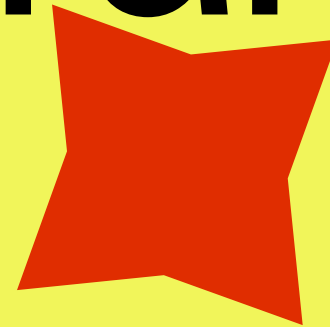


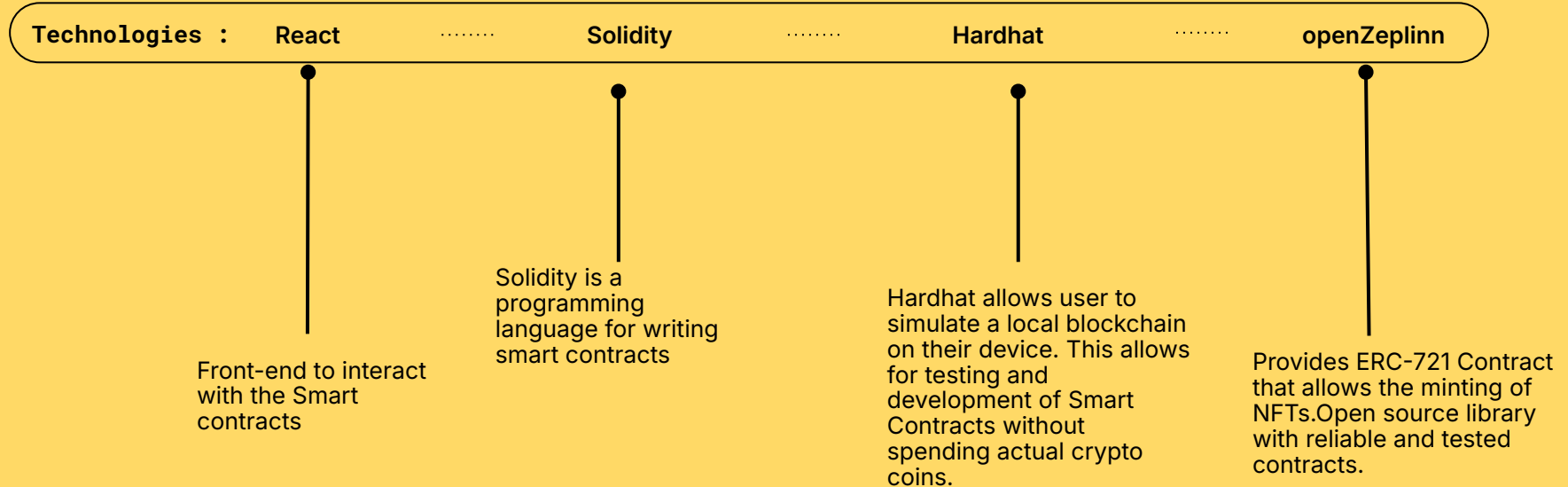
Wallet DApp Using Hardhat



Overview

A decentralized application (dApp) extension to mint, manage, and display NFTs on a local blockchain using Hardhat, and a React front-end.

This project demonstrates the functionalities of transferring and receiving Ether (ETH) and minting NFTs. It uses Hardhat to set up a local blockchain with simulated Ether, enabling users to interact with the DApp and test its features without using real cryptocurrency on the mainnet.



Account
0xf39Fd...2266

9999.99 GO

Transfer Mint NFTs History

0x14dC79964da2C08b23698B3D3cc7Ca3

999

Send

Account
0xf39Fd...2266

10000 GO

Transfer Mint NFTs History

e81E3f5cdF7f54C3d65f7FBc0aBf5B21E8f

1

Send

Extension: (MetaMask) - Meta...

1 of 2
requests waiting to be acknowledged

H Harhat LocalBlockchain

Account 2 → 0x5FbDB...8...

