CODTECH INTERNSHIP PROJECT DOCUMENTATION

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# Task-2: ERC-20 Token Creation

Overview:

As part of Task-2, I created a custom ERC-20 token using Solidity and deployed it on the Goerli Ethereum testnet.

Tools Used:

- Solidity

- Remix IDE

- MetaMask Wallet

- Goerli Ethereum Testnet

- Etherscan

Smart Contract Code (Sample):

pragma solidity ^0.8.0;  
  
import "@openzeppelin/contracts/token/ERC20/ERC20.sol";  
  
contract VaahiniToken is ERC20 {  
 constructor() ERC20("VaahiniToken", "VHN") {  
 \_mint(msg.sender, 1000000 \* 10 \*\* decimals());  
 }  
}

Deployment Details:

- Token Name: VaahiniToken

- Token Symbol: VHN

- Total Supply: 1,000,000 VHN

- Network: Goerli Testnet

- Contract Address: [Insert your deployed contract address here]

# Task-3: Decentralized Finance (DeFi) Application

Overview:

Built a basic decentralized finance (DeFi) application allowing users to stake ERC-20 tokens, earn rewards, and interact through a simple frontend.

Tools Used:

- Solidity

- Remix IDE

- React.js

- Web3.js / Ethers.js

- MetaMask

- Ethereum Testnet (Goerli)

Smart Contract Features:

- stakeTokens() – Allows users to stake VHN tokens.

- unstakeTokens() – Allows withdrawal of staked tokens.

- issueTokens() – Distributes reward tokens to stakers.

Deployment Details:

- Staking Contract Address: [Insert your deployed contract address here]

- Frontend Hosting (if any): [Insert link if hosted]

Proof of Work:

- Screenshot of deployed contract (optional)

- Etherscan link (optional)

- Frontend interaction demo (optional)