

#### PROJECT REPORT

ON

## **Social Networking Site**

**Project-II** 



Department of Computer Science and Engineering CHANDIGARH ENGINEERING COLLEGE JHANJERI, MOHALI

In partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science & Engineering

**SUBMITTED BY:** 

Under the Guidance of

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DEC, 2024



Affiliated to I.K Gujral Punjab Technical University, Jalandhar (Batch: 2020-2024)



## Chandigarh Engineering College, Jhanjeri, Mohali (An Autonomous College)

#### **Department of Computer Science & Engineering**

#### **DECLARATION**

I,Rijul Modgil hereby declare that the report of the project entitled "
Social Networking Site "has not presented as a part of any
other academic work to get my degree or certificate except Chandigarh Engineering
College Jhanjeri, Mohali, affiliated to I.K. Gujral Punjab Technical University,
Jalandhar, for the fulfillment of the requirements for the degree of B. Tech in Computer
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**ACKNOWLEDGEMENT** 

It gives me great pleasure to deliver this report on the Project-I, I worked on for my

B.Tech in Computer Science & Engineering 3rd year, which was titled ".. Social

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(Signature of Student)

**Student Full Name: Rijul Modgil** 



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#### **Chapter-1**

#### INTRODUCTION

In this chapter, the scope of the work is first explained, followed by the background and description of the proposed social networking site. The purpose of the project and the methodology employed are also discussed. A brief outline of the structure of the report is provided at the end of this chapter.

#### 1.1 Scope of the Work

Social networking has become a cornerstone of modern communication, influencing personal, professional, and societal interactions. This project aims to create a social networking site designed to foster meaningful connections while emphasizing user privacy, simplicity, and inclusivity. The platform will enable users to connect seamlessly by offering features like customizable profiles, real-time messaging, content sharing, and collaborative communities.

The scope of this work includes designing a robust system architecture that ensures scalability and security for an expanding user base. Additionally, it addresses user-centric requirements like intuitive navigation, responsive design for multi-device accessibility, and AI-driven personalization to enhance user engagement. By integrating advanced analytics, the site will also provide insights into user behavior, facilitating continuous improvement of platform features.

This project also extends its scope to address challenges prevalent in existing platforms, such as data breaches, unmoderated content, and lack of inclusivity. By combining technological advancements with thoughtful design, the proposed social networking site aims to create an environment where users can safely and effectively build their digital communities, share their stories, and foster collaboration.



#### 1.2 Background and Proposed Work

Social networking platforms have evolved significantly over the past two decades, transitioning from simple connection hubs to multifaceted ecosystems catering to billions of users worldwide. Despite their popularity, these platforms often fall short in addressing privacy concerns, targeted harassment, and meaningful user engagement. This project proposes a solution that builds upon the successes of existing platforms while addressing their shortcomings.

The proposed social networking site will be built using modern web development frameworks and will incorporate features like advanced encryption for secure communication, customizable content filters, and tools to encourage positive interactions among users. Unlike traditional platforms that focus primarily on engagement metrics, this site will prioritize user satisfaction and trust.

Key differentiators include modular design for feature extensibility and AI-driven algorithms for personalized content delivery. By leveraging a user-first approach, the platform will create opportunities for users to express themselves authentically while ensuring a safe and inclusive environment. The background research involves analyzing current trends in social media, studying user behavior, and identifying gaps in existing systems. This forms the foundation for the proposed solution, which combines innovative technology with human-centered design principles.



#### 1.3 Methodology

The methodology adopted for this project follows a structured, iterative approach to ensure efficiency, accuracy, and user satisfaction. The process begins with **Requirement Analysis**, which involves gathering insights from target users and stakeholders to identify core functionalities and desirable features. This stage ensures that the platform aligns with user expectations and market needs.

The next step, **System Design**, focuses on creating the blueprint of the platform. This includes designing the front-end interface for usability, the back-end architecture for stability, and the database schema for efficient data management. The design phase also emphasizes scalability and security, ensuring the system can handle growth and safeguard user information.

In the **Implementation** phase, the platform is developed using cutting-edge technologies. This includes frameworks for responsive web design, APIs for integration, and machine learning models for personalized recommendations. Agile development practices are followed, enabling iterative improvements based on user feedback.

Finally, the **Testing** phase ensures the platform meets quality standards. This includes unit testing, integration testing, and user acceptance testing to identify and resolve issues. Post-launch monitoring and updates are also part of the methodology, ensuring continuous improvement and adaptability to evolving user needs.



#### 1.4 Purpose of the Work

The primary purpose of this project is to address the gaps and challenges faced by existing social networking platforms. As digital interaction continues to shape modern life, users seek platforms that are not only engaging but also safe, inclusive, and responsive to their needs. This project aspires to create a social networking site that meets these expectations by combining user-centric design with innovative technology.

One of the key purposes is to provide a secure platform where users can freely express themselves without fear of data misuse or privacy violations. By integrating advanced security features, the project ensures that user data remains confidential and protected. Another goal is to encourage meaningful interactions by designing tools and algorithms that promote positive content and community building.

Additionally, the platform aims to cater to diverse user groups by offering customizable features and accessibility options. This inclusivity ensures that the site appeals to a broad audience, fostering a sense of belonging and engagement. Ultimately, this work seeks to redefine the standards of social networking, creating a space where users can connect, collaborate, and grow in a trusted digital environment.



#### 1.5 Structure of the Report

The project report is organized into six chapters, each addressing a critical aspect of the development process.