http://localhost:3000

SENDING GO

H 1
\$0.00

DETAILS HEX

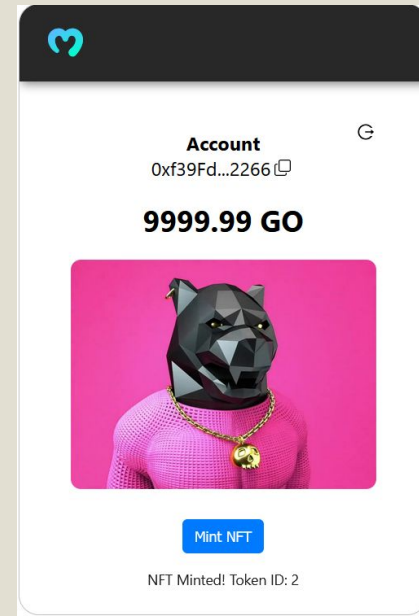
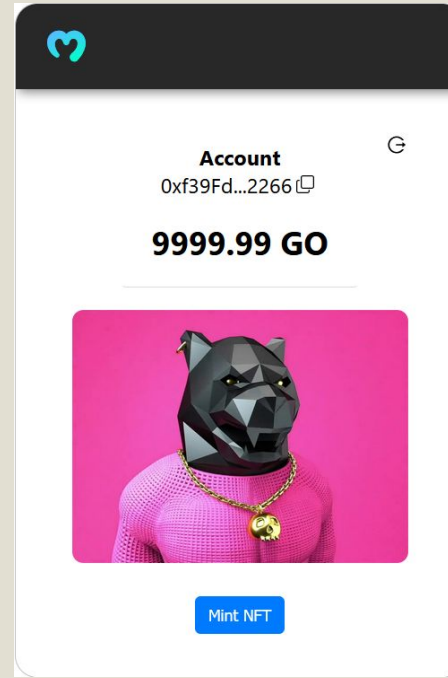
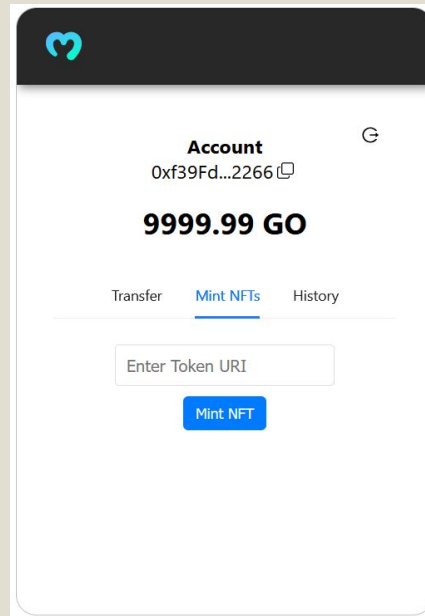
Estimated fee **\$0.00**
0.00005358 GO
Max fee: 0.00009645 GO

Total **\$0.00** 1.00005358 GO
Amount + gas fee Max amount: 1.00009645 GO

Reject Confirm

Transfer Ether

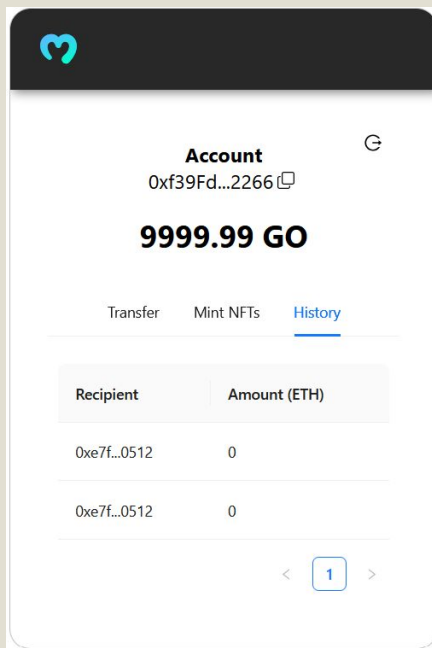
The Transfer Ether Contract allows user to send/receive Tokens on the mainnet.



Mint!

The Mint NFT Contract allows user to send/receive Tokens on the mainnet.

An Nft is a Non-fungible Token - it cannot be copied, substituted, or subdivided. It uses OpenZeppelin to access the ERC721 Token Contract.



History

The Transfer History Section shows all Transactions made

How it works: . It works by fetching all blocks from the local Hardhat node, iterating through each block to extract transactions. For each transaction, it checks whether the sender or receiver matches the user's address. If a match is found, the transaction details are displayed,

BackEnd

Npx hardhat node: starts a local hardhat Blockchain

Private keys : Hardhat provides 10 private accounts with 1000 Tokens

Npx hardhat compile : compiles contracts into artifacts folder

Npx hardhat run scripts/script-name.js -- network <network-name> : deploys a contract into specified network

Hardhat Network Settings

Network name

Harhat LocalBlockchain

New RPC URL

http://127.0.0.1:8545

Chain ID ⓘ

31337

Currency symbol

GO

Folders:

\Contracts

.....
\Scripts

.....
\Test

.....
\Artifacts

Stores Smart
Contracts

Stores Contract
Deployment files

Stores test files for smart
contracts

Once a Contract is deployed
it's file is created in artifacts
folder. It contains contract
ABI, bytecode etc