\*\*Slide 1: Introduction\*\*

- Title: "Blockchain-Based Social Media Without Bots and Gas Fees"

- Content:

- \*\*Introduction to GameGuides Project:\*\*

- GameGuides addresses critical issues in current social media platforms.

- Aims to eliminate problems like data ownership, fake accounts, high gas fees, and limited producer-to-consumer interactions.

- \*\*Objectives:\*\*

- Lowering gas fees through Polygon Mumbai Blockchain.

- Ensuring user data ownership with Lens Protocol.

- Facilitating producer-to-consumer interactions with token gating.

- Implementing zero-knowledge identity and proof-of-personhood protocols to combat bots.

- \*\*Vision:\*\*

- Creating a more transparent and equitable social media platform.

- Empowering users with control over their data.

- Facilitating direct interactions between producers and consumers.

\*\*Slide 3: Methodology\*\*

1. \*\*Research and Planning:\*\*

- Identify key features of the GameGuides platform.

- Understand integration requirements with Lens Protocol, Replicate, and Tatum.

- Design the user interface and experience.

2. \*\*Development Environment Setup:\*\*

- Install and configure necessary software tools and libraries.

- Set up accounts on various blockchain platforms.

- Configure deployment environments.

3. \*\*Smart Contract Development:\*\*

- Implement core functionality using Solidity language.

- Develop ERC1155 token contract for minting and selling tokens.

- Create smart contracts for platform functionalities (token gating, user authentication).

4. \*\*User Interface Development:\*\*

- Design and develop the user interface using JavaScript and React.

- Ensure integration with smart contracts and backend tools.

5. \*\*Integration with Lens Protocol and Tools:\*\*

- Fully integrate with Lens Protocol for token gating functionalities.

- Integrate Replicate and Tatum for text-based image generation and NFT metadata upload to IPFS.

6. \*\*Testing and Deployment:\*\*

- Rigorously test the platform for functionality, security, and scalability.

- Deploy the platform on the Polygon Mumbai blockchain.

7. \*\*User Adoption and Feedback:\*\*

- Encourage user adoption through marketing and outreach.

- Gather feedback actively through surveys, focus groups, etc.

8. \*\*Future Improvements:\*\*

- Explore opportunities for expanding platform functionalities.

- Integrate other blockchain technologies.

- Investigate the use of AI-generated content.

\*\*Slide 4: Lens Protocol and OpenZeppelin Defender\*\*

1. \*\*Lens Protocol:\*\*

- \*\*Objective:\*\* Ensure data ownership and fair revenue distribution.

- \*\*Functionality:\*\* Allows creators to token gate giveaway publications.

- \*\*Collect Module:\*\* Enables token gating of various data types for loyal supporters.

- \*\*Stable Diffusion:\*\* Facilitates image generation from text, eliminating the need for intricate images in token metadata.

2. \*\*OpenZeppelin Defender:\*\*

- \*\*Objective:\*\* Enable gasless minting of ERC1155 tokens, reducing entry barriers.

- \*\*Functionality:\*\* Interacts with the contract through relayer accounts.

- \*\*Relayer Account:\*\* Holds the private key of the owner for transaction signing.

- \*\*Significance:\*\* Streamlines the minting process, making it automatic and user-friendly.

\*The integration of Lens Protocol and OpenZeppelin Defender ensures a seamless user experience, fair revenue distribution for creators, and eliminates the need for users to deal with gas fees during the minting process.\*

\*\*Slide 5: Implementation Results\*\*

1. \*\*Gas Fee Reduction:\*\*

- \*\*Platform:\*\* Polygon Mumbai Blockchain.

- \*\*Impact:\*\* Significant reduction in transaction and gas costs.

- \*\*Metrics:\*\* Comparative evaluation of transaction costs on Sepolia Testnet Blockchain.

2. \*\*Fair Revenue Distribution:\*\*

- \*\*Lens Protocol:\*\* ERC1155 tokens enable creators to monetize loyal fan base exclusively.

- \*\*Results:\*\* Token gating functionalities promote direct interactions between producers and consumers.

- \*\*Metrics:\*\* Evaluate the effectiveness through a comparison of different transaction and gas costs.

3. \*\*Improved User Experience:\*\*

- \*\*OpenZeppelin Defender:\*\* Gasless minting enhances user accessibility.

- \*\*User Journey:\*\* Minter initiation to token minting without direct gas payment.

- \*\*Feedback:\*\* Positive impact on user adoption and experience.

\*The implementation results demonstrate the effectiveness of GameGuides in achieving lower costs, fairer revenue distribution, and a more user-friendly experience.\*

\*\*Slide 6: Workflow Overview\*\*

![Workflow Overview](flowchart\_image\_link)

\*Illustration of GameGuides Workflow:\*

1. \*\*Minter Initiates Minting:\*\*

- Unable to pay gas fees.

2. \*\*Signer (ETH Address):\*\*

- Provides necessary signature.

3. \*\*Frontend Trigger:\*\*

- Initiates the process.

4. \*\*AWS Lambda:\*\*

- Automatic execution without manual interaction.

- Unique webhook (URL) for each Lambda.

5. \*\*Code Execution:\*\*

- JavaScript code in AWS Lambda interacts with the Smart Contract using OpenZeppelin Defender.

6. \*\*Relayer Account:\*\*

- Holds the private key of the owner.

- Signs transactions through OpenZeppelin Defender.

