

University of Science and Technology of Southern Philippines

STUDYHUB - A COLLABORATIVE SYSTEM

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An Object Oriented Programming Project

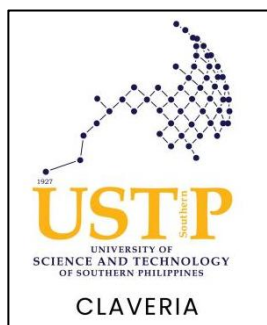
Department of Information Technology

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Claveria Misamis Oriental, 9004 Philippines

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I. Background of the Study

Online and hybrid learning are increasingly prevalent in higher education, but existing systems for sharing information and resources often fall short, leading to student disengagement, missed deadlines, and difficulty accessing materials. This study examines StudyHub, a new system designed to address these issues. StudyHub provides a centralized platform for instructors to share deadlines and resources, while also fostering collaboration among students. A standout feature is the integrated note-taking function, which allows students to create and organize notes within the system, promoting collaboration and improving academic performance. Additionally, students can view upcoming content that instructors plan to add. The goal is to improve student organization, communication, and ultimately, academic performance. Unlike many existing platforms that emphasize individual work, StudyHub prioritizes ease of use and collaborative learning. This research will determine if StudyHub enhances the learning experience for both students and instructors.

II. Objectives

This study's objectives are threefold. First, it aims to create a user-friendly StudyHub system that facilitates seamless interaction between students and instructors, incorporating features such as user authentication, personalized dashboards, and efficient communication tools. Second, using both quantitative and qualitative data analysis, the study aims to thoroughly evaluate the impact of the StudyHub system on student organization, time management, resource availability, and overall academic achievement, with an emphasis on user happiness and engagement. To make sure that future versions are based on real user experiences and needs, the study also plans to identify areas for improvement within the StudyHub system based on user feedback and data-driven insights.

III. Scope and Delimitation of the Study

This study will focus on the development and evaluation of StudyHub within the context of Information and Technology Department, a single undergraduate course at the University of Science and Technology of Southern Philippines - Claveria Campus. The



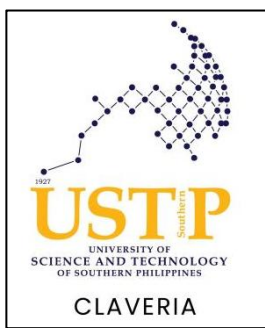
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research will be limited to First Semester of School Year 2024 - 2025. The study will primarily focus on the effectiveness of the communication and resource sharing features of StudyHub, and will not extensively explore the collaborative learning aspects of the platform (although these will be considered as secondary outcomes). The target population will only be 2nd Year, BSIT students for now. The study will not include a comparison with other existing LMS platforms. Finally, the study will primarily focus on the student and instructor perspectives and will not delve into the technical aspects of the system's development beyond functionality and usability.

IV. FLOWCHART

The StudyHub system flowchart outlines the workflow and interactions between users (students and instructors) and the system's features, ensuring a logical and smooth user experience.

1. *User Authentication*: The process begins with user login, where users are identified as students or instructors based on their credentials. If a user does not have an account, they will be directed to the signup page to create one. After successfully signing up, users will return to the login page to access their accounts. Successful authentication then leads users to their respective dashboards.
2. *Student Panel Features*: Students can access course materials, view notifications from instructors, and manage personal notes. A dedicated section allows them to create and save notes, which are stored in a specific database.
3. *Instructor Panel Features*: Instructors can manage courses and communicate with students. They can send messages to specific students using the database to retrieve relevant information.
4. *Centralized Database Integration*: The system relies on a centralized database for secure data handling and effective management of courses and users. It dynamically updates content based on user interactions, ensuring that all information is current and accessible.
5. *Seamless Navigation and Updates*: The flowchart highlights the integration of key functions, such as refreshing data and maintaining organized information for enhanced usability.



