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Nebula : Application For Rich Communication

Ms. Shivanjali Dhanawade[1], Ms. Siddhi Chandekar[2], Mr. Ayush Koshti[3], Mrs. Suwarna Nimkarde[4]
Student, Department of Computer Technology[1,2,3]
Lecturer, Department of Computer Technology[4]
Bharati Vidyapeeth Institute of Technology, Navi Mumbai, Maharashtra, India

Abstract: *This report outlines the design, development, and implementation of Nebula, a secure and feature-rich chat application tailored to meet the demands of modern digital communication. In a time where data privacy and security are paramount, Nebula provides end-to-end encrypted messaging to protect users from unauthorized access, ensuring that only the intended recipients can access shared content. The primary objective of* Nebula *is to offer a secure, scalable, and user-friendly platform that allows individuals and organizations to communicate privately without compromising on functionality. In addition to basic chat functionalities,* Nebula *includes innovative features such as scheduled data transfers, customizable notification profiles (where notifications can be set to specific times or contacts), and encrypted file sharing. The application is built using a robust technology stack, including* ***Node.js***, ***React JS***. *These technologies ensure smooth real-time communication while maintaining high standards of security. Key considerations during the project included balancing security with performance, optimizing the user interface, and ensuring cross-platform compatibility.*

Keywords: Real-Time Chat Application, Messaging, Conversation, Communication

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