7. \*\*Minting Process:\*\*

- Gas fees paid from the owner's account.

- Minter experiences a gasless transaction.

8. \*\*Buyer and Seller Transactions:\*\*

- Buyer and seller pay fees separately.

\*This flowchart illustrates the seamless and automated process from minting initiation to gasless transactions, ensuring a smooth experience for all users.\*

\*\*Slide 7: Gasless Minting Process\*\*

\*Steps in Gasless Minting:\*

1. \*\*Minter Initiation:\*\*

- User starts the minting process.

- Unable to pay gas fees.

2. \*\*Signer's Role (ETH Address):\*\*

- Signer provides the necessary signature.

- Authorizes the transaction.

3. \*\*Automatic Execution through AWS Lambda:\*\*

- Frontend triggers the process.

- AWS Lambda, with a unique webhook, handles automatic execution.

- No manual interaction required.

\*Benefits of Gasless Minting:\*

- \*\*Enhanced User Experience:\*\*

- Minter is not burdened with gas fees.

- Simplifies onboarding for new users.

- \*\*Efficiency with Automation:\*\*

- AWS Lambda ensures seamless and automated execution.

- Streamlines the minting process.

\*This slide highlights the innovative gasless minting approach, improving accessibility and user convenience.\*

\*\*Slide 8: Relayer and Owner's Accounts\*\*

\*Roles and Significance:\*

1. \*\*Relayer Account:\*\*

- Holds the private key of the owner.

- Responsible for signing transactions.

- Ensures secure and authorized interactions.

2. \*\*Owner's Account:\*\*

- Covers Gas Fees:

- Gas fees for minting are paid from the owner's account.

- Transaction Authorization:

- Owner's account authorizes and facilitates minting.

\*Why Relayer and Owner's Accounts Matter:\*

- \*\*Security and Authorization:\*\*

- Relayer ensures secure transactions.

- Owner's account holds the authority for minting.

- \*\*Gas Fee Coverage:\*\*

- Gas fees are seamlessly managed from the owner's account.

- Simplifies the minting process for users.

\*This slide illustrates the collaborative roles of the Relayer and Owner's accounts, ensuring security and efficient gas fee coverage.\*

\*\*Slide 10: Benefits and Future Enhancements\*\*

\*Benefits:\*

1. \*\*Fair Revenue Distribution:\*\*

- GameGuides ensures creators receive a fair share of revenue.

- Token gating and Lens Protocol contribute to equitable compensation.

2. \*\*Data Ownership:\*\*

- Lens Protocol safeguards user data ownership.

- Minted posts as ERC1155 tokens provide users control over their content.

\*Future Enhancements:\*

- \*\*Exploring New Features:\*\*

- Continuous development for expanded functionalities.

- Integration of emerging blockchain technologies.

- \*\*AI Integration:\*\*

- Potential exploration of AI-generated content.

- Enhancing platform capabilities for users.

\*This slide encapsulates the benefits derived from GameGuides and outlines exciting possibilities for future platform enhancements.\*

\*\*Slide 11: Conclusion: Empowering the Future of Social Media\*\*

In summary, GameGuides stands as a beacon of innovation, effectively addressing critical issues in contemporary social media landscapes. By leveraging blockchain technology, the platform tackles challenges related to vendor locking, data ownership, and equitable revenue distribution.

- \*\*Gas Fee Revolution:\*\* Integration with Polygon Mumbai blockchain provides a groundbreaking solution to high gas fees, ensuring a user-friendly interaction environment.

- \*\*Data Ownership:\*\* Lens Protocol empowers users to retain ownership of their data, minting posts as ERC1155 tokens for seamless trading.

- \*\*Creator Monetization:\*\* Token gating functionalities facilitate smoother interactions, enabling creators to exclusively monetize their dedicated fan base.

- \*\*Enhanced User Experience:\*\* The Collect module, coupled with Stable Diffusion, prioritizes user experience, allowing creators to token gate giveaway publications and generate images from text.

- \*\*Democratizing Blockchain:\*\* Implementation of the OpenZeppelin Defender Relayer enables gasless minting, breaking barriers for creators new to blockchain.

\*\*Future Horizon:\*\*

GameGuides is not just a platform; it's a testament to the transformative potential of blockchain in shaping the future landscape of social media. Looking ahead, future research endeavors could focus on expanding functionalities and exploring integration with other cutting-edge technologies.

\*GameGuides: Transforming Social Media Dynamics with Blockchain.\*

\*\*Slide 2: Project Objectives\*\*

- \*\*Main Objectives:\*\*

- \*\*Challenges in Centralized Social Media:\*\*

- Investigate issues like data ownership, privacy, and security.

- Understand the limitations of current platforms.

- \*\*Exploring Blockchain Technology:\*\*

- Assess the potential of blockchain as a decentralized alternative.

- Identify advantages and limitations in applying blockchain to social media.

- \*\*Developing a Decentralized Social Media Platform:\*\*

- Address data ownership, privacy, and security concerns.

- Facilitate direct interactions between content producers and consumers.

- \*\*Significance:\*\*

- Evaluate the effectiveness of the proposed platform.

- Improve user experience compared to existing social media platforms.

- \*\*Analysis:\*\*

- Assess implications on social media business models, user behaviors, and network effects.

- Identify opportunities for future research and development.

- \*\*Contribution:\*\*

- Contribute to the academic discourse on blockchain technology and social media.

- Provide insights for researchers, practitioners, and policymakers.