

Katlego

Mashego

St10127697

Human Computer

Interaction POE

PT3(Final)

Description of the website.

- For my website, I have designed and built a past paper script reviewer. The platform allows high-achieving students to submit their high-scoring exam and assignment scripts to assist others. Contributors could add descriptions and tips to their posts. I structured the site by faculty and course, and included a 'Chathub' feature which is the main interaction system can connect and request help on specific topics. The site also featured an archive of high-mark papers with comment breakdowns. To support struggling students, I implemented a system where they could post their own scripts for personalized, free assistance from the community and for encouragement I have implemented a reward system to get users more involved in the system. Finally, I integrated a chatbot assistant to serve as a shortcut for summarizing topics and navigating the system.

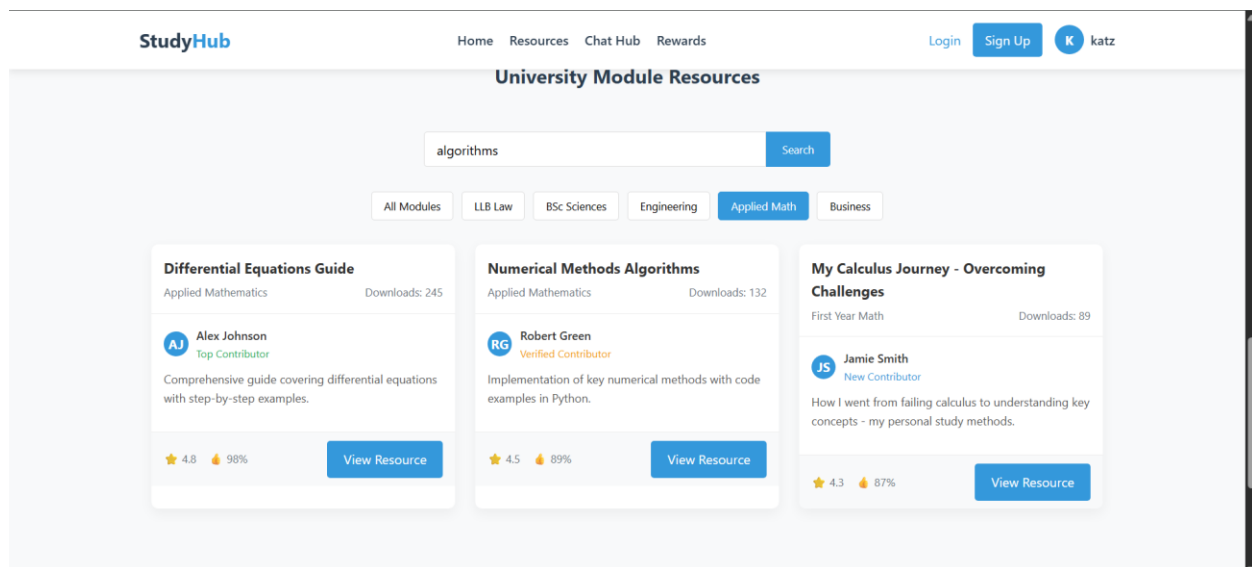
Usability Goals of the MethodHub

- To ensure the websites effectiveness, I have designed and implemented a fully functional Search Hub. This feature was created to correctly direct students to their specific faculty or course page.

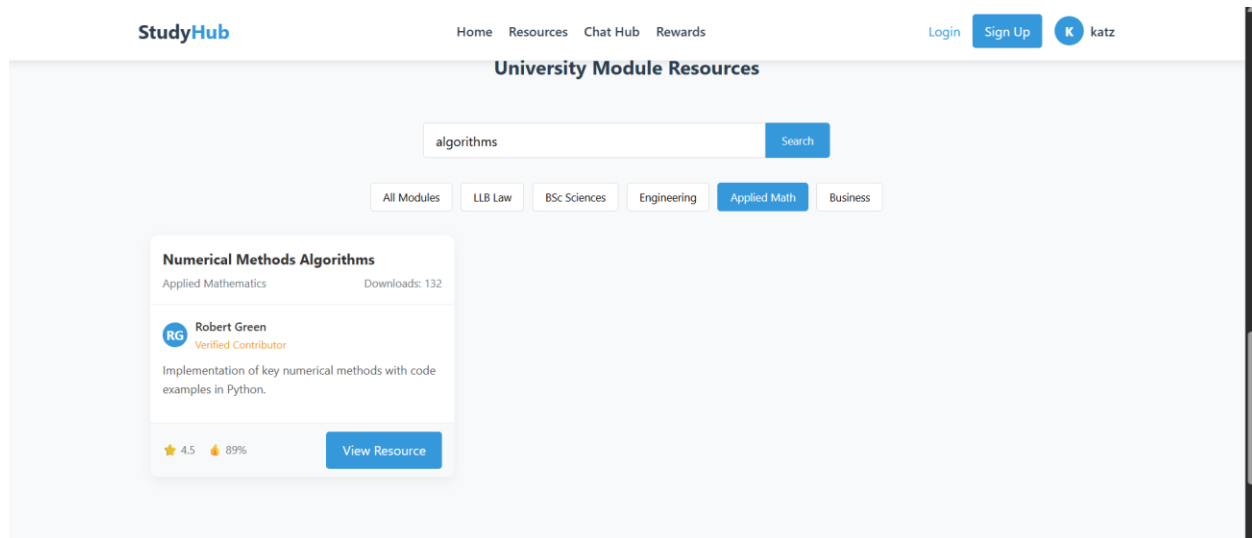
I also integrated a tip tag system, allowing users to find relevant study tips and methods through intuitive hashtags like #ProgExam.

