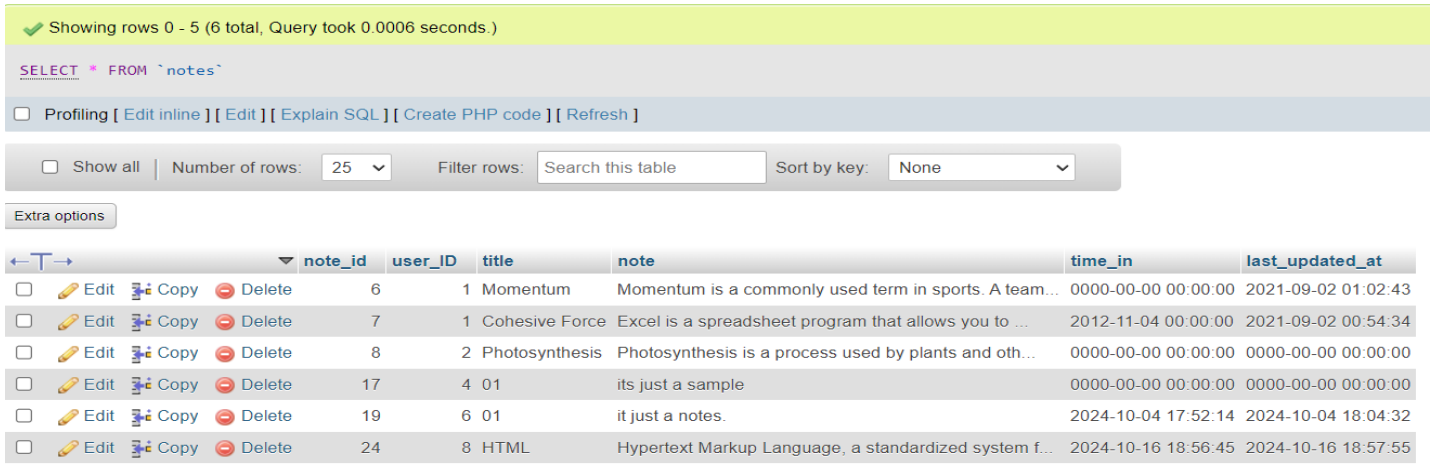
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	user_ID	fullName	email	password
Edit Copy Delete	1	Nathaniel Nkrumah	code@gmail.com	e9b59046bfad66983177acea12045cb9
Edit Copy Delete	2	William Abormega	nnn@gmail.com	d933df149c62be04ea54d3a9bfb0372c
Edit Copy Delete	3	Neha	reena@gmail.com	e10adc3949ba59abbe56e057f20f883e
Edit Copy Delete	4	Neha	nehavasudev.sharma@gmail.com	e10adc3949ba59abbe56e057f20f883e
Edit Copy Delete	5	Neha Sharma	nehusharma1843xyz@gmail.com	827ccb0eea8a706c4c34a16891f84e7b
Edit Copy Delete	6	aasha	Nehasharma762xyz@gmail.com	d964173dc44da83eeafa3aebbee9a1a0
Edit Copy Delete	7	Neha Sharma	Nehasharma@gmail.com	e10adc3949ba59abbe56e057f20f883e
Edit Copy Delete	8	ram	ram@gmail.com	827ccb0eea8a706c4c34a16891f84e7b

Notes Table :



Showing rows 0 - 5 (6 total, Query took 0.0006 seconds.)

```
SELECT * FROM `notes`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	note_id	user_ID	title	note	time_in	last_updated_at
Edit Copy Delete	6	1	Momentum	Momentum is a commonly used term in sports. A team...	0000-00-00 00:00:00	2021-09-02 01:02:43
Edit Copy Delete	7	1	Cohesive Force	Excel is a spreadsheet program that allows you to ...	2012-11-04 00:00:00	2021-09-02 00:54:34
Edit Copy Delete	8	2	Photosynthesis	Photosynthesis is a process used by plants and oth...	0000-00-00 00:00:00	0000-00-00 00:00:00
Edit Copy Delete	17	4	01	its just a sample	0000-00-00 00:00:00	0000-00-00 00:00:00
Edit Copy Delete	19	6	01	it just a notes.	2024-10-04 17:52:14	2024-10-04 18:04:32
Edit Copy Delete	24	8	HTML	Hypertext Markup Language, a standardized system f...	2024-10-16 18:56:45	2024-10-16 18:57:55

Conclusion

The **Digital Notebook** successfully provides an efficient, modern solution for managing notes in a digital environment. By replacing traditional paper notebooks with a digital platform, users can access their notes from anywhere, at any time, and ensure their information is safely stored in the cloud. The use of HTML, CSS, and JavaScript for the front-end, combined with PHP and MySQL for the back-end, ensures that the notebook is both user-friendly and functionally robust.

This project demonstrates the importance of technology in improving day-to-day activities like note-taking, offering significant benefits in terms of organization, accessibility, and security. Future improvements could include adding offline functionality, support for multimedia (images, links), and integration with other productivity tools.