

Report for Pichi Finance App (MVP)

Project: Sheep Game
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1. Full Name

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2. How to Upgrade Node Version 16.20.0 to 18+ with Dependencies

To upgrade Node.js from version 16.20.0 to 18 or higher, the following steps will help ensure a smooth transition:

Step 1: Check the current Node.js version

```
node -v
```

Step 2: Upgrade Node.js

- **Method 1: Using Node Version Manager (NVM)**

1. Install NVM (if not installed):

```
curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.1/install.sh | bash
```

Then activate NVM:

```
source ~/.bashrc
```

2. Install Node.js version 18+:

```
nvm install 18
```

3. Set Node.js 18 as the default:

```
nvm use 18  
nvm alias default 18
```

4. Verify the updated version:

```
node -v
```

- **Method 2: Using Package Manager (Linux/Ubuntu)**

1. Update system's package repository:

```
sudo apt update && sudo apt upgrade
```

2. Install Node.js version 18+:

```
sudo apt install nodejs npm
```

- **Method 3: Using Node.js Binary Package**

Download the latest version from the [official Node.js website](#) and install.

Step 3: Update Dependencies

1. Use the following command to update outdated dependencies:

```
yarn upgrade
```

2. To check for incompatible dependencies:

```
yarn outdated
```

3. Analysis of Current Features & Suggestions for Next Features

Current Features of Sheep Game (MVP):

Based on the provided image of the **Sheep Game** app, here's an analysis of its current features:

- **Minting Mechanism:**
 - Users can mint assets (e.g., sheep and wolves) using tokens such as AVAX, Tractor, or Joe. The minting UI shows the cost and allows users to choose the number of assets to mint.
 - **Staking System:**
 - Users can stake their assets into the "Barn" or "Wolfpack" categories. Unstaked and staked assets are displayed, with the ability to select and stake/unstake assets via the "Select All" button.
 - **Game Status & Rewards:**
 - The game tracks and displays the number of sheep and wolves minted, as well as the percentage of staked assets.
 - \$AWOOL, the in-game currency or token, can be claimed from the game interface, indicating a rewards-based system.
 - **User Interface (UI):**
 - The retro pixelated design offers an enjoyable visual appeal for users who appreciate nostalgia or simplicity in gaming. The game UI is neatly organized with sections for minting, staking, and claiming rewards.
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Suggestions for Future Features:

To improve user experience and expand functionality, the following features could be considered:

1. **Multi-Chain Support:**
 - Introduce support for more blockchain networks (e.g., Binance Smart Chain, Polygon) to allow users to mint, stake, and trade across multiple platforms, increasing the game's flexibility and user base.
 2. **Advanced Gameplay Elements (Quests and Missions):**
 - Implement engaging quests and missions where users can participate in in-game activities (e.g., finding lost sheep or protecting the barn) to earn rewards or rare NFTs.
 3. **NFT Marketplace Integration:**
 - Create a marketplace within the game where players can buy, sell, and trade NFTs. Allow users to sell their sheep, wolves, or other assets to create an in-game economy.
 4. **Governance & DAO Model:**
 - Introduce governance mechanisms where users can vote on changes to the game (new features, tokenomics, etc.) using governance tokens. A DAO (Decentralized Autonomous Organization) could empower users to make collective decisions about the game's future.
 5. **Yield Farming & Staking Rewards System:**
 - Add yield farming or staking pools where users can lock their tokens and earn extra rewards over time. This will incentivize more participation and asset retention in the game.
 6. **Leaderboard & Achievements:**
 - Implement a leaderboard showing the top players based on the number of assets minted, staked, or \$AWOOL claimed. Achievements could also be unlocked for specific milestones, providing users with unique rewards and bragging rights.
 7. **Mobile Compatibility & Cross-Platform Play:**
 - Develop a mobile-friendly version of the game to reach more users and allow for play on both desktop and mobile platforms.
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4. Conclusion

The **Sheep Game** MVP provides a strong foundation with its minting, staking, and reward systems. The retro pixelated UI is appealing and complements the playful, farm-themed experience. Expanding the game's functionality with features like multi-chain support, advanced gameplay elements, a marketplace, and governance systems could elevate the experience further and attract more players.

With these upgrades and features, the game has the potential to grow into a more immersive and user-centric experience, ensuring long-term engagement.
