

DeFi dApp and Smart Contract Development Brief

1. About the Project

A PancakeSwap clone whereby the users are locked into an automated marketer system that allows two tokens to be exchanged, staked, and users to provide liquidity to a pool for a permitted period of time. They are charged a percentage fee on entrance and exit of a “Yield Farm Liquidity Pool” by staking their current cryptocurrency against the “Token” and advancing through levels within the exchange incorporating the theme of “dungeons and dragons”.

2. Aims of the Project

- To enable users to connect their wallets and stake cryptocurrencies in order to yield farm and get a daily percentage return.
- A platform to facilitate trade, exchange, and sale of the token.
- To create a decentralized exchange that is an automated market maker (“AMM”) and allows two tokens to be exchanged on the blockchain.
- Build a robust defi platform that enables peer-to-peer transactions without any intermediaries.

3. Outline of the Project

- Back-end development of the trading, staking, and liquidity pool platform
- Front-end development of the trading, staking, and liquidity pool interface
- Development of the Smart Contract

4. Features

- User Interface allowing customers to “Yield Farm” “Provide Liquidity” and “Exchange Tokens”
- Dashboard - Current price and status of token and pools
- Trade - Options for Exchange and Liquidity
- Farms - Allowing users to Stake their Liquidity Pool tokens
- Pools - Allowing users to enter the Liquidity Pools and access tokens
- Facility for an NFT to be awarded to the user’s wallet for advancement to the next level

Dashboard

Users are able to quickly and securely connect their wallets to the platform so they can exchange their current crypto for tokens to use within the platform. Users are shown the current max APY/APR and token stats e.g. TVL

Trade

Users are able to facilitate trade for their current cryptocurrency for tokens on the platform

Farms

Users are able to enter the “Yield Farms” and stake liquidity pool tokens to earn cryptocurrency

Pools

Liquidity Pools can be opened by any user. The LP supports ERC foundations and by participating in the pool the user earns rewards

5. Functionality

- Compatibility with all major web browsers. Page optimization for rapid browser load
- Fully modular for ease of expansion of functionality in the future and permitting rapid redesign of the website in the future if required.
- Advanced asset management through tokenization
- Decentralized exchange using open-source software

6. Design & Usability

- Implementation of a “Gamified” concept featuring sprites for each level
- Responsive design: website adjusts automatically to different screen widths, and is also compatible with tablets and mobile devices.
- Easy to use and clear to navigate, coherent with the theme.
- Live data reflected on each page i.e. TVL, APR, Liquidity, and Multipliers
- Simple, with playful game-like elements.

7. Technical Aspects

- Development of the DeFi Stack
- Creation of ERC Smart Contract (ERC20, ERC721, or ERC1155)
- Full Wallet integration enabling connection of Metamask, Trust Wallet, SafePal, etc.
- Facilitation of users receiving an NFT to their wallet to advance through each level
- Use decentralized open-source protocol so user earn tokens in a defi crypto exchange platform
- Operation on Binance Smart Chain or other similar independent blockchain using EVM