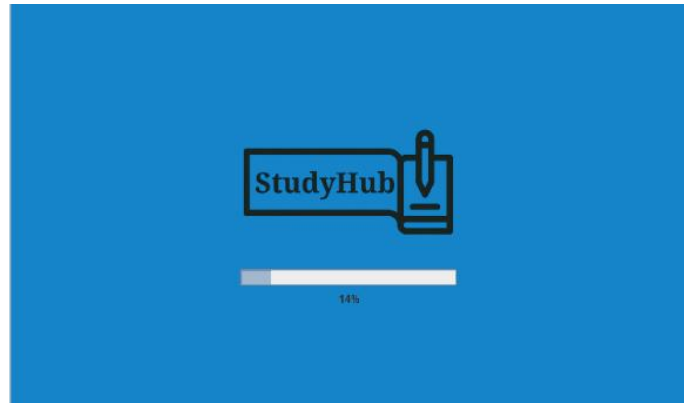
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6. *End-User Interactions:* The process concludes with users either logging out or navigating back to other features within their panels, ensuring continuous and secure access.

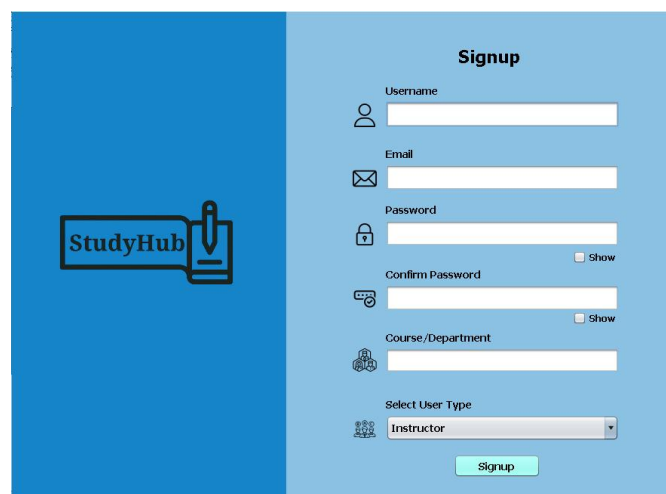
V. Gantt Chart

TASK	AUG	SEPT	OCT	NOV	DEC
Create login/Signup UI					
Connecting Database & Debugging Error					
Creating the Dashboard of Student and Instructor UI					
Create Buttons and Icons for Student Dashboard					
Connecting Database for Student Dashboard & Debugging Error					
Add Functions to the Button					
Connect to the Database & Debugging Error					
Create Buttons and Icons in Instructor Dashboard					
Add Functions to the Button, Connect Database, Debugging Error					
Create Internal Panel, Button, Icon for Student & Debugging Error					
Create Internal Panel, Button, Icon for Instructor & Debugging Error					
Creating Functions for the Internal Panel of Student & Debugging Error					
Creating Functions for the Internal Panel of Instructor & Debugging Error					
Conversion of System					

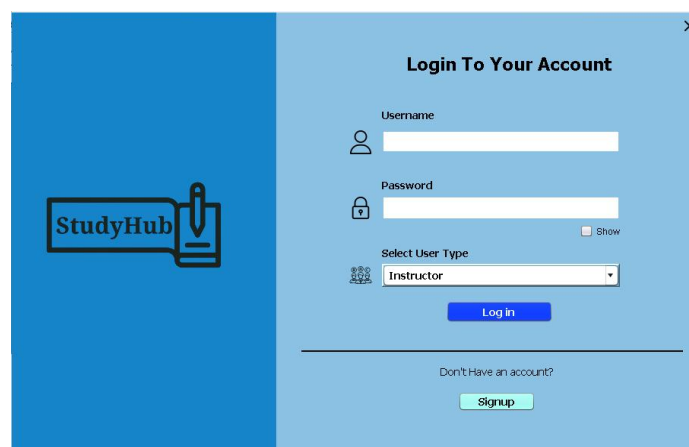
VI. System Design



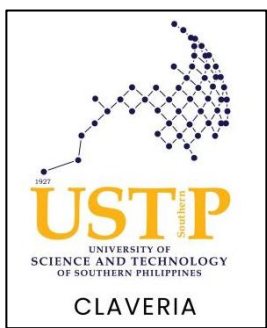
Open the application and wait until the loading process is done.



