Appendix C *[This document needs to be submitted by every member in a team]*

BMIS2003 Blockchain Application Development

Task Description

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Programme	: RSDY3S1	Group	: G5

Instruction: Answer **ALL** the questions.

1. Please briefly describe the module(s)/function(s) you engaged in the assignment.
   Access to Metamask function:

   In the assignment, I concentrated on developing the access to mask function, which allows users to access their MetaMask wallet directly through the application. This functionality plays a crucial role in the blockchain durian tracking system by facilitating seamless interactions between the users and the blockchain. By integrating this feature into the front end, users can easily connect their MetaMask accounts, enabling them to manage their transactions, verify ownership, and interact with smart contracts related to durian tracking.

   This direct access not only enhances the user experience by providing a straightforward way to engage with blockchain features, but it also ensures that users can efficiently manage their cryptocurrency assets in the context of the application. Additionally, the function supports the decentralized nature of the system, empowering users to take full control of their transactions and enhancing the overall security and transparency of the durian supply chain. Overall, the access to mask function significantly contributes to the application's functionality and user engagement.

2. What are the strengths of the modules/functions created by you?

   The strengths of the function in my blockchain durian tracking system include enhanced user accessibility through the access to mask function, which simplifies wallet connections and fosters seamless integration with blockchain features. This would further decentralize the transactions and verification of ownership by users within the application itself, hence enriching the user experience. Then, there is durían supply chain security and transparency, whereby the user is in control of their assets. Its modularity allows for ease in future development since new features and enhancements that are developed improve user engagement to drive confidence in the platform.

3. What are the weaknesses of the modules/functions created by you?

   The weaknesses of the function in my blockchain durian tracking system may include potential reliance on third-party services like MetaMask, which could lead to accessibility issues if users experience connectivity problems or browser compatibility issues. Additionally, the implementation of a decentralized wallet can be somewhat complicated for those users not familiar with virtual currencies, and the process of engagement might be compromised. Security vulnerabilities around phishing attacks or mismanagement of private keys might also be a concern if not appropriately taken care of. Last but not least, interactions with smart contracts can be complex and require thorough testing to be reliable, this can be time-consuming.

4. What have you learned in doing this assignment?

   In completing this assignment, I have learned the importance of integrating blockchain technology into practical applications, specifically how to enhance user experience by

providing direct access to wallets like MetaMask. I gained insights into the challenges of user interface design and the necessity of making complex blockchain functionalities intuitive for a wider audience. Additionally, I recognized the critical balance between security and accessibility, understanding the potential vulnerabilities associated with decentralized systems. Finally, I learned about the significance of thorough testing and modular design, which allows for easier updates and scalability as the project evolves. Overall, this assignment deepened my understanding of blockchain applications and their impact on real-world scenarios.

5. What are the challenges, if any, faced by you while working on this assignment?

   While working on this assignment, I faced several challenges. One significant challenge was ensuring seamless integration of the access to mask function with the front-end, as it required navigating various technical aspects and potential compatibility issues across different browsers. Additionally, understanding the complexities of smart contract interactions and ensuring they functioned correctly added another layer of difficulty. Furthermore, finding a balance between user accessibility and the inherent complexities of blockchain technology was challenging and required thoughtful design choices. Finally, testing to locate bugs in the system was extremely time-consuming but critical to ensure reliability and user trust.

Signature:  Date: 22/9/24