Study Buddy

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Abstract

The Study Buddy platform is an innovative educational tool designed to facilitate collaboration, resource sharing, and effective communication among students. It allows users to register, access study materials, create groups, find study partners, and exchange messages seamlessly. Admins can manage users, upload resources, and send notifications, ensuring the platform remains organized and efficient. By providing a user-friendly interface and essential features, Study Buddy bridges the gap between individual and group learning, promoting academic success. With its scalable architecture and scope for future enhancements, Study Buddy is set to transform traditional learning into an engaging and collaborative experience.

Introduction

Study Buddy is an innovative educational platform designed to bring students together, no matter where they are, for a seamless and interactive learning experience. The platform allows students to register, access, and save study materials from a centralized repository.A unique feature of Study Buddy is the ability for students to connect with peers of the same class or academic level by sending friend requests. Once approved by the admin, they can collaborate through group discussions, virtual study groups, and shared learning sessions, enhancing their knowledge in an interactive way.With its focus on simplicity, collaboration, and resource-sharing, Study Buddy offers a supportive environment for students to engage, learn, and grow academically. This platform not only addresses the challenges of isolated learning but also provides tools to foster academic partnerships and effective teamwork.

Proposed System

The proposed Study Buddy system addresses these gaps by offering a unified platform where students can search for and download materials, form study groups, find partners based on common academic interests, and communicate seamlessly. Admins can efficiently manage users, materials, and notifications, ensuring a structured and organized environment. By integrating these features into one platform, Study Buddy enhances the learning experience, fosters collaboration, and promotes academic success.

Design

Architecture

Project architecture represents number of components we are using as a part of our project and the flow of request processing i.e. what components in processing the request and in which order. An architecture description is a formal description and representation of a system organized in a way that supports reasoning about the structure of the system. Architecture is of two types. They are:

1. Software Architecture

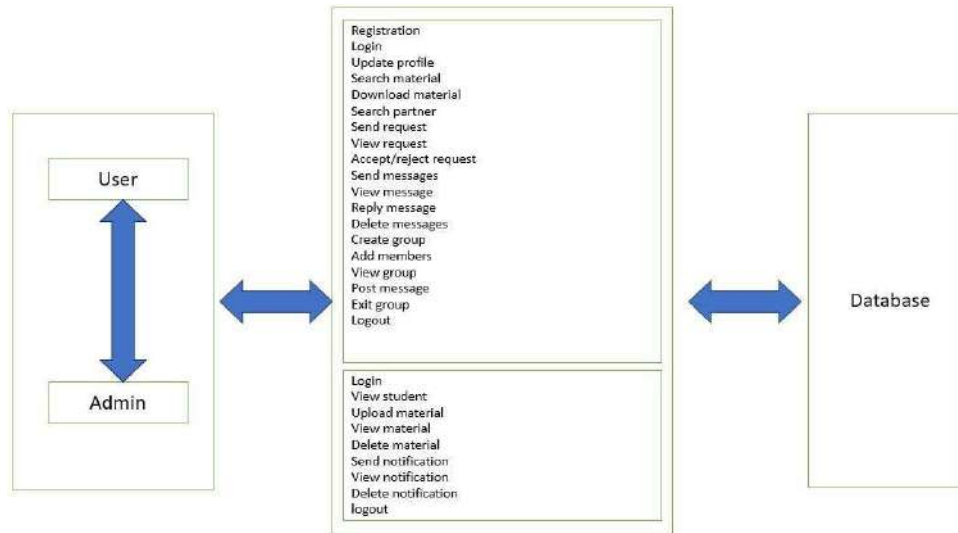2. Technical Architecture

Software Architecture

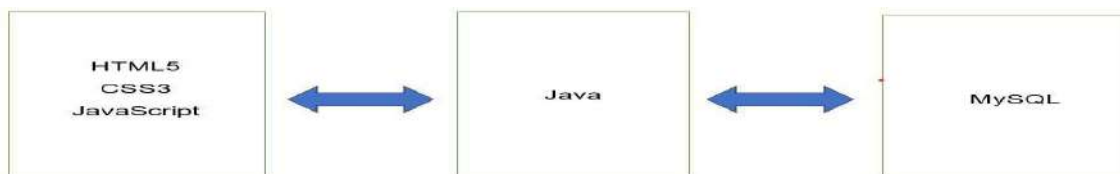Fig 1 Software Architecture

Technical Architecture:

Fig 2 Technical Architecture

Implementation

Technologies

This project is developed using HTML, CSS, JAVASCRIPT as Client-side technologies and MYSQL as server-side technologies in Windows environment. This system provides optimized utilization of resources, improved productivity, and efficient management of resources as it is completely computerized and has centralized database maintenance.

Testing

Overview

Software testing is a process, to evaluate the functionality of a software application with an intent to find whether the developed software met the specified requirements or not and to identify the defects to ensure that the product is defect free in order to produce the quality product.

As per the current trend, due to constant change and development in digitization, our lives are improving in all areas. The way we work is also changed. We access our bank online; we do shop online; we order food

online and many more. We rely on software's and systems. What if these systems turnout to be defective? We all know that one small bug shows huge impact on business in terms of financial loss and goodwill. To deliver a quality product, we need to have Software Testing in the Software Development Process.

