System Design

1. Diagram
2. Unity

* **Scene**

There are several scenes.

* + **Loading Scene (initiator scene)**

Before starting game, loading scene is working.

The following functions are performed.

* + - Logo Animation
    - Flash Effect
    - “Don’t Destroy Script”

The object of this script and child object don’t destroy.

* + - * PhotonView Script
      * “Don’t Destroy Information”
        + Player name

Public Get

Private Set

If player don’t set name, making randomized name.

* + - * + PlayerNetwork Instance
        + Number of players
        + Player controller
        + Current Player
        + Background music
        + PhotonView Load Scene
        + NFTs list
        + Selected NFTs
        + Wallet address
      * Set skybox
  + **Connect Wallet Scene**

Use chainsafe sdk or moralis.

* + - Add modules
    - Developing a Frontend UI
    - Setting up a Moralis Server
    - Set Environment
    - Creating a Moralis Server and aquiring a blockchain node.
    - Configuring the web3 wallet connection
    - Developing the app manager script
    - Fine – Tuning the UI

Functions

* + - Connect wallet in unity.
    - Get wallet address and save in script
    - After getting wallet address, get wallet game coin amount.
  + **Main Scene**

Basic menus and some functions are included.

Menus

* + - Different Rooms with different fees.
    - Withdraw
    - Choose NFTs
    - Rules or Guide

Functions

* + - Set different fees in different room. (0.1BNB, 0.5BNB, 1BNB)

**NOTE:** no decided game coin and room number.

* + - Get game coin amount in game contract.
    - PhotonView Load Scene.
  + **Choose NFTs Scene**
    - Get NFTs
      * Find NFTs by wallet address in ERC721
      * Get NFT address and index and their weight
    - Choose NFTs
      * Get images using NFT address, wallet address and index
      * Show images list
      * Double check function
      * Save selected NFTs in don’t destroy script.
      * Exception handling

1. Blockchain
2. Backend
3. Database