

EDUFUND

PRESENTATION

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PROJECT OVERVIEW

FROM CONCEPT TO REALITY

Centralized crowdfunding platforms lack transparency and user control. This project demonstrates how blockchain and smart contracts enable a decentralized crowdfunding model. The goal is to practice DApp development, MetaMask integration, and tokenization concepts.

This project is a decentralized crowdfunding application built on an Ethereum test network (Sepolia). Users can create campaigns, contribute test ETH, and receive ERC-20 reward tokens. All blockchain interactions are handled securely through MetaMask.

ARCHITECTURE

PROJECT STRUCTURE

The application follows a decentralized architecture consisting of a Solidity smart contract deployed on an Ethereum test network, a JavaScript-based frontend, and MetaMask for wallet interaction. The frontend communicates directly with the blockchain to execute and monitor transactions without a centralized backend.

01

FRONTEND (HTML CSS
JAVASCRIPT)

02

SMART CONTRACTS
(SOLIDITY)

03

WALLET (METAMASK)

SMART CONTRACTS

CROWNFUNDING CONTRACT LOGIC

The crowdfunding smart contract manages campaign creation, accepts test ETH contributions, tracks individual user contributions, and enforces campaign deadlines. After the deadline, the contract finalizes the campaign and triggers the appropriate logic for fund handling and reward token issuance.

```
contract EduFundCrowdfunding {  
    // some clever code  
}
```

03

SMART CONTRACTS

ERC-20 REWARD TOKEN

01

The ERC-20 standard is used because it is widely adopted and easy to integrate with wallets and tools.

03

The amount of tokens issued is proportional to the contribution.

02

Reward tokens are automatically minted when a user contributes to a campaign.

04

These tokens have no real value and are used only for educational purposes.

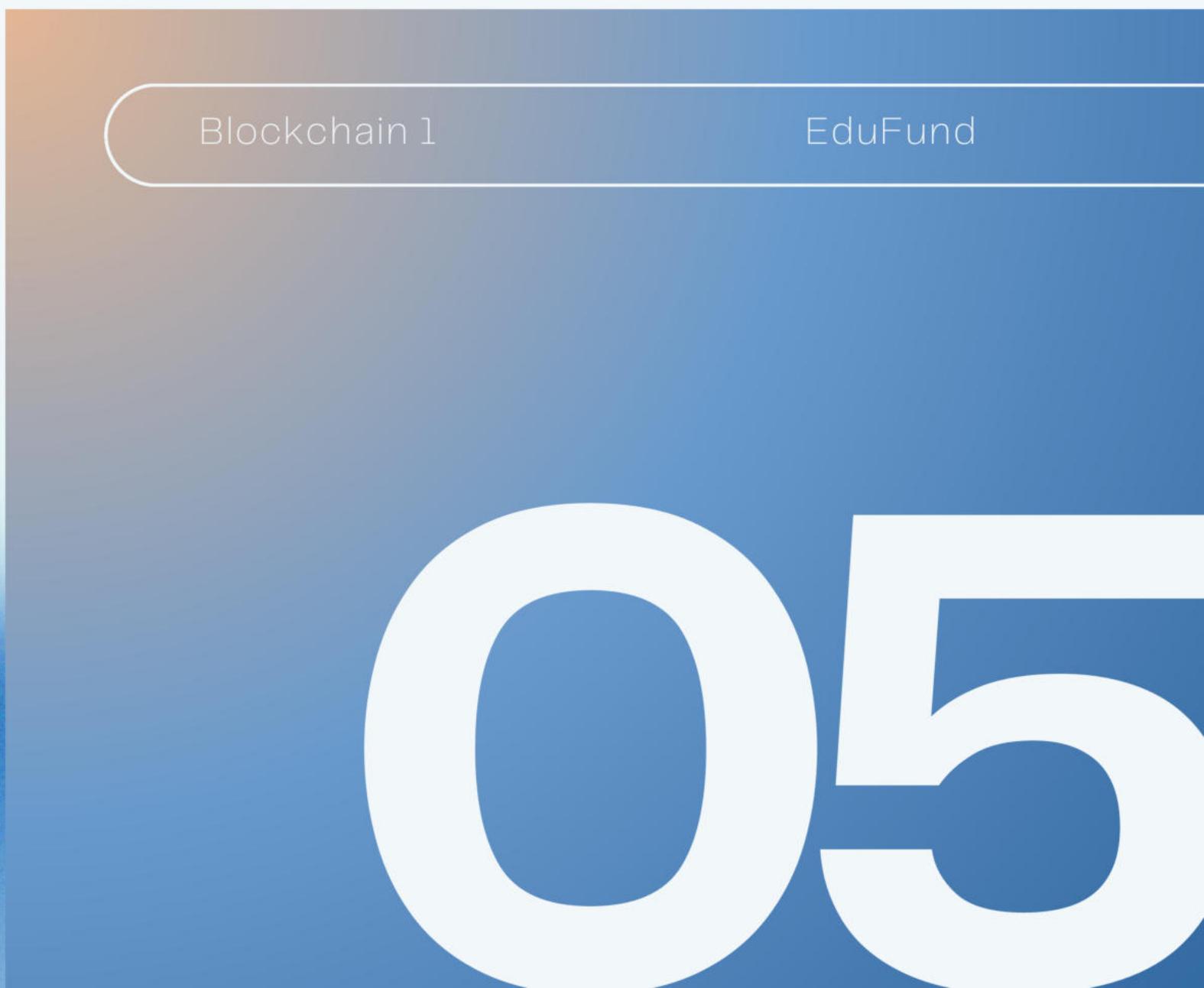
 EduToken.sol

METAMASK INTEGRATION

CONNECT, VALIDATE, EXECUTE

The application integrates MetaMask to allow users to securely connect their Ethereum wallets and approve blockchain interactions. Users must grant permission for account access before performing any actions within the DApp.