Finally, I built an accurate filtering system. This filter allows students to verify and narrow down results, ensuring they only find valid and topically relevant scripts.

As seen here in this screenshot I have selected the applied math section showing relevant topics to what the user wants showing the systems effectiveness in narrowing down search results making users satisfied with the results.



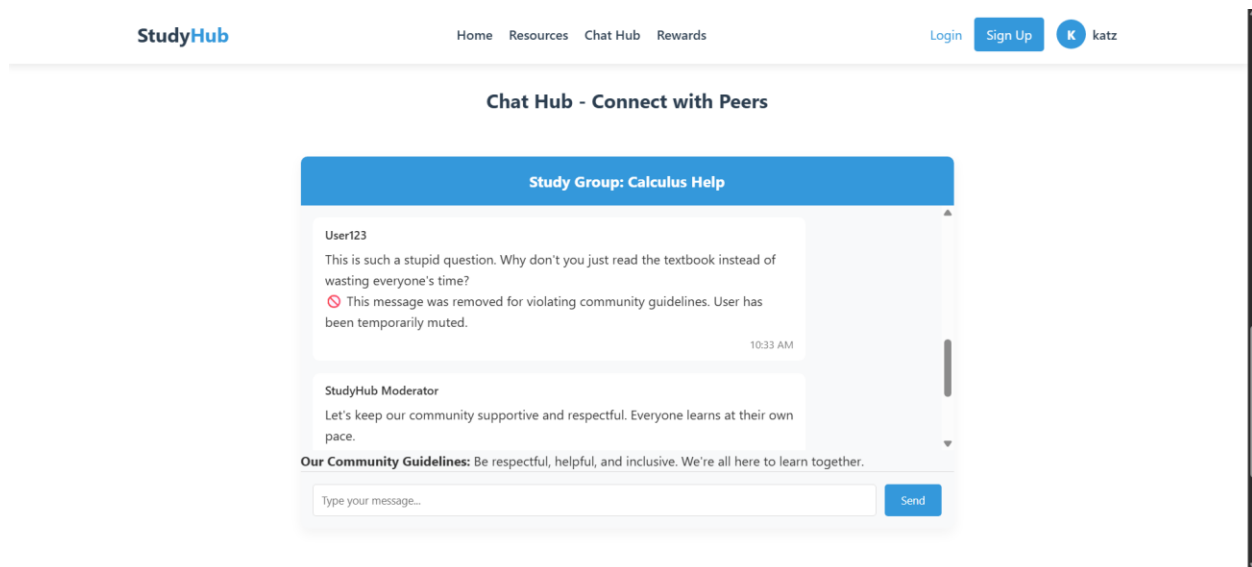
Seen Later the application can filter for specific topics such as algorithms to make the application as convenient and as effective for different users:



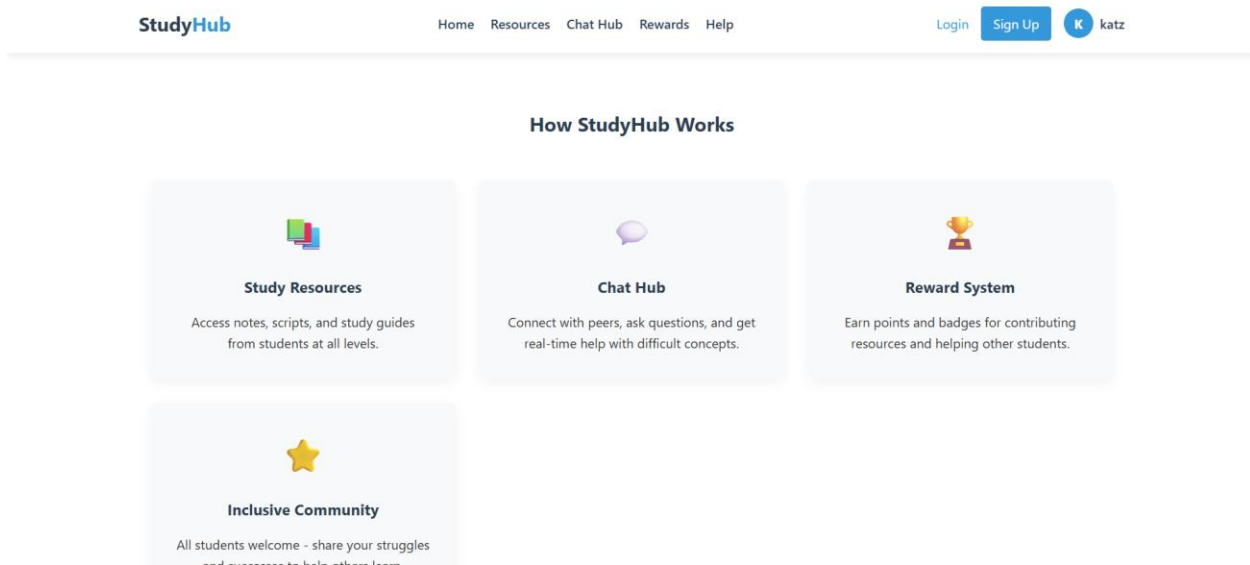
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- To ensure a safe and productive environment, I implemented a real-time content moderation filter to automatically remove harmful comments from the chat and discussion hubs. This was designed to maintain a civil space where every learner can reliably find the assistance they are looking for, whether through peer-to-peer interaction or the integrated chatbot assistant.

