

Abstract

Traditional crowdfunding platforms have revolutionised how projects and causes are funded, providing a centralised space for creators to connect with backers. These platforms have democratised access to funding, allowing anyone with a compelling idea to solicit support from a global audience. However, they also face significant challenges, including high fees, lack of transparency, and potential for fraud or mismanagement of funds.

This project introduces a decentralised crowdfunding platform built on the Solana blockchain, leveraging the powerful capabilities of the Rust Anchor framework. The platform addresses these challenges by offering a transparent, secure, and cost-effective solution for student financing through scholarships, sponsorships, and donations. Solana's high throughput and low transaction costs make the platform more affordable, while the backend smart contracts ensure secure and tamper-proof financial operations. The front end, developed using React, provides an intuitive and user-friendly interface, enhancing the overall user experience. Integration with the Phantom wallet ensures secure transactions, further boosting user confidence. Comprehensive testing and validation of smart contracts were conducted using Solana Playground. Collaboration on the user experience and interface is a key part of the development process, ensuring the platform is functional and engaging.

What sets this platform apart is its unique functionalities. Users can generate a unique link for their campaigns, which can be shared with friends and family, or posted on social media. When guests click on the link, they are prompted to approve the transfer of funds from their Phantom wallet, making it incredibly easy to donate and receive contributions. Additionally, the platform includes in-message activities, allowing potential sponsors or investors to directly message campaign creators for further inquiries, which fosters better communication and engagement between campaign creators and their supporters. The broader impact of this initiative is the exploration and application of decentralised finance (DeFi) in the education sector showcasing the potential for efficient, transparent, and user-centric financial systems.
