Betting Dapp using Blockchain Concepts

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**Introduction**

Blockchain is a digital ledger technology that allows for the creation of secure, transparent, and decentralized networks. It works by recording transactions in a series of blocks, which are then linked together to form a chain. Each block contains a cryptographic hash of the previous block, making it extremely difficult to alter or tamper with any transaction recorded on the blockchain.

One of the key benefits of blockchain technology is that it eliminates the need for intermediaries such as banks or other financial institutions, allowing for direct peer-to-peer transactions. This makes transactions faster, cheaper, and more secure. Additionally, blockchain technology allows for greater transparency as all transactions are publicly visible on the network.

Blockchain has numerous use cases across a wide range of industries. It is commonly associated with digital currencies such as Bitcoin, but can also be used for supply chain management, digital identity verification, voting systems, and more. With its potential to transform many industries by enabling secure and transparent transactions, blockchain is a rapidly growing technology that is expected to become more mainstream in the coming years.

In this report, we will create a Betting Dapp using Blockchain concepts using some tools and test networks.

**Tools Used**

1. **MetaMask**

MetaMask is a cryptocurrency wallet and browser extension that allows users to interact with decentralized applications (dApps) on the Ethereum blockchain. It provides a user-friendly interface for securely storing, sending, and receiving Ethereum and other ERC-20 tokens and accessing a wide range of Ethereum-based dApps. MetaMask also provides a convenient way for developers to integrate their betting dApps with the Ethereum blockchain, as it allows users to seamlessly connect to different Ethereum networks (like Sepolia Test Network), including the mainnet, testnets, and private networks.

In this project, I have used Sepolia Test Network in MetaMask.

1. **Sepolia Test Network**

Sepolia is a test network used to build dApp to help users develop their apps for free. It is a place where developer can build their dApp on the Ethereum Blockchain. It's a place where they can experiment with different ideas and test their programs before going live on the real Ethereum network.