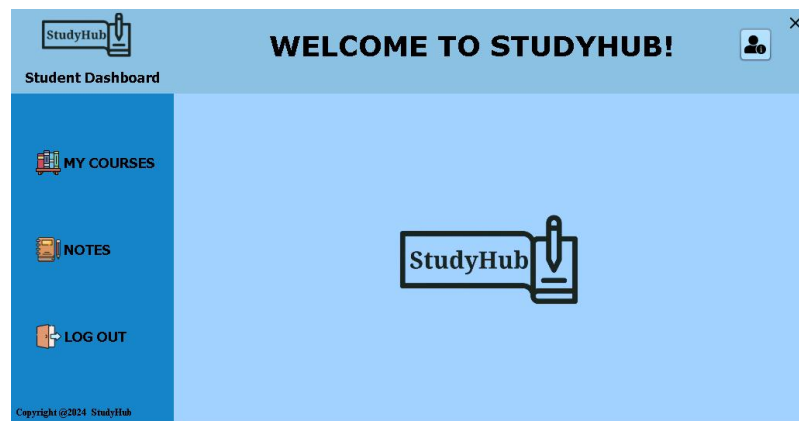
Signup first if you do not have an account yet.



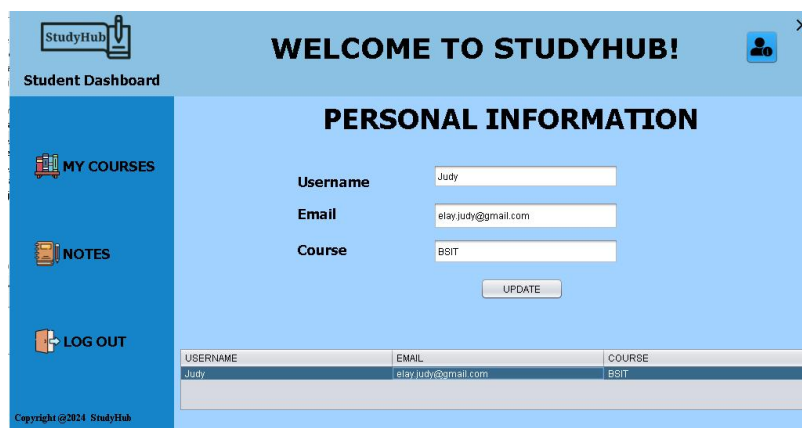
Go back to login page to access your account



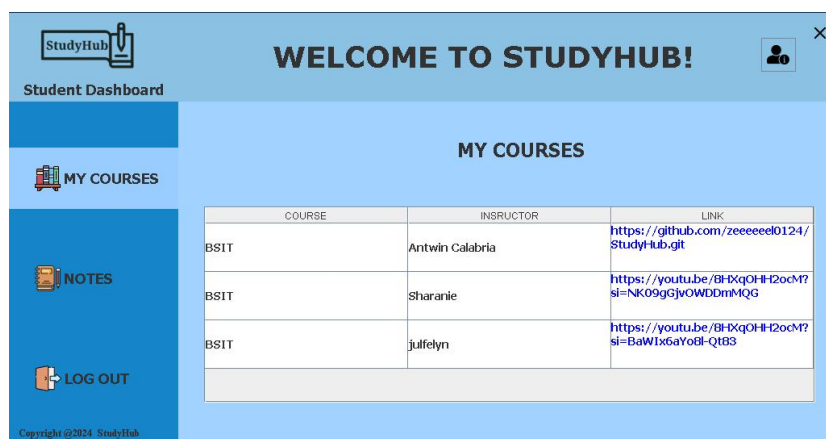
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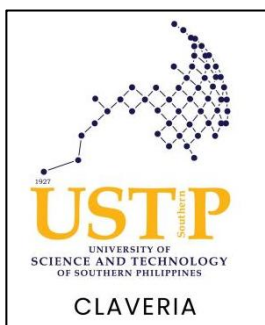
You're now on the student dashboard if you're a student.



