

FINAL PROJECT REPORT

# Decentralized Crowdfunding Platform

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# Problem Statement

- **CENTRALIZED PLATFORMS CREATE SINGLE POINTS OF FAILURE**
- **LACK OF TRANSPARENCY IN FUND MANAGEMENT**
- **HIGH INTERMEDIARY FEES (5–10%)**
- **DELAYED WITHDRAWALS AND RESTRICTED ACCESS**

# Our Solution

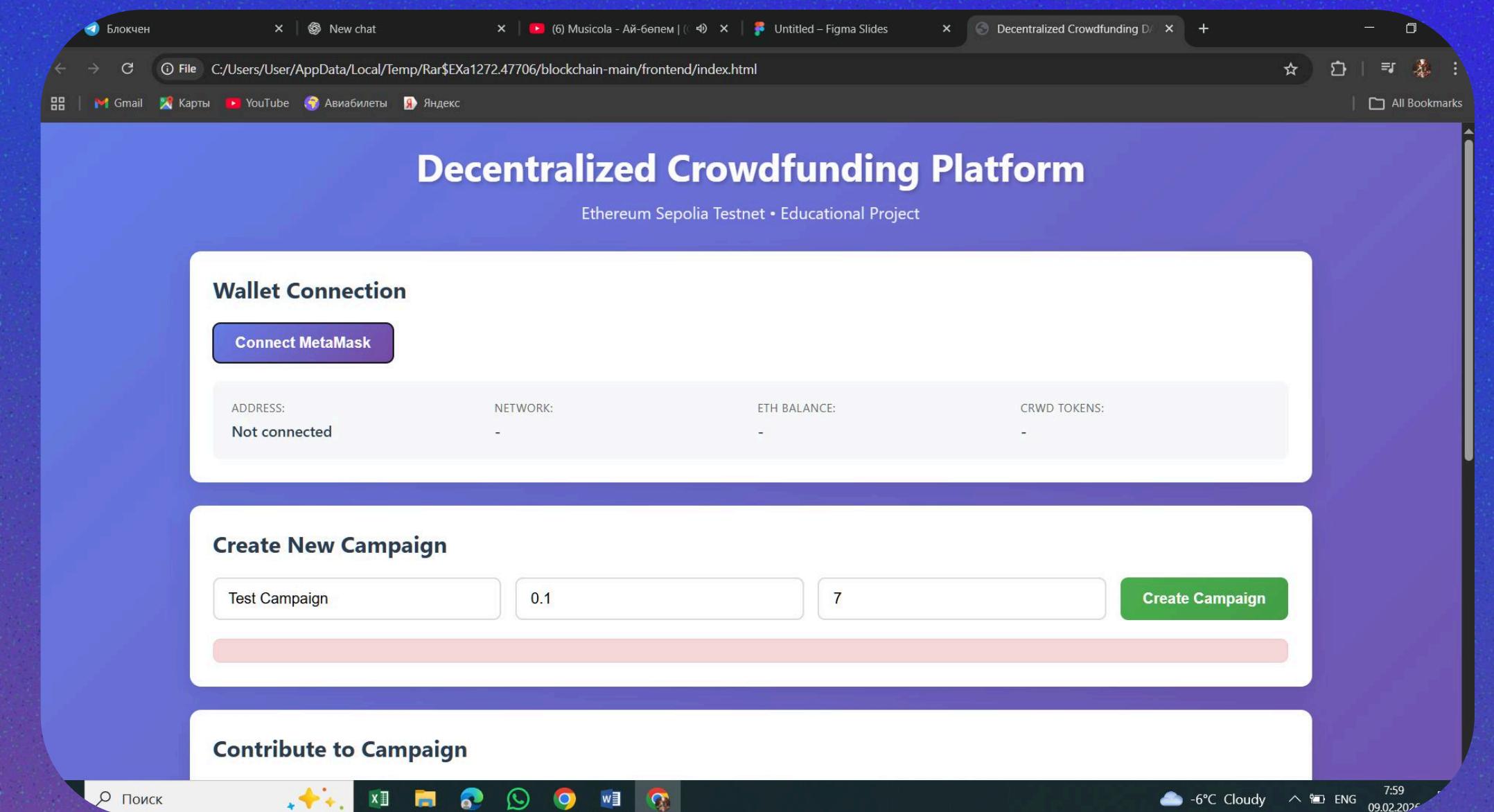
**TRANSPARENT** TRANSACTIONS RECORDED ON THE  
BLOCKCHAIN

**AUTOMATED** FUND MANAGEMENT THROUGH SMART  
CONTRACTS

**GLOBAL** ACCESSIBILITY VIA ETHEREUM WALLETS

**REDUCED** COSTS WITH MINIMAL GAS FEE

**TRUSTLESS** ENVIRONMENT GOVERNED BY CODE



# System Architecture

PRESENTATION LAYER

HTML5

CSS3

JAVASCRIPT

DATA LAYER

SOLIDITY  
SMART  
CONTRACTS

ETHEREUM  
SEPOLIA  
TESTNET

APPLICATION LAYER

