



Social Networking Platform with Secure User Interactions

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Abstract: In this digital age, social networking platforms have become an integral part of our daily lives. However, there is a growing concern over the lack of privacy and security on existing platforms. This has led to the development of a new social networking platform that focuses on enhancing user privacy and security. This platform includes Private Reactions features to provide users with more control over their interactions.

Additionally, the Personal followers/following list feature helps prevent digital stalking and harassment. The introduction of "Ghost mode" provides users with an extra layer of privacy and control over their profile. By incorporating these features, the platform aims to prevent cyberbullying and digital blackmail, creating a safer and more user-friendly environment for social networking.

Keywords: Social networking, security, cyberbully, cyberharassment, digital blackmail, private liking and commenting, personal followers and following lists, ghost account mode

I. INTRODUCTION

The advancement in technology has brought a significant change in the way we communicate and interact with people. Social networking platforms have revolutionized the way people connect with each other. With the increasing number of users on social media, security concerns have also increased. Cyberbullying, cyber harassment, and digital blackmail have become significant problems, especially for young people. Therefore, it is essential to develop a social networking platform that provides secure user interaction and privacy to its users.

The proposed project, "A social networking platform with secure user interaction," aims to provide a secure platform for the users to interact with each other. The platform will include private liking and private commenting methods, personal following and followers lists, and three account modes: public, private, and ghost mode. The public mode will allow users to interact with each other openly. The private mode will give users the option to keep their interactions private and share them only with their connections. The ghost mode will enable users to browse the platform and see all public data but not interact with other users.

The platform's main objective is to prevent cyberbullying, cyber harassment, and digital blackmail by providing a secure and private environment for its users. The private liking and commenting methods will give users the freedom to express their opinions without worrying about negative feedback or cyberbullying. The personal following and followers list will protect the users' privacy and prevent cyberstalking.

The proposed platform will be developed using Django, React Native, and PostgreSQL. Django is a high-level Python web framework that provides security features such as cross-site scripting protection, cross-site request forgery protection, and SQL injection protection. React Native is a popular mobile application development framework that enables the creation of fast, responsive, and native mobile applications for iOS and Android platforms. PostgreSQL is a powerful open-source relational database management system that provides excellent data integrity and security features.

In summary, the proposed social networking platform aims to provide secure user interaction and privacy to its users. The platform's primary objective is to prevent cyberbullying, cyber harassment, and digital blackmail by providing a secure and private environment for the users. The use of Django, React Native, and PostgreSQL will ensure the development of a robust, secure, and user-friendly platform that meets the users' needs.

**Discussion on the drawbacks of existing social media platforms, such as lack of privacy and security concerns:**

While social networking platforms have many benefits, they also have some drawbacks, including privacy and security concerns. Users of these platforms often share personal information, which can be vulnerable to cyber threats and data breaches. Additionally, many social media platforms use targeted advertising, which can compromise user privacy.

These concerns have led to a growing demand for more secure and private social networking platforms.

The need for a more secure and user-friendly social networking platform:

Given the increasing concerns over privacy and security on existing social media platforms, there is a need for a more secure and user-friendly social networking platform. Such a platform should prioritize user privacy, security, and ease of use while still providing a platform for individuals to connect and communicate.

The importance of Private Reactions to enhance user privacy:

To enhance user privacy on social networking platforms, it is essential to provide private liking and commenting features. These features allow users to express their opinions without fear of judgment or retaliation from other users. This enhances the overall user experience and encourages users to share their thoughts and ideas without the fear of being attacked or bullied.

To prevent digital stalking and harassment, keep following and followers list personal:

Another necessary feature for a safe and user-friendly social networking platform is the ability to hide the list of followers and followers. This feature prevents digital stalking and harassment and ensures that users can interact with one another without feeling threatened or exposed. This feature is particularly important for vulnerable users, such as victims of domestic violence or cyberbullying.