- Below is an example of how the application filters bad language used in the open chat hub to ensure the chat environment remains user friendly and users feel welcome regardless of the academic questions they may ask:



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- Is the web application efficient?: This was implemented by ensuring the application performs its functions to the fullest extent while being easy for users to adopt. This was achieved by implementing easy-to-use shortcuts that minimize navigation, alongside a precise search function that delivers accurate results. Furthermore, I included an interactive guide for first-time users to clearly demonstrate each function, ensuring the guide itself was straightforward and easy to follow.
 - For example in the application in my hero section I have included a short demonstration of instructions on how the application functions for new users to get used to the application quickly, and for quick navigation the navbar is simple and clear to users on what purpose each link serves, I have also updated the website to include a help section with descriptions on how the website functions if users are still confused :

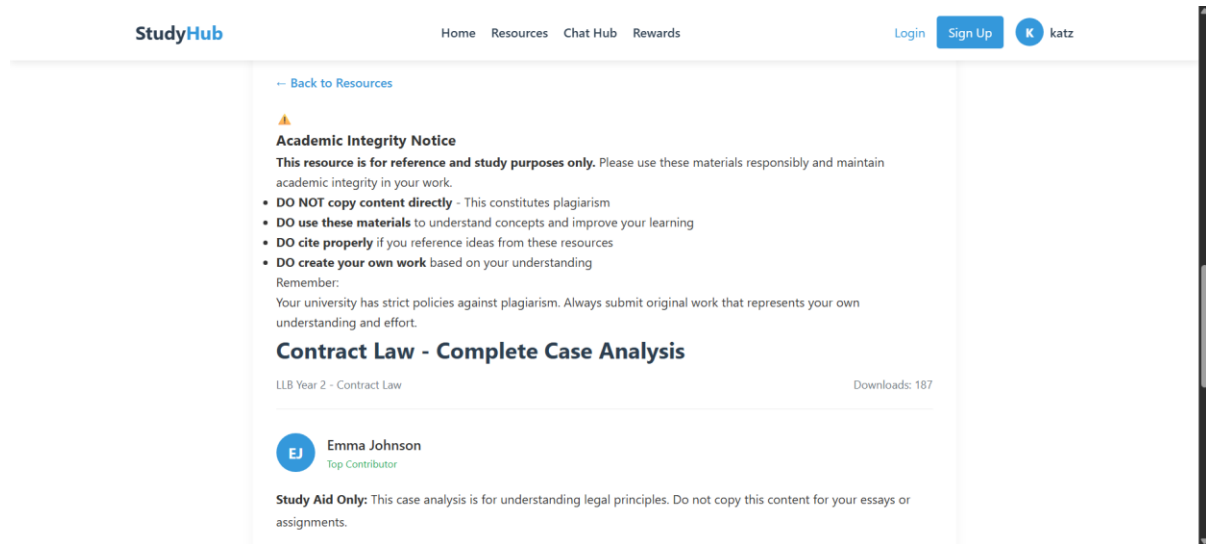


- Is the application safe to use?:

This was addressed by implementing multiple layers of protection to ensure users can use the application without negative consequences. This was achieved by implimenting username-based profiles and providing an option to automatically blur personal names on submitted scripts, ensuring user anonymity. Furthermore, I integrated clear, mandatory policy agreements stating that all content is for referential use only and outlining the legal dangers of plagiarism. Lastly, I implemented confirmation dialogs for critical actions like script deletion to prevent accidental data loss.

- An example of the applications safety measures can be seen where I have assigned a username such as Katz for myself to make it difficult to track down my real name and for user awareness of the dangers of plagiarism i have added warning tags to make users aware of

plagiarism:



Desirable aspects of a user experience

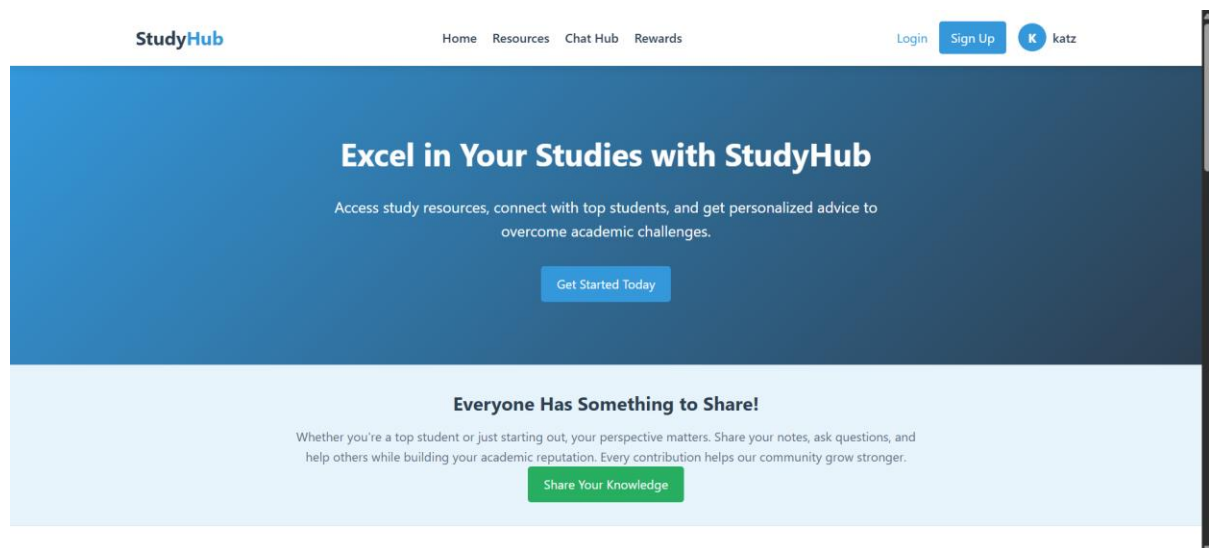
StudyHub was designed from the ground up to be an engaging and rewarding ecosystem. I have built a vibrant and interactive environment to boost student growth and collaboration. The experience has been designed to be satisfying, motivating users not only to find helpful strategies but also to contribute their own knowledge and engage socially within a community of peers.

To make academic study more enjoyable, I have integrated features that promote active discussions and the discovery of new study methods. By supporting creative expression and knowledge sharing, the application makes learning exciting. Ultimately, the platform transforms the often solitary pursuit of high achievement into a pleasurable and socially connected journey, ensuring the process of mastering a subject is as emotionally fulfilling as the outcome.

- The visual design of StudyHub was carefully crafted to be professionally trustworthy yet vibrantly appealing to a youth audience, ensuring engagement without compromising on clarity. A refined color scheme of deep navy and clean white was implemented to build a credible academic foundation, accented with energetic teal and accessible orange in buttons and icons to create a dynamic and motivating environment.

To ensure a clear and modern layout, I designed the interface using a consistent card-based system. Each module, from script previews to chat hubs, is housed within its own distinct card with soft shadows and rounded edges, separating information and providing a structured, uncluttered experience that is intuitive to navigate.

This professional yet approachable design actively encourages all users whether they are high-achievers, newcomers, or those seeking assistance to confidently contribute and seek the academic help they need, reinforcing the platform's identity as a premier and supportive academic community :




StudyHub

[Home](#) [Resources](#) [Chat Hub](#) [Rewards](#)

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K katz

Earn Rewards for Contributing




Top Contributor

Reach the highest tier by consistently providing high-quality resources and helpful responses.




Point System

Earn points for every resource you share and every question you answer correctly.



Redeem Rewards

Exchange your points for gift cards, study materials, or even tuition discounts.



Badges & Recognition

Show off your achievements with special badges on your profile.

Everyone Can Contribute!

You don't need to be a top student to share valuable insights. Even sharing your struggles and how you overcame them can help others.

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👍 96%

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Design Principles

- Thinking about different aspects of design: I was guided through the development process using core principles of visibility, feedback, and constraints to create an intuitive user experience.

For visibility and feedback, the interface was designed to provide clear, immediate responses to user actions. This was implemented through a system of visual cues, such as displaying a confirmation notification with a checkmark icon upon the successful submission of a script.

Regarding constraints, I implemented structured input requirements to ensure data quality and integrity. This includes enforcing a required file format for all script uploads and making it mandatory for users to select a faculty/course category and add descriptive tags before submission. These constraints guide user behavior to ensure all content is properly categorized and verifiable.

- Do's and Don'ts of design: this principle focuses on the decisions of rules which must be considered when designing. A fundamental "Do" I implemented was maintaining strict visual consistency across the entire application by developing a reusable component library that enforced a uniform theme of colors, typography, and spacing. Furthermore, a key design priority was to proactively prevent user error; to this end, I integrated protective feedback mechanisms, such as a modal dialog that triggers with the warning, "You have unsaved changes. Are you sure you want to leave?" whenever a user attempts to navigate away from an incomplete form, thereby safeguarding their work.