Test Cases

Sl.no	Test Id	Test Name	Expected output	Actual Output	Status
1.	User Registration	Enter valid Password, Username	Registration Successfully	Registration Successfully	Successful
2.	User Registration	Entered with same user name	Already Existed	Already Existed	Successful
3.	User Login	Enter valid Credentials Username, Password	Redirected to dashboard	Redirected to Dashboard	Successful
4.	User Login	Enter invalid Credentials	Login Unsuccessful	Login Unsuccessful	Successful
5.	Search Material	Enter valid Subject course or semester	Relevant Materials are Display	Material Displayed	Successful
6.	Search Material	Enter invalid Credentials	Material are not Displayed	Materials are not Displayed	Successful
7.	Send Study Mate Request	Send request toa valid partner	Valid Partner Displayed	Partner Displayed	Successful
8.	Send Study Mate Request	Send request to the same partner	Request Already Exists	Request Already Exists	Successful
9.	Group Management	Create a new a Group	Group Created	Group Created Successfully	Successful
10.	Add member to Group	Valid user	Member Added	Members Added	Successful
11.	Add Notification	User Id	Notification Added	Notification Added	Successful
12.	Delete Notification	User id	Notification Deleted	Notification Deleted	Successful

Table no 1 Test Cases

Result
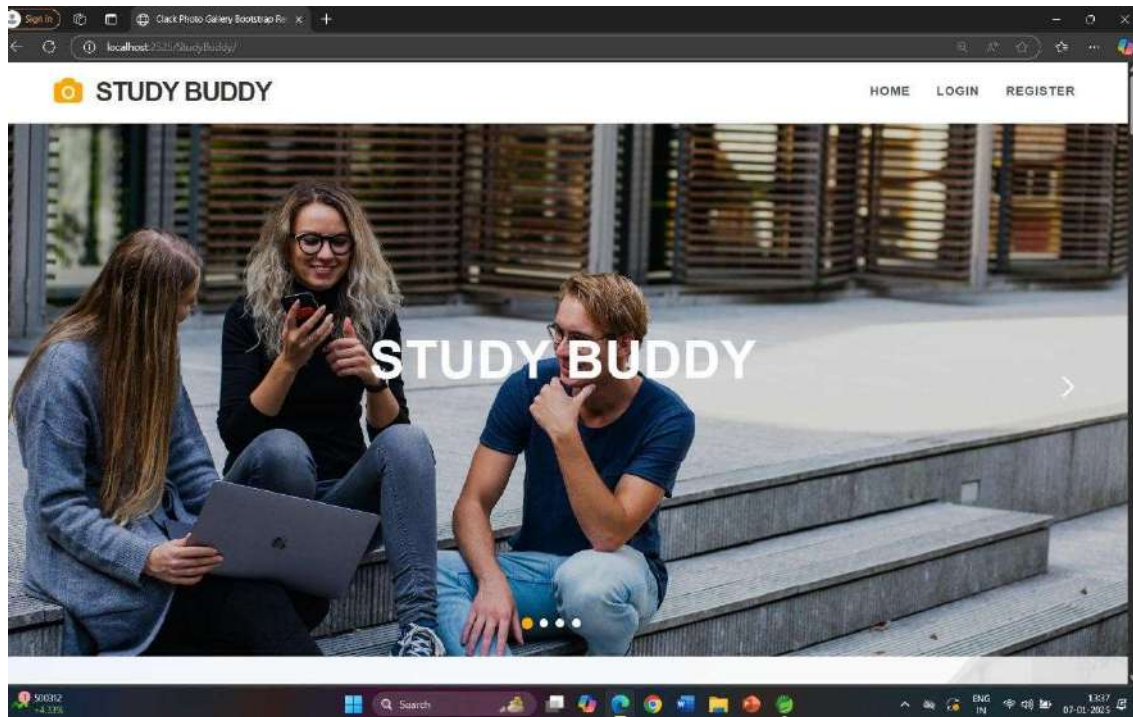
Screenshot 6.1 Home page

Screenshot 6.2 Home Page

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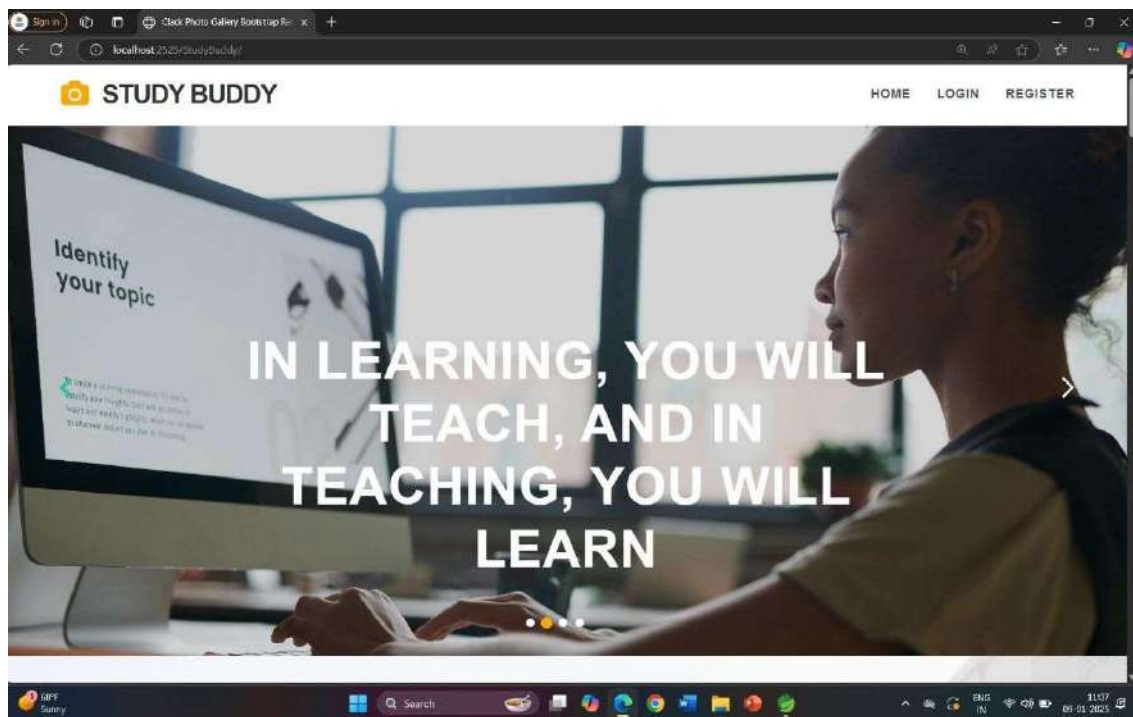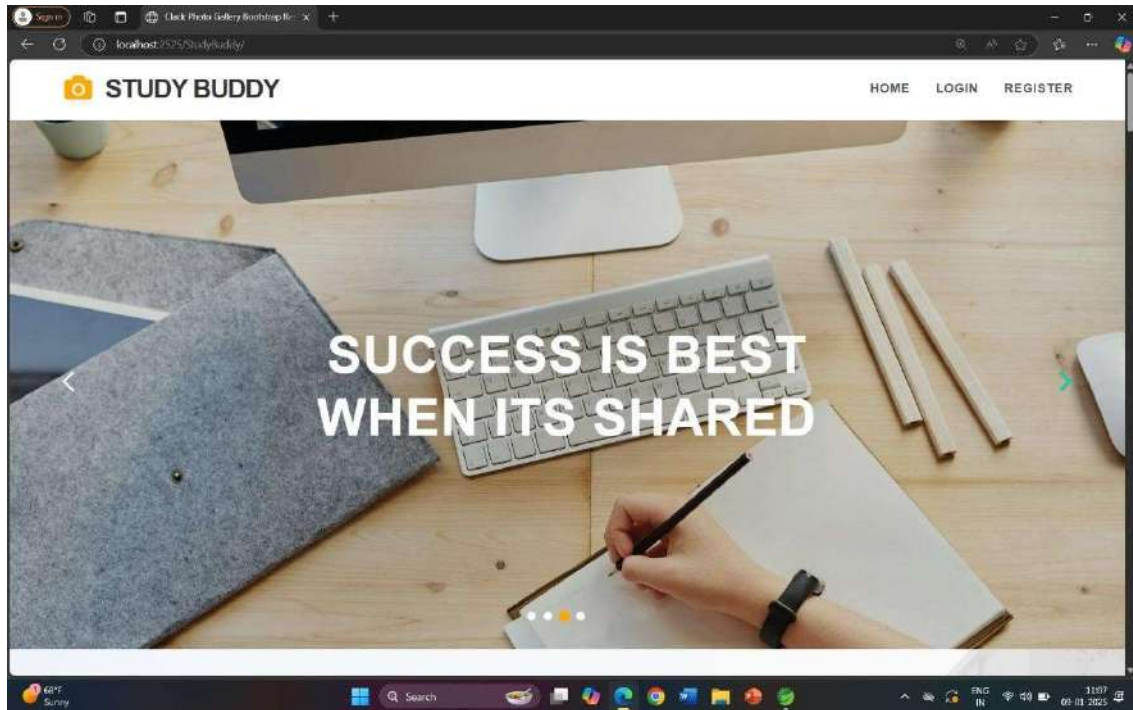
Screenshot 6.3 Home Page
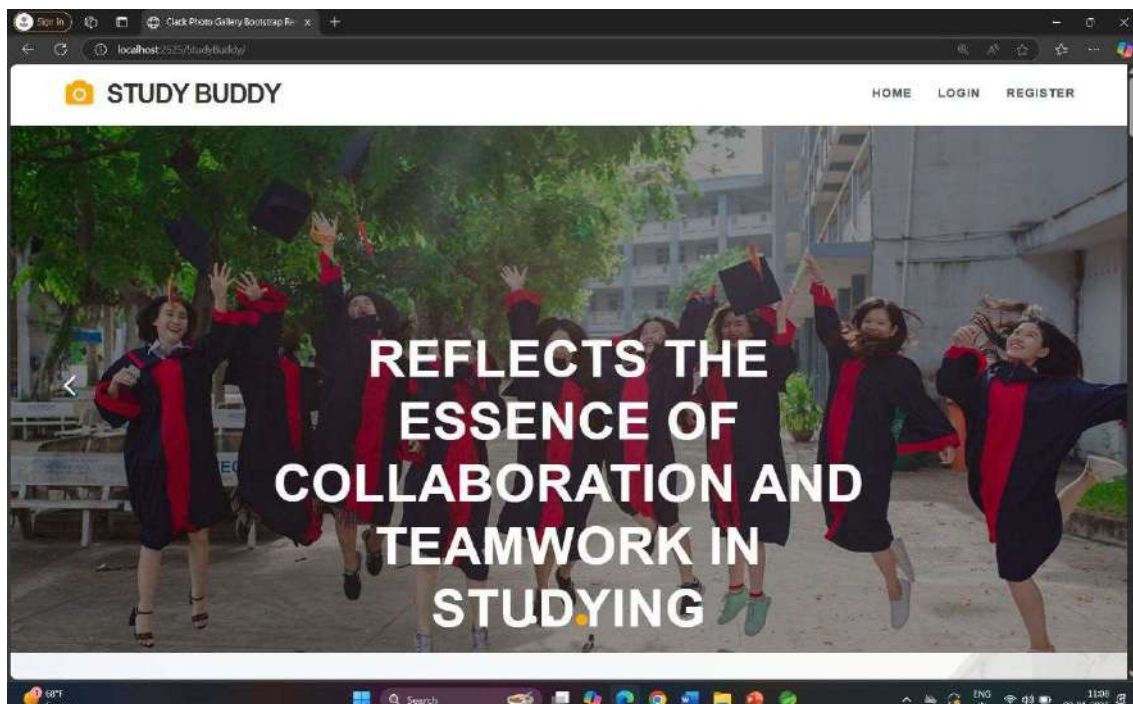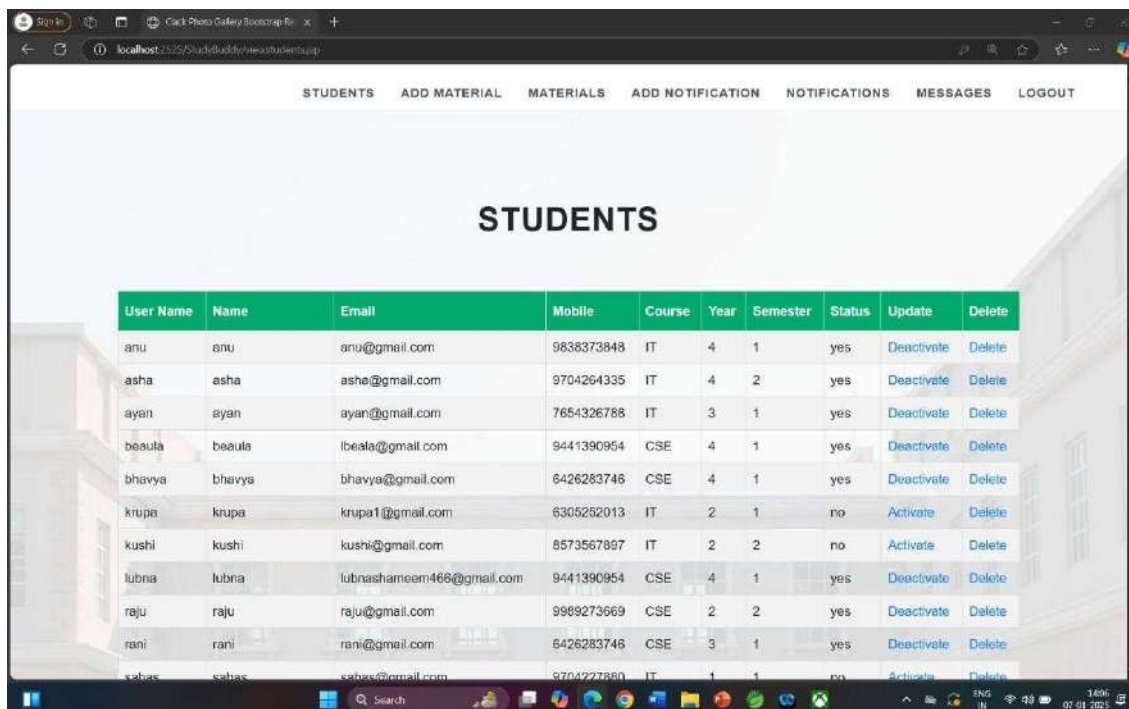
Screenshot 6.4 Home Page