- Chapter 1: Introduction This chapter outlines the project's scope, background, methodology, and objectives. It provides a foundational understanding of the work and its purpose.
- Chapter 2: Review of Literature A comprehensive analysis of existing social networking platforms, their features, limitations, and areas for improvement.
- Chapter 3: System Design Details the architectural and modular design of the platform, including data flow diagrams and component specifications.
- Chapter 4: Implementation Describes the technologies used, coding frameworks, and integration strategies for developing the site.
- Chapter 5: Results and Discussion Evaluates the project's outcomes, including user feedback, performance metrics, and challenges encountered.
- Chapter 6: Conclusion and Future Scope Summarizes the findings and suggests potential enhancements for future iterations of the platform.

This structured approach ensures a thorough exploration of the project, providing clarity and coherence to readers.



#### **Chapter-2**

#### **REVIEW OF LITERATURE**

#### 2.1 Current Trends in Social Networking

Social networking platforms have undergone a tremendous evolution, driven by technological advancements and changing user expectations. Current trends highlight the increasing role of artificial intelligence, augmented reality, and blockchain in enhancing user experiences. Alpowered features like content recommendations and virtual assistants are becoming standard, while blockchain technology is being explored to address privacy and data security issues.

Another significant trend is the rise of niche platforms catering to specific demographics or interests. These platforms, unlike general-purpose giants, offer tailored experiences that resonate with their audience. Furthermore, the integration of e-commerce into social networks has opened new avenues for monetization, enabling users to shop directly within the platform.

As mobile usage dominates, platforms are prioritizing mobile-first design and introducing features like short-form video content, stories, and live streaming to boost engagement. Inclusivity and accessibility are also key focus areas, ensuring platforms cater to users with diverse needs. However, these advancements bring challenges, including the need for robust moderation tools to combat misinformation and harmful content. The analysis of these trends informs the design and development of the proposed social networking site.



#### 2.2 Existing Platforms

Social networking platforms like Facebook, Instagram, and LinkedIn have set benchmarks in the industry, but they also reveal significant gaps. Facebook, for instance, excels in connecting large communities but struggles with privacy concerns and content moderation. Instagram's visual focus attracts younger audiences but offers limited tools for professional networking. LinkedIn addresses professional needs effectively but lacks features for casual social interaction.

These platforms often prioritize advertising revenue over user experience, leading to intrusive ads and compromised data security. Moreover, the centralized nature of these platforms makes them vulnerable to data breaches and censorship. Another common issue is the algorithm-driven echo chambers, which limit users' exposure to diverse viewpoints.

Addressing these challenges presents opportunities for innovation. By combining the strengths of existing platforms and introducing new features like enhanced customization and decentralized data storage, the proposed site aims to redefine the user experience. It seeks to create a balanced platform that caters to both personal and professional needs while maintaining a strong emphasis on security and inclusivity.



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#### **REFERENCES**

- 1. Boyd, D. M., & Ellison, N. B. (2007). *Social Network Sites: Definition, History, and Scholarship*. Journal of Computer-Mediated Communication, 13(1), 210–230.
- 2. Ellison, N. B., Steinfield, C., & Lampe, C. (2007). *The Benefits of Facebook "Friends": Social Capital and College Students' Use of Online Social Network Sites*. Journal of Computer-Mediated Communication, 12(4), 1143–1168.
- 3. Kaplan, A. M., & Haenlein, M. (2010). *Users of the World, Unite! The Challenges and Opportunities of Social Media*. Business Horizons, 53(1), 59–68.
- 4. Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). *Social Media? Get Serious! Understanding the Functional Building Blocks of Social Media*. Business Horizons, 54(3), 241–251.
- 5. Smith, A., & Anderson, M. (2018). *Social Media Use in 2018*. Pew Research Center. Retrieved from https://www.pewresearch.org
- 6. Zhao, D., & Rosson, M. B. (2009). *How and Why People Twitter: The Role that Microblogging Plays in Informal Communication at Work*. Proceedings of the ACM 2009 International Conference on Supporting Group Work, 243–252.
- 7. Wang, S., & Jin, X. (2017). Exploring Big Data in Social Networking Sites: Trends, Challenges, and Opportunities. Journal of Big Data, 4(3), 1–10.
- 8. Sheth, A. (2019). *AI-Powered Personalization in Social Media Platforms*. Communications of the ACM, 62(3), 34–36.
- 9. Chen, G. M., & Zhang, K. (2010). *New Media and Online Social Networking Sites: A Cross-Cultural Perspective*. IEEE Technology and Society Magazine, 29(4), 71–75.
- 10. Data Protection Commission. (2021). *Guidelines on Data Privacy in Social Media*. Retrieved from <a href="https://dataprotection.ie">https://dataprotection.ie</a>
- 11. Statista. (2023). *Global Social Media Usage Statistics*. Retrieved from <a href="https://www.statista.com">https://www.statista.com</a>
- 12. Anderson, M., & Jiang, J. (2019). *Teens, Social Media, and Technology*. Pew Research Center. Retrieved from <a href="https://www.pewresearch.org">https://www.pewresearch.org</a>
- 13. Obar, J. A., & Wildman, S. (2015). Social Media Definition and the Governance Challenge: An Introduction to the Special Issue. Telecommunications Policy, 39(9), 745–750.
- 14. Trivedi, J., & Verma, R. (2018). *Influence of Social Media Platforms on Modern Consumer Behavior*. Journal of Retailing and Consumer Services, 42, 118–124.
- 15. Heidemann, J., Klier, M., & Probst, F. (2012). *Online Social Networks: A Survey of a Global Phenomenon*. Computer Networks, 56(18), 3866–3878.