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LINK-UP

T. S. Nagananthini¹, K. S. Achuthan², S. Afzal³

Assistant Professor, Information Technology¹ Students, Information Technology^{2,3} K. L. N College of Engineering, Sivaganga, India

Abstract: LinkUp is a real-time chat web application designed to enable instant and seamless communication between users through a modern, user-friendly interface. Built with React.js, it offers a dynamic and responsive frontend, while React Router ensures smooth single-page navigation across login, signup, and chat screens. The backend is powered by Firebase, using Firebase Authentication for secure user login and registration, and Cloud Firestore to store and retrieve messages in real-time, enabling live chat without page reloads. Redux Toolkit is used for efficient global state management, ensuring consistent behavior across components. The UI is designed with Tailwind CSS, making it fully responsive and accessible across all devices, including desktops, tablets, and smartphones. Security is a core focus, with Firebase's built-in features protecting user data and managing sessions securely. Overall, LinkUp showcases the integration of powerful front-end and back-end technologies to create a fully functional, scalable, and modern real-time chat application.

Keywords: Real-time Chat, React.js, Firebase, Redux Toolkit

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