Executive Summary

Our proposal is to build a decentralized application (Dapp) for online poker on the Rootstock platform, leveraging its merge mining capabilities with Bitcoin. By integrating trust and transparency into the system, we aim to address the existing issues of scams and lack of trust in online poker. Our solution offers a secure and reliable environment, attracting both seasoned players and newcomers, and aims to capture a substantial share of the online poker market.

Project Overview

- 1. Research and Analysis: Conduct in-depth research on Rootstock platform and existing decentralized poker applications to understand technical requirements and market demand
- 2. System Design: Develop a comprehensive system design for the Web and Android application, including features such as basic authentication, socializing, and wallet integration.
- 3. REST API Development: Build a robust REST API to facilitate communication between the application and the blockchain, enabling secure authentication and wallet connectivity.
- 4. Smart Contract Development: Create a smart contract on Rootstock that manages game logic, tracks scores of participants with their wallet addresses, and automatically distributes winnings based on poker rules.
- 5. Application Development: Implement the Web and Android application with user-friendly interfaces, integrating the REST API for seamless interaction with the blockchain and enabling players to participate in poker games.
- 6. Testing and Quality Assurance: Conduct rigorous testing of the application to ensure its functionality, security, and performance meet the desired standards.
- 7. Deployment and Launch: Deploy the application on appropriate platforms, such as appstores and web servers, and prepare for a successful launch to attract a user base.
- 8. Community Engagement: Foster an active and supportive community around the application, organizing events, and implementing features to enhance social interaction among players.
- 9. Continuous Improvement: Gather user feedback, monitor performance, and make iterative enhancements to the application, smart contract, and overall system to provide an exceptional and evolving poker experience.

10. Marketing and Growth: Implement a strategic marketing plan to promote the application, increase user acquisition, and expand the reach to establish a strong presence in the online poker market.

Background & Context:

The online poker industry has long suffered from issues of scams, lack of trust, and shady practices, undermining the experience for players. Traditional centralized platforms have failed to adequately address these concerns, creating an opportunity for a decentralized solution. By leveraging the Rootstock platform and its merge mining capabilities with Bitcoin, we aim to build a secure and transparent environment for online poker players. This innovative approach will not only provide a safe and reliable platform for players but also tap into the enormous potential of the online poker market, offering a superior and trustworthy poker experience for players worldwide.

Value Proposition:

Smart Contracts and Decentralized Poker: Leveraging smart contract technology on blockchain platforms like Ethereum could enable the development of decentralized poker platforms. These platforms could provide provably fair games and eliminate the need for intermediaries, enhancing security and transparency.

Mobile Optimization: Enhancing the mobile experience of Bitcoin poker platforms can attract a larger audience of mobile users. Developing dedicated mobile apps or optimizing websites for mobile devices can make it easier for players to access and enjoy poker games on the go.

Social Features: Introducing social features like chat functionality, player profiles, and private tables can create a more interactive and social environment for players. This can foster a sense of community and enhance the overall poker experience

Integration of AI Technology: Integrating artificial intelligence (AI) technology into Bitcoin poker platforms could provide players with advanced features like automated hand analysis, player behavior analysis, and real-time suggestions. This could enhance gameplay and offer players insights to improve their skills.

Technical Description:

The core of the poker platform is a set of smart contracts written in Solidity, the programming language used for Ethereum smart contracts. These smart contracts govern

various aspects of the poker game, including game logic, player interactions, and fund management.

The smart contracts handle tasks such as managing player registrations, creating and joining poker tables, processing bets and raises, determining winners, and distributing payouts. They ensure transparency and immutability by recording all game-related transactions and actions on the Rootstock blockchain.

To interact with the poker platform, players would need to have an RBTC wallet, which allows them to hold and transact with RBTC, the native token of Rootstock. They can deposit Bitcoin into the platform by initiating a two-way pegging process that locks the Bitcoin on the Bitcoin blockchain while issuing the equivalent amount of RBTC on Rootstock.

The platform ensures fairness through the implementation of secure random number generation within the smart contracts. This ensures that the distribution of cards and outcomes of the game are determined in a provably fair manner, eliminating any possibility of manipulation or cheating.

As players engage in poker games and place bets, the smart contracts handle the management of funds, including holding and distributing the winnings. Payouts are automatically processed based on the game outcomes and recorded on the Rootstock blockchain for transparency and auditability.

Market Analysis:

The market for a poker platform built on Rootstock presents both opportunities and challenges. The integration of smart contracts and the use of Bitcoin as the primary currency offer unique selling points, attracting players who value transparency, security, and the ability to leverage their Bitcoin holdings. However, the market is highly competitive, with established online poker platforms already catering to a broad player base. Adoption and liquidity are crucial factors for success, as attracting a sufficient number of players who are willing to use RBTC and embrace a decentralized poker experience may pose challenges. Thorough market research, targeted marketing strategies, and a focus on user experience will be vital in capturing a niche market segment and driving adoption of the platform.

The online poker industry itself is a multi-billion dollar market, with millions of players engaging in poker games and tournaments worldwide. While the share of players specifically interested in cryptocurrency-based poker may be smaller compared to the overall market, it represents a growing niche with potential for expansion.

Team & Resources:

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- 2. Sanjay Singh Rajput
- 3. Vedang Joshi
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