1.1 Admin screenshots
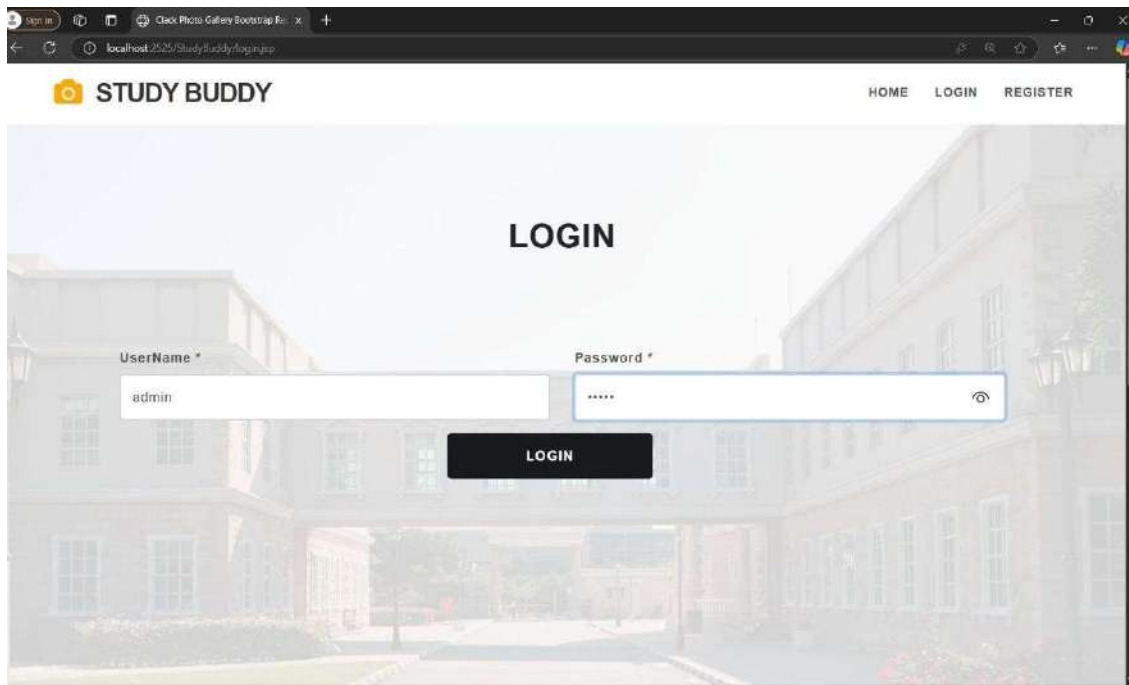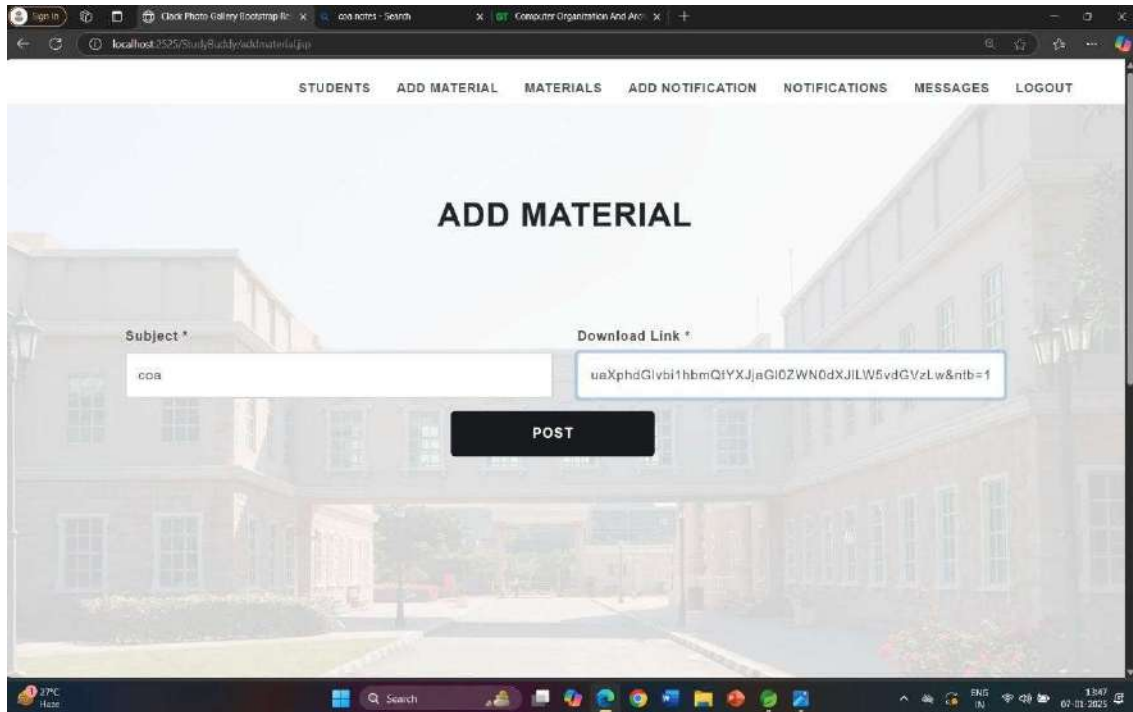
Screenshot 6.5 Admin Login