# Smart Contract Implementation

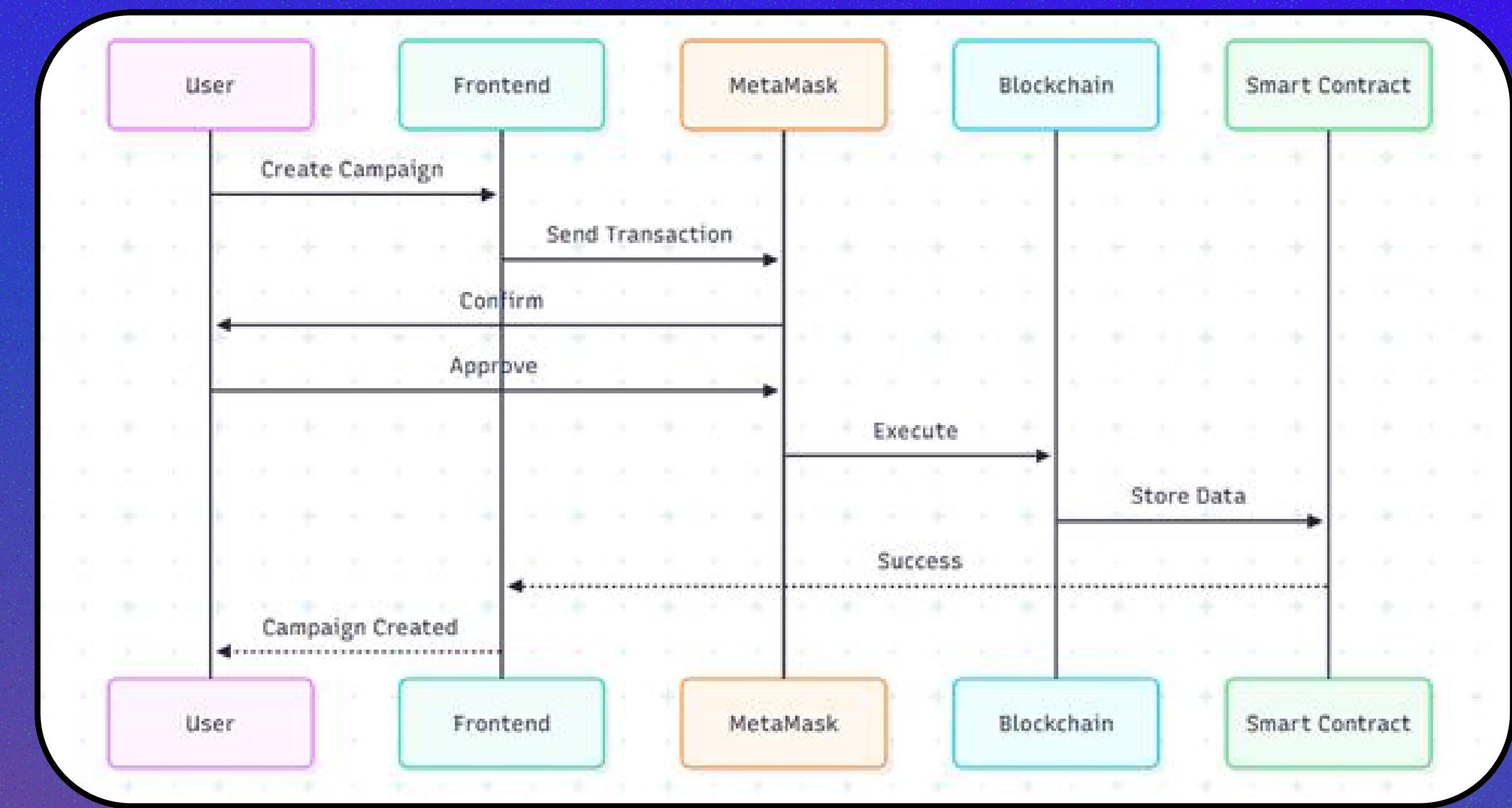
## CROWDFUNDING CONTRACT

- CAMPAIGN CREATION WITH CUSTOMIZABLE PARAMETERS
- SECURE CONTRIBUTION MECHANISM WITH ETH TRACKING
- AUTOMATED REWARD TOKEN DISTRIBUTION
- CAMPAGN STATUS MANAGEMENT AND FINALIZATION

## REWARDTOKEN CONTRACT

- ERC-20 COMPLIANT TOKEN
- TOKEN NAME: CROWDTOKEN (CRWD)
- 18 DECIMAL PRECISION
- RESTRICTED MINTING FUNCTION

# System Workflow



# Results

## FUNCTIONAL:

- CAMPAIGN CREATION
- SECURE ETH CONTRIBUTIONS
- AUTOMATED TOKEN REWARDS
- METAMASK INTEGRATION
- SEPOLIA TESTNET DEPLOYMENT
- RESPONSIVE USER INTERFACE

## TECHNICAL:

- TWO SOLIDITY SMART CONTRACTS
- CUSTOM ERC-20 TOKEN
- FULL FRONTEND-BLOCKCHAIN INTEGRATION
- SECURE TRANSACTION HANDLING
- REAL-TIME EVENT SYSTEM
- ERROR HANDLING