Project Description

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1 Multi-Blockchain Token System

Missing interoperability is a prevalent issue in today's blockchain landscape. Due to this lack of interoperability, tokens are bound to their hosting blockchain, i.e., the blockchain on which the token contract is deployed. A multi-blockchain token system allows its users to transfer their tokens between arbitrary blockchains in a decentralized way. During a token transfer, the users burn the tokens on the source blockchain and recreate them on the target blockchain. However, the recreation on the target blockchain requires proof of the successful burn on the source blockchain.

Your task is to create a multi-blockchain token system allowing users to transfer an ERC-20 token from the Ethereum blockchain to the BNB Smart Chain (BSC). Since both blockchains use the Ethereum Virtual Machine (EVM), a single implementation of the token contract is sufficient. All fees should be payable with the token such that users do not require the native currencies of the involved blockchains. Further, you have to implement a decentralized mechanism (e.g., relays, oracles) for cross-blockchain communication to verify the burn transaction on the target blockchain. Finally, provide the users with a user-friendly Graphical User Interface (GUI) that supports one of the major wallets (e.g., MetaMask).