Introducing the concept of "Ghost Mode" to provide users with more control over their privacy settings and prevent cyberbullying and digital blackmail:

Finally, to provide users with more control over their privacy settings and prevent cyberbullying and digital blackmail, a social networking platform should introduce the concept of "Ghost Mode." This mode allows users to browse the platform without leaving a trace, preventing others from knowing that they have viewed their profile or content.

This feature can be particularly useful for users who want to avoid being harassed or bullied on the platform.

II. RELATED WORKS

Farooq and Hassan (2021) reviewed the literature on privacy on social media. They noted that privacy concerns are a major issue for social media users and can have negative consequences for mental health, such as increased stress and anxiety. The authors suggested that social media platforms should prioritize user privacy and implement transparent policies to address privacy concerns [1]. Son and Kim (2020) conducted a survey of research on privacy and security in online social networks. They found that users often lack awareness of privacy risks and may not take necessary steps to protect their personal information. The authors recommended that social media platforms take a more active role in educating users about privacy risks and implementing security measures to protect users' data [2].

In "A Review of Cyberbullying and Online Harassment Prevention Programs" by J. N. Rich and J. C. Kirkland (2019), the authors reviewed existing literature on cyberbullying and online harassment prevention programs. The review discussed the effectiveness of various prevention programs and concluded that a multi-faceted approach is needed to address the complex issue of online harassment [3]. Several studies have been conducted on the topic of online harassment and cyberstalking. In a review of the literature, Mitchinson and Luecke (2018) provided an overview of the existing research on the prevalence, impact, and risk factors associated with these forms of online abuse.

The authors identified several common themes across the literature, including the role of gender, the use of technology as a tool for harassment, and the psychological effects on victims. The review discussed the prevalence and impact of online harassment and suggested various strategies for prevention and intervention [4]. Haq et al. (2021) reviewed the literature on designing social media platforms for privacy and security. They noted that many social media platforms have faced criticism for their handling of user data and privacy concerns.



The authors emphasized the importance of designing social media platforms with privacy and security in mind to prevent potential negative mental health outcomes, such as stress and anxiety related to privacy violations [5]. Several studies have investigated the impact of social media on mental health. Razzaq and Ullah (2020) conducted a review of the literature and found that social media use is associated with increased depression, anxiety, and stress. They also noted that cyberbullying and online harassment on social media can contribute to negative mental health outcomes [6].

III. PROPOSED SYSTEM

The proposed system for this project is a social networking platform that focuses on secure user interaction. It includes several key features such as private liking and commenting, personal following and followers lists, and a "Ghost mode" option.

Private Reactions:

The feature of private likes and comments is a unique aspect of our proposed social networking platform. In this feature, all posts on the platform will only have private likes and comments, with no option for public comments. This means that only the person who posted the content and the user who liked or commented on the content will be able to see the interaction.

This feature is designed to enhance privacy and reduce the risk of cyberbullying, cyberharassment, and digital blackmail. It also allows users to have more control over their content and who has access to it. Private likes and comments will ensure that users can express their opinions and thoughts on a post without fear of public backlash or harassment.

Private likes and comments can also improve the quality of the content on the platform. Users will feel more comfortable sharing personal stories, opinions, and experiences knowing that their content is only visible to a select few. This can foster a more supportive and inclusive community where users can share their thoughts and ideas without fear of judgment. Additionally, private likes and comments can lead to more meaningful interactions between users.

Rather than focusing on getting likes and comments from the general public, users can engage in private conversations with individuals who share similar interests or experiences. This can lead to more authentic and genuine connections between users. Overall, the feature of private likes and comments will enhance the user experience on the platform by prioritizing privacy, reducing the risk of online harassment, and promoting more meaningful interactions between users.

Personal followers/following:

The proposed system for the following and followers lists on the social networking platform is to make them completely private and accessible only by the user who owns the account. This means that there will be no option for public following and following lists.