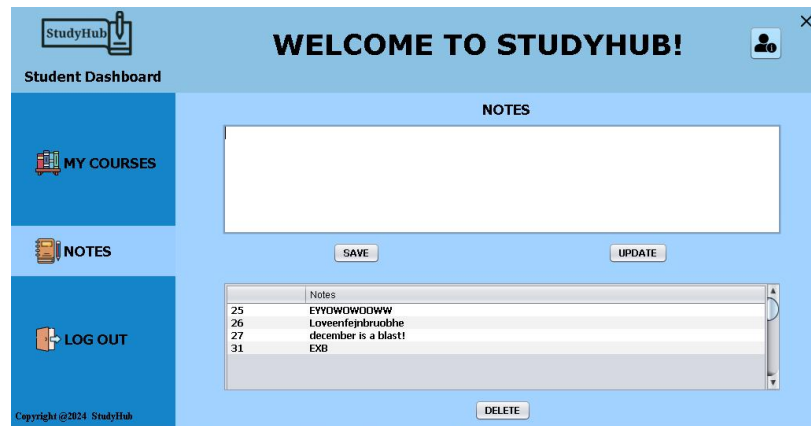
If you have something to update on your profile information, just click the icon located at the right side of the application. You can modify your information there anytime you like.



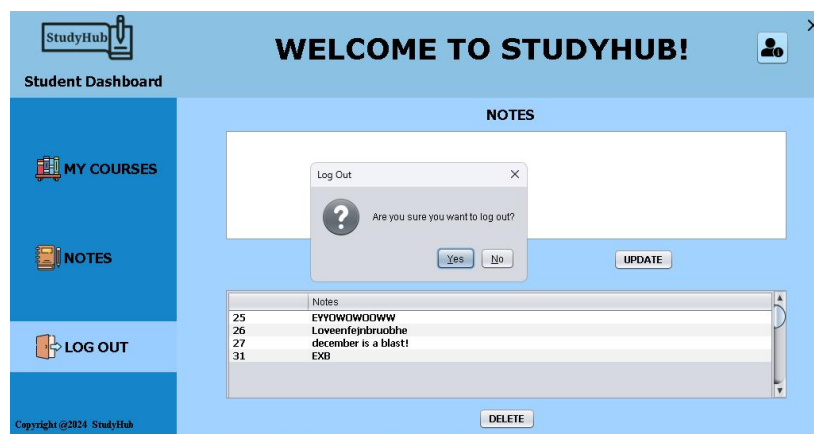
If you click My Courses, you'll see the table courses wherein you can find your enrolled course, instructor and the link of the learning materials being posted by your instructor.



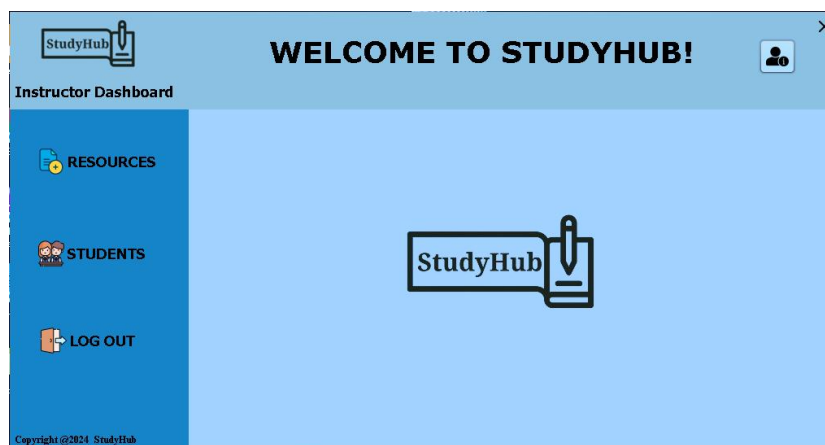
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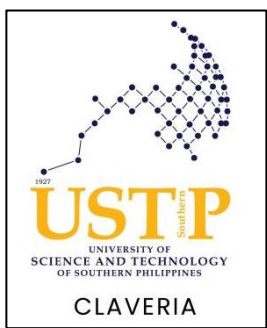
If you'll likely to take notes just click the Notes feature. There, you can create, clear and save notes.