Screenshot 6.6 Students Page
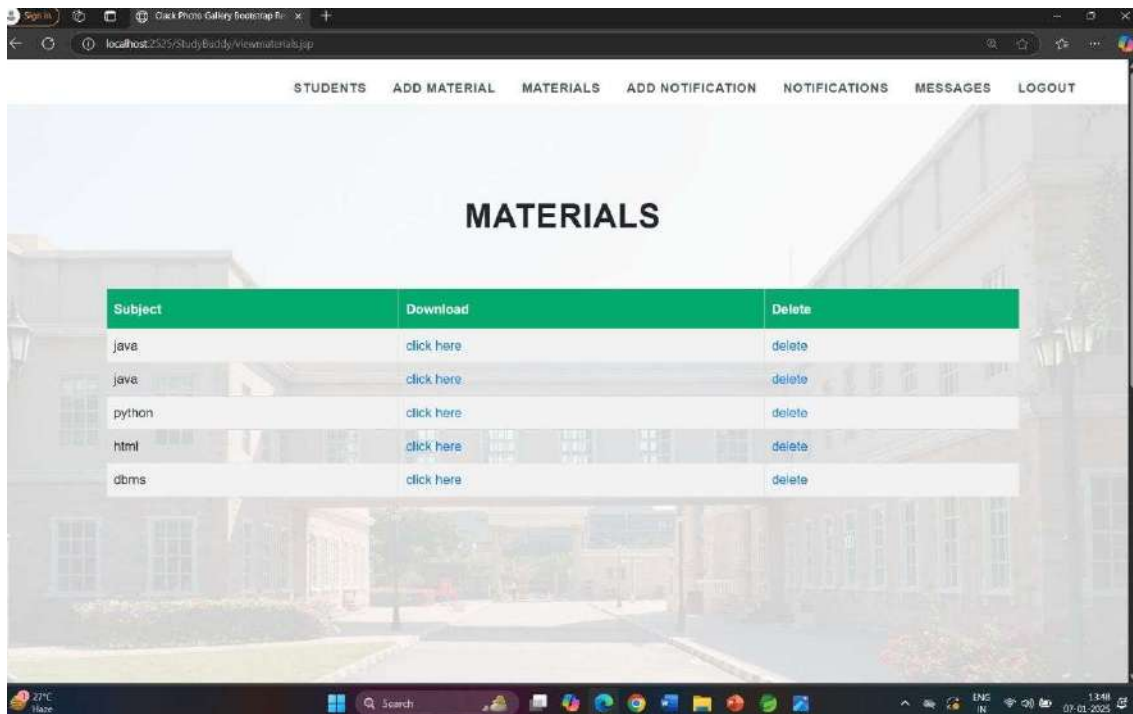
Screenshot 6.7 Adding Material
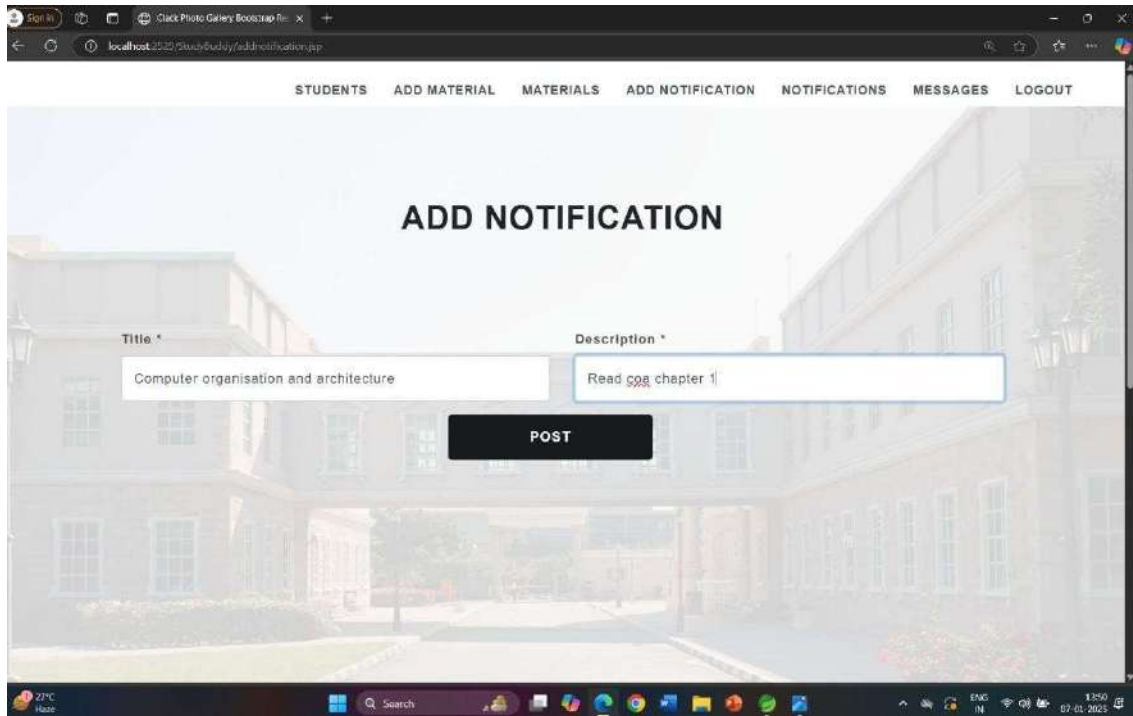
Screenshot 6.8 Materials
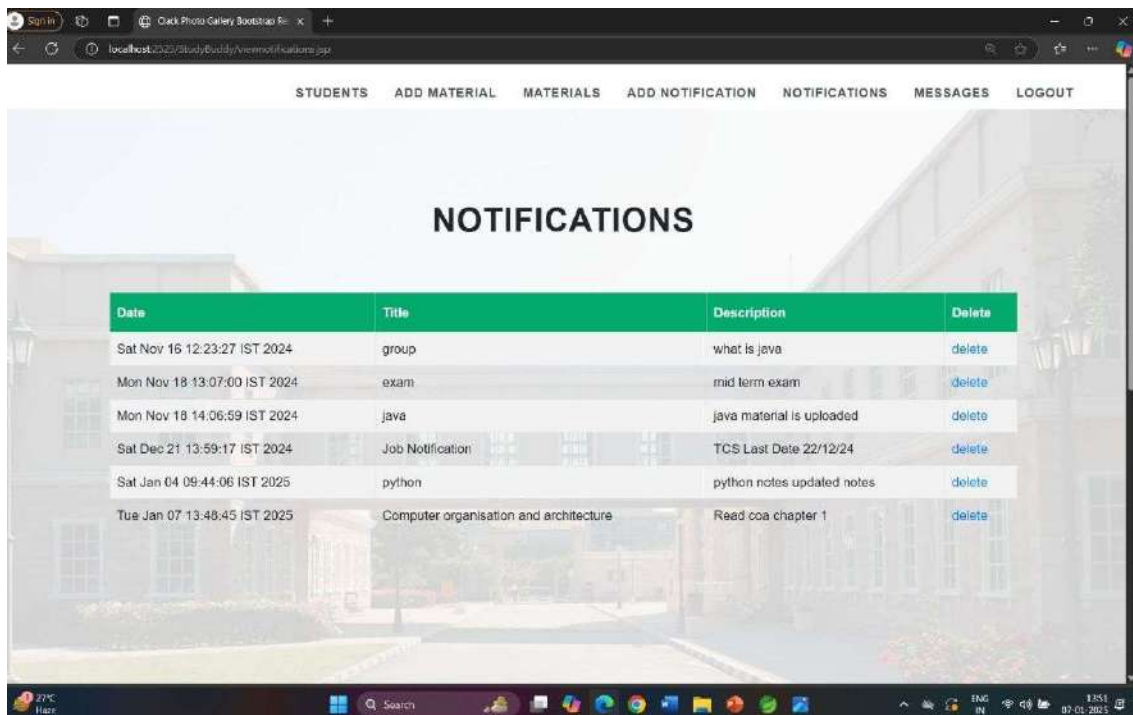
Screenshot 6.9 Adding Notification
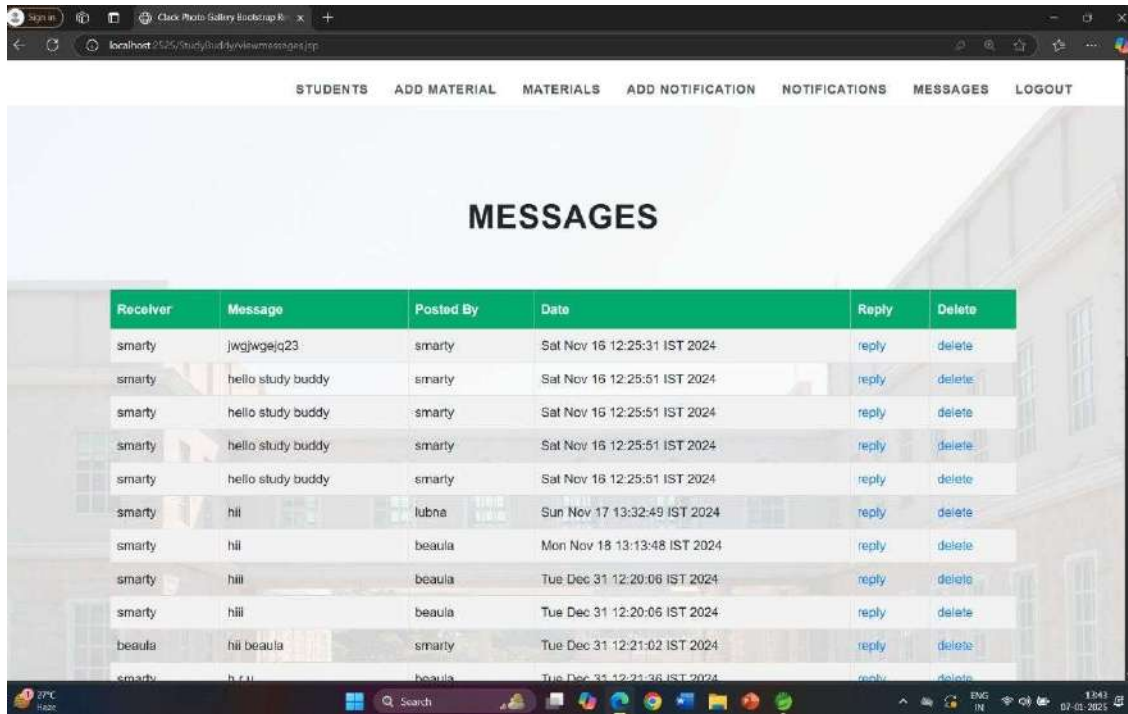
Screenshot 6.10 Notifications