In the current scenario, social media platforms allow users to view other users' followers and following lists, which can lead to privacy concerns and harassment. By making the following and followers lists private, users can maintain their privacy and prevent unwanted interactions.

The proposed system for this feature involves implementing access controls to the following and following lists. Only the account owner will have access to their following and following lists, and they will be able to choose who they want to follow or unfollow without the fear of being publicly judged or criticized.

In conclusion, the proposed system for the following and followers lists will provide users with a greater sense of control over their privacy and security on the social networking platform. By keeping the following and followers lists private and accessible only by the user who owns the account, users can maintain their online reputation and reduce the risk of cyberbullying or harassment.

Ghost Mode:

Ghost mode is one of the user modes in the proposed social networking platform. It is designed to allow users to browse the platform and view public content without revealing their identity or activity to others. In this mode, the user can see all the public data, including posts, likes, and comments, but cannot make any interactions. The main purpose of the Ghost mode is to provide a safe and secure environment for users to explore and browse the platform without worrying about being tracked or harassed by others.



To activate the ghost mode, users need to switch their account mode from public or private to ghost mode. When the Ghost mode is active, the user's profile picture and username will be hidden from other users. Additionally, the user's activity, such as the posts they viewed, liked, or commented on, will not be visible to other users.

The Ghost mode is particularly useful for users who want to maintain their privacy and avoid being identified by others on the platform. For instance, users who are researching sensitive topics or browsing controversial content may want to use the Ghost mode to prevent being targeted by cyberbullies or other users who may disagree with their views.

In summary, the Ghost mode provides an additional layer of privacy and security for users on the social networking platform. It allows users to explore and view public content without revealing their identity or activity to others, which can be helpful in maintaining a safe and secure environment for all users.