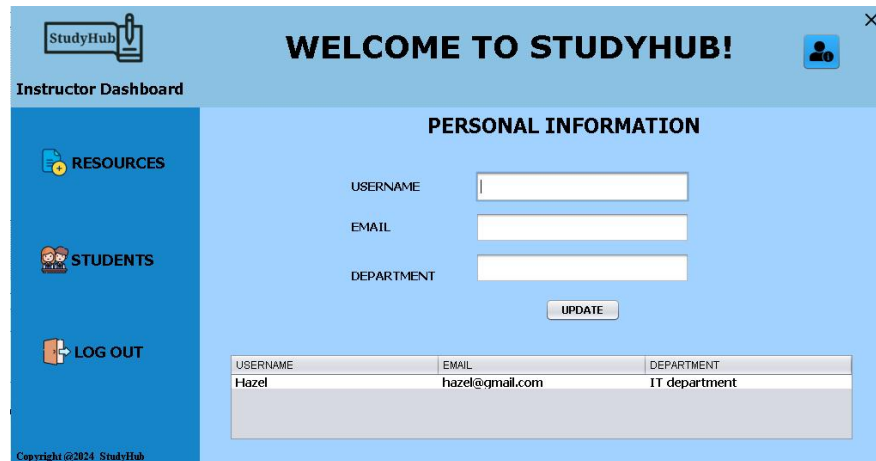
If you want to logout, you can quickly find it next to Notes feature. Then you can exit.



If you're an instructor, these will be your dashboard.



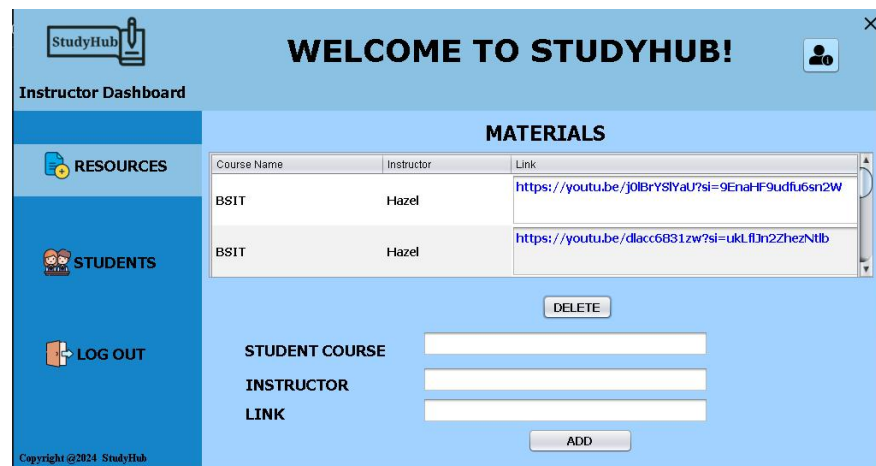
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The screenshot shows the 'PERSONAL INFORMATION' section of the StudyHub Instructor Dashboard. It includes a sidebar with 'RESOURCES', 'STUDENTS', and 'LOG OUT' options. The main area has a 'WELCOME TO STUDYHUB!' header and a profile icon. Below the header, there are input fields for 'USERNAME', 'EMAIL', and 'DEPARTMENT', followed by an 'UPDATE' button. At the bottom, a table displays the current profile information.

USERNAME	EMAIL	DEPARTMENT
Hazel	hazel@gmail.com	IT department

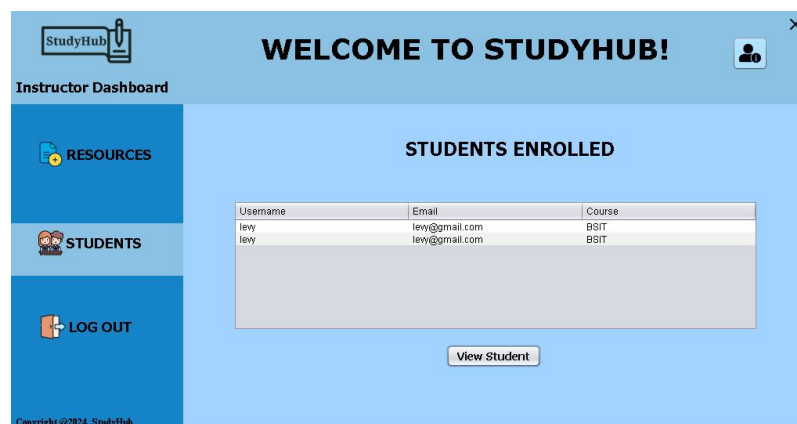
Same thing with the student dashboard, instructor also the profile icon wherein he/she can update his/her information.