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Screenshot 6.11 Messages
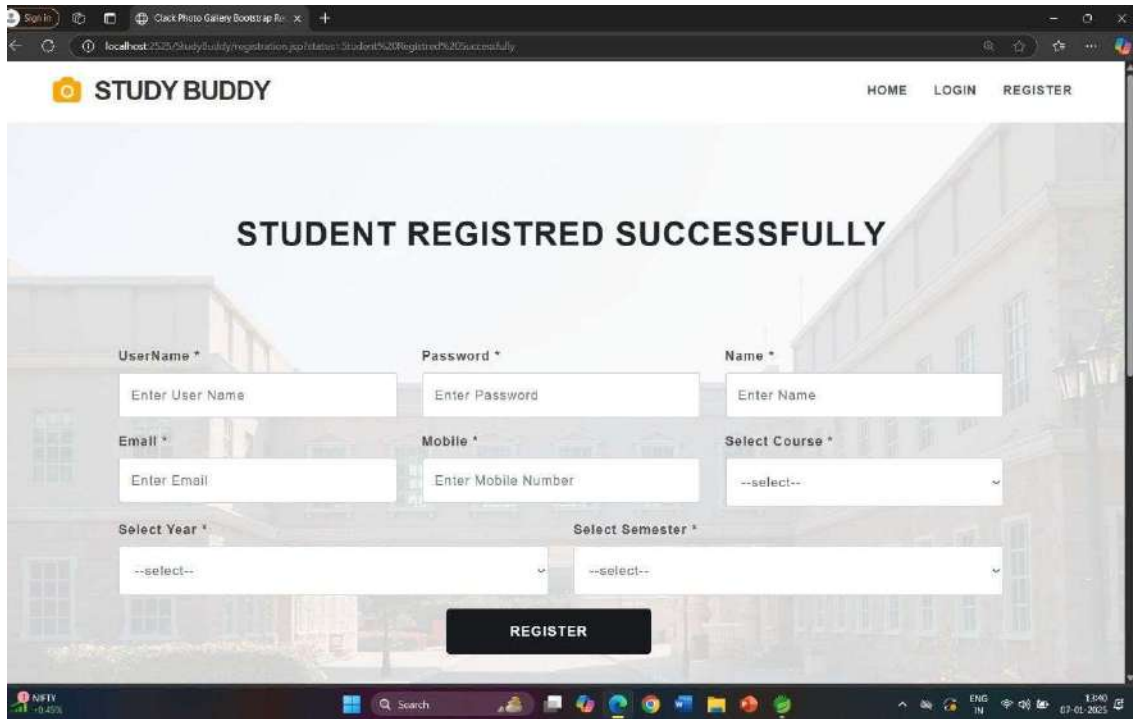
Screenshot 6.12 Registration