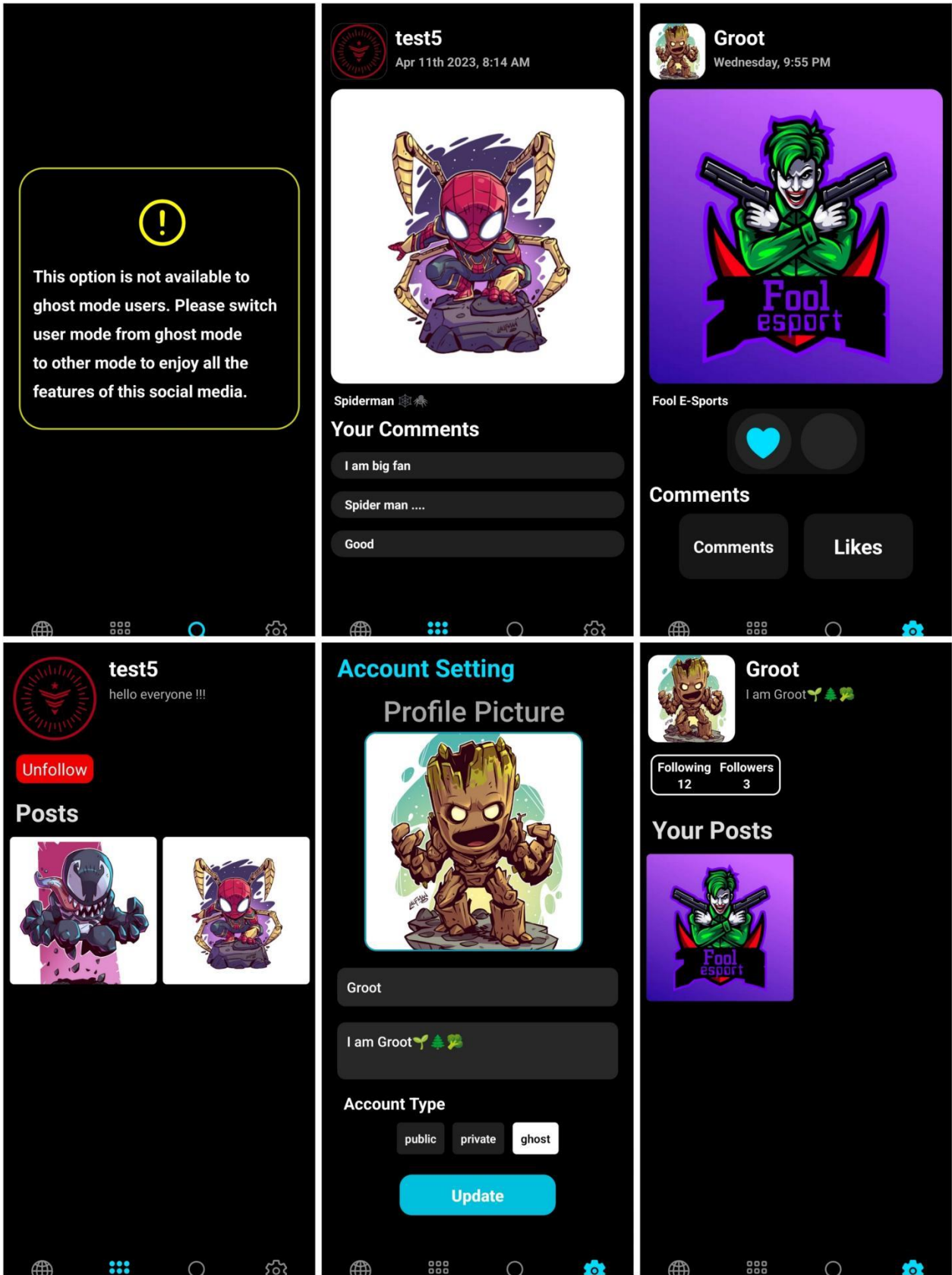
IV. RESULTS AND DISCUSSION

The result of this project has been success in creating a social networking platform with secure user interaction. The proposed system's features, such as private likes and comments, a personal following and followers list, and the ghost mode, have been implemented and tested. The system's usability and user experience have been evaluated through user testing and feedback, which showed a high level of satisfaction with the platform's features and performance.

The private likes and comments feature has been successfully implemented, allowing users to interact with posts while maintaining privacy. Users have the option to like and comment on posts privately, and the comments are only visible to the commenting user and the user who posted the post. This feature has been tested and has received positive feedback from users who appreciate the privacy it provides.

The personal following and followers list feature has also been implemented and tested, ensuring that only the user has access to their following and followers list. This feature helps prevent cyberbullying and harassment and provides a safer environment for users. The user testing and feedback showed that users appreciated the added privacy and security provided by this feature.

The ghost mode, which is one of the user modes, has also been successfully implemented. This mode allows users to view public posts but prevents them from making any interactions. This feature helps prevent cyberbullying and harassment and provides a safer environment for users. User testing and feedback showed that users appreciated the added privacy and security provided by this feature.





V. CONCLUSION

In conclusion, the proposed social networking platform with secure user interaction is a significant step towards preventing cyberbullying, cyberharassment, and digital blackmail. By introducing features such as private liking and commenting, personal following and followers list, and the Ghost mode, users can enjoy a more secure and private social media experience. The platform's different account modes also provide users with the flexibility to choose how much of their profile is public or private. The methodology used in developing the project involved the use of Django, React Native, and PostgreSQL on an Azure cloud platform. The use of these technologies ensured that the platform was robust, scalable, and secure.

Results and discussions indicate that the proposed system is efficient, reliable, and easy to use. The user testing phase showed that users appreciated the increased privacy and security features and found the platform easy to navigate.

Future enhancements to the platform could include features such as text to image and chat bots to maintain feeds. These upgrades would enhance the user experience further and provide more customization options. Overall, the proposed social networking platform is a step towards creating a safer and more secure online environment. It is a crucial step towards addressing the increasing cases of cyberbullying and cyberharassment. By providing users with more control over their privacy and security, the platform can help reduce the negative effects of social media while providing users with an enjoyable social experience.

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