Decentralized Lottery DApp Report

The Decentralized Lottery DApp is a fully decentralized Ethereum-based application where users can participate in a lottery by sending exactly 0.01 ETH. Once at least one player has joined, any user can trigger the lottery to randomly select a winner. The contract then transfers the entire balance to the winning participant. Additionally, any user can restart the lottery once it has ended.

The smart contract is deployed on the **Sepolia testnet**, and the front-end is hosted via **GitHub Pages**, allowing users to interact with the contract using **MetaMask**.

Testing Process

1. Deploy the contract on Remix.ethereum.org

Contract address = 0x2AAdfa40077198022ACcd0f3b390bfA37bA671Ae

2. Change the contract address in the github index.html file

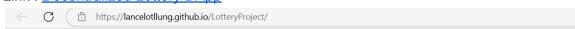
```
<script>
// Global variables for web3 and the contract instance
let web3;
let lotteryContract;

// Contract address after deployment
const lotteryAddress = "0x2AAdfa40077198022ACcd0f3b390bfA37bA671Ae";

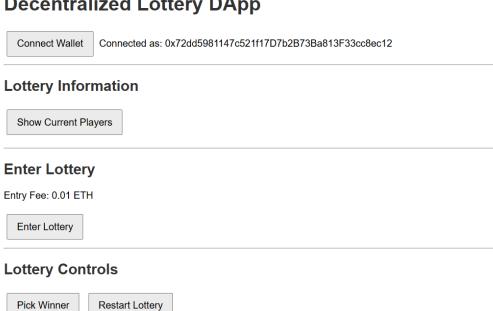
// Contract ABI generated after compiling Lottery.sol
const lotteryABI = [
   {
```

3. Front end of the DApp is hold as GitHub Page

Link: Decentralized Lottery DApp

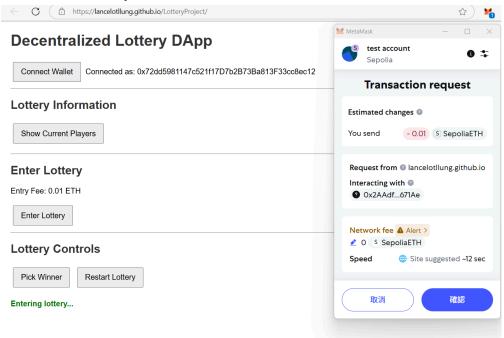


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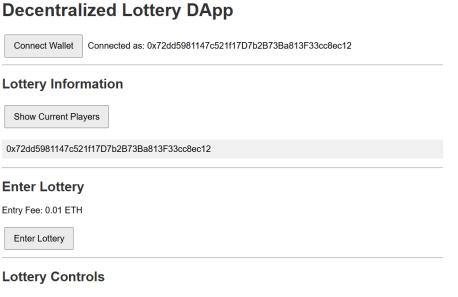
Wallet connected.

4. Enter Lottery with 0.01 ETH Fee



5. Show current player joining the Lottery

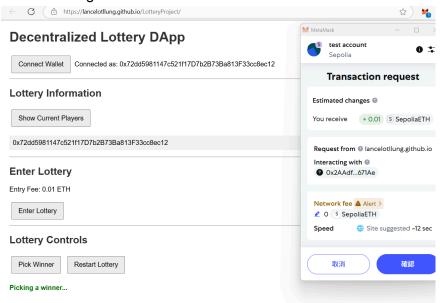




Pick Winner Restart Lottery

Players loaded successfully.

6. Picking the Winner



7. Lottery result

As there is only one player joining, the wallet get all the reward for this lottery and balance increase from 0.0769 to 0.0869.