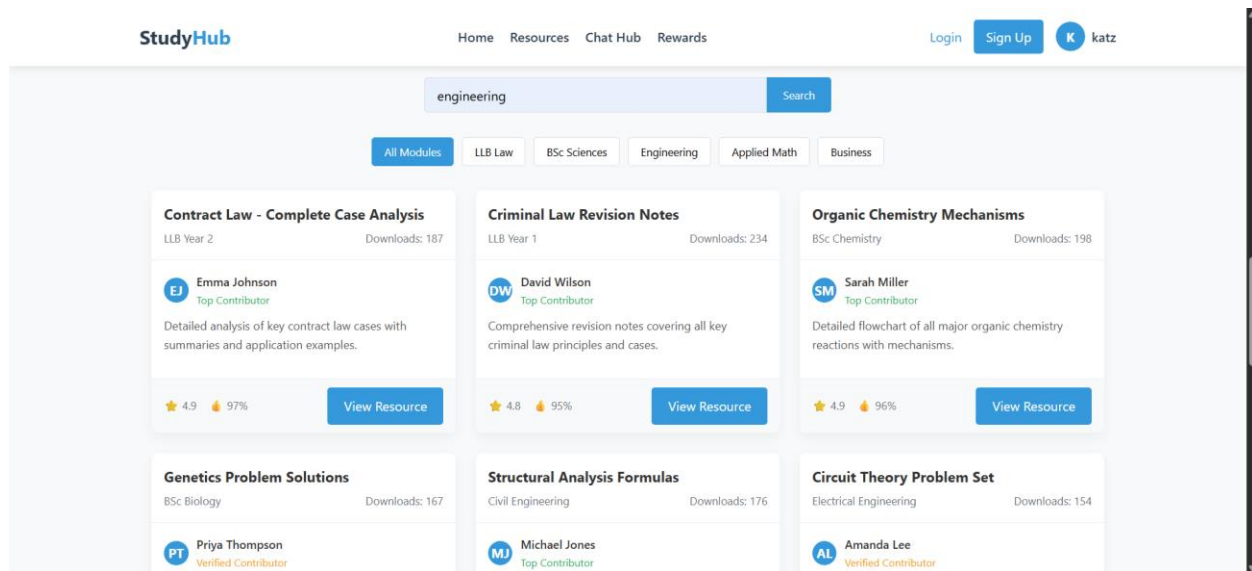
A critical "Don't" that guided the design process was a strict avoidance of overwhelming users with an intimidating or complex interface. To achieve this, I deliberately moved away from a developer-centric approach that relies on command-line syntax or technical prompts. Instead, the interface was built around intuitive, discoverable actions where every function is clearly

represented with descriptive labels and universally recognizable icons, ensuring the platform's capabilities are immediately understandable to all students, regardless of their technical proficiency.

What and What Not to Provide at the Interface: As the interface is the user's primary point of interaction, the script viewing screen was designed to present all relevant information clearly, including the script's course, the marks achieved, and the uploader's reputational score to establish reliability. I also focused on the clarity of UI elements by using explicit labeling on buttons and text fields, providing hints such as “Type your question” and “Make a new post” to guide user actions.

Conversely, I carefully considered what to exclude from the immediate interface to prevent clutter. Advanced settings and configuration options were consolidated into a dedicated settings section. Furthermore, the landing page was intentionally designed not to display every post at once; instead, it was limited to showcase the best-rated and most relevant content, with the full archive accessible through specific category filters.

- The application follows the same theme through out of a blue and white tone which is calm and not overwhelming , and if the user is to scroll through the app they will come across a variety of posts made by different users to show all academic topics, lastly to fulfill the needs of design principles the application provides gestures and hints on how to submit and messages in a success page of how the post will be displayed, these are some of the examples of design principles in the application:



// submission form integrity check : this is a dialog example in the below screenshot describing to the user that they acknowledge the work provided and the guidelines.

Share Your Knowledge



Help others and your resource by adding relevant keywords

Academic Integrity Agreement

By submitting this resource, I confirm that:

- This is my original work or I have proper permission to share it
- I understand StudyHub promotes academic integrity
- I will not submit plagiarized content
- My resource follows university guidelines

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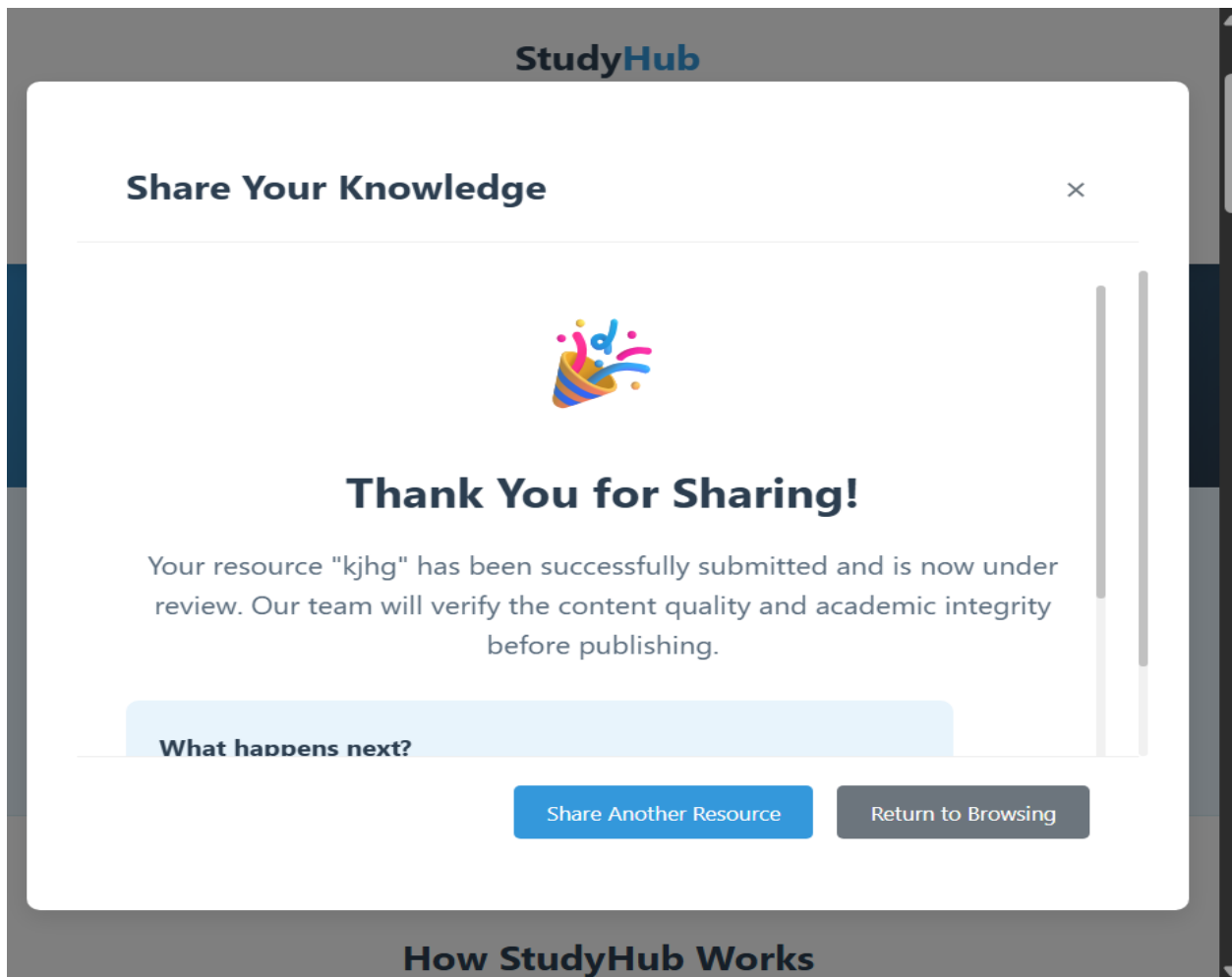
I agree to the terms above and understand the academic integrity policy