The screenshot shows the 'MATERIALS' section of the StudyHub Instructor Dashboard. It includes a sidebar with 'RESOURCES', 'STUDENTS', and 'LOG OUT' options. The main area has a 'WELCOME TO STUDYHUB!' header and a profile icon. Below the header, there is a table with columns 'Course Name', 'Instructor', and 'Link'. Below the table is a 'DELETE' button. At the bottom, there are input fields for 'STUDENT COURSE', 'INSTRUCTOR', and 'LINK', followed by an 'ADD' button.

Course Name	Instructor	Link
BSIT	Hazel	https://youtu.be/j0lBrYSIaU?si=9EnaHF9udfu6sn2W
BSIT	Hazel	https://youtu.be/dlacc6831zw?si=ukLflJn2ZhezNtlb

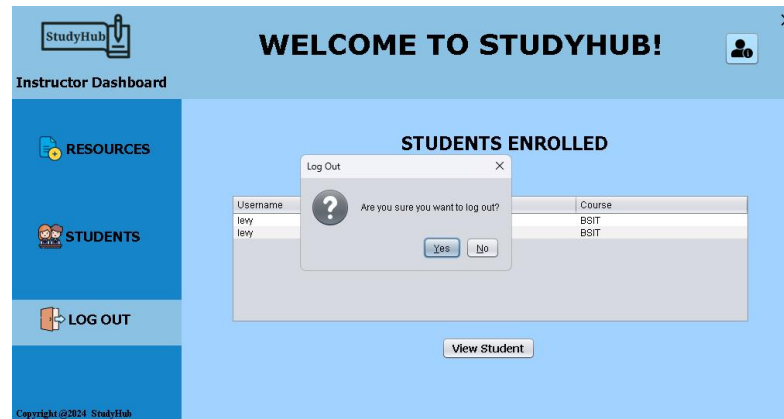
If you click Resources, you can upload the resources on what course you prefer by putting the link on it for the student to access it.



The screenshot shows the 'STUDENTS ENROLLED' section of the StudyHub Instructor Dashboard. It includes a sidebar with 'RESOURCES', 'STUDENTS', and 'LOG OUT' options. The main area has a 'WELCOME TO STUDYHUB!' header and a profile icon. Below the header, there is a table with columns 'Username', 'Email', and 'Course'. Below the table is a 'View Student' button.

Username	Email	Course
levy	levy@gmail.com	BSIT
levy	levy@gmail.com	BSIT

If the instructor wants to view his/her students, just click the Students feature. There, he/she can view the enrolled students he/she is handling.



And lastly, there is a logout feature to exit the application same thing as the student dashboard.

VII. Conclusion

In conclusion, StudyHub represents a promising solution to the challenges faced by students and instructors in online and hybrid learning environments. By centralizing communication, resource sharing, and note-taking functions, StudyHub aims to enhance student engagement and organization while fostering collaboration among peers. The platform's user-friendly design and emphasis on community learning distinguish it from traditional learning management systems that often promote individualistic approaches. Through this study, we seek to determine the effectiveness of StudyHub in improving academic performance and overall satisfaction for both students and instructors. Ultimately, the findings will provide valuable insights into how StudyHub can be refined and expanded to better meet the needs of the educational community, paving the way for more effective and engaging learning experiences in higher education.

VIII. Recommendation

To maximize StudyHub's effectiveness, continuous user feedback mechanisms should be implemented to inform ongoing improvements. Comprehensive training and support for both students and instructors are crucial to ensure full utilization of features. Future development should focus on enhancing collaborative tools, integrating with existing platforms, and optimizing for mobile access. Incorporating gamification elements and conducting ongoing research to assess long-term impact will further refine StudyHub's ability to meet the evolving needs of the educational community.