MetaMask is also used to validate that the user is connected to the correct Ethereum test network. All transactions, including campaign creation and contributions, are executed and signed directly through MetaMask.

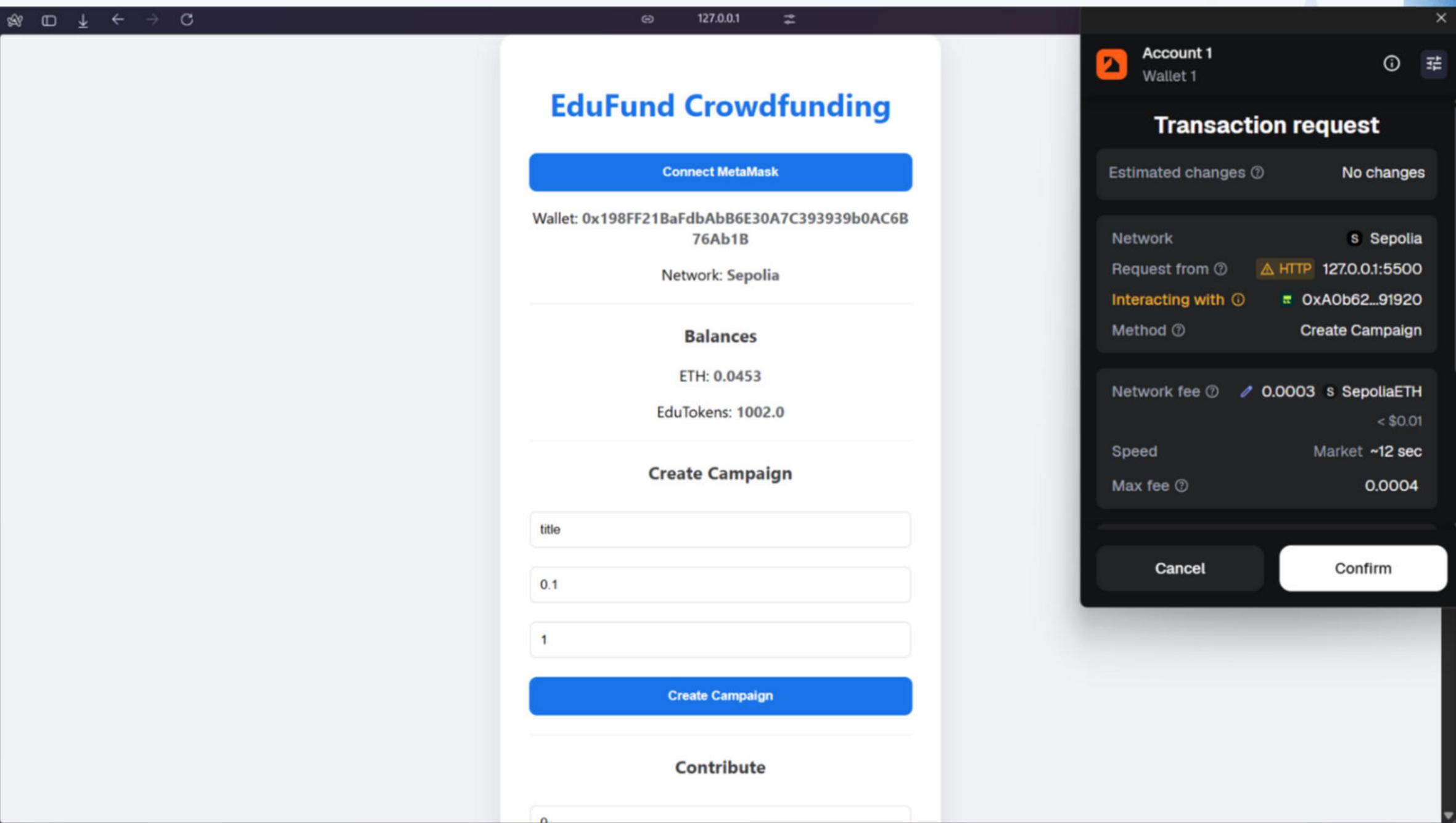


DEMO FLOW

Blockchain 1

EduFund

2026



EduTokens: 1003.0

07

CONCLUSION

FINAL THOUGHTS

This project demonstrates the practical use of blockchain technology for building a decentralized crowdfunding application. It combines smart contracts, ERC-20 tokens, and MetaMask integration on an Ethereum test network.

Through this project, core concepts of DApp architecture, smart contract logic, and secure blockchain interaction were applied in a hands-on environment. The experience provides a strong foundation for further development in decentralized applications.

THANK YOU

ANY QUESTIONS?