Cancel

Submit Resource

notes, ask questions, and help others while building your academic reputation. Every contribution helps our community grow stronger.

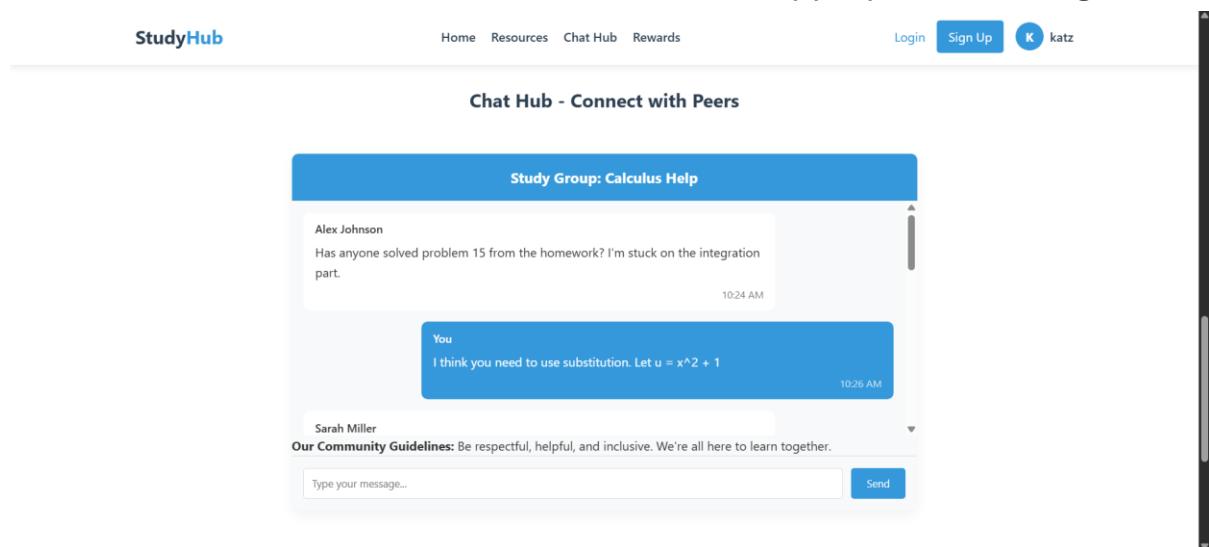
// Success view of post: this screenshot shows the successful post message dialog for when a user successfully makes a submission post



Interaction Types

- **Conversing** – The primary interaction type implemented in the application is conversing, which facilitates a dialog exchange between users and the platform. This was central to two key features: enabling real-time, peer-to-peer discussion within the Chathub and providing on-demand assistance through the integrated chatbot assistant.

- Study Hubs chat hub is the main form of peer to peer interaction in the application in this system which plays a major role in the websites functionality I have implimented a chat system where learners can share their thoughts and ask for assistance , I have also integrated a chat filter which will ban and filter out rude or inappropriate messages :

