* **Software Requirements**

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| Software | Details |
| Operating System | Windows 10/11, Ubuntu 20.04+, or macOS |
| IDE / Code Editor | Visual Studio Code (VS Code) |
| Programming Languages | Solidity (for Smart Contracts), JavaScript (for Frontend) |
| Blockchain Platform | Ethereum (or testnets like Goerli, Sepolia) |
| Smart Contract Framework | Hardhat or Truffle |
| Frontend Framework | React.js or Next.js |
| Wallet Integration | MetaMask (browser extension) |
| Web3 Libraries | Ethers.js or Web3.js |
| Backend (optional) | Node.js (for serverless backend if needed) |
| Version Control | Git + GitHub |
| Database (optional) | IPFS (for decentralized file storage, if needed) |
| Testing Tools | Mocha, Chai (for smart contract testing) |
| Deployment Tools | Infura, Alchemy (for blockchain node access) |

* **Hardware Requirements**

|  |  |  |
| --- | --- | --- |
| Hardware | Minimum Requirement | Recommended Requirement |
| Processor (CPU) | Intel i5 7th Gen or AMD equivalent | Intel i7 10th Gen or better |
| RAM | 8 GB | 16 GB or higher |
| Storage | 256 GB SSD | 512 GB SSD or more |
| Internet Connectivity | Required (for connecting to blockchain networks) | High-speed internet for faster deployment and testing |
| Graphics (optional) | Basic GPU | Dedicated GPU (for better frontend rendering if needed) |