Bug/Issue Tracker

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ABSTRACT

In today's digital age, it is increasingly important for students to have access to online learning resources and tools. In this project, I developed a chatting web application for students to learn and collaborate with each other. The application allows students to communicate in real time, share pictures and collaborate on group projects. It also includes features such as uploading images and voting feature. To evaluate the effectiveness of the application, we conducted a pilot study with a group of college students. The results of the study showed that the chatting web application improved student engagement and collaboration, and provided a convenient and effective way for students to learn. A chatting web application allows students to communicate with each other and access learning resources from any location with an Internet connection, providing a convenient and flexible way to learn. This application allows students to collaborate on group projects and assignments, fostering teamwork and peer-to-peer learning. The real-time nature of the chatting web application encourages student engagement and participation, leading to a more interactive and dynamic learning experience. This application provides all students access to learning resources and tools, regardless of their physical location or availability. It allows students to customize their learning experience by selecting the resources and tools that are most relevant to their needs and interests.

Overall, a chatting web application can provide numerous benefits for students, including convenience, collaboration, engagement, accessibility, and customization, making it an effective tool for online learning.

Introduction and Literature Review

Real-Time Communication (RTC) in online applications is covered in two papers, along with its difficulties and value. Real-time peer-to-peer interaction between students and teachers is made possible through a web application as Pandey and Bein (2018) suggest. A teacher or other students can answer a student's query or inquiry using the online platform by posting a tweet-style message. With the potential to be expanded to incorporate real-time data transfer of files and documents, the system's present functionality includes publishing tweets, following, messaging, and video conferencing. Guduru and Dev (2015) suggest WebRTC as a substitute for third-party plugins, which can be unreliable and present security issues, in order to address the issue of enabling RTC in web browsers. the requirement of laws and sanctions from the government to impose online security. They go through WebRTC's design, how simple it is to use, and the advantages of leveraging Bundle technology to save bandwidth and energy. Additionally, Yadav et al. (2018) explore the significance of online security in e-commerce and academics and suggest countermeasures, such as data type limits and credential protection, to guard against various vulnerabilities. They underline the requirement for laws, fines, and other legal sanctions to ensure web security.

Methodology of Implementation

For managing complicated projects in a variety of industries, including software development, the Scrum technique is a well-liked and extensively utilized framework. It is adaptable and flexible, allowing for rapid feedback and iteration, encouraging accountability and openness, and may be tailored to meet the unique requirements of a project.

According to (Srivastava et al., 2017), these advantages exist. Therefore, the Scrum methodology is selected as the project's preferred strategy based on experience and comparative analysis.

Feasibility of the Project

The feasibility study is done to weigh possible risks and revenue opportunities while weighing the benefits and drawbacks of a proposed or current project. It covers feasibility studies in the areas of business, technology, operations, economics, law, and society. The suggested system, an issue tracker, complies with the standards established throughout the system development process requirements analysis phase. The necessary hardware and software are mentioned, along with a cost estimate. Legal and social feasibility studies, respectively, take into account societal effects and moral and legal standards. Finding possible dangers and lucrative business opportunities is the goal of a feasibility analysis.

Results

College students were given a survey to fill out regarding their needs and programming experiences. There was a good response rate. According to the findings, 44% of participants were men and 56% were women, 80% of them knew how to program, and 41% had one year of experience. Each participant has experienced software issues. Participants were more likely to consult friends (16) than internet resources (8) or teachers (3) when looking for references. A platform for programming discussion would be beneficial, according to the majority of participants (79%), and 40% strongly agreed that such an application would have an influence. 41% of respondents favoured online applications, 22% chose mobile applications, and 38% had no preference for the kind of application.

Conclusion

The problems of handling software issues and bugs have been successfully addressed by the development of the issue/bug tracker project. The project offers a platform for instructors and students to handle difficulties, assign assignments, and successfully cooperate to find solutions. By using an issue tracker, developers may increase communication and cooperation, expedite their development process, and produce better software in the end. The project has also made clear how crucial it is to take into account user experience, technological limits, accessibility, and security considerations when designing and developing online apps. In summary, the author has gained a lot from working on this project, which shows how software development ideas may be used to solve issues in the real world.

Limitations

There are a number of restrictions with the web application that is being created to offer a platform for programming conversations. First, there might be technical constraints, such as limitations on the platforms or technologies that can be used to create the application. There may also be compatibility problems with particular mobile devices or outdated web browsers. Second, another restriction that could have an impact on the application is user experience. It might be difficult to construct an interface with a user-friendly user interface that is simple to browse or a responsive design that works well on different devices. Thirdly, because the application must adhere to accessibility guidelines for users with disabilities, it may be constrained by accessibility requirements. Lastly, given that the program must safeguard user information and prevent illegal access to the forum, security restrictions can potentially be a problem. These

restrictions must be taken into account during the development phase to ensure that the application satisfies the required specifications and functions well for users.

Acknowledgments

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