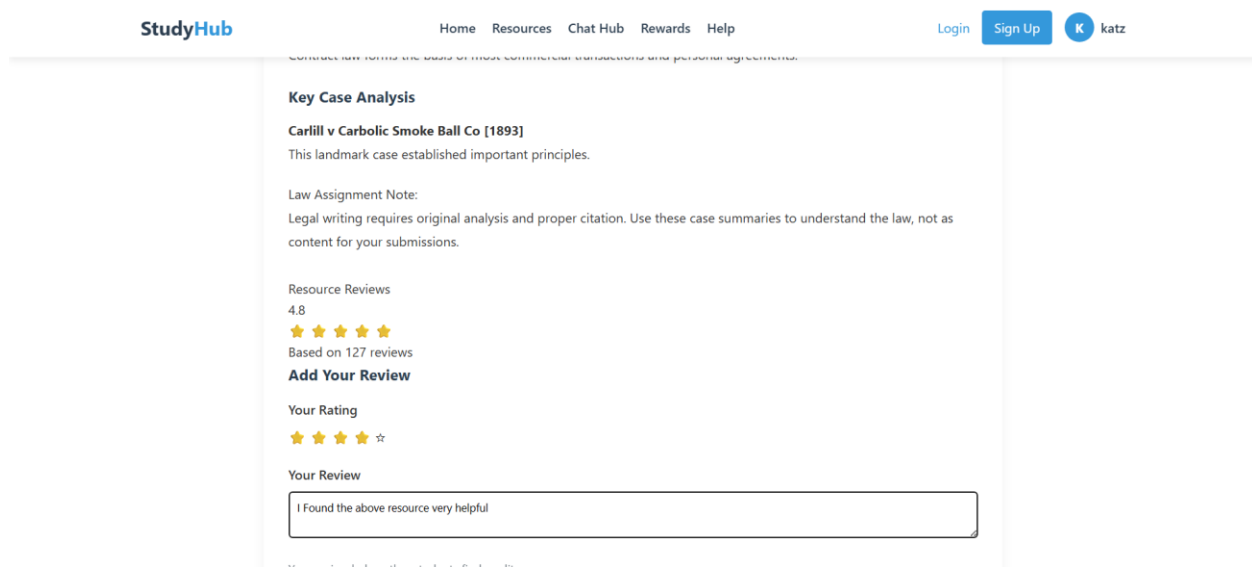


Social Interactions

- StudyHub's collaborative environment extends beyond the real-time Chat Hub for interactions. I have also implemented a dedicated comment section beneath each post to facilitate in-depth discussions and peer reviews of submitted scripts. This allows users to ask clarifying questions, share additional insights, and provide constructive feedback on the material.

Furthermore, to ensure content quality and help users quickly identify the most valuable resources, I integrated a dual-purpose rating system. This system allows the community to rate posts based on both their informativeness and clarity, generating a reliable reputation score for content and contributors alike, as seen in the below screenshot which demonstrates

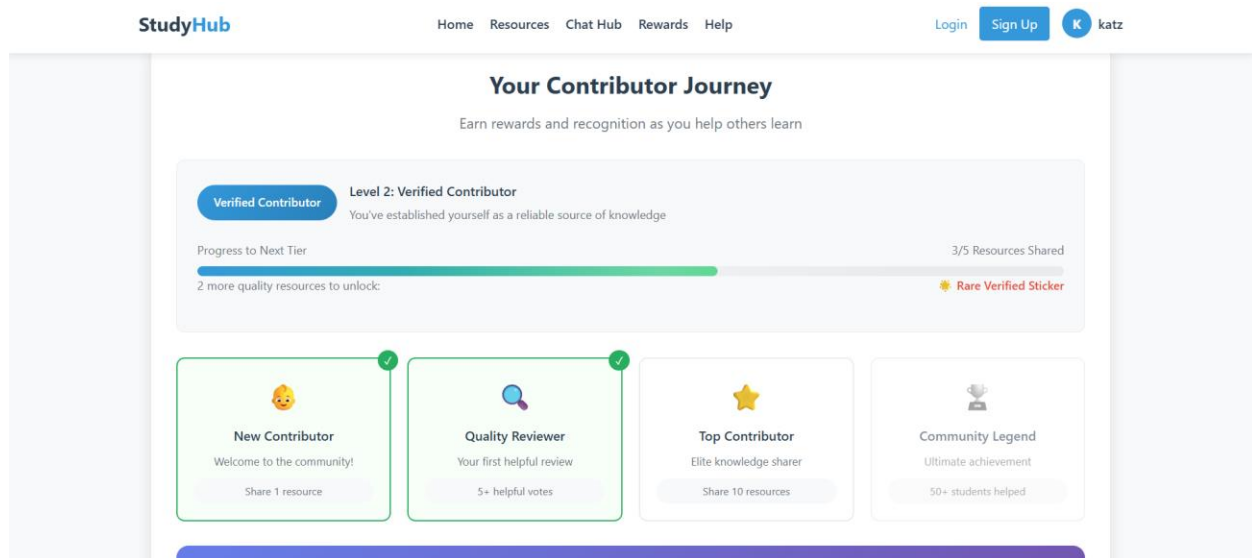
The review and star rating system :



