A Game Theory-Based Design Optimization Platform with Blockchain

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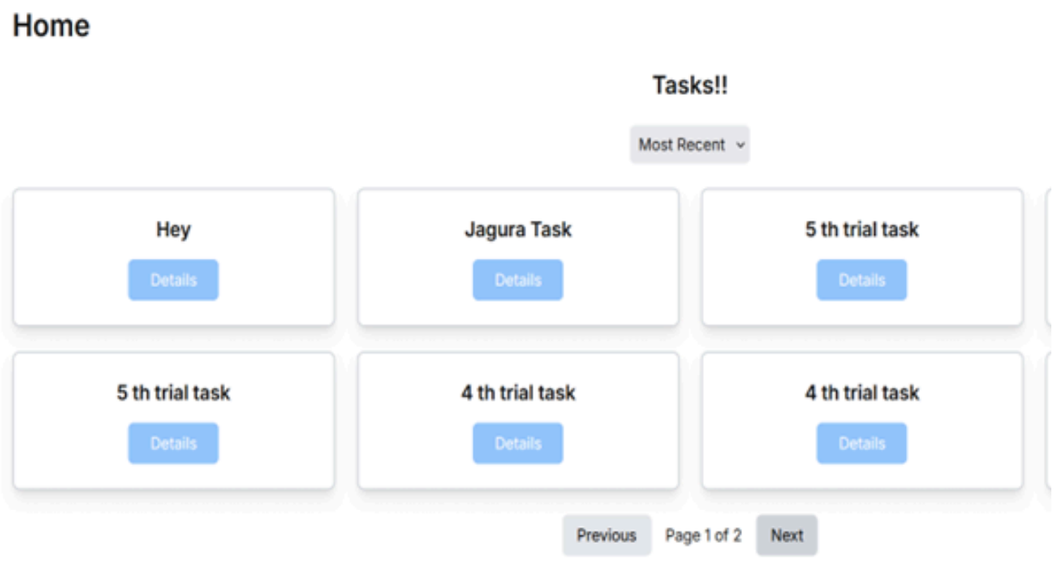
Introduction

This project aims to revolutionize the design feedback process by creating a platform that allows designers to test and optimize their designs based on real-time user feedback. Through the integration of blockchain technology, specifically the Solana network, the platform ensures secure, transparent, and cost-effective transactions for rewarding users. Additionally, a game theory-based worker status system is employed to ensure unbiased feedback, encouraging high-quality participation.



Objective

•To provide designers with immediate and data-driven insights on their design iterations using real-time click-through rates (CTR) and user behavior analytics.

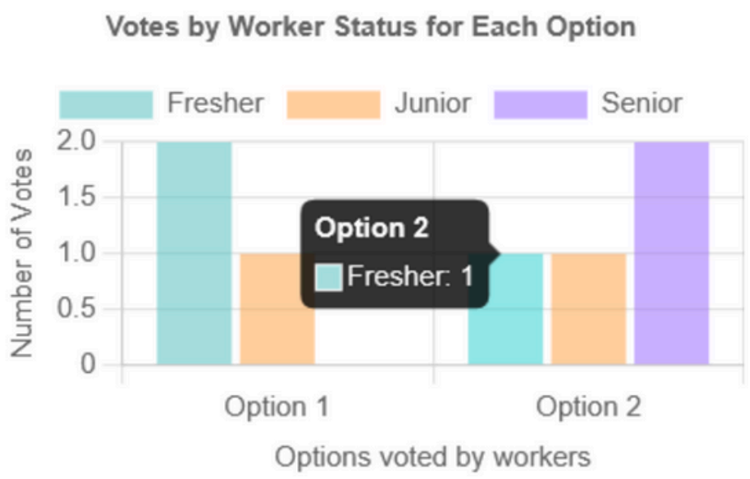
To provide designers with immediate and data-driven insights on their design iterations using behavior analytics, while ensuring the integrity and security of user interactions through game theory principles to ensure fair feedback

Methodology

- Real-Time User Feedback: Users interact with design options, generating click-through data that provides designers with immediate, actionable insights for design iteration.
- Blockchain Technology: Blockchain ensures secure and transparent reward distribution, facilitating trust and fairness in the feedback collection process.
- Game Theory for Fair Feedback: Game theory principles are applied to optimize user participation and ensure unbiased, high-quality feedback, enabling designers to make informed decisions based on real user behavior.

Analysis

We utilize bar and time graphs to visually represent key metrics such as user engagement, click-through rates (CTR), and design iteration effectiveness. Bar graphs are employed to compare the performance of different design iterations across various user groups, offering a clear overview of user preferences and the relative success of each design choice. Time graphs, on the other hand, allow for tracking the progression of feedback and interactions over time, helping to identify trends, peak interaction times, and overall engagement patterns.



Results

- Blockchain ensures secure, transparent transactions and fairness in user feedback, while game theory optimizes decision-making by encouraging balanced participation.
- Real-time CTR and user behavior analytics offer immediate, data-driven insights, enabling designers to make effective and rapid design iterations.

Conclusion

- The integration of blockchain and game theory in the design testing platform ensures secure, transparent, and fair feedback from users, enhancing the reliability of the results.
- By utilizing real-time CTR and user behavior analytics, the platform offers immediate, actionable insights, enabling designers to optimize their designs efficiently and make informed decisions for better user engagement.