Screenshot 6.13 Registration Successfully
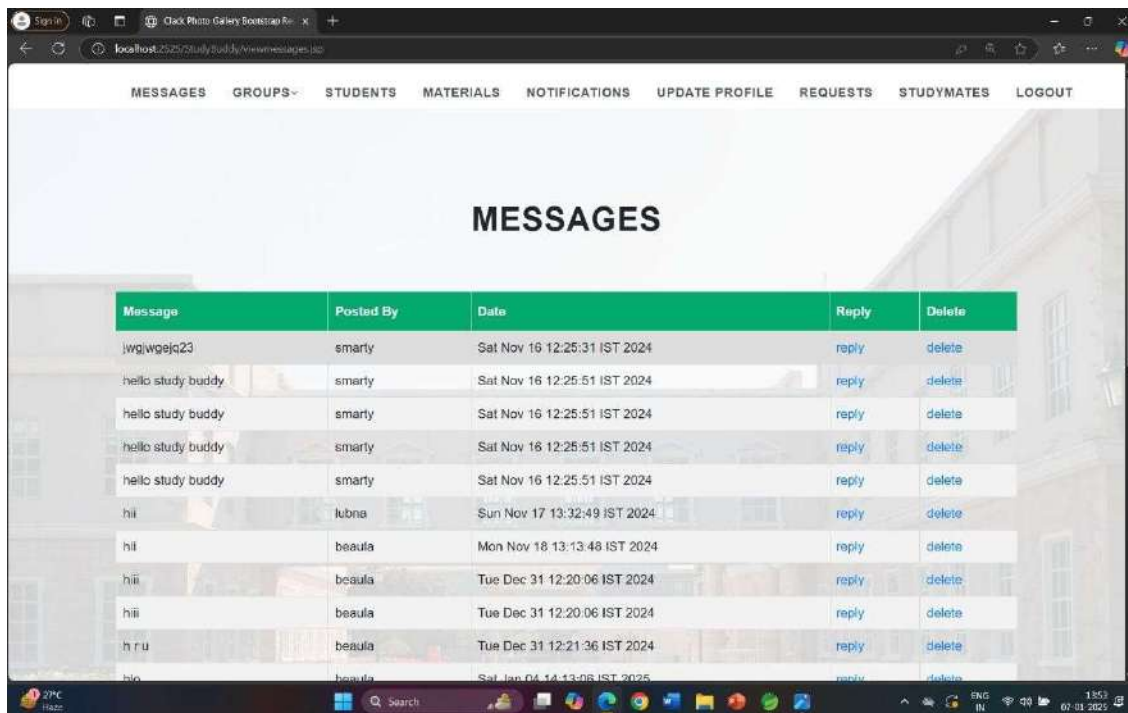
Screenshot 6.14 Login Page