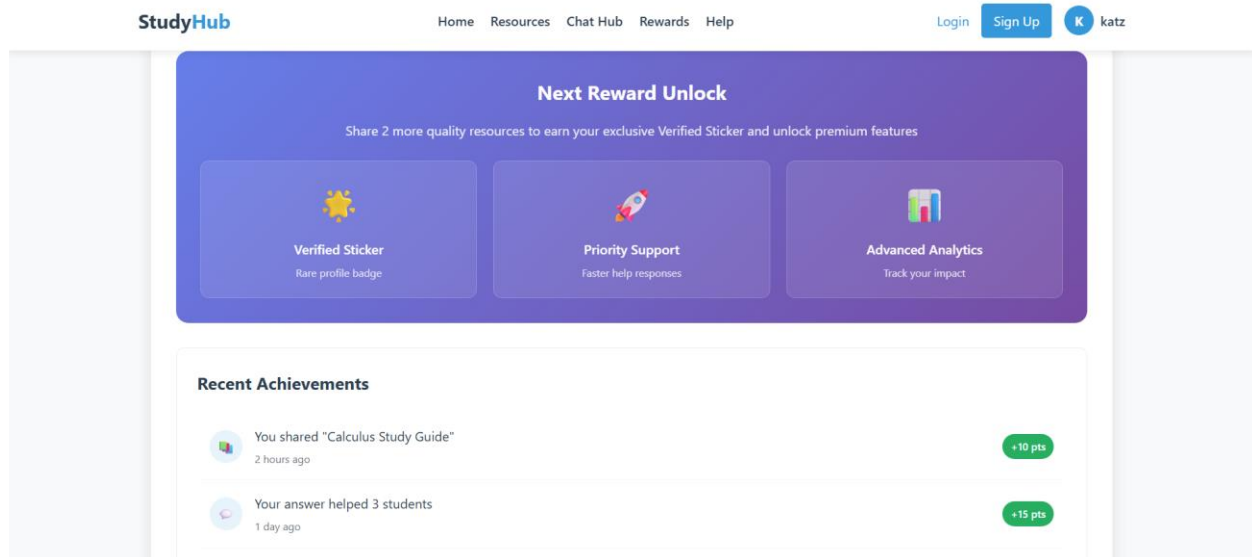
Emotional Interaction

- Sense of achievement - in the StudyHub web applications I have integrated the reward system for new and consistent users with messages such as “your now a contributor” badge or when a user receives a “helpful” comment they will feel a sense of achievement.
- Journey levels – I have also implemented a journey feature for users to keep track of their stats on the app which might be displayed through levels such as “you’ve helped 20 students” , “answered 10 questions correctly” etc. to imply a sense of achievement.

// Journey profile journal: the below screenshot demonstartes how the user journey has been implented to keep encouraging users to stay active in the web environment and give the users a sense of accomplishment :



// Rewards system : A rewards system has also been integrated with a points system that will be used to unlock different rewards in the application, this feature has been implemented with the main purpose of encouraging users to interact and engage with the website's environment, as seen in the screenshot below :

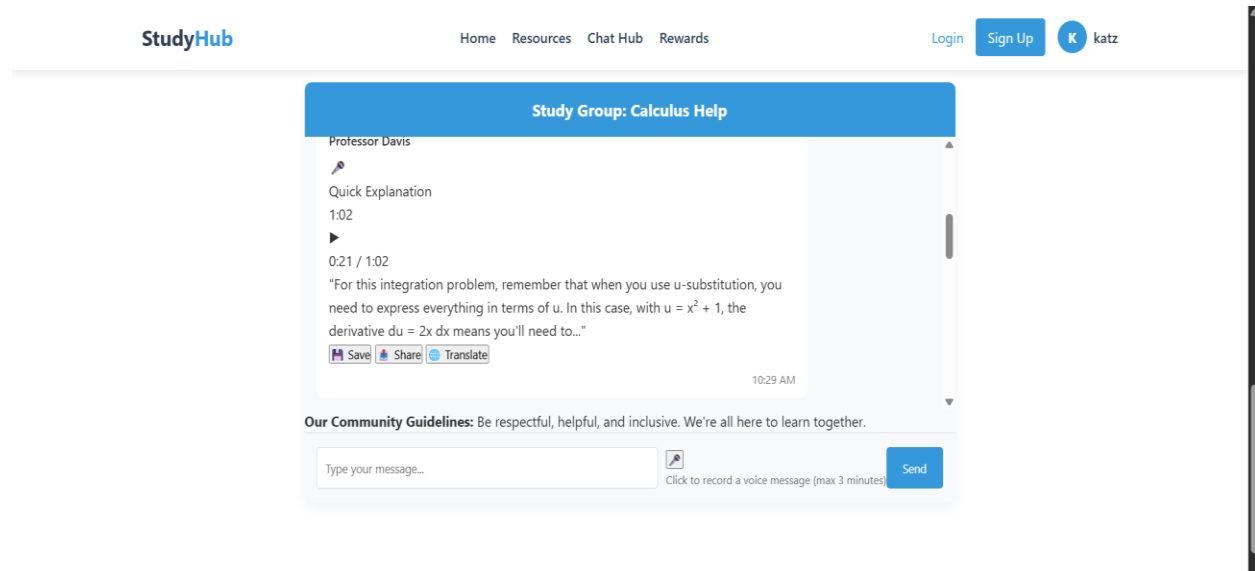


Web Content Accessibility and Guidelines(WCAG)

Web content accessibility and guidelines refers to how accessible the web application will be to different users including those with disabilities, to make

sure my application is available to a wide audience of users I have implemented the following into the system:

- for deaf users - I have implemented a subtitle function for users who attach voice notes to explain comments in their scripts or to translate the voice note for users who would struggle to understand the language being spoken.



Reference Guideline

- Norman, D.A. (2013). The design of everyday things. Revised and expanded edition. New York: Basic Books.
- Nielsen, J. (1994). 10 usability heuristics for user interface design. Nielsen Norman Group. Available at: <https://www.nngroup.com/articles/ten-usability-heuristics/> (Accessed: 15 October 2024).