Block Chain Based E-Voting App

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Abstract*: The proposed project aims to develop a secure, transparent, and user-friendly blockchain-based e- voting application designed to enhance the integrity of the electoral process and foster public trust in democratic systems. By leveraging the decentralized nature of blockchain technology, this application ensures that all votes are securely recorded, immutable, and tamper-proof, safeguarding the voting process from manipulation and fraud. The system integrates Firebase for robust user authentication, guaranteeing that only eligible voters can participate, while maintaining the confidentiality and privacy of each vote. The platform provides real-time vote tallying and result displays through a transparent interface, allowing voters to verify outcomes and enhancing the overall transparency of the election process. The application is designed for accessibility, offering an intuitive Android-based interface that ensures inclusivity for all users, regardless of their technical skills. Additionally, a verifiable audit trail will be established, allowing for independent verification of the voting process and results, thus increasing accountability and public confidence in the system. This blockchain-based e-voting application represents a significant step towards modernizing electoral systems, ensuring secure, transparent, and accessible voting experiences for all*

Keywords: e-voting, firebase real-time database, blockchain, android