Screenshot 6.15 Messages

Screenshot 6.16 Create Group Page

Conclusion

The Study Buddy platform fosters seamless collaboration and knowledge-sharing among students by integrating features like user authentication, study groups, shared study materials, notifications, and real-time communication. By connecting learners from diverse backgrounds, Study Buddy promotes teamwork and interactive learning experiences.

Future Scope

The future scope of Study Buddy holds immense potential to revolutionize academic collaboration and learning. By integrating AI, the platform can offer personalized learning experiences, adaptive study schedules, and customized resource recommendations.

References

[1] Sharma, S. (2019). Cloud Computing in Education. International Journal of Education and Management Studies, 9(4), 379-388.

[2] Underwood, S. (2016). Blockchain beyond bitcoin.

[3] Karale, A., & Khanuja, H. (2019). Blockchain Technology in Education System: International Journal of Computer Applications, 975, 8887.

[4] Javed Kutty, R., & Javed, N. (2021). Secure Blockchain for Admission Processing in Educational Institutions. 2021 International Conference on Computer Science Communication and Informatics (ICCCI), IEEE.

[5] Sommerville, I. (2011). Software Engineering, 7th Edition, Pearson Education.

[6] Roy, U. K. (2017). Web Technologies. Oxford University Press.

[7] Laudon, K. C., & Laudon, J. P. (2018). Management Information Systems: Managing the Digital Firm, 15th Edition. Pearson Education.

[8] Gheorghe, M. (2020). Web-based learning platforms and educational mobile apps: A comparative review. Journal of Education and Learning Technologies, 5(2), 57-64.

[9] Ma, Y., & Yang, J. (2019). Deep Learning Techniques in Education Systems: A Review. International Journal of Educational Technology.